



Water Resources Data California Water Year 1985

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



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CA-85-4 .
Prepared in cooperation with the California Department of
Water Resources and with other agencies

CALENDAR FOR WATER YEAR 1985

1984

OCTOBER

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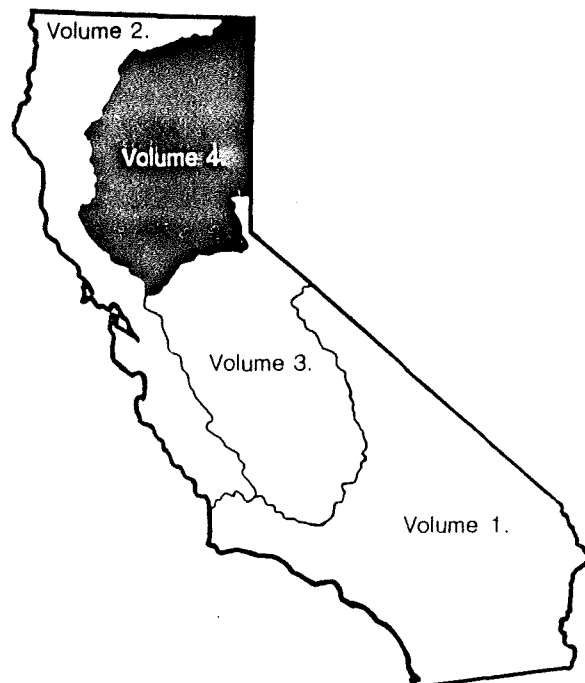
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Water Resources Data California Water Year 1985

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

by J.R. Mullen, W.F. Shelton, R.G. Simpson, and D.A. Grillo



U.S. GEOLOGICAL SURVEY WATER-DATA REPORT CA-85-4
Prepared in cooperation with the California Department of
Water Resources and with other agencies

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PREFACE

This volume of the annual hydrologic data report of California is one of a series of annual reports that document hydrologic data gathered from the U.S. Geological Survey's surface- and ground-water data-collection networks in each State, Puerto Rico, and the Trust Territories. These records of streamflow, ground-water levels, and quality of water provide the hydrologic information needed by State, local, and Federal agencies, and the private sector for developing and managing our Nation's land and water resources. Hydrologic data for California are contained in five volumes:

- Volume 1. Southern Great Basin from Mexican Border to Mono Lake Basin, and Pacific Slope Basins from Tijuana River to Santa Maria River
- Volume 2. Pacific Slope Basins from Arroyo Grande to Oregon State Line except Central Valley
- Volume 3. Southern Central Valley Basins and The Great Basin from Walker River to Truckee River
- Volume 4. Northern Central Valley Basins and The Great Basin from Honey Lake Basin to Oregon State Line
- Volume 5. Ground-water data for California

This report is the culmination of a concerted effort by dedicated personnel of the U.S. Geological Survey who collected, compiled, analyzed, verified, and organized the data. In addition to the authors, who had primary responsibility for assuring that the information contained herein is accurate, complete, and adheres to Geological Survey policy and established guidelines, the individuals contributing significantly to the collection, processing, and tabulation of the data are given on page V.

This report was prepared in cooperation with the California Department of Water Resources and with other agencies under the general supervision of Gilbert L. Bertoldi and John M. Klein, successive District Chiefs, California.

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| b. Identifiers/Open-Ended Terms | | | | |
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SURFACE-WATER AND WATER-QUALITY STATIONS
IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

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

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IN DOWNSTREAM ORDER, FOR WHICH RECORDS ARE PUBLISHED

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WATER RESOURCES DATA - CALIFORNIA, 1985

Volume 4

INTRODUCTION

The Water Resources Division of the U.S. Geological Survey, in cooperation with State agencies, obtains a large amount of data pertaining to the water resources of California each water year. These data, accumulated during many water years, constitute a valuable data base for developing an improved understanding of the water resources of the State. To make these data readily available to interested parties outside the Geological Survey, the data are published annually in this report series entitled "Water Resources Data - California."

This report includes records on surface water in the State. Specifically, it contains: (1) Discharge records for 155 streamflow-gaging stations; (2) stage and content records for 29 lakes and reservoirs; and (3) water-quality records for 16 streamflow-gaging stations and 7 water-quality partial-record stations. Records included for stream stages are only a small fraction of those obtained during the water year.

This series of annual reports for California began with the 1961 water year with a report that contained only data relating to the quantities of surface water. For the 1964 water year, a similar report was introduced that contained only data relating to water quality. Beginning with the 1975 water year, the report format changed to one volume, including data on quantities of surface water, quality of surface and ground water, and ground-water levels. Beginning with the 1985 water year, a separate volume for ground-water levels and quality was published for California.

Prior to introduction of this series and for several water years concurrent with it, water-resources data for California were published in U.S. Geological Survey Water-Supply Papers. Data on stream discharge and stage and on lake or reservoir contents and stage, through September 1960, were published annually under the title "Surface-Water Supply of the United States, Parts 10 and 11." For the 1961 through 1970 water years, the data were published in two 5-year reports. Data on chemical quality, temperature, and suspended sediment for the 1941 through 1970 water years were published annually under the title "Quality of Surface Waters of the United States," and water levels for the 1935 through 1974 water years were published under the title "Ground-Water Levels in the United States." The above-mentioned Water-Supply papers may be consulted in the libraries of the principal cities of the United States and may be purchased from U.S. Geological Survey, Books and Open-File Reports, Federal Center, Bldg. 41, Box 25425, Denver, CO 80225.

Publications similar to this report are published annually by the Geological Survey for all States. These official Survey reports have an identification number consisting of the two-letter State abbreviation, the last two digits of the water year, and the volume number. For example, this volume is identified as "U.S. Geological Survey Water-Data Report CA-85-4." For archiving and general distribution, the reports for 1971-74 water years also are identified as water-data reports. These water-data reports are for sale in paper copy or in microfiche by the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

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

COOPERATION

The U.S. Geological Survey and organizations of the State of California have had cooperative agreements for the systematic collection of records since 1903. Organizations that supplied data are acknowledged in station descriptions. Organizations that assisted in collecting data through cooperative agreement with the Survey are:

California Department of Water Resources, David N. Kennedy, Director.
Georgetown Divide Public Utility District, Charles F. Gierau, General Manager.
Modoc County Department of Public Works, Jerry K. Grove, Director.
Oroville-Wyandotte Irrigation District, Fritz Steppat, General Manager-Chief Engineer.
Paradise Irrigation District, C. Phillip Kelly, Jr., Manager.
Sacramento Municipal Utility District, John P. Hiltz, Manager.
Sacramento Regional County Sanitation District, John W. Newton, Chief of Administration.
Siskiyou County Flood Control and Water Conservation District, David A. Gravenkamp, Director.
Yolo County Flood Control and Water Conservation District, James F. Eagan, General Manager.

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

The following organizations aided in collecting records: California Department of Water Resources; Pacific Gas and Electric Company; Sacramento Municipal Utility District; Nevada and Oroville-Wyandotte Irrigation Districts; Placer and Yuba County Water Agencies.

SUMMARY OF HYDROLOGIC CONDITIONS

Surface Water

Runoff was below normal during the 1985 water year for the area included in this volume, and averaged 56 percent of the median runoff for the water years 1951-80. Runoff at five representative gaging stations for which long-term records are available ranged from 45 percent of median in the Susan River basin to 67 percent of median in the Sacramento River basin (fig. 1). A comparison of monthly and annual mean discharge for the 1985 water year and the median discharges for the 1951-80 water years is shown in figure 2. There were no discharges that exceeded peaks of record, nor local flooding at any of the gaging stations within the volume area.

Precipitation was 66 percent of normal, ranging from 19 percent in the Mt. Shasta area to 79 percent in the Red Bluff area. The snowpack was less than normal, resulting in below normal area-wide reservoir storage. Precipitation and temperatures in the Sierra Nevada were below normal; all precipitation within the Tahoe basin fell as snow. The largest storms occurred in November and December; a few thunderstorms occurred in May, but produced little significant runoff.

Water Quality

Water samples collected at the three NASQAN stations reported in this volume were analyzed for water-quality constituents. Water quality at these sites was similar to that recorded in previous years. Significant changes were not evident in any of the constituents sampled, and concentrations did not exceed maximum permissible standards recommended by the U.S. Environmental Protection Agency or other public health standards or guidelines.

The largest concentration of fecal-coliform bacteria in water sampled from Sacramento River at Freeport ranged from K5 to 320 col/100 mL (an increase from a maximum of K50 col/100 mL reported in 1984). Bacterial samples from the Susan River at Susanville and from the Sacramento River at Keswick contained the largest concentration of fecal-streptococci bacteria, >400 col/100 mL both of which were greater than 1984 concentrations. Susan River at Susanville had a maximum of 100 col/100 mL in 1984; Sacramento River at Keswick had a maximum of K9 col/100 mL in 1984.

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

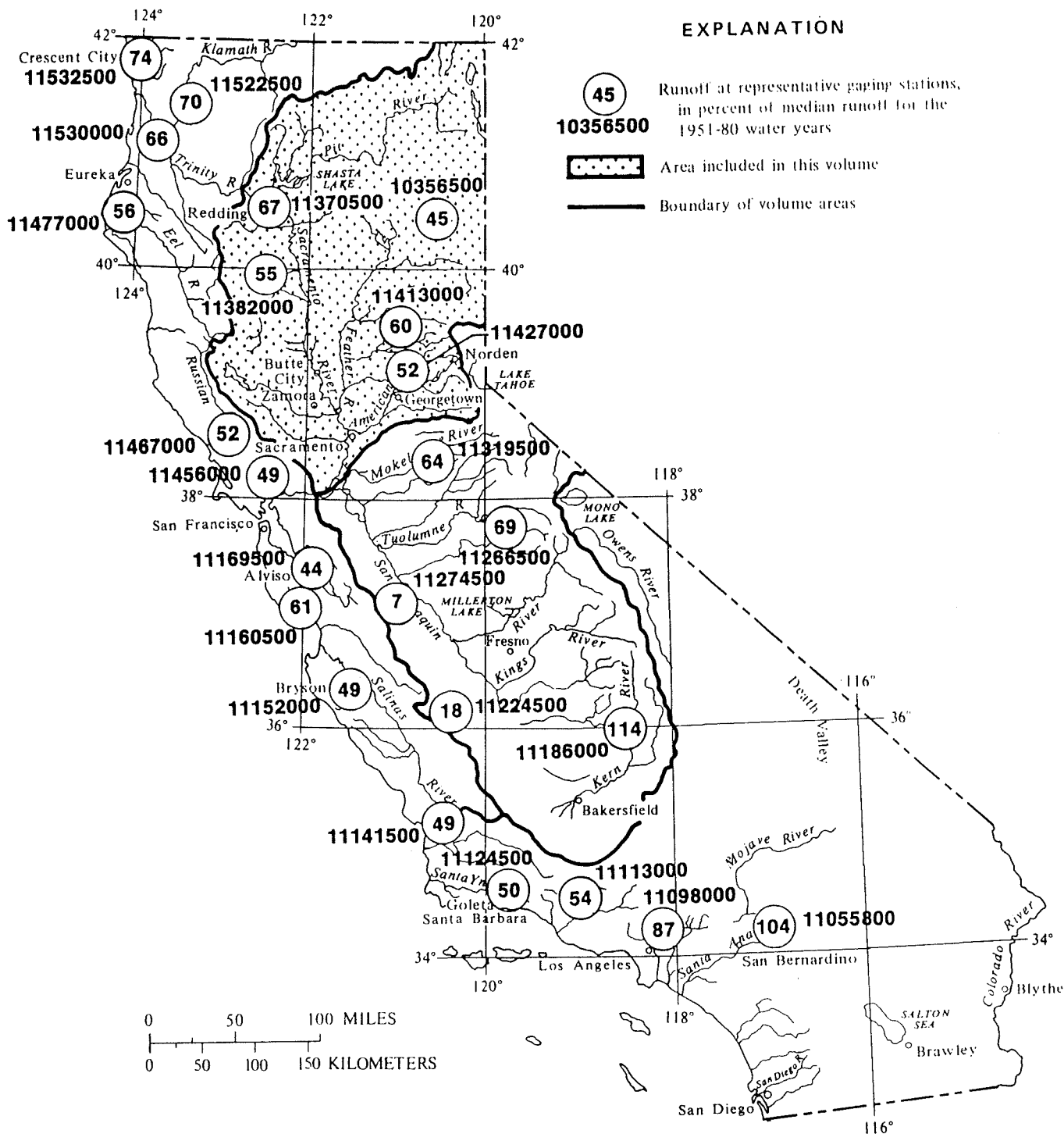
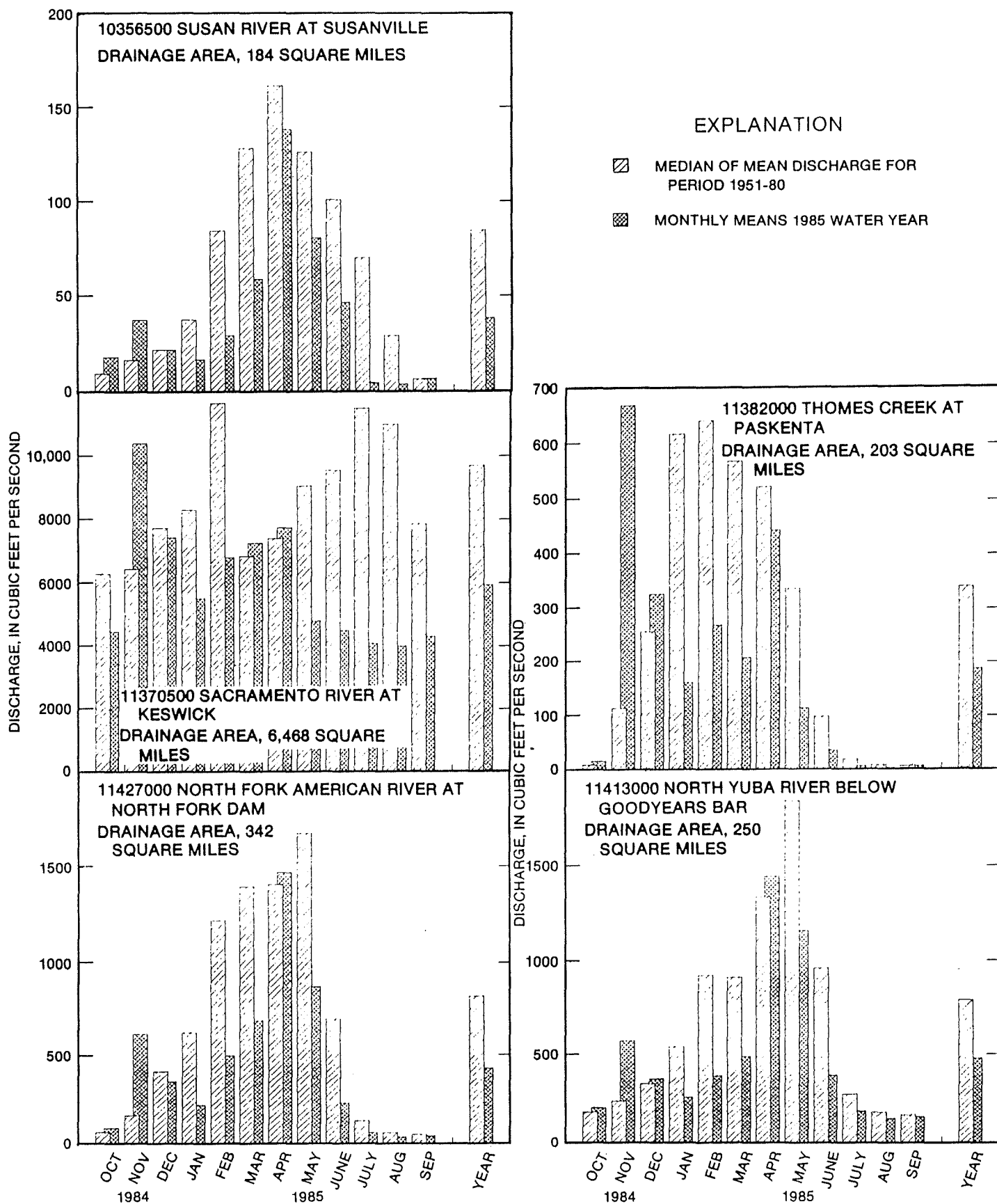


FIGURE 1. — Runoff for the 1985 water year.



SUMMARY OF HYDROLOGIC CONDITIONS

Sediment

Suspended-sediment discharge and concentration were monitored daily at four stations and periodically at five stations in the area included in this volume. Monthly and annual bedload discharge were estimated for two of the daily stations. The variation in precipitation, drainage-basin characteristics, and stream regulation in northern central California resulted in significant differences in sediment discharge rates and concentrations at the sampled streams.

Sediment discharge was significantly below normal during the 1985 water year, as indicated by comparison with the 1968-84 mean sediment discharge at two of the daily stations. Annual sediment discharge was 27 percent of the mean for Feather River near Gridley and 32 percent for Sacramento River at Freeport.

Annual sediment discharge at the four daily stations ranged from 22,100 ton for Feather River near Gridley to 772,000 ton for Sacramento River at Freeport. Annual sediment discharge per square mile of drainage area ranged from a minimum of 6.0 ton/mi² for the Feather River station, which is a highly regulated stream, to a maximum of 37 ton/mi² for Cache Creek near Brooks (partially regulated).

Runoff resulting from storms in November and February transported over 71 percent of the yearly sediment discharge at the Cache Creek stations. Sediment discharge was more evenly distributed at the Feather River near Gridley and Sacramento River at Freeport stations because of the effect of snowmelt and flow regulation. Maximum sediment discharge ranged from 222 ton/d (1 percent of annual total) for Feather River near Gridley to 22,100 ton/d (58 percent of annual total) for Cache Creek near Brooks. Maximum daily concentration ranged from 20 mg/L for the Feather River station to 2,590 mg/L for Cache Creek near Brooks.

SPECIAL NETWORKS AND PROGRAMS

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis and reporting such that the data may be used for, (2) description of the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) detection of changes or trends with time in the pattern of occurrence of water-quality characteristics, and (4) providing a nationally consistent data base useful for water-quality assessment and hydrologic research.

EXPLANATION OF THE RECORDS

The surface-water records published in this report are for the 1985 water year that began October 1, 1984, and ended September 30, 1985. A calendar of the water year is provided on the inside of the front cover. The records contain streamflow data, stage and content data for lakes and reservoirs, and water-quality data for surface water. The locations of the stations where the data were collected are shown in figures 4 through 23. The following sections of the introductory text are presented to provide users with a more detailed explanation of how the hydrologic data published in this report were collected, analyzed, computed, and arranged for presentation.

Station Identification Numbers

Each data station, whether streamsite or well, in this report is assigned a unique identification number. This number is unique in that it applies specifically to a given station and to no other. The number usually is assigned when a station is first established and is retained for that station indefinitely. The systems used by the U.S. Geological Survey to assign identification numbers for surface-water stations and for ground-water well sites differ, but both are based on geographic location. The "downstream order" system is used for regular surface-water stations and the "latitude-longitude" system is used for surface-water stations in California where only miscellaneous measurements are made.

Downstream Order System

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

The station-identification number is assigned according to downstream order. In assigning station numbers, no distinction is made between partial-record stations and other stations; therefore, the station number for a partial-record station indicates downstream-order position in a list made up of both types of stations. Gaps are left in the series of numbers to allow for new stations that may be established; hence, the numbers are not consecutive. The complete eight-digit number for each station such as 11465350, which appears just to the left of the station name, includes the two-digit part number "11" plus the six-digit downstream-order number "465350." The Part number designates the major river basin; for example, part "11" is in the Pacific Slope Basins in California.

Latitude-Longitude System

The identification numbers for miscellaneous surface-water sites are assigned according to the grid system of latitude and longitude. The number consists of 15 digits. The first six digits denote the degrees, minutes, and seconds of latitude, the next seven digits denote degrees, minutes, and seconds of longitude, and the last two digits (assigned sequentially) identify the wells or other sites within a 1-second grid. This site-identification number, once assigned, is a pure number, and has no locational significance. In the rare instance where the initial determination of latitude and longitude are found to be in error, the station will retain its initial identification number; however, its true latitude and longitude will be listed in the LOCATION paragraph of the station description. (See figure below).

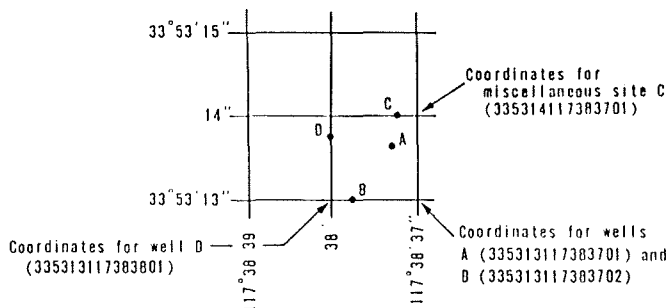


Figure 3.--System for numbering wells and miscellaneous sites (latitude and longitude).

Records of Stage and Water Discharge

Records of stage and water discharge may be complete or partial. Complete records of discharge are those obtained using a continuous stage-recording device through which either instantaneous or mean daily discharges may be computed for any time, or any period of time, during the period of record. Complete records of lake and reservoir content, similarly, are those for which stage or content may be computed or estimated with reasonable accuracy for any time, or period of time. They may be obtained using a continuous stage-recording device, but need not be. Because daily mean discharges and end-of-day contents commonly are published for such stations, they are referred to as "daily stations."

By contrast, partial records are obtained through discrete measurements without using a continuous stage-recording device and pertain only to a few flow characteristics, or perhaps only one. The nature of the partial record is indicated by table titles such as "Crest-stage partial records," or "Low-flow partial records." Records of miscellaneous discharge measurements or of measurements from special studies, such as low-flow seepage studies, may be considered as partial records, but they are presented separately in this report. Location of all complete-record and crest-stage partial-record stations for which data are given in this report are shown, by county, in figures 4 through 23.

Data Collection and Computation

The data obtained at a complete-record gaging station on a stream or canal consist of a continuous record of stage, individual measurements of discharge throughout a range of stages, and notations regarding factors that may affect the relationships between stage and discharge. These data, together with supplemental information, such as weather records, are used to compute daily discharges. The data obtained at a complete-record gaging station on a lake or reservoir consist of a record of stage and of notations regarding factors that may affect the relationship between stage and lake content. These data are used with stage-area and stage-capacity curves or tables to compute water-surface areas and lake storage.

Continuous records of stage are obtained with analog recorders that trace continuous graphs of stage or with digital recorders that punch stage values on paper tapes at selected time intervals. Measurements of discharge are made with current meters using methods adapted by the Geological Survey as a result of experience accumulated since 1880. These methods are described in standard textbooks, in U.S. Geological Survey Water-Supply Paper 2175, and in U.S. Geological Survey Techniques of Water-Resources Investigations (TWRI), Book 3, Chapter A6.

In computing discharge records, results of individual measurements are plotted against the corresponding stages, and stage-discharge relation curves are then constructed. From these curves, rating tables indicating the approximate discharge for any stage within the range of the measurements are prepared. If it is necessary to define extremes of discharge outside the range of current-meter measurements, the curves are extended using: (1) logarithmic plotting; (2) velocity-area studies; (3) results of indirect measurements of peak discharge, such as slope-area or contracted-opening measurements, and computations of flow-over-dam or weirs; or (4) step-backwater techniques.

Daily mean discharges are computed by applying the daily mean stages (gage heights) to the stage-discharge curves or tables. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on individual discharge measurements and notes of the personnel making the measurements are applied to the gage heights before the discharges are determined from the curves or tables. This shifting-control method also is used if the stage-discharge relation is changed temporarily because of aquatic growth or debris on the control. For some stations, formation of ice in the winter may so obscure the stage-discharge relations that daily mean discharges must be estimated from other information such as temperature and precipitation records, notes or observations, and records for other stations in the same or nearby basins for comparable periods.

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

In computing records of lake or reservoir contents, it is necessary to have available from surveys, curves, or tables defining the relationship of stage and content. The application of stage to the stage-content curves or tables gives the contents from which daily, monthly, or yearly changes then are determined. If the stage-content relationship changes because of deposition of sediment in a lake or reservoir, periodic resurveys may be necessary to redefine the relationship. Even when this is done, the contents computed may become increasingly in error as time since the last survey increases. Discharges over lake or reservoir spillways are computed from stage-discharge relationships such as other stream discharges are computed.

For some gaging stations there are periods when no gage-height record is obtained, or the recorded gage height is so faulty that it cannot be used to compute daily discharge or contents. This happens when the recorder stops or otherwise fails to operate properly, intakes are plugged, the float is frozen in the well, or for various other reasons. For such periods, the daily discharges are estimated from the recorded range in stage, previous or following record, discharge measurements, weather records, and comparison with other station records from the same or nearby basins. Likewise, daily contents may be estimated from operator's logs, previous or following record, inflow-outflow studies, and other information. Information explaining how estimated daily-discharge values are identified in station records is included in the next two sections, "Data Presentation" (REMARKS paragraph) and "Identifying Estimated Daily Discharge."

Data Presentation

The records published for each gaging station consist of two parts, the manuscript or station description and the data table for the current water year. The manuscript provides, under various headings, descriptive information, such as station location; period of record; average discharge; historical extremes, record accuracy; and other remarks pertinent to station operation and regulation.

The following information, as appropriate, is provided with each continuous record of discharge or lake content. Comments to follow clarify information presented under the various headings of the station description.

LOCATION.--Information on locations is obtained from the most accurate maps available. The location of the gage with respect to the cultural and physical features in the vicinity and with respect to the reference place mentioned in the station name is given. River mileages, given for only a few stations, were determined by methods given in "River Mileage Measurement," Bulletin 14, Revision of October 1968, prepared by the Water Resources Council or were provided by the U.S. Army Corps of Engineers.

DRAINAGE AREA.--Drainage areas are measured using the most accurate maps available. Because the type of maps available varies from one drainage basin to another, the accuracy of drainage areas likewise varies. Drainage areas are updated as better maps become available.

PERIOD OF RECORD.--This indicates the period for which there are published records for the station or for an equivalent station. An equivalent station is one that was in operation at a time that the present station was not, and whose location was such that records from it can reasonably be considered equivalent with records from the present station.

REVISED RECORDS.--Published records, because of new information, occasionally are found to be incorrect, and revisions are printed in later reports. Listed under this heading are all the reports in which revisions have been published for the station and the water years to which the revisions apply. If a revision did not include daily, monthly, or annual figures of discharge, that fact is noted after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only peak discharges were revised. If the drainage area has been revised, the report in which the most recently revised figure was published is given.

GAGE.--The type of gage in current use, the datum of the current gage referred to National Geodetic Vertical Datum of 1929 (see Definition of Terms), and a condensed history of the types, locations, and datums of previous gages are given under this heading.

REMARKS.--All periods of estimated daily-discharge record will either be identified by date in this paragraph of the station description for water-discharge stations or flagged in the daily-discharge table. (See next section, "Identifying Estimated Daily Discharge.") If a remarks statement is used to identify estimated record, the paragraph will begin with this information presented as the first entry. The paragraph is also used to present information relative to the accuracy of the records, to special methods of computation, to conditions that affect natural flow at the station, and possibly, to other pertinent items. For reservoir stations, information is given on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

AVERAGE DISCHARGE.--The discharge value given is the arithmetic mean of the water-year mean discharges. It is computed only for stations having at least 5 water years of complete record, and only water years of complete record are included in the computation. It is not computed for stations where diversions, storage, or other water-use practices cause the value to be meaningless. If water developments significantly altering flow at a station are put into use after the station has been in operation for a period of years, a new average is computed as soon as 5 water years of record have accumulated following the development. The median of yearly mean discharges also is given under this heading for stations having 10 or more water years of record, if the median differs from the average given by more than 10 percent.

EXTREMES FOR PERIOD OF RECORD.--Extremes may include maximum and minimum discharges or content. Unless otherwise qualified, the maximum discharge or content is the instantaneous maximum corresponding to the highest stage that occurred. The highest stage may have been obtained from a graphic or digital recorder, a crest-stage, or by direct observation of a nonrecording gage. If the maximum stage did not occur on the same day as the maximum discharge or content, it is given separately. Similarly, the minimum is the instantaneous minimum discharge, unless otherwise qualified, and was determined and is reported in the same manner as the maximum.

EXTREMES OUTSIDE PERIOD OF RECORD.--Included here is information concerning major floods or unusually low flows that occurred outside the stated period of record. The information may or may not have been obtained by the Geological Survey.

EXTREMES FOR CURRENT YEAR.--Extremes given here are similar to those for the period of record, except the peak discharge listing may include secondary peaks. For stations meeting certain criteria, all peak discharges and stages occurring during the water year and greater than a selected base discharge are presented under this heading. The peaks greater than the base discharge, excluding the highest one, are referred to as secondary peaks. Peak discharges are not published for canals, ditches, drains, or streams for which the peaks are subject to substantial control by man. The time of occurrence for peaks is expressed in 24-hour local standard time. For example, 12:30 a.m. is 0030, and 1:30 p.m. is 1330. The minimum for the current water year appears below the table of peak data.

REVISIONS.--If a critical error in published records is discovered, a revision is included in the first report published following discovery of the error.

Although rare, occasionally the records of a discontinued gaging station may need revision. Because, for these stations, there would be no current or, possible, future station manuscript published to document the revision in a "Revised Records" entry, users of data for these stations who obtained the record from previously published data reports may wish to contact the District office to determine if the published records were ever revised after the station was discontinued. Of course, if the data were obtained by computer retrieval, the data would be current and there would be no need to check because any published revision of data is always accompanied by revision of the corresponding data in computer storage.

Manuscript information for lake or reservoir stations differs from that for stream stations in the nature of the "Remarks" and in the inclusion of a skeleton storage-capacity table when daily contents are given.

The daily table for stream-gaging stations gives mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also is usually expressed in cubic feet per second per square mile (line headed "CFSM"), or in inches (line headed "IN"), or in acre-feet (line headed "AC-Ft"). Figures for cubic feet per second per square mile and runoff in inches are omitted if there is extensive regulation or diversion or if the drainage area includes large noncontributing areas. In the yearly summary below the monthly summary, the figures shown are the appropriate discharges for the calendar and water years. At some stations monthly and (or) yearly observed discharges are adjusted for reservoir storage or diversion, or diversions or reservoir contents are given. These figures are identified by a symbol and corresponding footnote.

Data collected at partial-record stations follow the information for continuous-record sites. Data for partial-record discharge stations are presented in two tables. The first is a table of annual maximum stage and discharge at crest-stage stations, and the second is a table of discharge measurements at low-flow partial-record stations. The tables of partial-record stations are followed by a listing of discharge measurements made at sites other than continuous-record or partial-record stations. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Identifying Estimated Daily Discharge

Estimated daily-discharge values published in the water-discharge tables of annual State data reports are identified either by flagging individual daily values with the letter symbol "e" and printing the table footnote, "e Estimated," or by listing the dates of the estimated record in the REMARKS paragraph of the station description.

Accuracy of the Records

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

The accuracy attributed to the records is indicated under "REMARKS." "Excellent" means that about 95 percent of the daily discharges are within 5 percent of the true; "good," within 10 percent; and "fair," within 15 percent. Records that do not meet the criteria mentioned, are rated "poor." Different accuracies may be attributed to different parts of a given record.

Daily mean discharges in this report are given to the nearest hundredth of a cubic foot per second for values less than 1 ft³/s; to the nearest tenth between 1.0 and 10 ft³/s; to whole numbers between 10 and 1,000 ft³/s; and to 3 significant figures for more than 1,000 ft³/s. The number of significant figures used is based solely on the magnitude of the discharge value. The same rounding rules apply to discharges listed for partial-record stations and miscellaneous sites.

Discharge at many stations, as indicated by the monthly mean, may not reflect natural runoff due to the effects of diversion, consumption, regulation by storage, increase or decrease in evaporation due to artificial causes, or to other factors. For such stations, figures of cubic feet per second per square mile and of runoff, in inches, are not published unless satisfactory adjustments can be made for diversions, for changes in contents of reservoirs, or for other changes incident to use and control. Evaporation from a reservoir is not included in the adjustments for changes in reservoir contents, unless it is so stated. Even at those stations where adjustments are made, large errors in computed runoff may occur if adjustments or losses are large in comparison with the observed discharge.

Other Records Available

The National Water Data Exchange (NAWDEx), U.S. Geological Survey, Reston, VA 22092, maintains an index of sites as well as an index of records of discharge collected by other agencies but not published by the Geological Survey. Information on records at specific sites can be obtained from that office upon request.

Information used in the preparation of the records in this publication, such as discharge measurement notes, gage-height records, temperature measurements, and rating tables are on file in the California District office. Also, most of the daily mean discharges are in computer-readable form and have been analyzed statistically. Information on the availability of the unpublished information or on the results of statistical analyses of the published records may be obtained from the District office.

Records of Surface-Water Quality

Records of surface-water quality ordinarily are obtained at or near stream-gaging stations because interpretation of records of surface-water quality nearly always requires corresponding discharge data. Records of surface-water quality in this report may involve a variety of types of data and measurement frequencies.

Classification of Records

Water-quality data for surface-water sites are grouped into one of three classifications. A continuing-record station is a site where data are collected on a regularly scheduled basis. Frequency may be once or more times daily, weekly, monthly, or quarterly. A partial-record station is a site where limited water-quality data are collected systematically over a period of years. Frequency of sampling is usually less than quarterly. A miscellaneous sampling site is a location other than a continuing or partial-record station, where random samples are collected to give better areal coverage to define water-quality conditions in the river basin.

A careful distinction needs to be made between "continuing records" as used in this report and "continuous recordings," which refers to a continuous graph or a series of discrete values punched at short intervals on a paper tape. Some records of water quality, such as temperature and specific conductance, may be obtained through continuous recordings; however, because of costs, most data are obtained only monthly or less frequently. Locations of stations for which records on the quality of surface water appear in this report are shown in figures 4 through 23.

Arrangement of Records

Water-quality records collected at a surface-water daily record station are published immediately following that record, regardless of the frequency of sample collection. Station number and name are the same for both records. Where a surface-water daily record station is not available or where the water quality differs significantly from that at the nearby surface-water station, the continuing water-quality record is published with its own station number and name in the regular downstream order sequence. Water-quality data for partial-record stations and for miscellaneous sampling sites appear in separate tables following the table of discharge measurements at miscellaneous sites.

On-Site Measurements and Sample Collection

In obtaining water-quality data, a major concern needs to be assuring that the data obtained represent the in situ quality of the water. To assure this, certain measurements, such as water temperature, pH, and dissolved oxygen, need to be made onsite when the samples are taken. To assure that measurements made in the laboratory also represent the in situ water, carefully prescribed procedures need to be followed in collecting the samples, in treating the samples to prevent changes in quality pending analysis, and in shipping the samples to the laboratory. Procedures for onsite measurements and for collecting, treating, and shipping samples are given in publications on "Techniques of Water-resources Investigations," Book 1, Chapter D2; Book 3, Chapter C2; Book 5, Chapter A1, A3, and A4. All of these references are listed on p. 22 of this report. Also, detailed information on collecting, treating, and shipping samples may be obtained from the Geological Survey District office.

One sample can define adequately the water quality at a given time if the mixture of solutes throughout the stream cross section is homogeneous. However, the concentration of solutes at different locations in the cross section may vary widely with different rates of water discharge, depending on the source of material and the turbulence and mixing of the stream. Some streams must be sampled through several vertical sections to obtain a representative sample needed for an accurate mean concentration and for use in calculating load. All samples obtained for the National Stream Quality Accounting Network (see definitions) are obtained from at least several verticals. Whether samples are obtained from the centroid of flow or from several verticals, depends on flow conditions and other factors which must be evaluated by the collector.

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

For chemical-quality stations equipped with digital monitors, the records consist of daily maximum and minimum, and values for each constituent measured and are based upon hourly punches beginning at 0100 hours and ending at 2400 hours for the day of record. More detailed records (hourly values) may be obtained from the USGS District Office whose address is given on the back of the title page of this report.

Water Temperature

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

At stations where recording instruments are used, either mean temperatures or maximum and minimum temperatures for each day are published. Water temperatures measured at the time of water-discharge measurements are on file in the District office.

Sediment

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

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

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

In addition to the records of suspended-sediment discharge, records of the periodic measurements of the particle-size distribution of the suspended sediment and bed material are included for some stations.

Cross-Sectional Data

Cross-section surveys of water temperature, pH, specific conductance, dissolved oxygen, and suspended sediment are done at all NASQAN and Hydrologic Bench-mark stations during various seasons and surface-water discharges. Documentation of cross-section variation of water quality is essential in order to determine how many samples in a cross section are necessary to ensure a representative composite sample.

Laboratory Measurements

Sediment samples, samples for biochemical-oxygen demand (BOD), samples for indicator bacteria, and daily samples for specific conductance are analyzed locally. All other samples are analyzed in the Geological Survey laboratories in Arvada, CO, or Doraville, GA. Methods used in analyzing sediment samples and computing sediment records are given in TWRI, Book 5, Chapter C1. Methods used by the Geological Survey laboratories are given in TWRI, Book 1, Chapter D2; Book 3, Chapter C2; Book 5, Chapters A1, A3, and A4.

Data Presentation

For continuing-record stations, information pertinent to the history of station operation is provided in descriptive headings preceding the tabular data. These descriptive headings give details regarding location, drainage area, period of record, type of data available, instrumentation, general remarks, cooperation, and extremes for parameters currently measured daily. Tables of chemical, physical, biological, radiochemical data, and so forth, obtained at a frequency less than daily are presented first. Tables of "daily values" of specific conductance, pH, water temperature, dissolved oxygen, and suspended sediment then follow in sequence.

In the descriptive headings, if the location is identical to that of the discharge gaging station, neither the LOCATION nor the DRAINAGE AREA statements are repeated. The following information, as appropriate, is provided with each continuous-record station. Comments that follow clarify information presented under the various headings of the station description.

LOCATION.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

DRAINAGE AREA.--See Data Presentation under "Records of Stage and Water Discharge;" same comments apply.

PERIOD OF RECORD.--This indicates the periods for which there are published water-quality records for the station. The periods are shown separately for records of parameters measured daily or continuously and those measured less than daily. For those measured daily or continuously, periods of record are given for the parameters individually.

INSTRUMENTATION.--Information on instrumentation is given only if a water-quality monitor temperature record, sediment pumping sampler, or other sampling device is in operation at a station.

REMARKS.--Remarks provide added information pertinent to the collection, analysis, or computation of the records.

COOPERATION.--Records provided by a cooperating organization or obtained for the Geological Survey by a cooperating organization are identified here.

EXTREMES.--Maximums and minimums are given only for parameters measured daily or more frequently. None are given for parameters measured weekly or less frequently, because the true maximums or minimums may not have been sampled. Extremes, when given, are provided for both the period of record and for the current water year.

REVISIONS.--If errors in published water-quality records are discovered after publication, appropriate updates are made to the Water-Quality File in the U.S. Geological Survey's computerized data system, WATSTORE, and subsequently by monthly transfer of update transactions to the U.S. Environmental Protection Agency's STORET system. Because the usual volume of updates makes it impractical to document individual changes in the State data-report series or elsewhere, potential users of U.S. Geological Survey water-quality data are encouraged to obtain all required data from the appropriate computer file to ensure the most recent updates.

The surface-water-quality records for partial-record stations and miscellaneous sampling sites are published in separate tables following the table of discharge measurements at miscellaneous sites. No descriptive statements are given for these records. Each station is published with its own station number and name in the regular downstream-order sequence.

Remark Codes

The following remark codes may appear with the water-quality data in this report:

| <u>PRINTED OUTPUT</u> | <u>REMARK</u> |
|-----------------------|--|
| E | Estimated value |
| > | Actual value is known to be greater than the value shown |
| < | Actual value is known to be less than the value shown |
| K | Results based on colony count outside the acceptable range (non-ideal colony count) |
| L | Biological organism count less than 0.5 percent (organism may be observed rather than counted) |
| D | Biological organism count equal to or greater than 15 percent (dominant) |
| & | Biological organism estimated as dominant |

ACCESS TO WATSTORE DATA

The National WATER Data STORAGE and RETrieval System (WATSTORE) was established for handling water data collected through the activities of the U.S. Geological Survey and to provide more effective and efficient means of releasing the data to the public. The system is operated and maintained on the central computer facilities of the Survey at its National Center in Reston, Virginia.

WATSTORE can provide a variety of useful products ranging from simple data tables to complex statistical analyses. A minimal fee, plus the actual computer cost incurred in producing a desired product, is charged to the requester. Information about the availability of specific types of data, the acquisition of data or products, and user charges can be obtained locally from each of the Water Resources Division's District offices (see address given on the back of the title page).

General inquiries about WATSTORE may be directed to:

Chief Hydrologist
U.S. Geological Survey
437 National Center
Reston, VA 22092

DEFINITION OF TERMS

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

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

Adenosine triphosphate (ATP) is an organic, phosphate-rich, compound important in the transfer of energy in organisms. Its central role in living cells makes it an excellent indicator of the presence of living material in water. A measure of ATP therefore provides a sensitive and rapid estimate of biomass. ATP is reported in micrograms per liter of the original water sample.

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

Algal growth potential (AGP) is the maximum algal dry weight biomass that can be produced in a natural water sample under standardized laboratory conditions. The growth potential is the algal biomass present at stationary phase and is expressed as milligrams dry weight of algae produced per liter of sample.

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

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

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

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

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

Fecal-streptococcal bacteria are bacteria found in intestines of warm-blooded animals. Their presence in water is considered to verify fecal pollution. They are characterized as gram-positive, cocci bacteria which are capable of growth in brain-heart infusion broth. For the membrane filter method they are defined as all the organisms which produce red or pink colonies within 48 hours at 35°C ± 0.5°C on KF Streptococcus agar (nutrient medium for bacterial growth). Their concentrations are expressed as number of colonies per 100 mL of sample.

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

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

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

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

Ash mass is the mass or amount of residue present after the residue from the dry mass determination has been ashed in a muffle furnace at a temperature of 500°C for 1 hour. The ash mass values of zooplankton and phytoplankton are expressed in grams per cubic meter (g/m³), and periphyton and benthic organisms in grams per square meter (g/m²).

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

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

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

Bottom material: See Bed material.

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

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

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

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

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

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

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

Cubic foot per second (ft³/s) is the rate of discharge representing a volume of 1 cubic foot passing a given point during 1 second and is equivalent to approximately 7.48 gallons per second or 448.8 gallons per minute or 0.02832 cubic meters per second.

Cubic foot per second-day (cfs.d) is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, or about 646,000 gallons or 2,445 cubic meters.

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

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

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

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

Dissolved-solids concentration of water is determined either analytically or by the "residue-on-evaporation" method, or mathematically by totaling the concentrations of individual constituents reported in a comprehensive chemical analysis. During the analytical determination of dissolved solids, the bicarbonate (generally a major dissolved component of water) is converted to carbonate. Therefore, in the mathematical calculation of dissolved-solids concentration, the bicarbonate value, in milligrams per liter, is multiplied by 0.492 to reflect the change.

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

$$\bar{d} = \frac{s}{\sum_{i=1}^s} \frac{n_i}{n} \log^2 \frac{n_i}{n},$$

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

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

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

Gage datum is the elevation of the zero point of the reference gage from which gage height is determined as compared to the National Geodetic Vertical Datum of 1929. This elevation is established by a system of levels from known bench marks or by approximation from topographic maps.

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

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

Hardness of water is a physical-chemical characteristic that is commonly recognized by the increased quantity of soap that is required to produce lather. It is attributable to the presence of alkaline earths (principally calcium and magnesium) and is expressed as equivalent calcium carbonate (CaCO_3).

Hydrologic Bench-Mark Network is a network of 57 sites in small drainage basins around the country whose purpose is to provide consistent data on the hydrology, including water quality, and related factors in representative undeveloped watersheds nationwide, and to provide analyses on a continuing basis to compare and contrast conditions observed in basins more obviously affected by the activities of man.

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

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

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

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

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

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

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

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

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

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

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

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

National Stream Quality Accounting Network (NASQAN) is a nationwide data-collection network designed by the U.S. Geological Survey to meet many of the information needs of government agencies and other groups involved in natural or regional water-quality planning and management. The 500 or so sites in NASQAN are generally located at the downstream ends of hydrologic accounting units designated by the U.S. Geological Survey Office of Water Data Coordination in consultation with the Water Resources Council. The objectives of NASQAN are (1) to obtain information on the quality and quantity of water moving within and from the United States through a systematic and uniform process of data collection, summarization, analysis, and reporting such that the data may be used for, (2) to describe the areal variability of water quality in the Nation's rivers through analysis of data from this and other programs, (3) to detect changes in trends with time in the pattern occurrence of water-quality characteristics, and (4) to provide a nationally consistent data base useful for water-quality assessment and hydrologic research.

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

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

Organism count/area refers to the number of organisms collected and enumerated in a sample and adjusted to the number per unit area of the habitat, usually square meter (m²), acre, or hectare. Periphyton, benthic organisms, and macrophytes are expressed in these terms.

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

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

Parameter code is a 5-digit number used in the U.S. Geological Survey computerized data system, WATSTORE, to uniquely identify a specific constituent. The codes used in WATSTORE are the same as those used in the U.S. Environmental Protection Agency data system, STORET. The Environmental Protection Agency assigns and approves all requests for new codes.

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

Particle size is the diameter, in millimeters (mm), of a particle determined by either sieve or sedimentation methods. Sedimentation methods (pipet, bottom-withdrawal tube, visual-accumulation tube) determine fall diameter of particles in distilled water (chemically dispersed) or in native water (the river water at the time and point of sampling).

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

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

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

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

Periphyton is the assemblage of micro-organisms attached to and living upon submerged solid surfaces. While primarily consisting of algae, the periphyton also include bacteria, fungi, protozoa, rotifers, and other small organisms. Periphyton are useful indicators of water quality.

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

pH of water is the negative logarithm of the hydrogen-ion activity. Solutions with pH less than 7 are termed "acidic," and solutions with a pH greater than 7 are termed "basic." Solutions with a pH of 7 are neutral. The presence and concentration of many dissolved chemical constituents found in water are, in part, influenced by the hydrogen-ion activity of water. Biological processes including growth, distribution of organisms, and toxicity of the water to organisms are also influenced, in part, by the hydrogen-ion activity of water.

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

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

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

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

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

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

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

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

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

Milligrams of carbon per area or volume per unit time [$\text{mg C}/(\text{m}^2 \cdot \text{time})$] for periphyton and macrophytes and [$\text{mg C}/(\text{m}^3 \cdot \text{time})$] for phytoplankton are the units for expressing primary productivity. They define the amount of carbon dioxide consumed as measured by radioactive carbon (carbon-14). The carbon-14 method is of greater sensitivity than the oxygen light- and dark-bottle method, and is preferred for use in unenriched waters. Unit time may be either the hour or day, depending on the incubation period.

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

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

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

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

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

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

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

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

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

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

Suspended-sediment load (tons per day) is a general term that refers to material in suspension. It is not synonymous with either discharge or concentration.

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

Total-sediment load or total load is a term which refers to the total sediment (bed load plus suspended-sediment load) that is in transport. It is not synonymous with total-sediment discharge.

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

Solute is any substance that is dissolved in water.

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

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

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

Substrate is the physical surface upon which an organism lives.

Natural substrate refers to any naturally occurring emerged or submersed solid surface, such as a rock or tree, upon which an organism lives.

Artificial substrate is a device which is purposely placed in a stream or lake for colonization of organisms. The artificial substrate simplifies the community structure by standardizing the substrate from which each sample is taken. Examples of artificial substrates are basket samplers (made of wire cages filled with clean streamside rocks) and multiplate samplers (made of hardboard) for benthic-organism collection and plexiglass strips for periphyton collection.

Surface area of a lake is the area, in square miles or acres, outlined on the latest Geological Survey topographic map as the boundary of the lake and measured by a planimeter. In localities not covered by topographic maps, the areas are computed from the best maps available. Areas shown are for the lake stage at the time the map was made.

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

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

Suspended, recoverable is the amount of a given constituent that is in solution after the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer membrane filter has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all the particulate matter is not achieved by the digestion treatment and thus the determination represents something less than the "total" amount (that is, less than 95 percent) of the constituent present in the sample. To achieve comparability of analytical data, equivalent digestion procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

Determinations of "suspended, recoverable" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total recoverable concentrations of the constituent.

Suspended, total is the total amount of a given constituent in the part of a representative water-suspended sediment sample that is retained on a 0.45-micrometer membrane filter. This term is used only when the analytical procedure assures measurement of at least 95 percent of the constituent determined. A knowledge of the expected form of the constituent in the sample, as well as the analytical methodology used, is required to determine when the results should be reported as "suspended, total."

Determinations of "suspended, total" constituents are made either by analyzing portions of the material collected on the filter or, more commonly, by difference, based on determinations of (1) dissolved and (2) total concentrations of the constituent.

Taxonomy is the division of biology concerned with the classification and naming of organisms. The classification of organisms is based upon a hierarchical scheme beginning with Kingdom and ending with Species at the base. The higher the classification level, the fewer features the organisms have in common. For example, the taxonomy of a particular mayfly, Hexagenia limbata is the following:

| | |
|--------------|--------------------------|
| Kingdom..... | Animal |
| Phylum..... | Arthropoda |
| Class..... | Insecta |
| Order..... | Ephemeroptera |
| Family..... | Ephemeridae |
| Genus..... | Hexagenia |
| Species..... | <u>Hexagenia limbata</u> |

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

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

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

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

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

Total, recoverable is the amount of a given constituent that is in solution after a representative water-suspended sediment sample has been digested by a method (usually using a dilute acid solution) that results in dissolution of only readily soluble substances. Complete dissolution of all particulate matter is not achieved by the digestion treatment, and thus the determination represents something less than the total amount (that is, less than 95 percent) of the constituent present in the dissolved and suspended phases of the procedures would be required of all laboratories performing such analyses because different digestion procedures are likely to produce different analytical results.

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

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

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, 1985, is called the "1985 water year."

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

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

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

PUBLICATIONS ON TECHNIQUES OF WATER-RESOURCES INVESTIGATIONS

The U.S. Geological Survey publishes a series of manuals describing procedures for planning and conducting specialized work in water-resources investigations. The material is grouped under major subject headings called books and is further divided into sections and chapters. For example, Section A of Book 3 (Applications of Hydraulics) pertains to surface water. The chapter, the unit of publication, is limited to a narrow field of subject matter. This format permits flexibility in revision and publication as the need arises.

The reports listed below are for sale by the U.S. Geological Survey, Books and Open-File Reports Section, Federal Center, Box 25425, Denver, CO 80225. Prepayment is required. Remittance should be sent by check or money order payable to the U.S. Geological Survey. Prices are not included because they are subject to change. Current prices can be obtained by writing to the above address. When ordering or inquiring about prices for any of these publications, please give the title, book number, chapter number and "U.S. Geological Survey Techniques of Water-Resources Investigations."

- 1-D1. Water temperature--influential factors, field measurement, and data presentation, by H. H. Stevens, Jr., J. F. Ficke, and G. F. Smoot: USGS--TWRI Book 1, Chapter D1. 1975. 65 pages.
- 1-D2. Guidelines for collection and field analysis of ground-water samples for selected unstable constituents, by W. W. Wood: USGS--TWRI Book 1, Chapter D2. 1976. 24 pages.
- 2-D1. Application of surface geophysics to ground-water investigations, by A. A. R. Zohdy, G. P. Eaton, and D. R. Mabey: USGS--TWRI Book 2, Chapter D1. 1974. 116 pages.
- 2-E1. Application of borehole geophysics to water-resources investigations, by W. S. Keys and L. M. MacCary: USGS--TWRI Book 2, Chapter E1. 1971. 126 pages.
- 3-A1. General field and office procedures for indirect discharge measurements, by M. A. Benson and Tate Dalrymple: USGS--TWRI Book 3, Chapter A1. 1967. 30 pages.
- 3-A2. Measurement of peak discharge by slope-area method, by Tate Dalrymple and M. A. Benson: USGS--TWRI Book 3, Chapter A2. 1967. 12 pages.
- 3-A3. Measurement of peak discharge at culverts by indirect methods, by G. L. Bodhaine: USGS--TWRI Book 3, Chapter A3. 1968. 60 pages.
- 3-A4. Measurement of peak discharge at width contractions by indirect methods, by H. F. Matthai: USGS--TWRI Book 3, Chapter A4. 1967. 44 pages.
- 3-A5. Measurement of peak discharge at dams by indirect methods, by Harry Hulsing: USGS--TWRI Book 3, Chapter A5. 1967. 29 pages.
- 3-A6. General procedure for gaging streams, by R. W. Carter and Jacob Davidian: USGS--TWRI Book 3, Chapter A6. 1968. 13 pages.
- 3-A7. Stage measurements at gaging stations, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A7. 1968. 28 pages.
- 3-A8. Discharge measurements at gaging stations, by T. J. Buchanan and W. P. Somers: USGS--TWRI Book 3, Chapter A8. 1969. 65 pages.
- 3-A9. Measurement of time of travel and dispersion in streams by dye tracing, by E. F. Hubbard, F. A. Kilpatrick, L. A. Martens, and J. F. Wilson, Jr.: USGS--TWRI Book 3, Chapter A9. 1982. 44 pages.
- 3-A10. Discharge ratings at gaging stations, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A10. 1984. 59 pages.
- 3-A11. Measurement of discharge by moving-boat method, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 3, Chapter A11. 1969. 22 pages.
- 3-A13. Computation of continuous records of streamflow, by E. J. Kennedy: USGS--TWRI Book 3, Chapter A13. 1983. 53 pages.
- 3-A14. Use of flumes in measuring discharge, by F. A. Kilpatrick and V. R. Schneider: USGS--TWRI Book 3, Chapter A14. 1983. 46 pages.
- 3-A15. Computation of water-surface profiles in open channels, by Jacob Davidian: USGS--TWRI Book 3, Chapter A15. 1984. 48 pages.
- 3-B1. Aquifer-test design, observation, and data analysis, by R. W. Stallman: USGS--TWRI Book 3, Chapter B1. 1971. 26 pages.

- 3-B2. Introduction to ground-water hydraulics, a programmed text for self-instruction, by G. D. Bennett: USGS--TWRI Book 3, Chapter B2. 1976. 172 pages.
- 3-B3. Type curves for selected problems of flow to wells in confined aquifers, by J. E. Reed: USGS--TWRI Book 3, Chapter B3. 1980. 106 pages.
- 3-C1. Fluvial sediment concepts, by H. P. Guy: USGS--TWRI Book 3, Chapter C1. 1970. 55 pages.
- 3-C2. Field methods for measurement of fluvial sediment, by H. P. Guy and V. W. Norman: USGS--TWRI Book 3, Chapter C2. 1970. 59 pages.
- 3-C3. Computation of fluvial-sediment discharge, by George Porterfield: USGS--TWRI Book 3, Chapter C3. 1972. 66 pages.
- 4-A1. Some statistical tools in hydrology, by H. C. Riggs: USGS--TWRI Book 4, Chapter A1. 1968. 39 pages.
- 4-A2. Frequency curves, by H. C. Riggs: USGS--TWRI Book 4, Chapter A2. 1968. 15 pages.
- 4-B1. Low-flow investigations, by H. C. Riggs: USGS--TWRI Book 4, Chapter B1. 1972. 18 pages.
- 4-B2. Storage analyses for water supply, by H. C. Riggs and C. H. Hardison: USGS--TWRI Book 4, Chapter B2. 1973. 20 pages.
- 4-B3. Regional analyses of streamflow characteristics, by H. C. Riggs: USGS--TWRI Book 4, Chapter B3. 1973. 15 pages.
- 4-D1. Computation of rate and volume of stream depletion by wells, by C. T. Jenkins: USGS--TWRI Book 4, Chapter D1. 1970. 17 pages.
- 5-A1. Methods for determination of inorganic substances in water and fluvial sediments, by M. W. Skougstad and others, editors: USGS--TWRI Book 5, Chapter A1. 1979. 626 pages.
- 5-A2. Determination of minor elements in water by emission spectroscopy, by P. R. Barnett and E. C. Mallory, Jr.: USGS--TWRI Book 5, Chapter A2. 1971. 31 pages.
- 5-A3. Methods for analysis of organic substances in water, by D. F. Goerlitz and Eugene Brown: USGS--TWRI Book 5, Chapter A3. 1972. 40 pages.
- 5-A4. Methods for collection and analysis of aquatic biological and microbiological samples, edited by P. E. Greeson, T. A. Ehlike, G. A. Irwin, B. W. Lium, and K. V. Slack: USGS--TWRI Book 5, Chapter A4. 1977. 332 pages.
- 5-A5. Methods for determination of radioactive substances in water and fluvial sediments, by L. L. Thatcher, V. J. Janzer, and K. W. Edwards: USGS--TWRI Book 5, Chapter A5. 1977. 95 pages.
- 5-A6. Quality assurance practices for the chemical and biological analyses of water and fluvial sediments, by L. C. Friedman and D. E. Erdmann: USGS--TWRI Book 5, Chapter A6. 1982. 181 pages.
- 5-C1. Laboratory theory and methods for sediment analysis, by H. P. Guy: USGS--TWRI Book 5, Chapter C1. 1969. 58 pages.
- 7-C1. Finite difference model for aquifer simulation in two dimensions with results of numerical experiments, by P. C. Trescott, G. F. Pinder, and S. P. Larson: USGS--TWRI Book 7, Chapter C1. 1976. 116 pages.
- 7-C2. Computer model of two-dimensional solute transport and dispersion in ground water, by L. F. Konikow and J. D. Bredehoeft: USGS--TWRI Book 7, Chapter C2. 1978. 90 pages.
- 7-C3. A model for simulation of flow in singular and interconnected channels by R. W. Shaffranek, R. A. Baltzer, and D. E. Goldberg: USGS--TWRI Book 7, Chapter C3. 1981. 110 pages.
- 8-A1. Methods of measuring water levels in deep wells, by M. S. Garber and F. C. Koopman: USGS--TWRI Book 8, Chapter A1. 1968. 23 pages.
- 8-A2. Installation and service manual for U.S. Geological Survey manometers, by J. D. Craig: USGS--TWRI Book 8, Chapter A2. 1983. 57 pages.
- 8-B2. Calibration and maintenance of vertical-axis type current meters, by G. F. Smoot and C. E. Novak: USGS--TWRI Book 8, Chapter B2. 1968. 15 pages.

DISCONTINUED GAGING STATIONS

The following continuous-record streamflow stations in California have been discontinued as of the 1985 water year. Daily streamflow or stage records were collected and published for the period of record shown for each station.

| Station number | Station name | Drainage area (mi ²) | Period of record |
|----------------|--|----------------------------------|--------------------|
| 11344000 | North Fork Pit River at Alturas, CA | 212 | 1972-85 |
| 11375815 | Cottonwood Creek above South Fork, near Cottonwood, CA | 478 | 1982-85 |
| 11375900 | South Fork Cottonwood Creek at Evergreen Road, near Cottonwood, CA | 397 | 1982-85 |
| 11389950 | Little Butte Creek at Magalia, CA | 11.4 | 1969-85 |
| 11390672 | Stone Corral Creek near Sites, CA | 38.2 | 1958-64 1966-85 |
| 11426200 | North Fork Forbes Creek near Dutch Flat, CA | 1.68 | 1956-85 |
| 11433260 | North Fork of Middle Fork American River near Foresthill, CA | 88.9 | 1965-85 |
| 11450150 | Clear Lake at Clearlake, CA | 528 | 1982-84 |

DISCONTINUED WATER-QUALITY STATIONS

The following water-quality stations in California have been discontinued as of the 1985 water year. Continuous daily records of water temperature and/or sediment were collected and published for the period of record shown for each station.

| Station number | Station name | Drainage area (mi ²) | Type of Record | Period of Record |
|----------------|--|----------------------------------|----------------|---------------------|
| 11375810 | Cottonwood Creek near Olinda, CA | 395 | C | 1971, 1982-85 |
| 11375815 | Cottonwood Creek above South Fork, near Cottonwood, CA | 478 | C | 1982-85 |
| 11375870 | South Fork Cottonwood Creek near Olinda, CA | 371 | C | 1982-85 |
| 11376000 | Cottonwood Creek near Cottonwood, CA | 927 | C,T,S | 1957-67, 1977-85 |

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

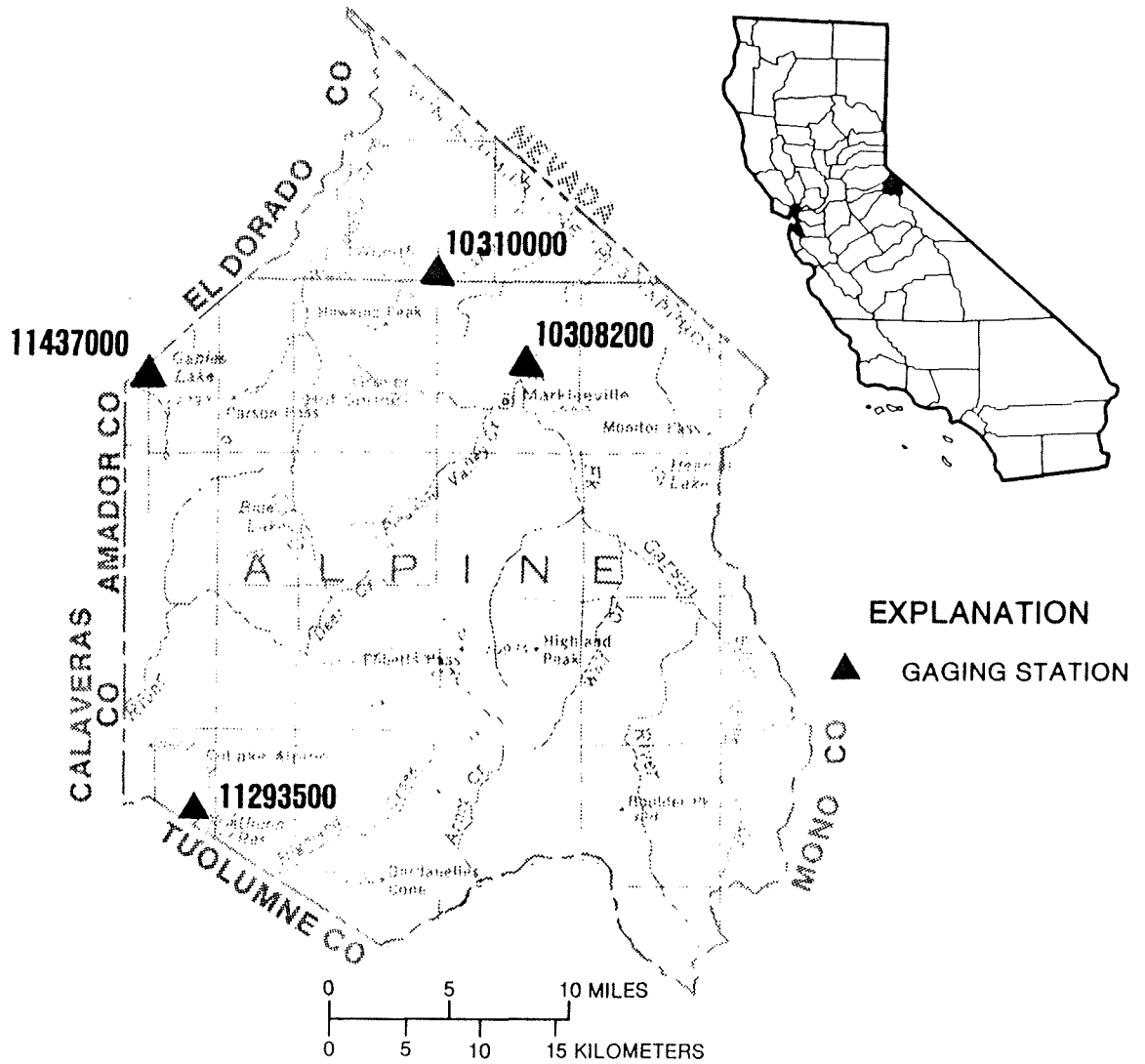


FIGURE 4. — Location of discharge stations in Alpine County.

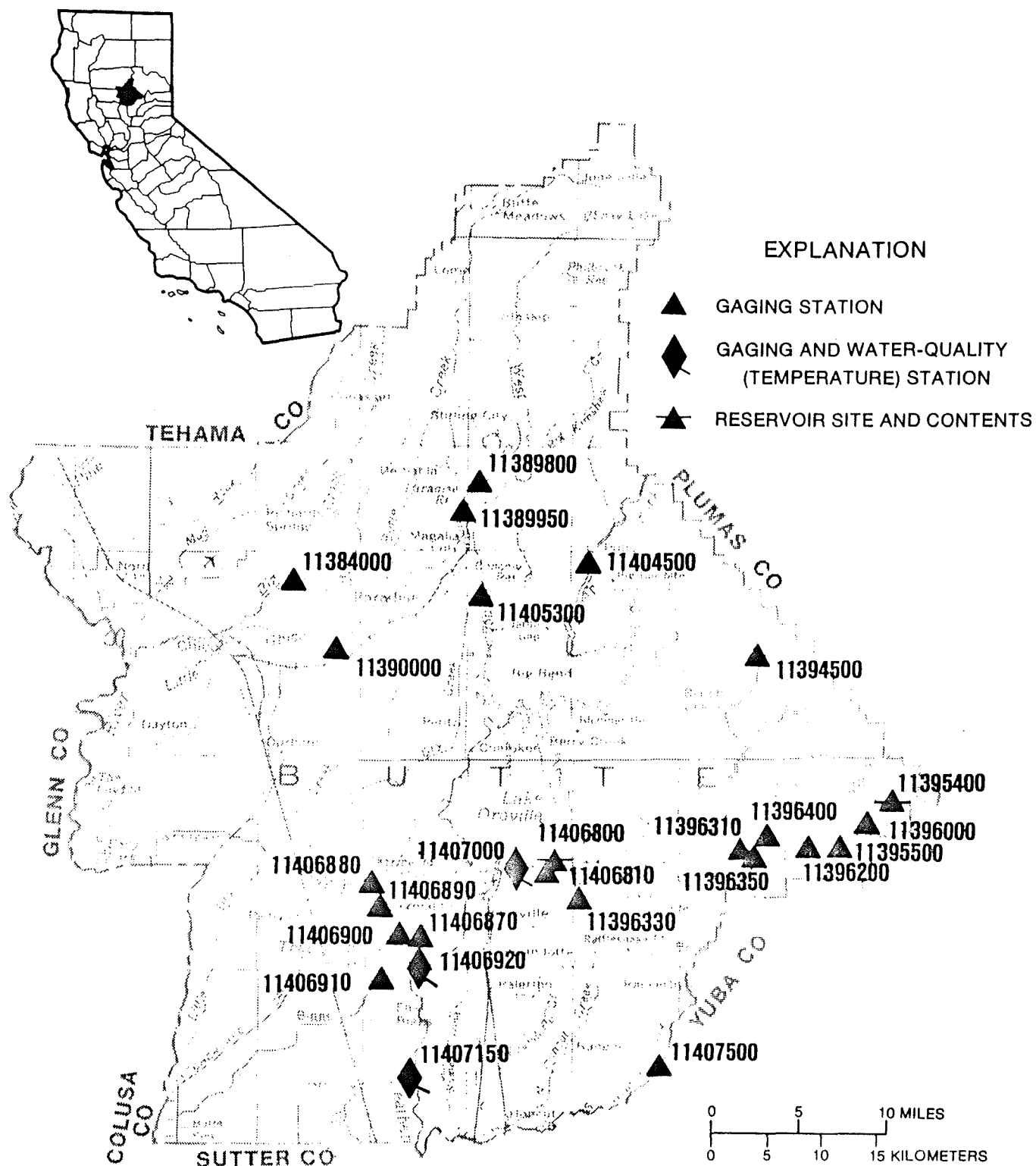


FIGURE 5. — Location of discharge and water-quality stations in Butte County.

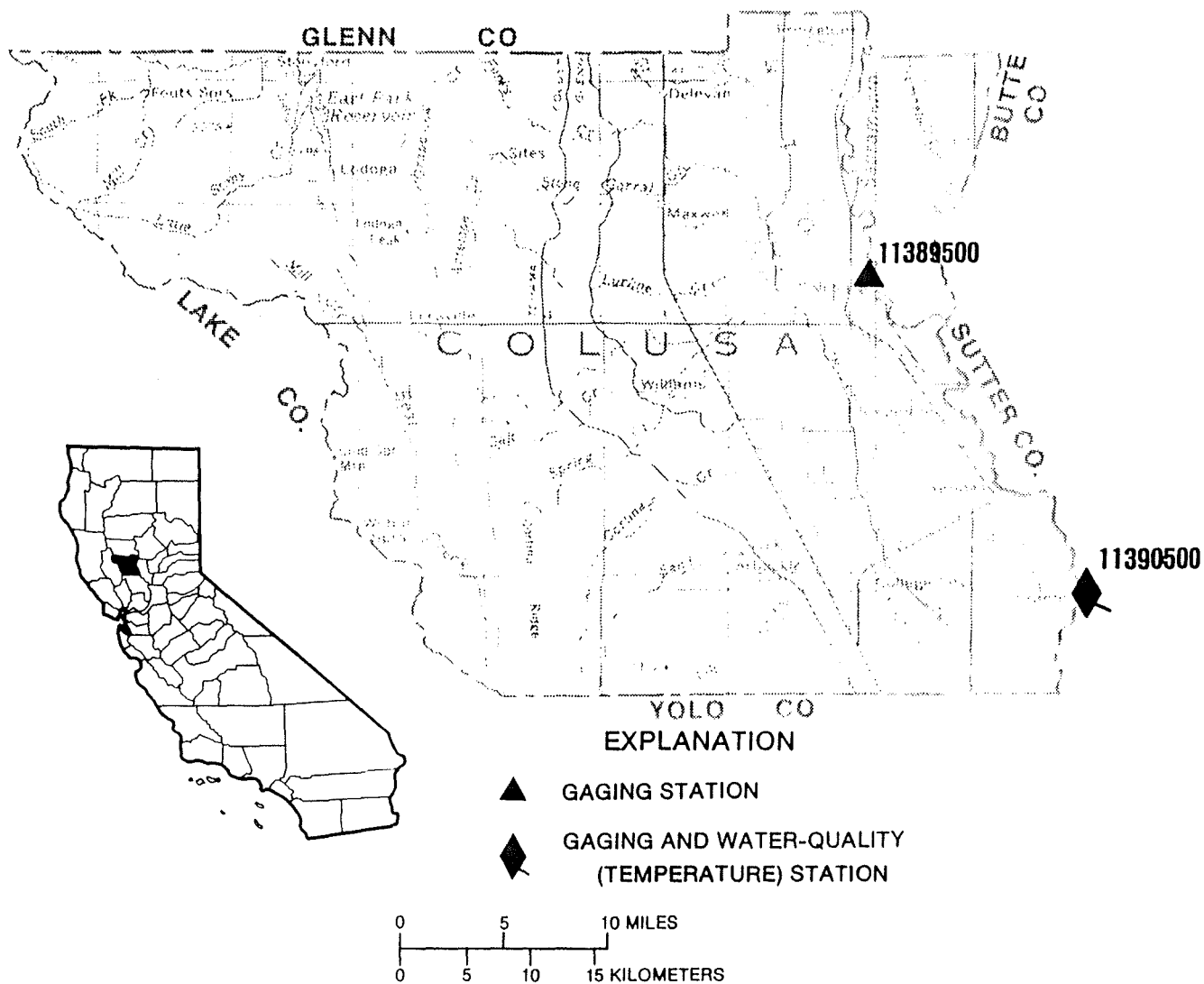
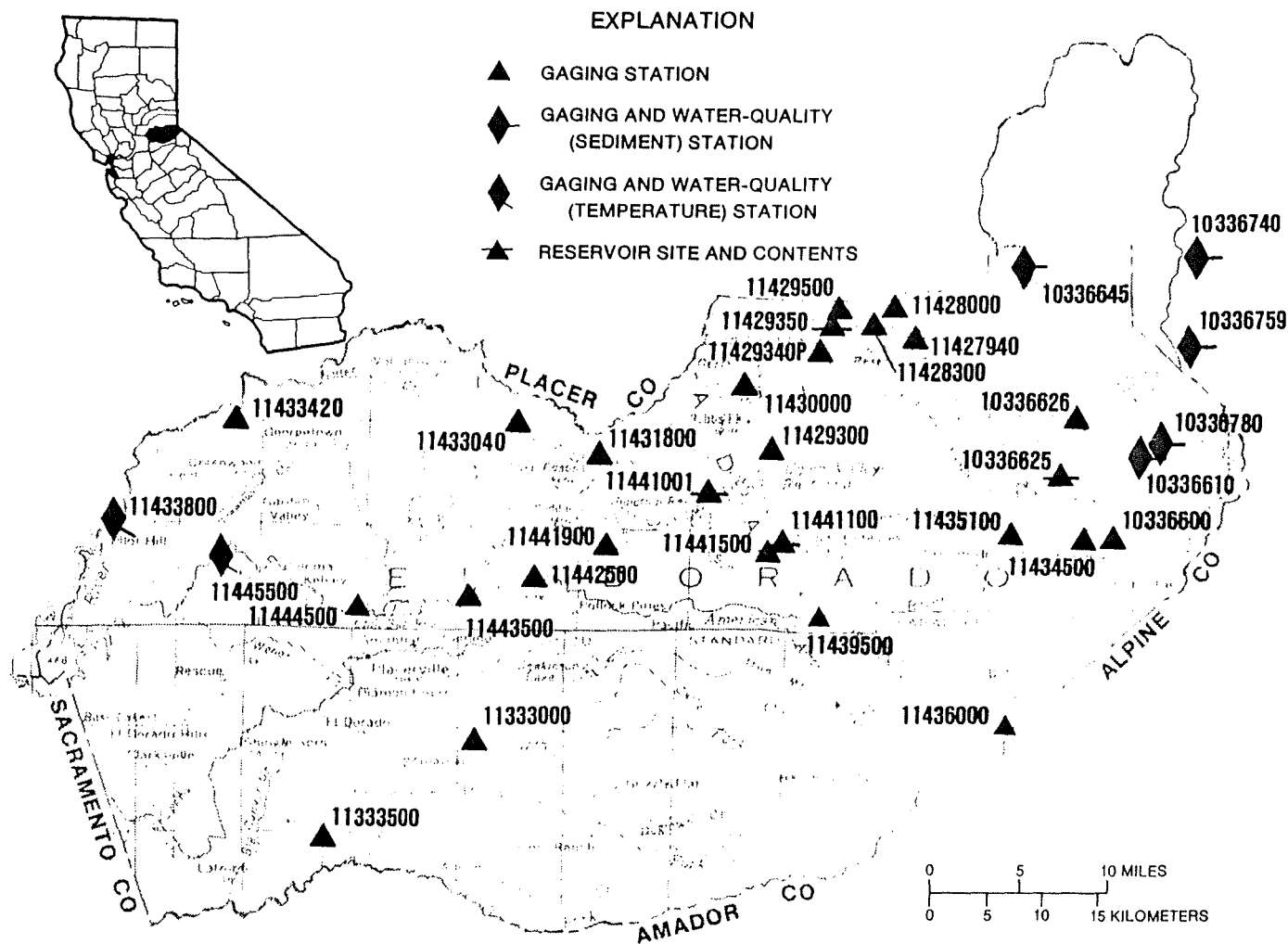


FIGURE 6. — Location of discharge and water-quality stations in Colusa County.



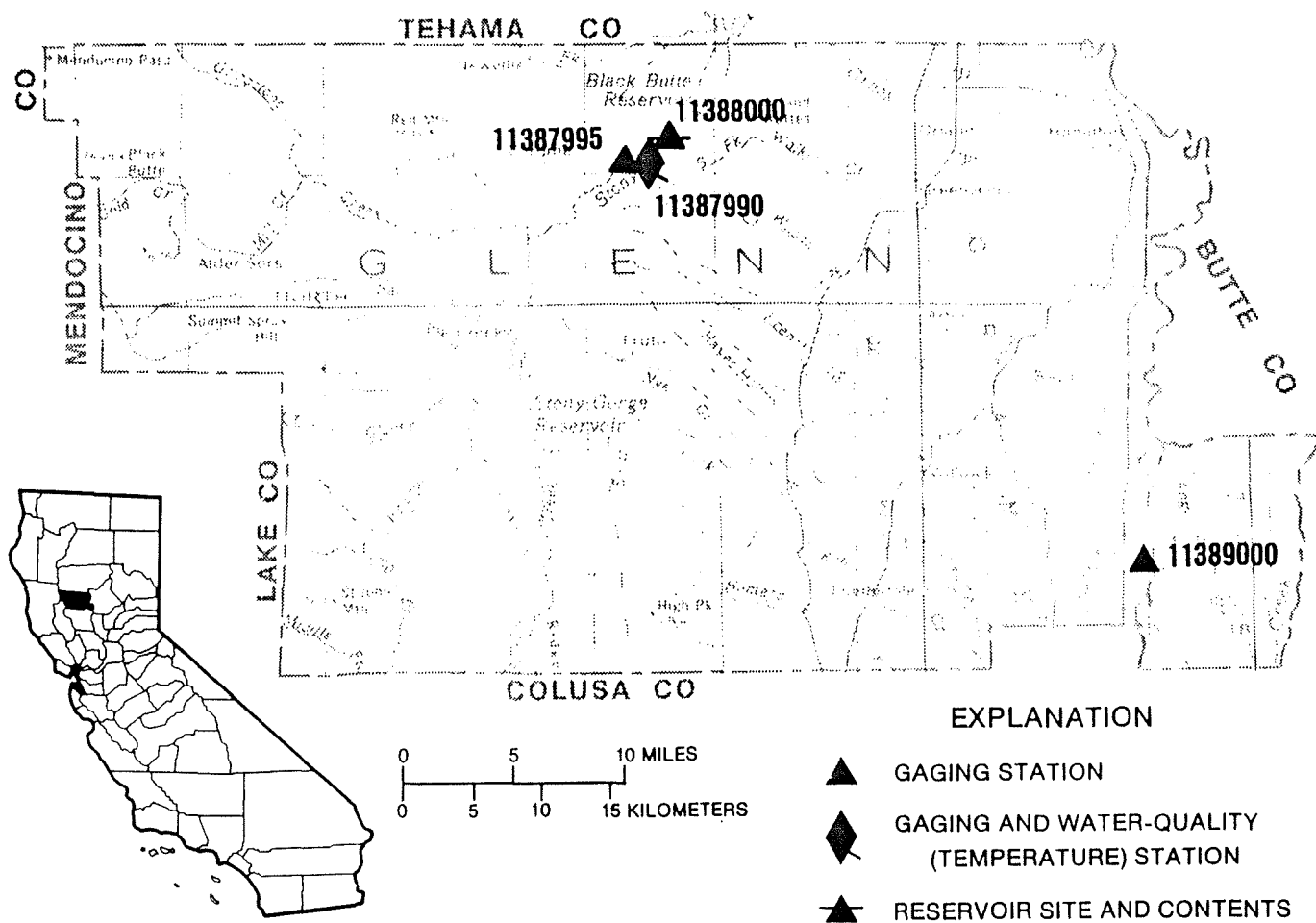
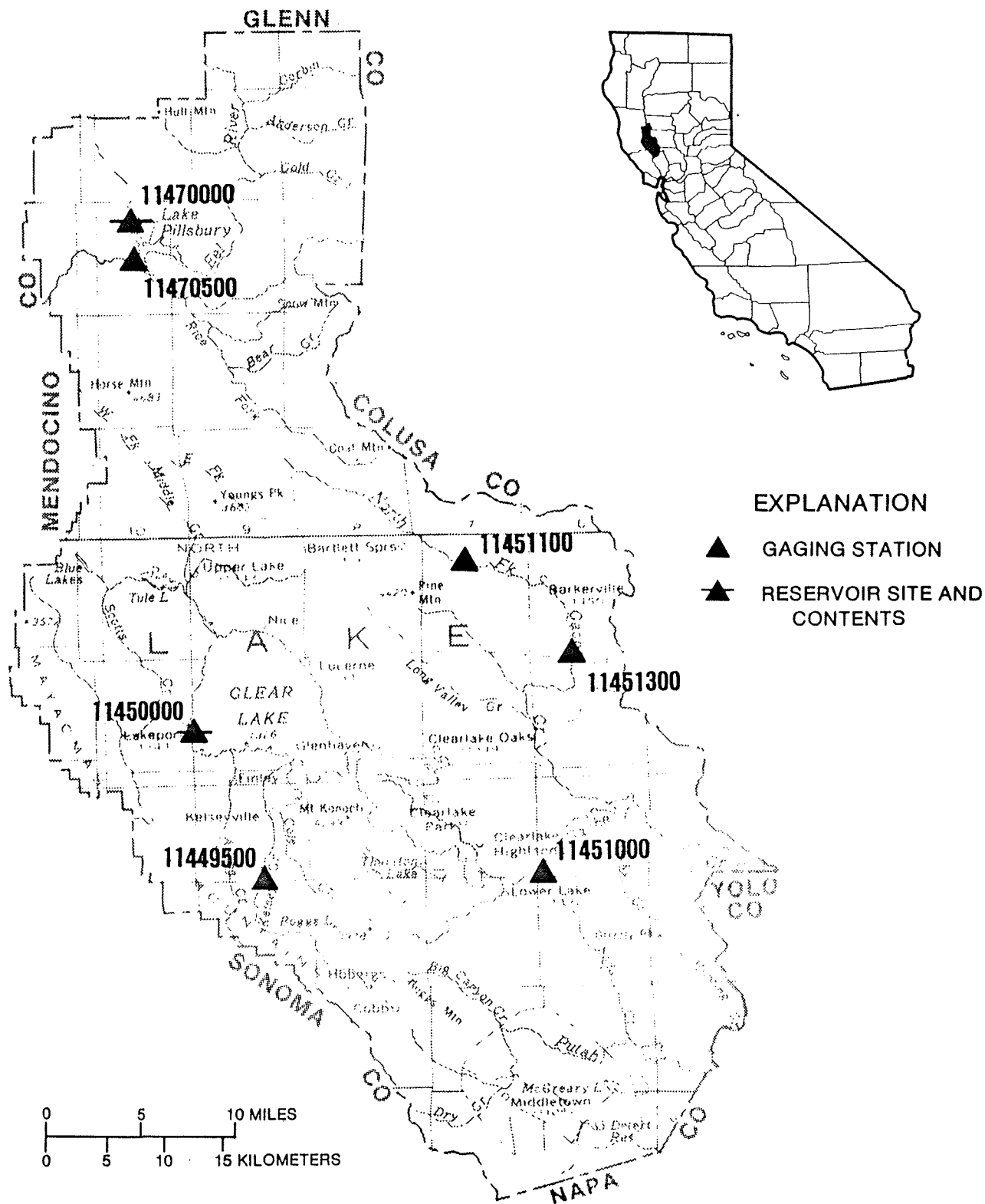


FIGURE 8. — Location of discharge and water-quality stations in Glenn County.



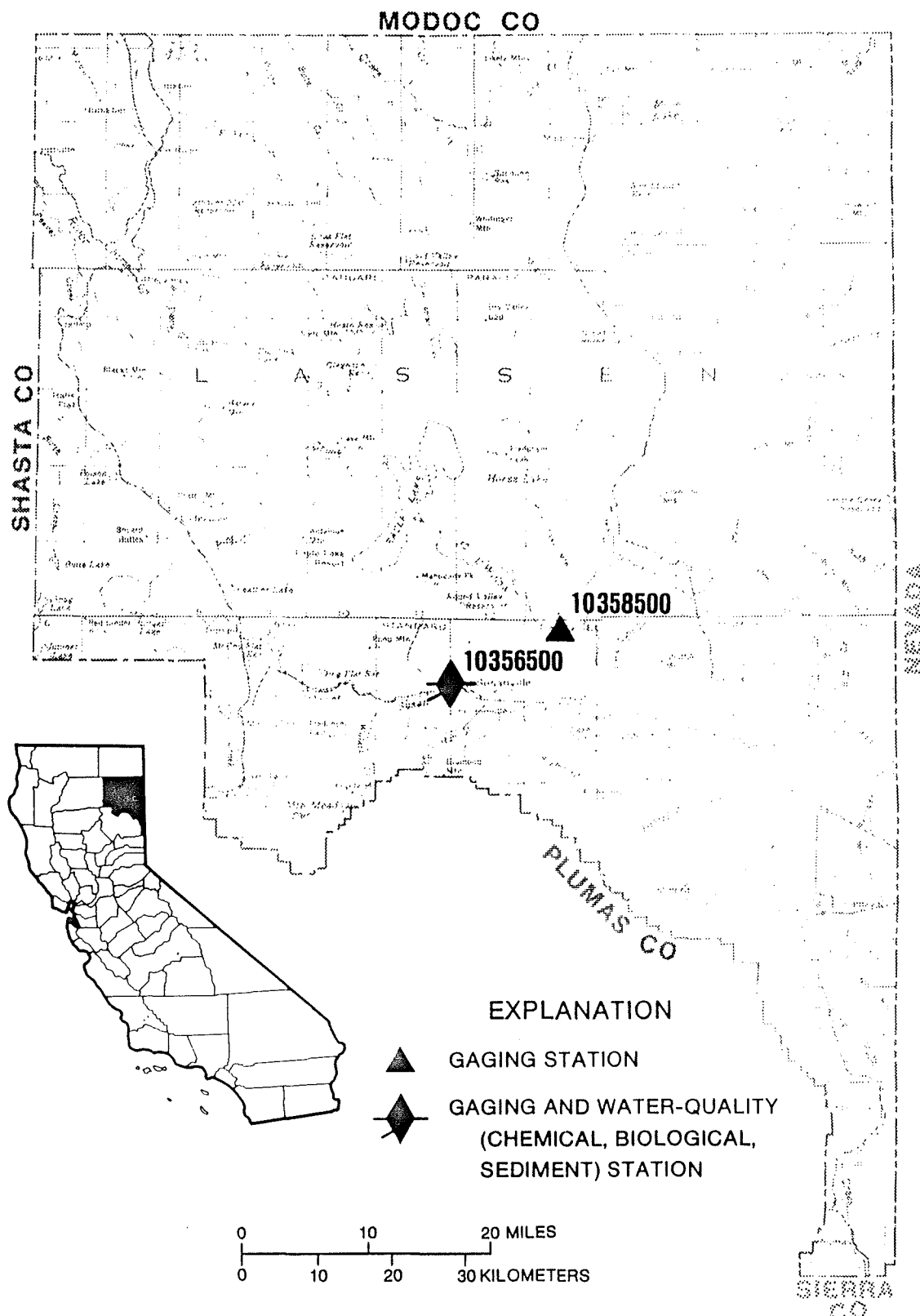


FIGURE 10. — Location of discharge and water-quality station in Lassen County.



FIGURE 12. — Location of discharge and water-quality stations in Napa County.

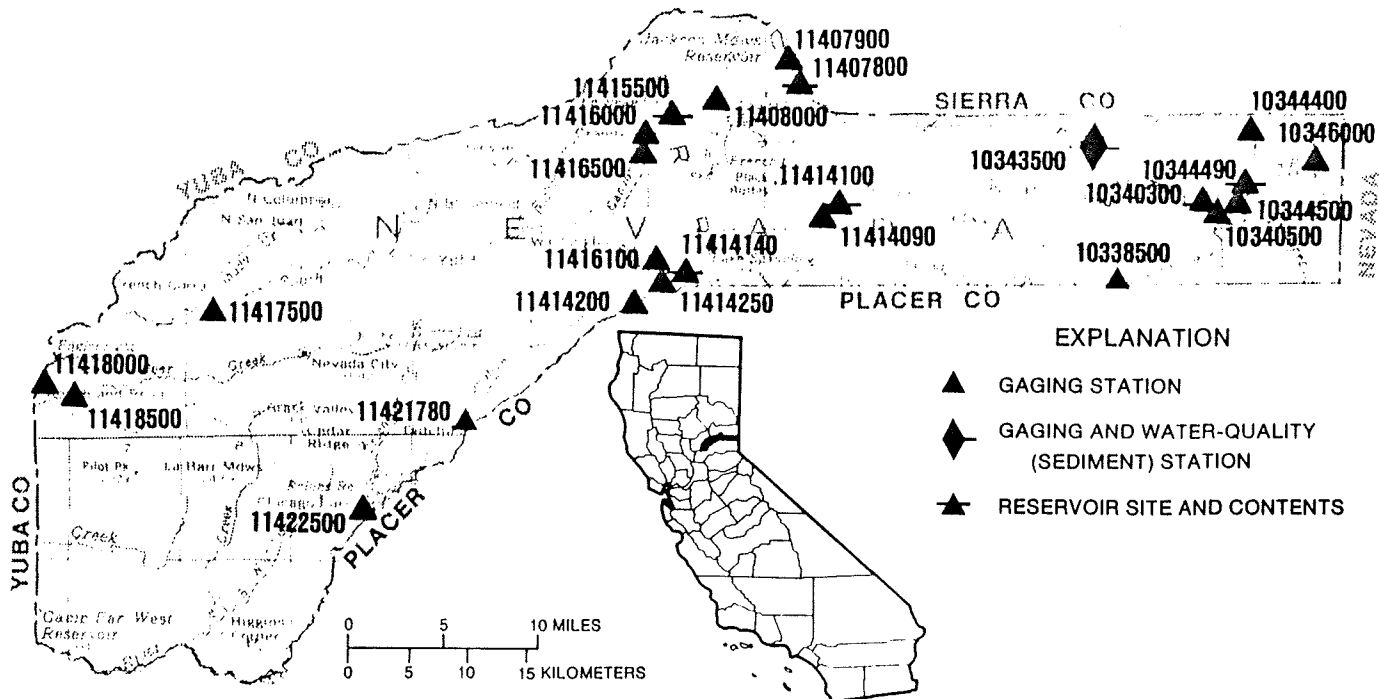
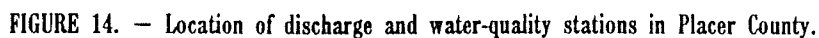


FIGURE 13. — Location of discharge and water-quality stations in Nevada County.



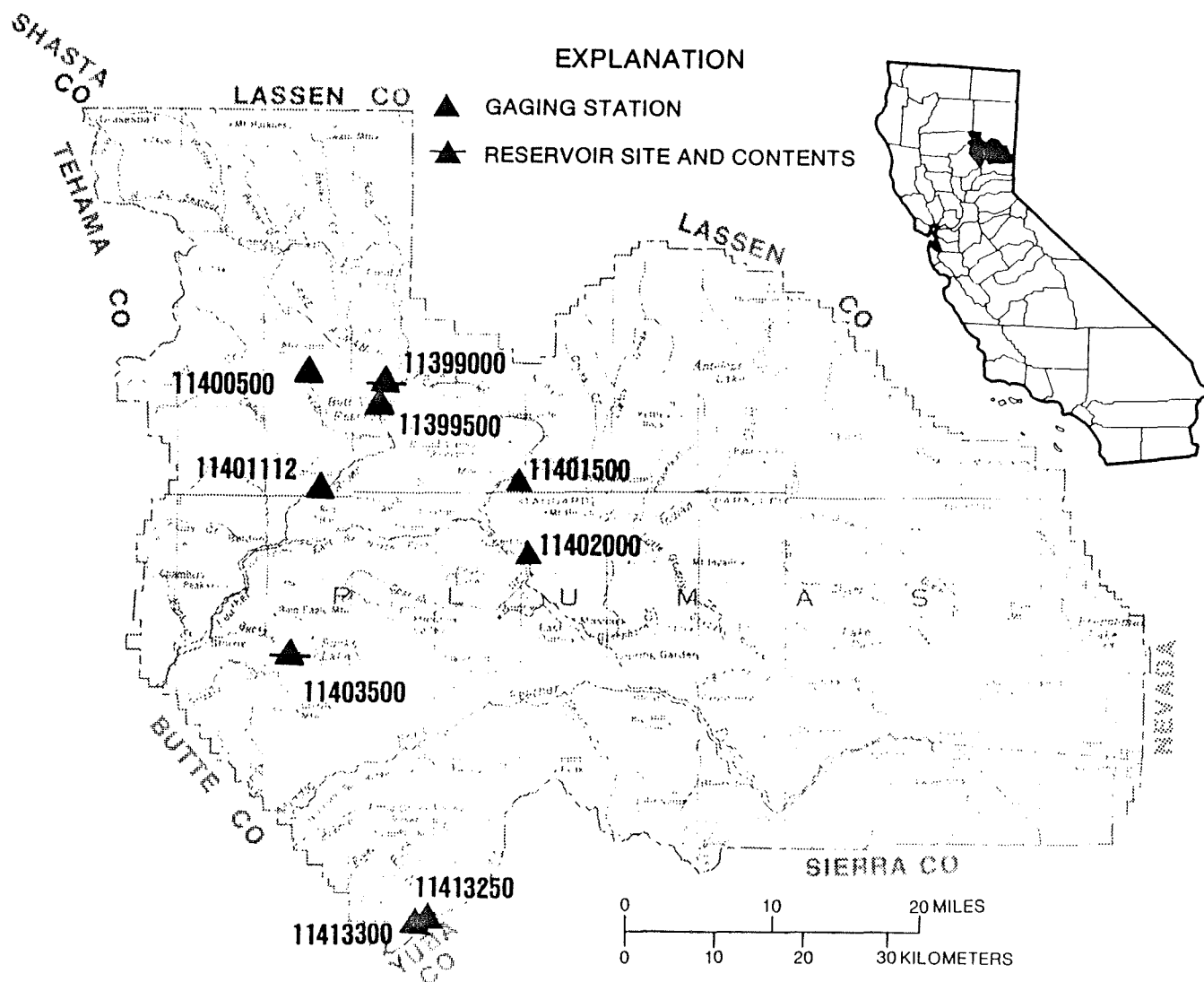


FIGURE 15. — Location of discharge stations in Plumas County.

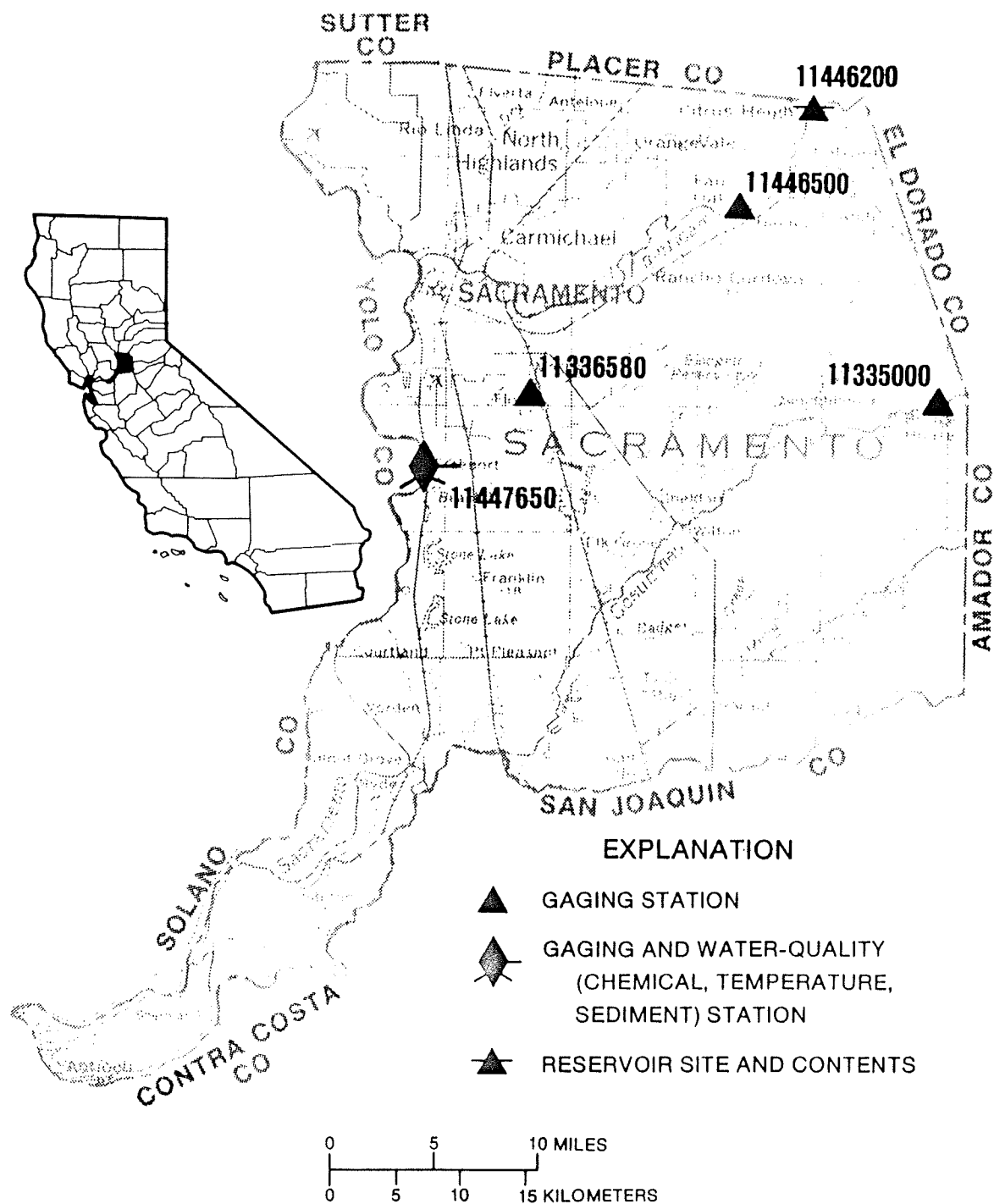


FIGURE 16. — Location of discharge and water-quality stations in Sacramento County.

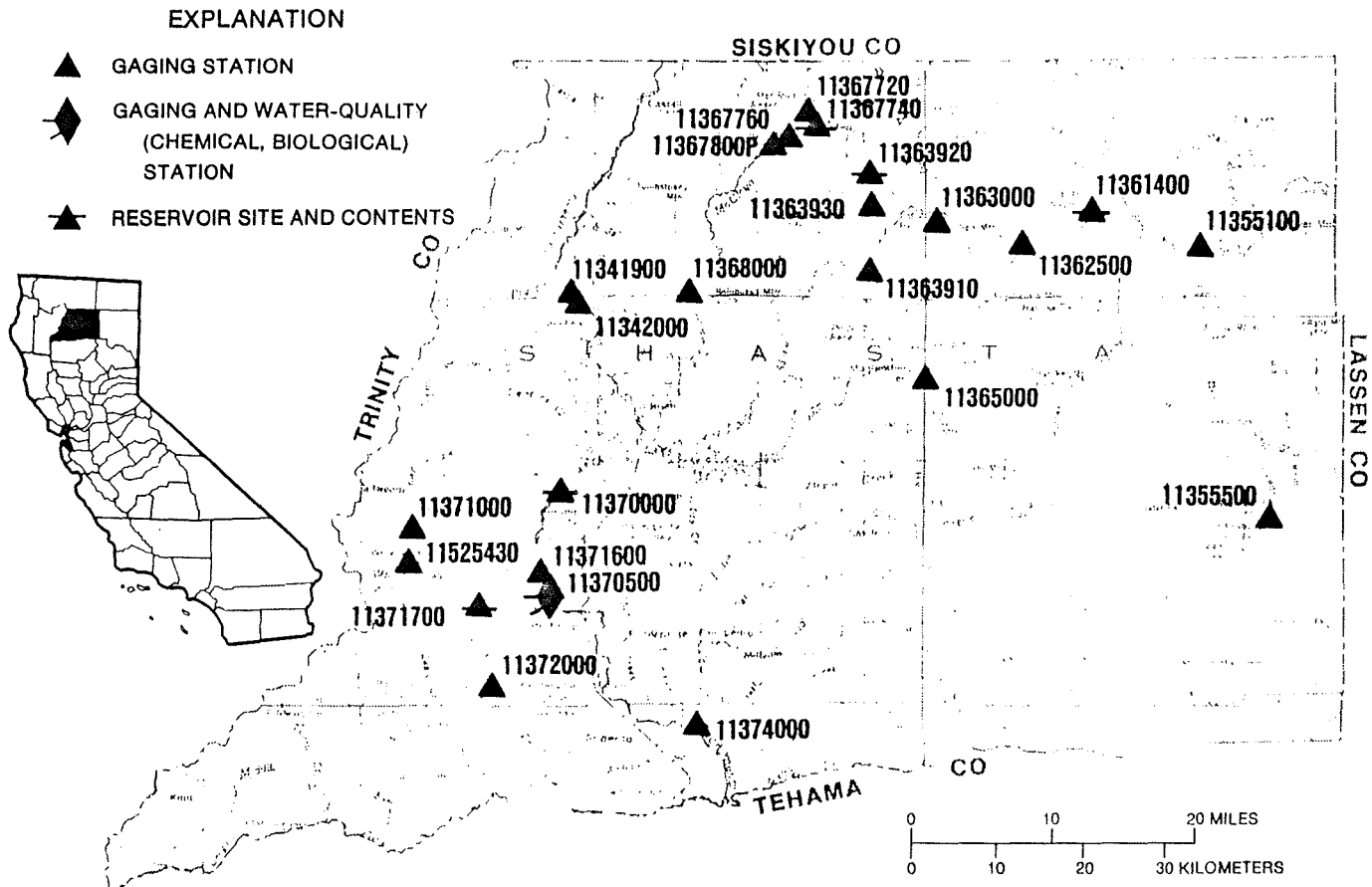


FIGURE 17. — Location of discharge and water-quality stations in Shasta County.

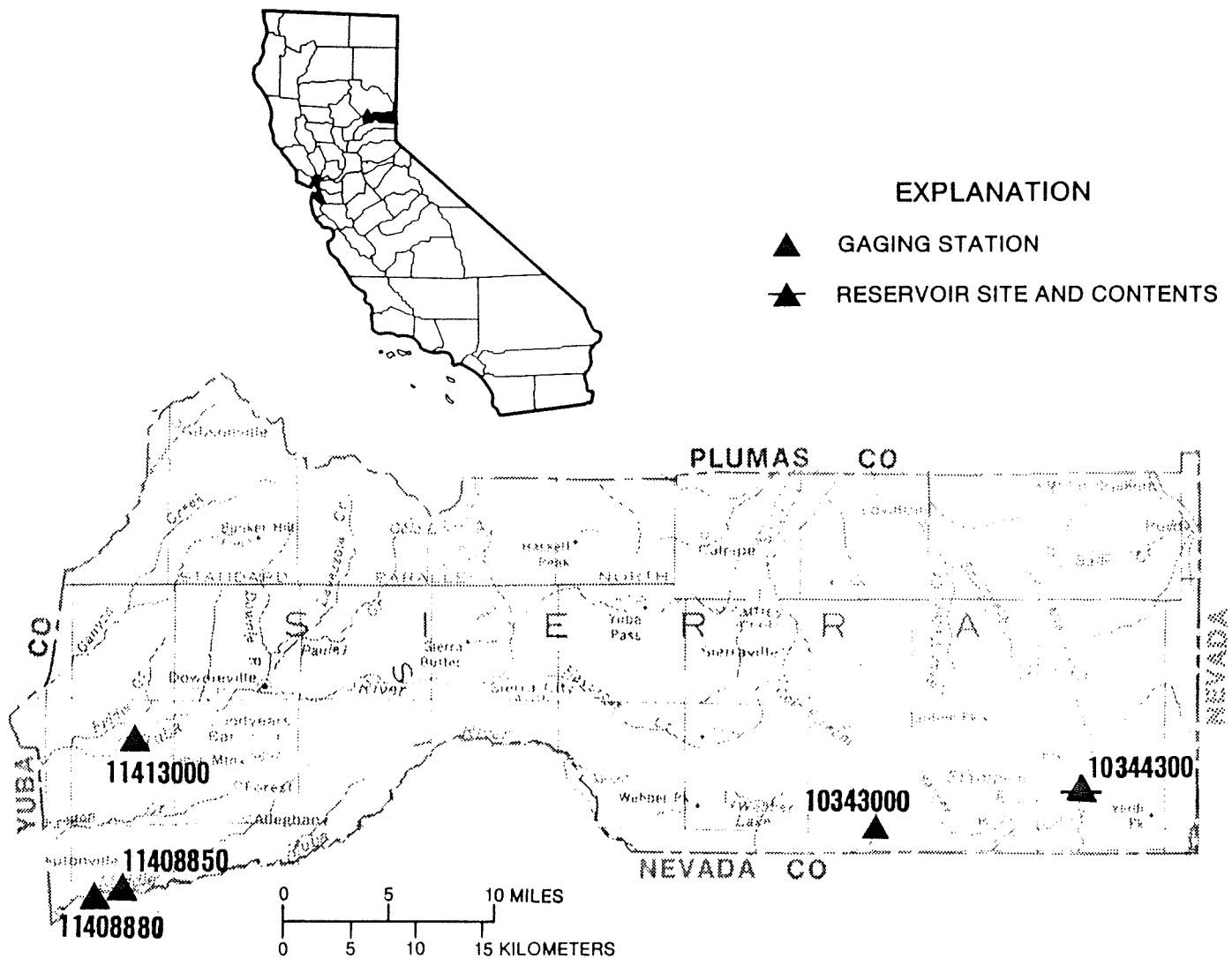


FIGURE 18. — Location of discharge station in Sierra County.

WATER RESOURCES DATA - CALIFORNIA, 1985

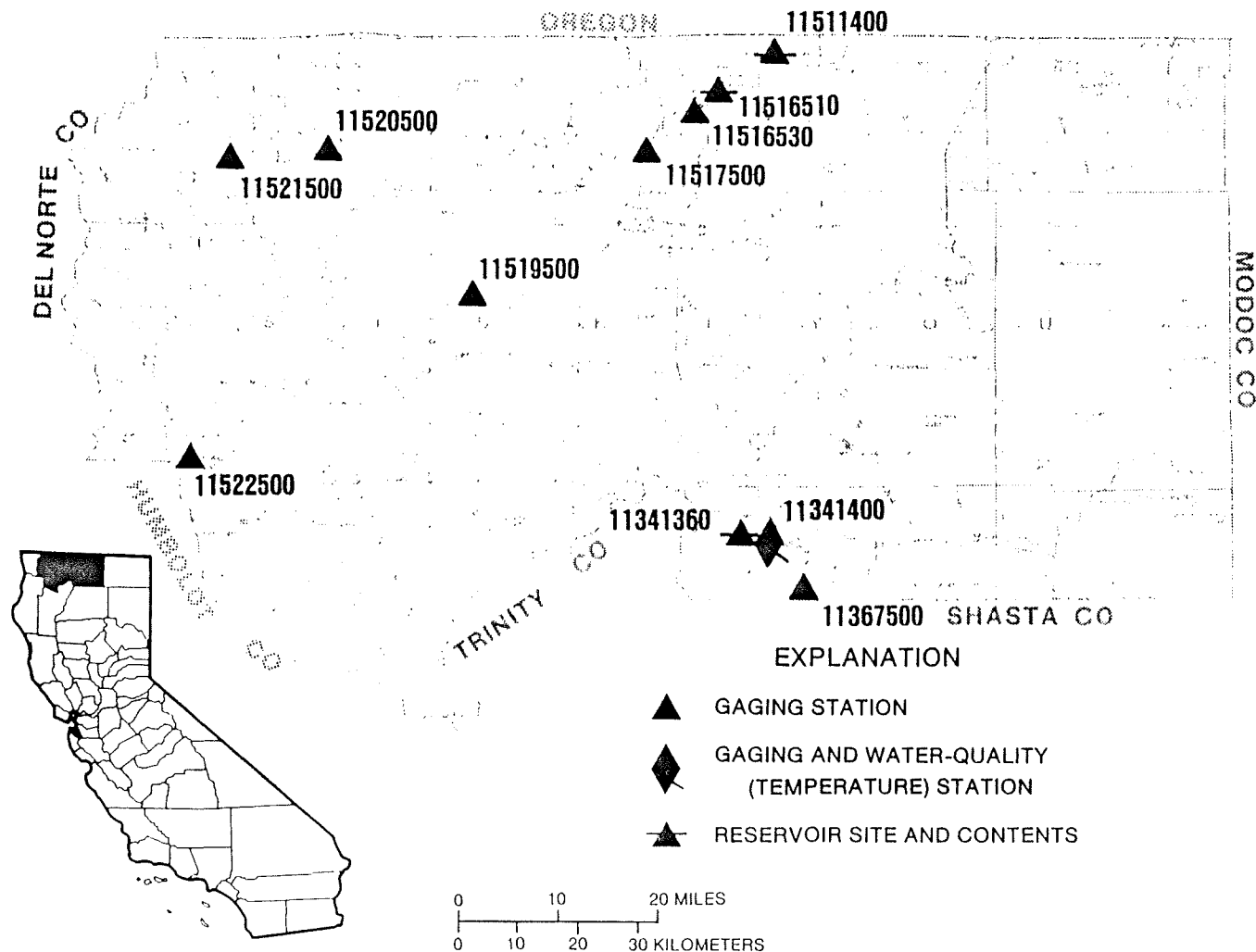


FIGURE 19. — Location of discharge and water-quality stations in Siskiyou County.

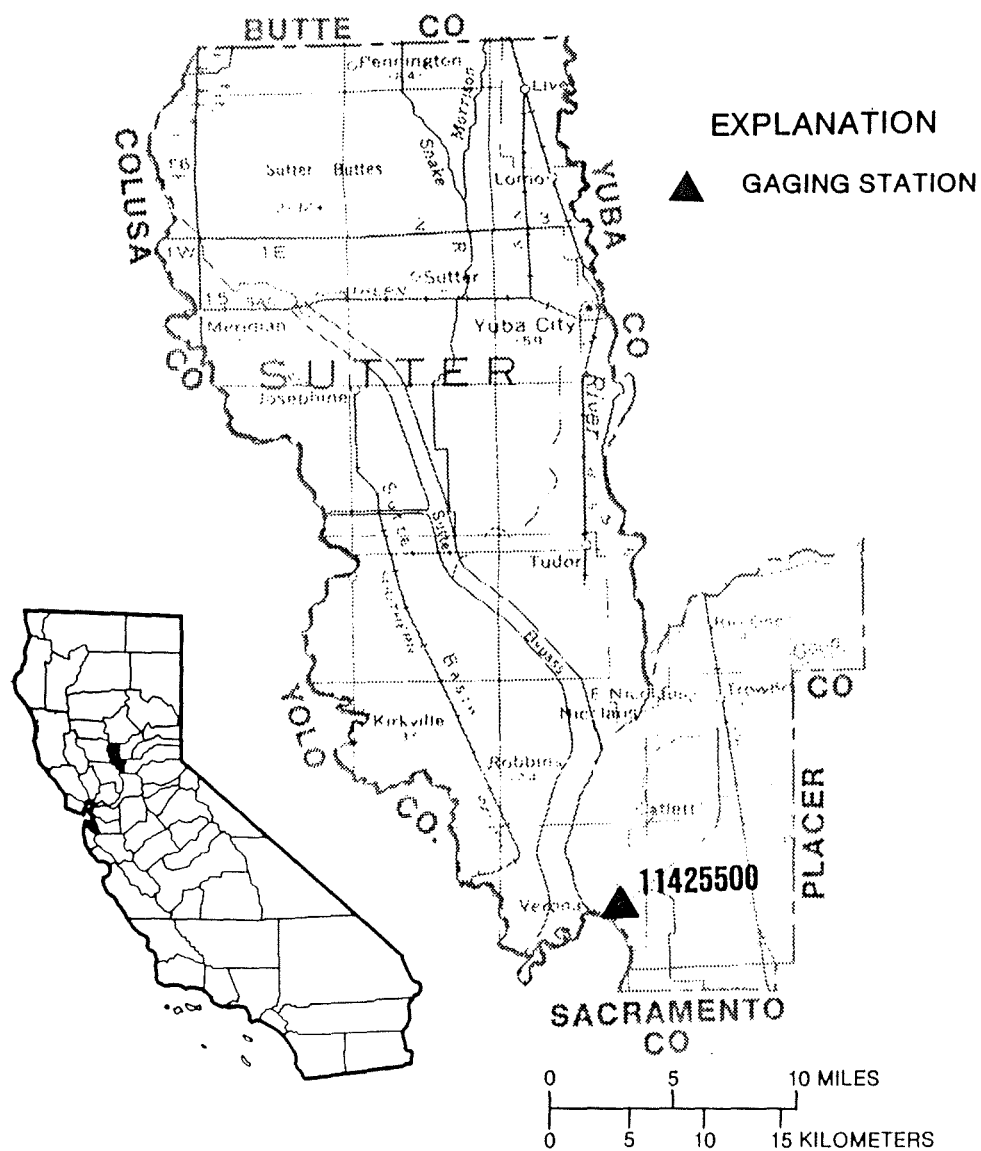


FIGURE 20. — Location of discharge station in Sutter County.

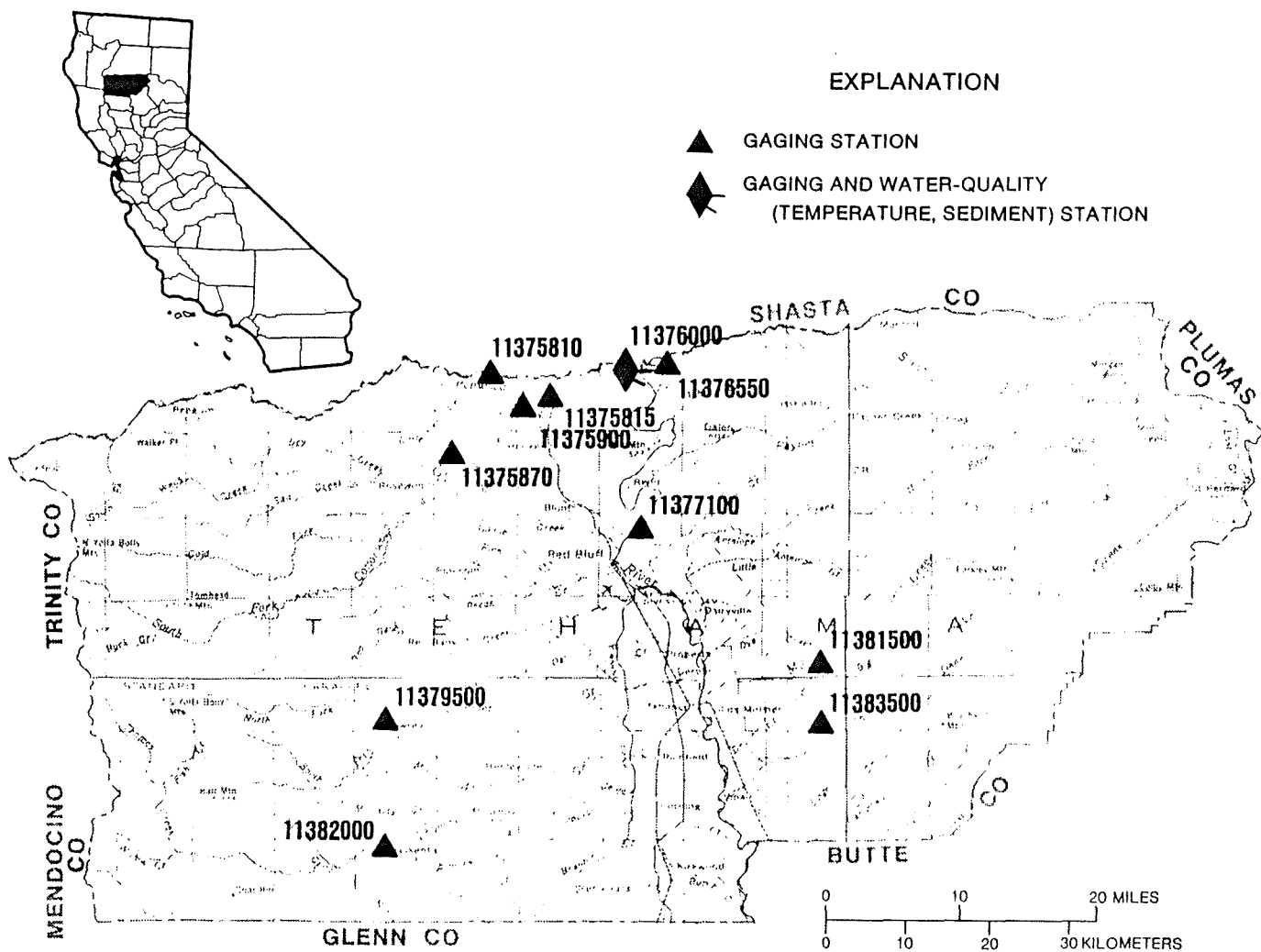


FIGURE 21. — Location of discharge and water-quality stations in Tehama County.

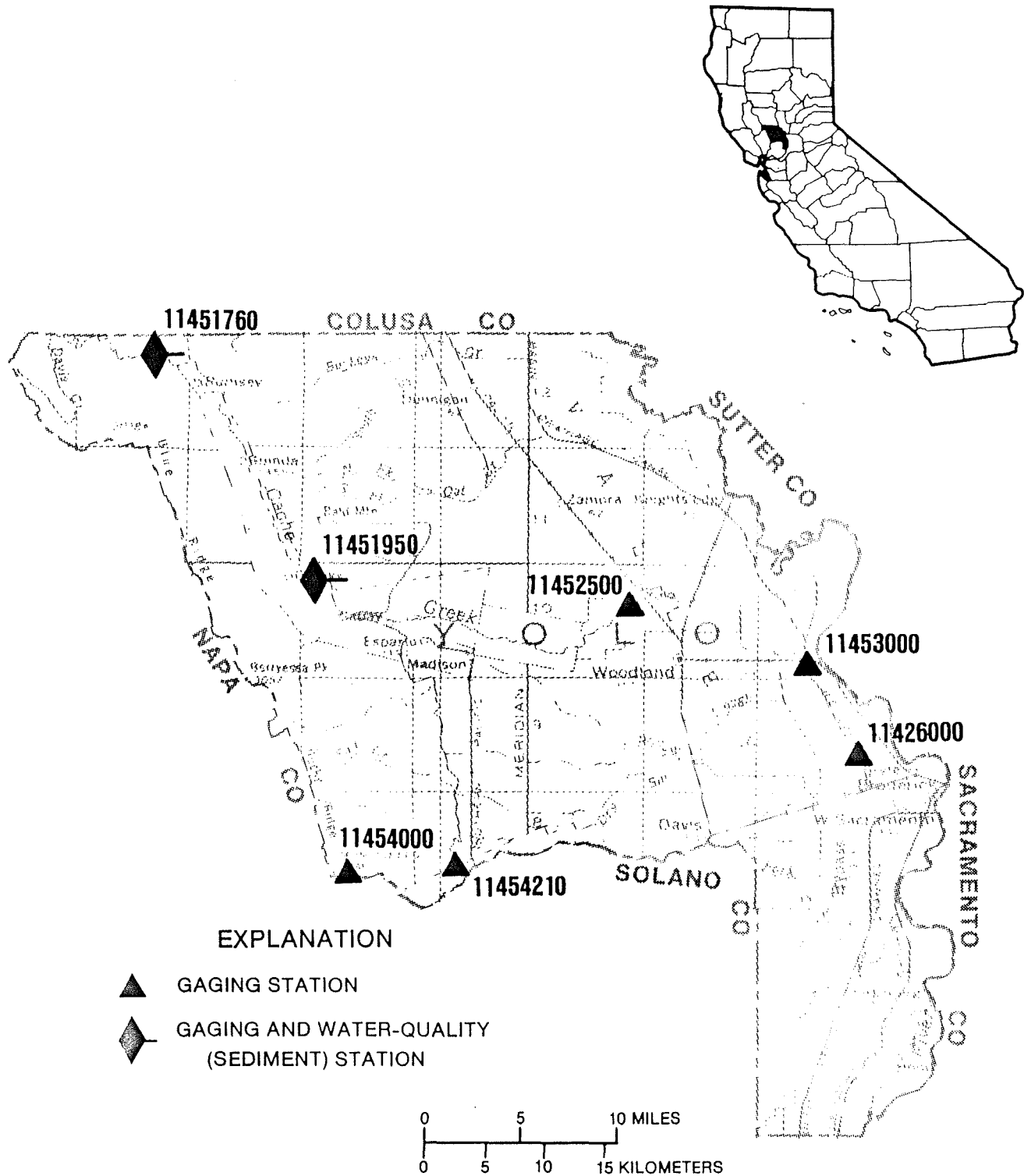
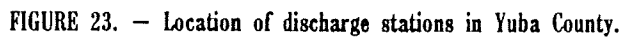


FIGURE 22. — Location of discharge and water-quality stations in Yolo County.



HONEY LAKE BASIN

10356500 SUSAN RIVER AT SUSANVILLE, CA
(National stream-quality accounting network station)

LOCATION.--Lat 40°25'03", long 120°40'15", in SW 1/4 NE 1/4 sec.31, T.30 N., R.12 E., Lassen County, Hydrologic Unit 18080003, on left bank 0.5 mi west of Susanville, 1.1 mi upstream from Plute Creek, and 19.8 mi downstream from McCoy Flat Reservoir.

DRAINAGE AREA.--184 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 4,225.72 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1950, nonrecording gages at several sites in vicinity of old powerplant 0.9 mi upstream at various datums.

REMARKS.--Estimated daily discharges for the following ice affected periods: Dec. 13 to Feb. 10 and Mar. 1-9. Records good except for periods with ice affect, which are fair. Flow regulated by McCoy Flat Reservoir and Hog Flat Reservoir, combined usable capacity, 25,300 acre-ft. Diversions for irrigation of 1,400 acres above station.

AVERAGE DISCHARGE.--41 years (water years 1901, 1904-5, 1918-20, 1951-85), 97.2 ft³/s, 70,420 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,850 ft³/s, Jan. 24, 1970, gage height, 8.89 ft, in gage well, 10.4 ft, from floodmarks, from rating curve extended above 1,000 ft³/s on basis of slope-area measurement at gage height 6.62 ft and contracted-opening measurement of peak flow; no flow Aug. 15, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 255 ft³/s, Apr. 6, gage height, 3.10 ft; minimum daily, 2.8 ft³/s, Aug. 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|------|------|-------|------|------|------|--------|-------|-------|-------|
| 1 | 17 | 17 | 35 | 18 | 11 | 36 | 146 | 111 | 122 | 5.8 | 4.0 | 2.9 |
| 2 | 15 | 21 | 31 | 18 | 10 | 34 | 164 | 111 | 119 | 5.4 | 4.1 | 3.4 |
| 3 | 14 | 34 | 30 | 18 | 10 | 31 | 176 | 104 | 122 | 5.7 | 4.0 | 3.8 |
| 4 | 14 | 25 | 28 | 17 | 9.5 | 30 | 173 | 96 | 119 | 4.7 | 3.6 | 3.6 |
| 5 | 14 | 22 | 27 | 17 | 9.3 | 29 | 178 | 90 | 115 | 4.6 | 3.4 | 3.5 |
| 6 | 14 | 29 | 25 | 17 | 11 | 28 | 191 | 85 | 112 | 3.8 | 3.7 | 3.8 |
| 7 | 14 | 31 | 24 | 16 | 12 | 28 | 194 | 84 | 107 | 3.9 | 3.3 | 4.1 |
| 8 | 14 | 36 | 24 | 16 | 14 | 28 | 187 | 91 | 102 | 4.8 | 3.3 | 12 |
| 9 | 14 | 31 | 25 | 17 | 16 | 30 | 186 | 98 | 98 | 4.8 | 3.6 | 11 |
| 10 | 14 | 29 | 27 | 18 | 19 | 38 | 188 | 96 | 91 | 4.2 | 3.7 | 7.6 |
| 11 | 29 | 52 | 28 | 18 | 22 | 51 | 175 | 92 | 78 | 3.6 | 4.1 | 6.9 |
| 12 | 21 | 57 | 27 | 18 | 23 | 52 | 160 | 89 | 35 | 3.7 | 3.7 | 7.3 |
| 13 | 19 | 60 | 22 | 18 | 28 | 49 | 158 | 84 | 20 | 3.7 | 3.4 | 8.1 |
| 14 | 18 | 52 | 19 | 17 | 30 | 48 | 170 | 76 | 18 | 3.7 | 3.6 | 7.0 |
| 15 | 17 | 36 | 17 | 17 | 35 | 50 | 174 | 65 | 17 | 3.8 | 3.7 | 4.9 |
| 16 | 18 | 31 | 14 | 17 | 41 | 53 | 156 | 55 | 16 | 3.8 | 4.4 | 5.0 |
| 17 | 20 | 28 | 13 | 17 | 45 | 59 | 134 | 52 | 14 | 4.1 | 4.4 | 6.2 |
| 18 | 19 | 31 | 12 | 17 | 44 | 88 | 121 | 50 | 13 | 4.3 | 4.4 | 5.7 |
| 19 | 19 | 28 | 11 | 19 | 43 | 86 | 135 | 49 | 8.9 | 3.9 | 3.4 | 6.4 |
| 20 | 22 | 27 | 11 | 18 | 43 | 87 | 110 | 49 | 8.1 | 4.6 | 3.3 | 5.7 |
| 21 | 20 | 29 | 15 | 18 | 37 | 85 | 100 | 48 | 7.3 | 4.5 | 3.2 | 5.6 |
| 22 | 19 | 27 | 23 | 18 | 38 | 69 | 92 | 47 | 6.8 | 5.3 | 3.3 | 5.5 |
| 23 | 18 | 26 | 22 | 18 | 42 | 68 | 83 | 46 | 6.1 | 5.7 | 3.5 | 5.5 |
| 24 | 18 | 41 | 21 | 17 | 45 | 109 | 77 | 45 | 6.1 | 5.2 | 3.4 | 8.2 |
| 25 | 17 | 35 | 21 | 16 | 49 | 94 | 72 | 44 | 6.1 | 4.6 | 2.8 | 8.2 |
| 26 | 18 | 26 | 20 | 15 | 44 | 71 | 68 | 43 | 6.1 | 4.4 | 2.8 | 8.2 |
| 27 | 19 | 68 | 19 | 14 | 41 | 66 | 66 | 92 | 5.6 | 4.6 | 3.0 | 8.8 |
| 28 | 18 | 102 | 19 | 13 | 39 | 65 | 71 | 125 | 5.6 | 4.0 | 3.0 | 9.9 |
| 29 | 19 | 49 | 19 | 12 | --- | 61 | 115 | 132 | 5.4 | 3.7 | 3.5 | 9.1 |
| 30 | 18 | 39 | 19 | 12 | --- | 78 | 112 | 128 | 5.5 | 4.1 | 3.3 | 9.5 |
| 31 | 18 | --- | 18 | 11 | --- | 120 | --- | 124 | --- | 3.9 | 3.5 | --- |
| TOTAL | 548 | 1119 | 666 | 512 | 810.8 | 1821 | 4132 | 2501 | 1395.6 | 136.9 | 110.4 | 196.4 |
| MEAN | 17.7 | 37.3 | 21.5 | 16.5 | 29.0 | 58.7 | 138 | 80.7 | 46.5 | 4.42 | 3.56 | 6.55 |
| MAX | 29 | 102 | 35 | 19 | 49 | 120 | 194 | 132 | 122 | 5.8 | 4.4 | 12 |
| MIN | 14 | 17 | 11 | 11 | 9.3 | 28 | 66 | 43 | 5.4 | 3.6 | 2.8 | 3.9 |
| AC-FT | 1090 | 2220 | 1320 | 1020 | 1610 | 3610 | 8200 | 4960 | 2770 | 272 | 219 | 390 |
| CAL YR 1984 | TOTAL | 35320.1 | MEAN | 96.5 | MAX | 566 | MIN | 5.7 | AC-FT | 70060 | | |
| WTR YR 1985 | TOTAL | 13949.1 | MEAN | 38.2 | MAX | 194 | MIN | 2.8 | AC-FT | 27670 | | |

HONEY LAKE BASIN

10356500 SUSAN RIVER AT SUSANVILLE, CA--Continued

WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water years 1952 to current year.

BIOLOGICAL DATA: Water years 1978 to current year.

SEDIMENT RECORDS: Water years 1978 to current year.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | TIME | STREAM- FLOW, INSTAN- TANEOUS (CFS) | SPE- CIFIC CON- DUC- TANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | BARO- METRIC PRES- SURE (MM OF HG) | TUR- BID- ITY (NTU) | OXYGEN, DIS- SOLVED (MG/L) | OXYGEN, DIS- SOLVED (PER- CENT SATUR- ATION) | COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) | STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) | HARD- NESS (MG/L AS CACO3) |
|-----------|------|---|---|--------------------------------|-----------------------------|--|------------------------------|-------------------------------------|--|--|--|--|
| NOV 19... | 1430 | 28 | -- | 7.9 | 3.0 | 680 | 2.8 | 11.2 | 93 | K1 | K12 | 66 |
| JAN 22... | 1200 | 23 | 154 | 7.9 | .5 | 645 | 1.1 | 12.2 | 100 | <1 | <1 | 73 |
| MAR 19... | 1330 | 77 | 113 | 7.6 | 5.0 | 655 | 9.4 | 11.2 | 102 | <1 | K4 | 53 |
| MAY 22... | 1200 | 47 | 162 | 7.1 | 12.5 | 655 | 1.6 | 9.7 | 106 | K3 | >400 | 47 |
| JUL 23... | 1030 | 5.9 | 170 | 8.2 | 17.0 | 655 | 2.0 | 8.9 | 108 | 45 | 47 | 81 |
| SEP 25... | 1030 | 8.6 | 189 | 7.8 | 11.0 | 655 | 2.0 | 9.8 | 104 | K3 | K5 | 82 |

| DATE | HARD- NESS, NONCAR- BONATE (MG/L CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | BICAR- BONATE IT-FLD (MG/L AS HCO3) | ALKA- LINITY, CARBON- ATE IT-FLD (MG/L - CACO3) | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|-----------|--|--|--|--|-------------------|---|---|--|---|---|---|---|
| NOV 19... | 0 | 15 | 6.8 | 5.1 | 14 | .3 | 1.7 | 97 | 80 | 79 | 2.9 | 1.3 |
| JAN 22... | 0 | 16 | 8.1 | 5.6 | 14 | .3 | 1.7 | 102 | 84 | 84 | 3.8 | 1.3 |
| MAR 19... | 6 | 13 | 5.1 | 4.6 | 15 | .3 | 1.2 | 58 | 71 | 59 | 5.2 | 2.7 |
| MAY 22... | 0 | 11 | 4.6 | 3.6 | 14 | .2 | 1.2 | 66 | 54 | 56 | 1.9 | .80 |
| JUL 23... | 0 | 17 | 9.3 | 6.3 | 14 | .3 | 2.8 | 120 | 98 | 100 | 2.0 | 1.0 |
| SEP 25... | 0 | 17 | 9.6 | 6.1 | 14 | .3 | 2.3 | 126 | 103 | 104 | 2.4 | .80 |

| DATE | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SiO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | SOLIDS, DIS- SOLVED (TONS PER AC-FT) | SOLIDS, DIS- SOLVED (TONS PER DAY) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) | PHOS- PHORUS, TOTAL (MG/L AS P) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) |
|-----------|--|---|--|---|---|---|---|---|--|---|--|--|
| NOV 19... | <.10 | 29 | 89 | 110 | .12 | 6.7 | <.10 | .020 | .20 | .030 | .020 | .020 |
| JAN 22... | <.10 | 34 | 98 | 120 | .13 | 6.1 | <.10 | <.010 | <.20 | .020 | .020 | .020 |
| MAR 19... | <.10 | 25 | 96 | 85 | .13 | 20 | <.10 | .010 | .20 | .030 | .010 | .020 |
| MAY 22... | <.10 | 24 | 63 | 80 | .09 | 8.0 | <.10 | .050 | .30 | .030 | .010 | <.010 |
| JUL 23... | <.10 | 35 | 141 | 130 | .19 | 2.2 | <.10 | .010 | .20 | .020 | .020 | .030 |
| SEP 25... | <.10 | 35 | 120 | 140 | .16 | 2.8 | <.10 | .050 | .50 | .030 | .020 | .020 |

| DATE | TIME | ALUM- INUM, DIS- SOLVED (UG/L AS AL) | ARSENIC DIS- SOLVED (UG/L AS AS) | BARIUM, DIS- SOLVED (UG/L AS BA) | BERYL- LIUM, DIS- SOLVED (UG/L AS BE) | CADMIUM DIS- SOLVED (UG/L AS CD) | CHRO- MIUM, DIS- SOLVED (UG/L AS CR) | COBALT, DIS- SOLVED (UG/L AS CO) | COPPER, DIS- SOLVED (UG/L AS CU) | IRON, DIS- SOLVED (UG/L AS FE) | LEAD, DIS- SOLVED (UG/L AS PB) |
|-----------|------|---|--|--|--|--|---|--|--|--|--|
| NOV 19... | 1430 | 60 | <1 | 28 | .6 | <1 | <1 | <3 | 3 | 77 | <1 |
| JAN 22... | 1200 | <10 | <1 | 25 | <.5 | <1 | -- | <3 | <1 | 35 | 2 |
| MAY 22... | 1200 | 20 | <1 | 26 | <.5 | <1 | <1 | <3 | 2 | 35 | <1 |
| SEP 25... | 1030 | 30 | <1 | 33 | <.5 | <1 | <1 | <3 | 2 | 39 | 1 |

. See footnotes at end of table.

10356500 SUSAN RIVER AT SUSANVILLE, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | LITHIUM DIS- SOLVED (UG/L AS LI) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) | MERCURY DIS- SOLVED (UG/L AS HG) | MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) | NICKEL, DIS- SOLVED (UG/L AS NI) | SELE- NIUM, DIS- SOLVED (UG/L AS SE) | SILVER, DIS- SOLVED (UG/L AS AG) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) | VANA- DIUM, DIS- SOLVED (UG/L AS V) | ZINC, DIS- SOLVED (UG/L AS ZN) |
|--------------|--|--|--|---|--|---|--|--|--|--|
| NOV 19... | <4 | 15 | .2 | <10 | <1 | <1 | <1 | 110 | <6 | 15 |
| JAN 22... | <4 | 12 | <.1 | <10 | 4 | <1 | <1 | 120 | <6 | <3 |
| MAY 22... | <4 | 10 | <.1 | <10 | 2 | <1 | <1 | 76 | <6 | 27 |
| SEP 25... | <4 | 15 | <.1 | <10 | 1 | <1 | <1 | 120 | <6 | 9 |

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

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

> Actual value is known to be greater than the value shown.

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | TIME | SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | OXYGEN, DIS- SOLVED (MG/L) |
|--------------|------|---|---|--------------------------------|-----------------------------|-------------------------------------|
| MAR 19... | 1335 | 18 | 121 | 7.6 | 5.0 | 11.2 |
| 19... | 1340 | 28 | 115 | 7.7 | 5.0 | 11.2 |
| 19... | 1345 | 36 | 119 | 7.8 | 5.0 | 11.2 |
| 19... | 1350 | 50 | 122 | 7.8 | 5.0 | 11.0 |
| 19... | 1355 | 56 | 122 | 7.8 | 5.0 | 11.0 |

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | TIME | STREAM- FLOW, INSTAN- TANEOUS (CFS) | TEMPER- ATURE (DEG C) | SEDI- MENT, SUS- PENDE (MG/L) | SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) |
|--------------|------|---|-----------------------------|---|---|
| NOV 19... | 1430 | 28 | 3.0 | 7 | 0.53 |
| JAN 22... | 1200 | 23 | 0.5 | 7 | 0.43 |
| MAR 19... | 1330 | 77 | 5.0 | 12 | > 2.5 |
| MAY 22... | 1200 | 47 | 12.5 | 6 | 0.76 |
| JUL 23... | 1030 | 5.8 | 17.0 | 2 | 0.03 |
| SEP 25... | 1030 | 8.7 | 11.0 | 7 | 0.16 |

> Actual value is known to be greater than the value shown.

HONEY LAKE BASIN

10358500 WILLOW CREEK NEAR SUSANVILLE, CA

LOCATION.--Lat 40°29'21", long 120°32'10", in SW 1/4 NE 1/4 sec.5, T.30 N., R.13 E., Lassen County, Hydrologic Unit 18080003, on left bank 4 mi upstream from Peters Valley Creek, and 8 mi northeast of Susanville.

DRAINAGE AREA.--90.4 mi², excludes that of Eagle Lake Basin.

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

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

GAGE.--Water-stage recorder. Datum of gage is 4,836.27 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records excellent. Diversions for irrigation of 5,200 acres above station. Some flow at times enters Willow Creek from Eagle Lake through a sand plug in an abandoned tunnel.

AVERAGE DISCHARGE.--35 years, 35.1 ft³/s, 25,430 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 816 ft³/s, Feb. 1, 1963, gage height, 5.59 ft; minimum daily, 6.8 ft³/s on several days during August 1981.

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

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|---|------|-----------------------------------|---------------------|------|------|-----------------------------------|---------------------|
| Apr. 1 | 1545 | *116 | *3.31 | | | | |
| Minimum daily, 7.6 ft ³ /s, July 19, 20. | | | | | | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|------|------|------|------|------|-------|-------|-------|-------|-------|
| 1 | 23 | 36 | 45 | 35 | 38 | 56 | 110 | 12 | 10 | 8.0 | 9.7 | 8.4 |
| 2 | 15 | 38 | 41 | 35 | 39 | 53 | 79 | 11 | 10 | 8.6 | 9.3 | 8.7 |
| 3 | 13 | 45 | 40 | 35 | 40 | 47 | 59 | 11 | 11 | 10 | 8.5 | 8.7 |
| 4 | 13 | 45 | 41 | 35 | 39 | 48 | 51 | 12 | 11 | 11 | 8.2 | 8.7 |
| 5 | 12 | 41 | 40 | 36 | 38 | 46 | 47 | 14 | 11 | 12 | 8.3 | 8.6 |
| 6 | 12 | 41 | 39 | 36 | 39 | 45 | 45 | 14 | 11 | 13 | 8.6 | 8.4 |
| 7 | 21 | 42 | 38 | 35 | 39 | 46 | 43 | 14 | 10 | 13 | 8.7 | 8.4 |
| 8 | 33 | 43 | 39 | 38 | 45 | 46 | 42 | 13 | 9.8 | 12 | 8.9 | 9.7 |
| 9 | 34 | 44 | 39 | 38 | 43 | 47 | 41 | 11 | 10 | 11 | 8.9 | 9.5 |
| 10 | 34 | 41 | 40 | 38 | 39 | 57 | 41 | 11 | 11 | 9.9 | 9.3 | 10 |
| 11 | 36 | 41 | 41 | 37 | 39 | 80 | 35 | 11 | 10 | 8.9 | 9.3 | 10 |
| 12 | 36 | 41 | 41 | 37 | 41 | 75 | 16 | 12 | 9.7 | 8.4 | 9.0 | 11 |
| 13 | 34 | 42 | 38 | 37 | 46 | 60 | 15 | 11 | 9.3 | 8.4 | 9.0 | 12 |
| 14 | 31 | 42 | 38 | 37 | 50 | 55 | 14 | 12 | 8.8 | 8.3 | 9.2 | 14 |
| 15 | 30 | 42 | 38 | 38 | 54 | 53 | 14 | 13 | 8.5 | 8.2 | 9.0 | 14 |
| 16 | 31 | 43 | 39 | 38 | 58 | 50 | 18 | 14 | 8.2 | 8.0 | 8.9 | 13 |
| 17 | 33 | 40 | 38 | 38 | 67 | 49 | 21 | 12 | 8.1 | 7.8 | 9.0 | 14 |
| 18 | 33 | 38 | 36 | 40 | 71 | 56 | 22 | 10 | 8.2 | 7.8 | 8.9 | 15 |
| 19 | 34 | 37 | 36 | 40 | 69 | 57 | 21 | 9.6 | 8.1 | 7.6 | 8.9 | 15 |
| 20 | 35 | 37 | 36 | 40 | 70 | 50 | 18 | 9.6 | 8.1 | 7.6 | 8.3 | 16 |
| 21 | 35 | 37 | 36 | 40 | 63 | 46 | 19 | 9.3 | 8.1 | 7.7 | 8.2 | 16 |
| 22 | 33 | 37 | 36 | 40 | 68 | 44 | 20 | 9.2 | 8.1 | 7.8 | 8.8 | 16 |
| 23 | 33 | 37 | 35 | 40 | 83 | 41 | 21 | 9.0 | 8.0 | 7.8 | 8.6 | 16 |
| 24 | 32 | 41 | 34 | 40 | 79 | 33 | 21 | 8.5 | 7.9 | 7.7 | 8.1 | 17 |
| 25 | 28 | 43 | 33 | 40 | 76 | 35 | 19 | 8.4 | 7.8 | 7.7 | 7.8 | 22 |
| 26 | 27 | 38 | 34 | 40 | 67 | 49 | 20 | 8.3 | 7.7 | 7.9 | 7.9 | 24 |
| 27 | 31 | 42 | 34 | 40 | 62 | 44 | 21 | 8.2 | 7.7 | 7.9 | 8.3 | 23 |
| 28 | 31 | 71 | 34 | 41 | 58 | 52 | 21 | 8.3 | 7.7 | 8.0 | 8.5 | 24 |
| 29 | 36 | 64 | 34 | 40 | --- | 58 | 21 | 8.3 | 7.8 | 8.2 | 8.5 | 24 |
| 30 | 36 | 48 | 34 | 40 | --- | 78 | 20 | 8.7 | 7.9 | 8.3 | 8.3 | 25 |
| 31 | 36 | --- | 35 | 40 | --- | 104 | --- | 9.8 | --- | 8.4 | 8.3 | --- |
| TOTAL | 901 | 1277 | 1162 | 1184 | 1520 | 1660 | 955 | 333.2 | 270.5 | 276.9 | 269.2 | 429.7 |
| MEAN | 29.1 | 42.6 | 37.5 | 38.2 | 54.3 | 53.5 | 31.8 | 10.7 | 9.02 | 8.93 | 8.68 | 14.3 |
| MAX | 36 | 71 | 45 | 41 | 83 | 104 | 110 | 14 | 11 | 13 | 9.7 | 25 |
| MIN | 12 | 36 | 33 | 35 | 38 | 33 | 14 | 8.2 | 7.7 | 7.6 | 7.8 | 8.0 |
| AC-FT | 1790 | 2530 | 2300 | 2350 | 3010 | 3290 | 1890 | 661 | 537 | 549 | 534 | 851 |
| CAL YR 1984 | TOTAL | 13373.2 | MEAN | 36.5 | MAX | 144 | MIN | 8.1 | AC-FT | 26530 | | |
| WTR YR 1985 | TOTAL | 10238.5 | MEAN | 28.1 | MAX | 110 | MIN | 7.6 | AC-FT | 20310 | | |

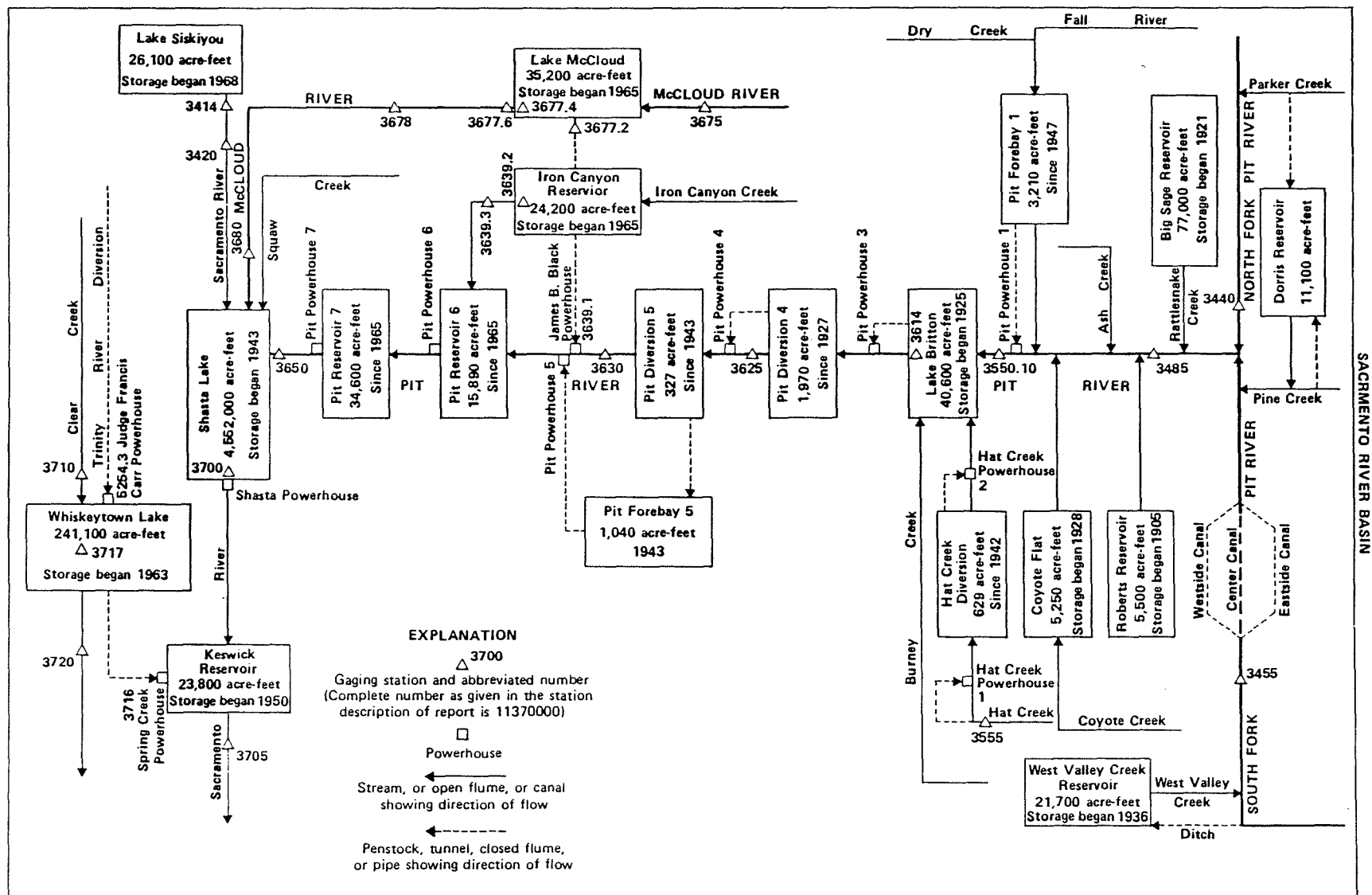


FIGURE 24. — Schematic diagram showing diversions and storage in Pit and McCloud River basins.

PACIFIC SLOPE BASINS IN CALIFORNIA

SACRAMENTO RIVER BASIN

11341400 SACRAMENTO RIVER NEAR MT SHASTA, CA

LOCATION.--Lat 41°15'56", long 122°18'32", in SE 1/4 SE 1/4 sec.33, T.40 N., R.4 W., Siskiyou County, Hydrologic Unit 18020005, on left bank 200 ft upstream from Stink Creek, 0.3 mi upstream from Southern Pacific Railroad bridge, 1.7 mi downstream from Box Canyon Dam, and 3.3 mi south of town of Mt. Shasta.

DRAINAGE AREA.--135 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 2,800 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to July 1, 1966, water-stage recorder at site 500 ft upstream at datum 7.26 ft higher, July 1, 1966, to Aug. 13, 1974, at datum 3.00 ft higher.

REMARKS.--No estimated daily discharges. Records good. Low flow completely regulated by Box Canyon Dam 1.7 mi upstream beginning December 1968, capacity, 26,100 acre-ft. See schematic diagram of Pit and McCloud River basins.

AVERAGE DISCHARGE.--26 years, 258 ft³/s, 186,900 acre-ft/yr, adjusted for change in contents in Lake Siskiyou. unadjusted for same period, 257 ft³/s, 186,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 12,200 ft³/s, Dec. 22, 1964, gage height, 15.6 ft from floodmarks, present site and datum, from slope-area measurement of peak flow; minimum, 37 ft³/s, Sept. 6, 1962. Maximum discharge since completion of Box Canyon Dam in 1968, 11,500 ft³/s, Jan. 16, 1974, gage-height, 13.2 ft from floodmarks, from rating curve extended above 2,900 ft³/s on basis of flow-over-dam computation of peak flow; minimum daily, 14 ft³/s, Dec. 8-16, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,500 ft³/s, Nov. 13, gage height, 5.72 ft; minimum daily, 31 ft³/s, July 27-29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | | |
|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------|--------|-------|---------|--------|
| 1 | 96 | 88 | 117 | 138 | 134 | 145 | 221 | 340 | 189 | 68 | 120 | 57 | | |
| 2 | 97 | 137 | 117 | 137 | 135 | 145 | 224 | 380 | 179 | 68 | 101 | 57 | | |
| 3 | 103 | 151 | 372 | 133 | 135 | 145 | 228 | 420 | 147 | 68 | 53 | 57 | | |
| 4 | 115 | 146 | 115 | 122 | 134 | 217 | 236 | 378 | 147 | 67 | 39 | 63 | | |
| 5 | 149 | 146 | 113 | 108 | 135 | 252 | 373 | 382 | 147 | 67 | 39 | 71 | | |
| 6 | 155 | 150 | 113 | 108 | 120 | 252 | 750 | 279 | 147 | 67 | 46 | 82 | | |
| 7 | 150 | 128 | 125 | 108 | 116 | 161 | 831 | 236 | 143 | 67 | 51 | 92 | | |
| 8 | 143 | 130 | 138 | 110 | 140 | 110 | 830 | 298 | 137 | 58 | 52 | 95 | | |
| 9 | 130 | 135 | 140 | 111 | 138 | 108 | 728 | 329 | 122 | 52 | 52 | 101 | | |
| 10 | 130 | 142 | 308 | 120 | 138 | 108 | 503 | 212 | 122 | 51 | 53 | 106 | | |
| 11 | 131 | 309 | 286 | 133 | 138 | 108 | 503 | 166 | 124 | 51 | 53 | 106 | | |
| 12 | 145 | 954 | 270 | 133 | 119 | 108 | 502 | 207 | 102 | 51 | 53 | 106 | | |
| 13 | 152 | 1340 | 222 | 133 | 109 | 108 | 584 | 239 | 63 | 50 | 54 | 106 | | |
| 14 | 151 | 489 | 146 | 133 | 83 | 182 | 636 | 239 | 55 | 50 | 54 | 89 | | |
| 15 | 150 | 248 | 142 | 133 | 129 | 218 | 843 | 239 | 55 | 58 | 55 | 104 | | |
| 16 | 150 | 244 | 142 | 133 | 143 | 218 | 851 | 187 | 60 | 63 | 55 | 69 | | |
| 17 | 128 | 163 | 142 | 133 | 111 | 218 | 845 | 165 | 65 | 62 | 55 | 37 | | |
| 18 | 79 | 236 | 142 | 133 | 111 | 218 | 443 | 255 | 57 | 62 | 56 | 36 | | |
| 19 | 78 | 235 | 142 | 133 | 111 | 218 | 293 | 325 | 64 | 62 | 57 | 36 | | |
| 20 | 77 | 230 | 142 | 133 | 111 | 218 | 293 | 178 | 86 | 62 | 74 | 34 | | |
| 21 | 77 | 230 | 142 | 133 | 111 | 218 | 293 | 191 | 90 | 62 | 45 | 33 | | |
| 22 | 77 | 224 | 142 | 133 | 180 | 218 | 235 | 270 | 92 | 61 | 44 | 32 | | |
| 23 | 77 | 224 | 142 | 133 | 214 | 218 | 204 | 215 | 92 | 50 | 51 | 39 | | |
| 24 | 77 | 224 | 140 | 133 | 215 | 218 | 201 | 199 | 92 | 46 | 55 | 51 | | |
| 25 | 77 | 222 | 138 | 133 | 215 | 218 | 199 | 244 | 94 | 45 | 55 | 67 | | |
| 26 | 77 | 150 | 138 | 134 | 215 | 218 | 116 | 206 | 88 | 36 | 56 | 73 | | |
| 27 | 77 | 170 | 138 | 135 | 188 | 218 | 98 | 170 | 72 | 31 | 56 | 73 | | |
| 28 | 77 | 186 | 138 | 135 | 145 | 218 | 209 | 159 | 68 | 31 | 56 | 72 | | |
| 29 | 77 | 121 | 138 | 135 | --- | 218 | 302 | 158 | 68 | 31 | 57 | 72 | | |
| 30 | 77 | 120 | 138 | 135 | --- | 218 | 327 | 158 | 68 | 37 | 57 | 70 | | |
| 31 | 80 | --- | 138 | 135 | --- | 218 | --- | 165 | --- | 86 | 57 | --- | | |
| TOTAL | 3359 | 7672 | 4966 | 3999 | 3973 | 5855 | 12901 | 7589 | 3035 | 1720 | 1761 | 2086 | | |
| MEAN | 108 | 256 | 160 | 129 | 142 | 189 | 430 | 245 | 101 | 55.5 | 56.8 | 69.5 | | |
| MAX | 155 | 1340 | 372 | 138 | 215 | 252 | 851 | 420 | 189 | 86 | 120 | 106 | | |
| MIN | 77 | 88 | 113 | 108 | 83 | 108 | 98 | 158 | 55 | 31 | 39 | 32 | | |
| AC-FT | 6660 | 15220 | 9850 | 7930 | 7880 | 11610 | 25590 | 15050 | 6020 | 3410 | 3490 | 4140 | | |
| MEAN a | 89.9 | 242 | 159 | 130 | 136 | 188 | 468 | 246 | 97.5 | 56.3 | 58.1 | 67.4 | | |
| AC-FT a | 5530 | 14410 | 9770 | 7970 | 7840 | 11530 | 27860 | 15140 | 5800 | 3460 | 3570 | 4010 | | |
| b | 24370 | 23560 | 23480 | 23520 | 23480 | 23400 | 25670 | 25760 | 25540 | 25590 | 25670 | 25540 | | |
| CAL YR 1984 | TOTAL | 80989 | MEAN | 221 | MAX | 1340 | MIN | 42 | AC-FT | 160600 | MEAN a | 220 | AC-FT a | 160000 |
| WTR YR 1985 | TOTAL | 58916 | MEAN | 161 | MAX | 1340 | MIN | 31 | AC-FT | 116900 | MEAN a | 161 | AC-FT a | 116900 |

a Adjusted for change in contents in Lake Siskiyou.

b Contents, in acre-feet, at end of month in Lake Siskiyou.

11341400 SACRAMENTO RIVER NEAR MT SHASTA, CA--Continued

WATER-QUALITY RECORDS

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

CHEMICAL ANALYSES: Water years 1970-72.

WATER TEMPERATURES: Water years 1966 to current year.

SEDIMENT RECORDS: Water year 1972.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1965 to current year.

INSTRUMENTATION.--Temperature recorder since October 1965.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 23.0°C, July 14-16, 1985; minimum recorded, 1.0°C, several days during January and February 1982.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 23.0°C, July 14-16; minimum recorded, 3.0°C, several days during February and March.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
|-------|---------|------|----------|------|----------|-----|---------|-----|----------|-----|-------|-----|
| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 12.5 | 11.0 | 10.5 | 9.0 | 6.5 | 6.0 | 4.5 | 3.5 | 4.0 | 3.5 | 5.0 | 4.0 |
| 2 | 13.0 | 10.5 | 11.0 | 9.0 | 7.0 | 6.0 | 4.5 | 3.5 | 4.5 | 3.5 | 4.5 | 3.5 |
| 3 | 13.0 | 10.0 | 11.0 | 10.0 | 7.0 | 6.0 | 4.5 | 3.5 | 4.5 | 3.5 | 4.5 | 3.0 |
| 4 | 13.5 | 11.5 | 11.0 | 9.5 | 7.0 | 6.0 | 5.0 | 3.5 | 3.5 | 3.0 | 4.5 | 4.0 |
| 5 | 13.0 | 11.5 | 11.0 | 9.5 | 7.0 | 6.0 | 5.0 | 4.0 | 4.5 | 3.0 | 4.0 | 3.5 |
| 6 | 13.5 | 12.0 | 10.5 | 10.0 | 6.5 | 5.5 | 5.0 | 4.5 | 4.5 | 3.5 | 4.0 | 3.5 |
| 7 | 14.0 | 11.5 | 10.5 | 9.5 | 6.5 | 5.5 | 5.0 | 4.5 | 4.0 | 3.5 | 5.0 | 3.5 |
| 8 | 13.5 | 11.5 | 10.5 | 9.5 | 6.5 | 5.5 | 5.0 | 4.5 | 4.5 | 3.5 | 5.5 | 3.5 |
| 9 | 13.0 | 10.5 | 10.0 | 9.5 | 7.0 | 6.5 | 5.5 | 4.5 | 4.5 | 3.0 | 6.0 | 3.5 |
| 10 | 12.5 | 11.0 | 9.5 | 8.5 | 6.5 | 6.0 | 5.0 | 4.0 | 4.5 | 3.0 | 6.0 | 4.0 |
| 11 | 12.5 | 11.0 | 9.5 | 8.5 | 6.5 | 5.5 | 4.5 | 4.0 | 5.0 | 3.5 | 6.5 | 4.0 |
| 12 | 12.5 | 11.0 | 9.0 | 8.5 | 6.0 | 5.5 | 4.5 | 3.5 | 5.0 | 4.0 | 6.5 | 3.5 |
| 13 | 13.0 | 12.0 | 9.0 | 8.5 | 6.0 | 5.5 | 4.5 | 3.5 | 5.0 | 3.5 | 6.5 | 3.5 |
| 14 | 12.5 | 11.5 | 9.0 | 7.5 | 6.0 | 5.0 | 4.5 | 3.5 | 5.5 | 3.5 | 6.0 | 3.5 |
| 15 | 12.5 | 11.5 | 8.5 | 7.5 | 6.0 | 5.0 | 4.5 | 3.5 | 5.5 | 4.0 | 6.0 | 4.0 |
| 16 | 11.5 | 11.0 | 9.0 | 7.5 | 5.5 | 5.0 | 4.5 | 3.5 | 5.0 | 3.5 | 6.0 | 4.0 |
| 17 | 12.0 | 10.0 | 9.0 | 7.5 | 5.5 | 4.5 | 5.0 | 4.0 | 5.0 | 3.5 | 6.0 | 4.5 |
| 18 | 11.0 | 9.5 | 8.5 | 8.0 | 5.5 | 4.5 | 5.0 | 4.0 | 5.0 | 3.0 | 6.5 | 5.0 |
| 19 | 11.0 | 10.0 | 8.5 | 7.5 | 5.0 | 4.0 | 5.0 | 4.0 | 5.5 | 3.5 | 6.5 | 4.5 |
| 20 | 12.0 | 10.0 | 8.5 | 7.5 | 5.0 | 4.0 | 5.0 | 4.0 | 5.0 | 3.5 | 6.5 | 4.5 |
| 21 | 12.0 | 10.0 | 7.5 | 7.5 | 5.0 | 4.5 | 4.5 | 3.5 | 5.5 | 3.5 | 6.0 | 4.5 |
| 22 | 12.0 | 9.5 | 8.0 | 7.0 | 5.0 | 4.5 | 5.0 | 3.5 | 5.5 | 4.5 | 6.0 | 4.0 |
| 23 | 11.5 | 9.5 | 8.0 | 7.0 | 5.0 | 4.0 | 4.5 | 3.5 | 5.5 | 4.5 | 6.0 | 5.0 |
| 24 | 12.5 | 11.0 | 7.5 | 6.5 | 5.0 | 4.0 | 5.0 | 4.0 | 5.5 | 4.0 | 5.5 | 5.0 |
| 25 | 12.0 | 9.5 | 7.0 | 6.5 | 5.0 | 4.0 | 5.0 | 3.5 | 5.0 | 4.0 | 6.0 | 4.5 |
| 26 | 12.0 | 10.0 | 7.5 | 6.0 | 5.0 | 4.5 | 5.0 | 4.0 | 5.0 | 4.0 | 4.5 | 3.5 |
| 27 | 11.0 | 9.0 | 6.5 | 5.0 | 5.0 | 4.0 | 5.0 | 3.5 | 5.5 | 4.0 | 5.0 | 4.0 |
| 28 | 10.0 | 9.5 | 7.0 | 6.5 | 4.5 | 4.0 | 5.0 | 4.0 | 5.5 | 3.5 | 5.5 | 4.0 |
| 29 | 11.5 | 10.0 | 7.0 | 6.0 | 5.0 | 4.0 | 5.0 | 4.0 | --- | --- | 6.0 | 4.5 |
| 30 | 10.5 | 9.0 | 7.0 | 6.5 | 5.0 | 4.5 | 4.5 | 3.5 | --- | --- | 7.0 | 5.0 |
| 31 | 10.5 | 8.5 | --- | --- | 4.5 | 4.0 | 5.0 | 3.5 | --- | --- | 7.5 | 5.0 |
| MONTH | 14.0 | 8.5 | 11.0 | 5.0 | 7.0 | 4.0 | 5.5 | 3.5 | 5.5 | 3.0 | 7.5 | 3.0 |

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

11342000 SACRAMENTO RIVER AT DELTA, CA

LOCATION.--Lat 40°56'23", long 122°24'58", in SW 1/4 NW 1/4 sec.35, T.36 N., R.5 W, Shasta County, Hydrologic Unit 18020005, Bureau of Reclamation property, on left bank 0.2 mi downstream from Dog Creek, 0.6 mi south-east of Delta, and 2.8 mi south of Lamoine.

DRAINAGE AREA.--425 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 1,075.00 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--No estimated daily discharges. Records excellent. Some regulation by Lake Siskiyou, capacity, 26,100 acre-ft, 29 mi upstream since December 1968. Some minor diversions for irrigation above station. See schematic diagram of Pit and McCloud River basins.

AVERAGE DISCHARGE.--41 years, 1,196 ft³/s, 866,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 69,800 ft³/s, Jan. 16, 1974, gage height, 27.20 ft in gage well, 28.7 ft from floodmarks, from rating curve extended above 19,000 ft³/s on basis of slope-area measurements at gage height 19.50 ft, and of peak flow; minimum daily, 117 ft³/s, Aug. 5, 6, 12-15, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,000 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|---------|------|-----------------------------------|---------------------|------|------|-----------------------------------|---------------------|
| Nov. 13 | 0430 | *10,500 | *10.85 | | | | |

Minimum daily, 148 ft³/s, Sept. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|
| 1 | 256 | 285 | 1020 | 567 | 493 | 641 | 1200 | 984 | 514 | 233 | 297 | 181 |
| 2 | 277 | 910 | 963 | 558 | 493 | 625 | 1290 | 1050 | 548 | 232 | 298 | 191 |
| 3 | 275 | 574 | 1230 | 551 | 484 | 603 | 1320 | 1060 | 459 | 228 | 257 | 190 |
| 4 | 285 | 399 | 994 | 545 | 473 | 625 | 1330 | 912 | 449 | 227 | 203 | 185 |
| 5 | 314 | 362 | 932 | 519 | 468 | 718 | 1470 | 914 | 442 | 223 | 201 | 193 |
| 6 | 335 | 589 | 891 | 521 | 461 | 730 | 1860 | 862 | 436 | 222 | 199 | 200 |
| 7 | 332 | 523 | 865 | 600 | 573 | 720 | 2150 | 756 | 417 | 220 | 209 | 291 |
| 8 | 329 | 576 | 867 | 587 | 969 | 575 | 2130 | 757 | 407 | 218 | 206 | 367 |
| 9 | 314 | 527 | 871 | 596 | 725 | 564 | 2060 | 802 | 386 | 197 | 206 | 273 |
| 10 | 336 | 1430 | 1600 | 582 | 628 | 604 | 1690 | 745 | 370 | 194 | 205 | 262 |
| 11 | 397 | 3090 | 1760 | 589 | 589 | 645 | 1600 | 614 | 364 | 192 | 203 | 245 |
| 12 | 341 | 7610 | 1480 | 578 | 584 | 686 | 1510 | 600 | 362 | 192 | 203 | 239 |
| 13 | 351 | 7170 | 1260 | 569 | 570 | 689 | 1590 | 652 | 311 | 190 | 200 | 237 |
| 14 | 342 | 2810 | 1030 | 561 | 598 | 721 | 1780 | 656 | 279 | 189 | 200 | 251 |
| 15 | 340 | 1450 | 991 | 554 | 582 | 809 | 1990 | 645 | 274 | 188 | 199 | 223 |
| 16 | 373 | 1720 | 906 | 550 | 732 | 818 | 1950 | 623 | 268 | 202 | 198 | 233 |
| 17 | 374 | 1350 | 870 | 567 | 651 | 827 | 1770 | 568 | 275 | 201 | 197 | 175 |
| 18 | 306 | 1610 | 821 | 595 | 633 | 826 | 1450 | 579 | 271 | 201 | 207 | 159 |
| 19 | 294 | 1320 | 777 | 590 | 627 | 837 | 1040 | 740 | 256 | 201 | 219 | 157 |
| 20 | 286 | 1520 | 745 | 591 | 617 | 841 | 962 | 603 | 302 | 201 | 207 | 157 |
| 21 | 281 | 1400 | 716 | 589 | 597 | 835 | 950 | 544 | 293 | 205 | 216 | 153 |
| 22 | 275 | 1180 | 691 | 578 | 641 | 801 | 873 | 596 | 287 | 215 | 182 | 150 |
| 23 | 275 | 1090 | 678 | 567 | 741 | 785 | 777 | 608 | 287 | 203 | 177 | 148 |
| 24 | 271 | 1350 | 666 | 558 | 751 | 940 | 759 | 512 | 280 | 183 | 186 | 159 |
| 25 | 267 | 1170 | 657 | 547 | 761 | 842 | 742 | 564 | 278 | 181 | 185 | 174 |
| 26 | 270 | 1010 | 648 | 537 | 741 | 864 | 708 | 545 | 276 | 180 | 185 | 194 |
| 27 | 267 | 1210 | 635 | 528 | 718 | 843 | 624 | 482 | 258 | 167 | 185 | 195 |
| 28 | 295 | 1940 | 621 | 526 | 637 | 810 | 752 | 503 | 240 | 167 | 182 | 196 |
| 29 | 320 | 1390 | 604 | 514 | --- | 807 | 898 | 529 | 237 | 165 | 182 | 194 |
| 30 | 293 | 1160 | 598 | 502 | --- | 860 | 966 | 474 | 235 | 174 | 180 | 192 |
| 31 | 279 | --- | 581 | 496 | --- | 1030 | --- | 465 | --- | 264 | 180 | --- |
| TOTAL | 9550 | 48725 | 27968 | 17312 | 17537 | 23521 | 40191 | 20944 | 10061 | 6255 | 6354 | 6165 |
| MEAN | 308 | 1624 | 902 | 558 | 626 | 759 | 1340 | 676 | 335 | 202 | 205 | 206 |
| MAX | 397 | 7610 | 1760 | 600 | 969 | 1030 | 2150 | 1060 | 548 | 264 | 298 | 367 |
| MIN | 256 | 285 | 581 | 496 | 461 | 564 | 624 | 465 | 235 | 165 | 177 | 148 |
| AC-FT | 18940 | 96650 | 55470 | 34340 | 34780 | 46650 | 79720 | 41540 | 19960 | 12410 | 12600 | 12230 |
| CAL YR 1984 | TOTAL | 344178 | MEAN | 940 | MAX | 7610 | MIN | 203 | AC-FT | 682700 | | |
| WTR YR 1985 | TOTAL | 234583 | MEAN | 643 | MAX | 7610 | MIN | 148 | AC-FT | 465300 | | |

SACRAMENTO RIVER BASIN

11344000 NORTH FORK PIT RIVER AT ALTURAS, CA

LOCATION.--Lat 41°28'56", long 120°32'16", in SE 1/4 NW 1/4 sec.13, T.42 N., R.12 E., Modoc County, Hydrologic Unit 18020002, on right bank 10 ft downstream from Estes Street bridge in Alturas, and 1.2 mi upstream from confluence of North and South Forks.

DRAINAGE AREA.--212 mi², excluding Goose Lake basin.

PERIOD OF RECORD.--October 1971 to September 1985 (discontinued).

REVISED RECORDS.--WDR CA-78-4: 1975(M), 1976(M).

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 4,345.00 ft above National Geodetic Vertical Datum of 1929. Since Apr. 10, 1973, a supplementary water-stage recorder for winter periods is located above a concrete weir 0.25 mi upstream.

REMARKS.--Estimated daily discharges for no gage height record, Oct. 16, 17, and ice-affected periods, Dec. 16-19, Dec. 29 to Feb. 7, Feb. 19, 20, and Feb. 28 to Mar. 8. Records fair. Considerable regulation by many small irrigation ponds and off stream Dorris Reservoir, capacity 11,100 acre-ft, for periods of low flow. Diversions above station for irrigation of about 7,100 acres. See schematic diagram of Pit and McCloud River basins.

AVERAGE DISCHARGE.--14 years, 70.6 ft³/s, 51,150 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,740 ft³/s, Dec. 15, 1983, gage height, 14.89 ft, from weir rating curve extended above 1,300 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 0.01 ft³/s, July 20, Aug. 2, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 400 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|---------|------|--------------------------------|------------------|---------|------|--------------------------------|------------------|
| Mar. 19 | 0015 | 401 | 6.77 | Mar. 31 | 2315 | *441 | *6.97 |

Minimum daily, 0.14 ft³/s, July 16.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|----------|------|------|------|------|-------|--------|--------|-------|-------|-------|
| 1 | 1.2 | 22 | 65 | 24 | 12 | 70 | 278 | 41 | 51 | .87 | 1.6 | .69 |
| 2 | 1.9 | 24 | 52 | 23 | 11 | 62 | 258 | 46 | 62 | .97 | .84 | .95 |
| 3 | 2.8 | 49 | 53 | 22 | 11 | 55 | 274 | 37 | 34 | .72 | .59 | .65 |
| 4 | 3.9 | 30 | 49 | 23 | 17 | 48 | 278 | 29 | 15 | .95 | .63 | .68 |
| 5 | 4.0 | 26 | 42 | 25 | 21 | 37 | 284 | 36 | 16 | .78 | .40 | .86 |
| 6 | 4.2 | 25 | 43 | 23 | 19 | 40 | 318 | 44 | 14 | .78 | .25 | .58 |
| 7 | 4.2 | 27 | 43 | 21 | 20 | 44 | 341 | 24 | 16 | 1.1 | .65 | .44 |
| 8 | 4.2 | 37 | 41 | 19 | 22 | 49 | 336 | 11 | 13 | .69 | 1.0 | 1.1 |
| 9 | 4.2 | 38 | 45 | 18 | 25 | 53 | 307 | 12 | 15 | .83 | 1.1 | .88 |
| 10 | 4.2 | 39 | 81 | 18 | 24 | 77 | 296 | 8.6 | 13 | .69 | .65 | .41 |
| 11 | 4.2 | 45 | 121 | 17 | 20 | 119 | 258 | 17 | 13 | .46 | .84 | .58 |
| 12 | 7.9 | 58 | 101 | 17 | 25 | 149 | 229 | 15 | 12 | .61 | .58 | .66 |
| 13 | 47 | 39 | 73 | 16 | 33 | 153 | 219 | 7.1 | 9.5 | .63 | .95 | 1.0 |
| 14 | 23 | 37 | 59 | 16 | 39 | 170 | 213 | 7.1 | 6.1 | .97 | 2.0 | 1.3 |
| 15 | 18 | 38 | 52 | 17 | 53 | 216 | 214 | 1.2 | 3.8 | .84 | 2.9 | 1.9 |
| 16 | 50 | 39 | 47 | 18 | 65 | 258 | 202 | .99 | 4.7 | .14 | 2.2 | 1.8 |
| 17 | 40 | 37 | 41 | 19 | 62 | 288 | 164 | 8.1 | 4.9 | .29 | 1.7 | 1.8 |
| 18 | 32 | 36 | 36 | 17 | 60 | 272 | 136 | 6.2 | 3.9 | .16 | 1.5 | 1.9 |
| 19 | 81 | 33 | 32 | 16 | 59 | 271 | 137 | 4.7 | 2.3 | .78 | 1.3 | 2.6 |
| 20 | 39 | 33 | 30 | 15 | 58 | 215 | 111 | 7.1 | 1.5 | .70 | 1.3 | 3.4 |
| 21 | 31 | 37 | 36 | 14 | 59 | 178 | 107 | 5.8 | 2.3 | .15 | 1.5 | 3.9 |
| 22 | 26 | 42 | 33 | 14 | 69 | 126 | 114 | 11 | 2.3 | .38 | 1.5 | 4.4 |
| 23 | 23 | 40 | 31 | 14 | 80 | 121 | 101 | 17 | 1.7 | .50 | 3.8 | 4.1 |
| 24 | 22 | 59 | 28 | 15 | 92 | 148 | 76 | 18 | 1.8 | .67 | 3.2 | 4.2 |
| 25 | 22 | 59 | 28 | 14 | 114 | 139 | 71 | 14 | 1.1 | 1.8 | 7.6 | 4.6 |
| 26 | 24 | 45 | 30 | 14 | 93 | 119 | 54 | 12 | 1.4 | 3.2 | 6.0 | 4.6 |
| 27 | 24 | 50 | 30 | 13 | 86 | 100 | 48 | 14 | 1.2 | 3.0 | 2.9 | 3.7 |
| 28 | 23 | 169 | 32 | 13 | 78 | 96 | 46 | 15 | 1.1 | 2.0 | 1.3 | 2.2 |
| 29 | 23 | 135 | 30 | 12 | --- | 95 | 41 | 105 | .86 | 1.8 | .24 | 1.9 |
| 30 | 23 | 83 | 28 | 12 | --- | 151 | 41 | 74 | .80 | 1.6 | .19 | 1.8 |
| 31 | 23 | --- | 26 | 12 | --- | 330 | --- | 55 | --- | 1.4 | .34 | --- |
| TOTAL | 640.9 | 1431 | 1438 | 531 | 1327 | 4249 | 5552 | 703.89 | 325.26 | 30.46 | 51.55 | 59.58 |
| MEAN | 20.7 | 47.7 | 46.4 | 17.1 | 47.4 | 137 | 185 | 22.7 | 10.8 | .98 | 1.66 | 1.99 |
| MAX | 81 | 169 | 121 | 25 | 114 | 330 | 341 | 105 | 62 | 3.2 | 7.6 | 4.6 |
| MIN | 1.2 | 22 | 26 | 12 | 11 | 37 | 41 | .99 | .80 | .14 | .19 | .41 |
| AC-FT | 1270 | 2840 | 2850 | 1050 | 2630 | 8430 | 11010 | 1400 | 645 | 60 | 102 | 118 |
| CAL YR 1984 | TOTAL | 40926.14 | MEAN | 112 | MAX | 592 | MIN | .38 | AC-FT | 81180 | | |
| WTR YR 1985 | TOTAL | 16339.64 | MEAN | 44.8 | MAX | 341 | MIN | .14 | AC-FT | 32410 | | |

11345500 SOUTH FORK PIT RIVER NEAR LIKELY, CA

LOCATION.--Lat 41°13'51", long 120°26'10", in NE 1/4 SE 1/4 sec.11, T.39 N., R.13 E., Modoc County, Hydrologic Unit 18020002, on left bank 250 ft downstream from highway bridge, 1.4 mi downstream from West Valley Creek, 2 mi downstream from West Valley Reservoir and 3.5 mi east of Likely.

DRAINAGE AREA.--247 mi².

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

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,507.74 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1931, at site 1,000 ft downstream at different datum.

REMARKS.--Estimated daily discharges for the following ice-affected periods Dec. 14 to Feb. 10 and Mar. 3-6. Records good except those for the winter period, which are fair. Considerable regulation by West Valley Reservoir on West Valley Creek beginning in May 1937, usable capacity, 21,700 acre-ft. Diversions for irrigation of about 3,800 acres above station. See schematic diagram of Pit and McCloud River basins.

AVERAGE DISCHARGE.--57 years, 81.9 ft³/s, 59,340 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,620 ft³/s, June 2, 1971, gage height, 6.05 ft; minimum, 0.2 ft³/s, Feb. 3, 1941.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 219 ft³/s, June 23, gage height, 3.33 ft; maximum gage height, 3.97 ft, Dec. 20, (backwater from ice); minimum daily, 12 ft³/s, Feb. 1-3.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|------|------|------|------|------|------|-------|--------|-------|------|
| 1 | 40 | 46 | 59 | 27 | 12 | 46 | 71 | 159 | 159 | 193 | 160 | 152 |
| 2 | 39 | 62 | 55 | 26 | 12 | 38 | 67 | 175 | 159 | 189 | 160 | 155 |
| 3 | 36 | 76 | 55 | 25 | 12 | 34 | 69 | 186 | 155 | 168 | 161 | 150 |
| 4 | 36 | 61 | 52 | 24 | 16 | 29 | 71 | 182 | 140 | 153 | 156 | 127 |
| 5 | 35 | 58 | 53 | 27 | 22 | 27 | 74 | 183 | 126 | 151 | 151 | 95 |
| 6 | 35 | 58 | 59 | 26 | 21 | 30 | 84 | 186 | 121 | 150 | 149 | 78 |
| 7 | 35 | 60 | 48 | 24 | 20 | 30 | 97 | 189 | 124 | 138 | 146 | 77 |
| 8 | 35 | 66 | 44 | 22 | 23 | 30 | 109 | 188 | 127 | 127 | 146 | 108 |
| 9 | 34 | 59 | 33 | 21 | 20 | 31 | 125 | 177 | 120 | 123 | 164 | 109 |
| 10 | 34 | 59 | 38 | 20 | 21 | 36 | 141 | 177 | 116 | 120 | 175 | 96 |
| 11 | 40 | 58 | 40 | 19 | 25 | 40 | 136 | 171 | 107 | 119 | 171 | 84 |
| 12 | 42 | 56 | 38 | 17 | 27 | 44 | 132 | 162 | 112 | 121 | 171 | 81 |
| 13 | 46 | 55 | 35 | 17 | 27 | 50 | 148 | 156 | 107 | 122 | 169 | 80 |
| 14 | 46 | 58 | 29 | 17 | 31 | 63 | 170 | 156 | 131 | 142 | 169 | 65 |
| 15 | 41 | 57 | 24 | 18 | 32 | 73 | 195 | 151 | 145 | 154 | 168 | 59 |
| 16 | 40 | 57 | 21 | 20 | 30 | 81 | 207 | 157 | 141 | 150 | 166 | 55 |
| 17 | 42 | 53 | 18 | 21 | 29 | 80 | 196 | 151 | 144 | 149 | 166 | 42 |
| 18 | 41 | 55 | 17 | 20 | 29 | 85 | 185 | 148 | 147 | 149 | 163 | 36 |
| 19 | 44 | 51 | 15 | 18 | 30 | 83 | 180 | 144 | 158 | 161 | 166 | 31 |
| 20 | 52 | 54 | 14 | 17 | 29 | 74 | 147 | 142 | 168 | 171 | 162 | 32 |
| 21 | 54 | 56 | 18 | 16 | 28 | 63 | 139 | 134 | 181 | 167 | 158 | 32 |
| 22 | 50 | 55 | 21 | 15 | 29 | 54 | 128 | 136 | 175 | 172 | 161 | 31 |
| 23 | 49 | 52 | 18 | 16 | 33 | 54 | 120 | 124 | 190 | 172 | 173 | 29 |
| 24 | 46 | 61 | 16 | 16 | 37 | 55 | 107 | 120 | 202 | 167 | 180 | 28 |
| 25 | 47 | 50 | 24 | 16 | 40 | 56 | 100 | 145 | 203 | 166 | 178 | 27 |
| 26 | 48 | 52 | 25 | 15 | 38 | 47 | 92 | 157 | 204 | 162 | 174 | 27 |
| 27 | 50 | 56 | 30 | 15 | 40 | 46 | 92 | 160 | 197 | 162 | 168 | 27 |
| 28 | 46 | 68 | 31 | 15 | 43 | 47 | 120 | 156 | 198 | 161 | 164 | 27 |
| 29 | 49 | 64 | 30 | 14 | --- | 49 | 139 | 173 | 194 | 161 | 163 | 27 |
| 30 | 51 | 61 | 30 | 14 | --- | 73 | 139 | 173 | 194 | 161 | 161 | 28 |
| 31 | 45 | --- | 28 | 13 | --- | 96 | --- | 168 | --- | 162 | 158 | --- |
| TOTAL | 1328 | 1734 | 1018 | 591 | 756 | 1644 | 3780 | 4986 | 4645 | 4763 | 5077 | 1995 |
| MEAN | 42.8 | 57.8 | 32.8 | 19.1 | 27.0 | 53.0 | 126 | 161 | 155 | 154 | 164 | 66.5 |
| MAX | 54 | 76 | 59 | 27 | 43 | 96 | 207 | 189 | 204 | 193 | 180 | 155 |
| MIN | 34 | 46 | 14 | 13 | 12 | 27 | 67 | 120 | 107 | 119 | 146 | 27 |
| AC-FT | 2630 | 3440 | 2020 | 1170 | 1500 | 3260 | 7500 | 9890 | 9210 | 9450 | 10070 | 3960 |
| CAL YR 1984 | TOTAL | 65730.4 | MEAN | 180 | MAX | 861 | MIN | 7.4 | AC-FT | 130400 | | |
| WTR YR 1985 | TOTAL | 32317 | MEAN | 88.5 | MAX | 207 | MIN | 12 | AC-FT | 64100 | | |

SACRAMENTO RIVER BASIN

11348500 PIT RIVER NEAR CANBY, CA

LOCATION.--Lat 41°24'22", long 120°55'36", in NW 1/4 SW 1/4 sec.10, T.41 N., R.9 E., Modoc County, Hydrologic Unit 18020002, on right bank at lower end of Warm Spring Valley, 3.9 mi southwest of Canby.

DRAINAGE AREA.--1,431 mi², excluding Goose Lake basin.

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

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

GAGE.--Water-stage recorder. Elevation of gage is 4,266.0 ft above National Geodetic Vertical Datum of 1929. January 1904 to December 1905, nonrecording gage and May 6, 1929, to Sept. 30, 1931, water-stage recorder, at site 100 ft upstream at different datum.

REMARKS.--Estimated daily discharges for the following ice affected periods: Dec. 17 to Jan. 5 and Jan. 11 to Feb. 5. Records good except for periods of ice affect, which are fair. Flow regulated by many small reservoirs, total capacity about 144,000 acre-ft. Diversions for irrigation of about 39,000 acres above station. See schematic diagram of Pit and McCloud River basins.

AVERAGE DISCHARGE.--55 years (water years 1905, 1932-85), 252 ft³/s, 182,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 13,000 ft³/s, Mar. 8, 1904, gage height, 15.0 ft, site and datum then in use; minimum discharge, 0.1 ft³/s, Apr. 29, Aug. 5, Sept. 18, 1934, Aug. 18-21, 1935.

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

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|--------|------|-----------------------------------|---------------------|------|------|-----------------------------------|---------------------|
| Apr. 2 | 0330 | *785 | *4.30 | | | | |

Minimum daily, 16 ft³/s, July 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|------|-------|-------|-------|------|-------|--------|------|------|
| 1 | 149 | 146 | 447 | 108 | 59 | 330 | 722 | 132 | 248 | 28 | 46 | 23 |
| 2 | 110 | 169 | 339 | 107 | 53 | 356 | 781 | 64 | 245 | 28 | 42 | 40 |
| 3 | 99 | 200 | 274 | 107 | 49 | 291 | 734 | 61 | 264 | 31 | 49 | 47 |
| 4 | 75 | 243 | 255 | 108 | 47 | 256 | 653 | 51 | 266 | 33 | 59 | 57 |
| 5 | 65 | 227 | 226 | 110 | 70 | 253 | 595 | 37 | 225 | 32 | 54 | 66 |
| 6 | 63 | 188 | 218 | 110 | 92 | 232 | 571 | 37 | 168 | 82 | 55 | 58 |
| 7 | 64 | 176 | 178 | 116 | 99 | 226 | 591 | 63 | 153 | 96 | 61 | 55 |
| 8 | 67 | 179 | 176 | 129 | 159 | 209 | 606 | 98 | 138 | 96 | 66 | 126 |
| 9 | 60 | 210 | 176 | 136 | 253 | 200 | 614 | 61 | 90 | 79 | 69 | 173 |
| 10 | 44 | 228 | 218 | 141 | 289 | 220 | 580 | 33 | 91 | 74 | 49 | 355 |
| 11 | 62 | 230 | 385 | 130 | 191 | 299 | 577 | 47 | 106 | 64 | 37 | 336 |
| 12 | 61 | 255 | 430 | 122 | 237 | 375 | 548 | 35 | 90 | 53 | 32 | 447 |
| 13 | 85 | 274 | 341 | 118 | 332 | 401 | 510 | 52 | 81 | 48 | 25 | 371 |
| 14 | 89 | 228 | 241 | 116 | 345 | 402 | 503 | 48 | 35 | 39 | 21 | 256 |
| 15 | 93 | 233 | 187 | 115 | 369 | 427 | 488 | 67 | 20 | 31 | 20 | 199 |
| 16 | 110 | 225 | 158 | 112 | 390 | 477 | 484 | 73 | 33 | 27 | 20 | 168 |
| 17 | 126 | 215 | 148 | 108 | 372 | 522 | 483 | 69 | 36 | 24 | 18 | 140 |
| 18 | 159 | 205 | 140 | 105 | 337 | 544 | 439 | 68 | 33 | 22 | 22 | 121 |
| 19 | 157 | 185 | 132 | 101 | 319 | 537 | 433 | 36 | 30 | 19 | 21 | 114 |
| 20 | 220 | 194 | 129 | 98 | 345 | 574 | 427 | 69 | 37 | 17 | 22 | 106 |
| 21 | 226 | 203 | 123 | 96 | 326 | 516 | 404 | 114 | 36 | 16 | 23 | 101 |
| 22 | 199 | 213 | 121 | 95 | 290 | 445 | 385 | 132 | 30 | 17 | 23 | 93 |
| 23 | 181 | 233 | 119 | 93 | 330 | 363 | 352 | 139 | 27 | 22 | 22 | 94 |
| 24 | 169 | 238 | 118 | 91 | 368 | 362 | 254 | 122 | 93 | 22 | 22 | 83 |
| 25 | 126 | 264 | 117 | 88 | 409 | 424 | 255 | 90 | 66 | 21 | 22 | 78 |
| 26 | 169 | 253 | 117 | 86 | 398 | 421 | 243 | 80 | 40 | 18 | 23 | 77 |
| 27 | 178 | 287 | 115 | 84 | 338 | 367 | 228 | 84 | 31 | 18 | 21 | 62 |
| 28 | 159 | 501 | 115 | 80 | 311 | 332 | 196 | 108 | 27 | 23 | 20 | 51 |
| 29 | 162 | 676 | 113 | 75 | --- | 343 | 154 | 115 | 24 | 42 | 24 | 60 |
| 30 | 149 | 623 | 112 | 71 | --- | 377 | 140 | 139 | 24 | 62 | 23 | 47 |
| 31 | 152 | --- | 110 | 64 | --- | 521 | --- | 201 | --- | 73 | 22 | --- |
| TOTAL | 3828 | 7701 | 6078 | 3220 | 7177 | 11602 | 13950 | 2525 | 2787 | 1257 | 1033 | 4005 |
| MEAN | 123 | 257 | 196 | 104 | 256 | 374 | 465 | 81.5 | 92.9 | 40.5 | 33.3 | 134 |
| MAX | 226 | 676 | 447 | 141 | 409 | 574 | 781 | 201 | 266 | 96 | 69 | 447 |
| MIN | 44 | 146 | 110 | 64 | 47 | 200 | 140 | 33 | 20 | 16 | 18 | 23 |
| AC-FT | 7590 | 15270 | 12060 | 6390 | 14240 | 23010 | 27670 | 5010 | 5530 | 2490 | 2050 | 7940 |
| CAL YR 1984 | TOTAL | 157494 | MEAN | 430 | MAX | 2560 | MIN | 25 | AC-FT | 312400 | | |
| WTR YR 1985 | TOTAL | 65163 | MEAN | 179 | MAX | 781 | MIN | 16 | AC-FT | 129300 | | |

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

LOCATION.--Lat 40°59'00", long 121°30'39", in NE 1/4 NW 1/4 sec.15, T.36 N., R.4 E., Shasta County, Hydrologic Unit 18020003, on left bank 0.9 mi downstream from Pit No. 1 powerhouse and 4 mi southwest of Fall River Mills.

DRAINAGE AREA.--3,761 mi², excluding Goose Lake basin.

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 2,840 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges; Aug. 12-29. Records good. Low flow regulated by many small reservoirs, total usable reservoir capacity, 210,000 acre-ft, and Pit No. 1 powerplant. Many diversions above station for irrigation.

AVERAGE DISCHARGE.--10 years, 2,001 ft³/s, 1,450,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,900 ft³/s, Jan. 14, 1980, gage height, 14.78 ft (crest-stage gage), from rating curve extended above 16,000 ft³/s; minimum daily, 819 ft³/s, Feb. 1, 1979.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of January 1974 reached a stage of 14.8 ft, from floodmarks on right bank, discharge 22,600 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,000 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|---------|------|--------------------------------|------------------|------|------|--------------------------------|------------------|
| Nov. 28 | 2115 | *4,240 | *8.17 | | | | |

Minimum daily, 984 ft³/s, Aug. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|--------|--------|--------|--------|--------|--------|--------|-------|-------|---------|-------|-------|
| 1 | 1660 | 2240 | 3200 | 1740 | 1180 | 2160 | 3100 | 1790 | 1550 | 1390 | 1340 | 1290 |
| 2 | 1700 | 1810 | 2710 | 1770 | 1570 | 2290 | 3330 | 1610 | 1520 | 1320 | 1380 | 1280 |
| 3 | 1630 | 1790 | 2530 | 1790 | 1620 | 2080 | 3290 | 1670 | 1530 | 1360 | 1370 | 1370 |
| 4 | 1660 | 2200 | 2270 | 1700 | 1640 | 2100 | 3170 | 1670 | 1490 | 1360 | 1350 | 1290 |
| 5 | 1670 | 1870 | 2190 | 1730 | 1660 | 2120 | 2980 | 1480 | 1490 | 1340 | 1380 | 1430 |
| 6 | 1630 | 1690 | 2340 | 1770 | 1670 | 2100 | 2970 | 1550 | 1680 | 1320 | 1360 | 1420 |
| 7 | 1660 | 1910 | 2210 | 1750 | 1660 | 2080 | 2780 | 1560 | 1720 | 1370 | 1350 | 1330 |
| 8 | 1650 | 2030 | 2040 | 1860 | 1990 | 2080 | 2720 | 1480 | 1680 | 1330 | 1410 | 1480 |
| 9 | 1620 | 2250 | 2090 | 1840 | 2000 | 2010 | 2620 | 1520 | 1600 | 1350 | 1370 | 1570 |
| 10 | 1560 | 2170 | 2070 | 1810 | 2200 | 2040 | 2690 | 1470 | 1590 | 1360 | 1370 | 1490 |
| 11 | 1690 | 2190 | 2330 | 1840 | 2050 | 2080 | 2770 | 1580 | 1470 | 1330 | 1370 | 1400 |
| 12 | 1650 | 2260 | 2530 | 1790 | 2130 | 2220 | 2570 | 1560 | 1420 | 1340 | 1350 | 1420 |
| 13 | 1630 | 2430 | 2710 | 1760 | 2200 | 2240 | 2610 | 1420 | 1380 | 1340 | 1380 | 1490 |
| 14 | 1680 | 2650 | 2400 | 1720 | 2300 | 2340 | 2530 | 1580 | 1370 | 1330 | 1390 | 1940 |
| 15 | 1620 | 2450 | 2300 | 1520 | 2550 | 2320 | 2750 | 1680 | 1400 | 1330 | 1400 | 1910 |
| 16 | 1670 | 2180 | 2200 | 1990 | 2530 | 2380 | 2660 | 1610 | 1370 | 1330 | 1400 | 1850 |
| 17 | 1600 | 2160 | 1860 | 1790 | 2490 | 2390 | 2430 | 1520 | 1380 | 1310 | 1400 | 1690 |
| 18 | 1740 | 2240 | 1720 | 1810 | 2380 | 2650 | 2390 | 1370 | 1400 | 1360 | 1400 | 1760 |
| 19 | 1690 | 2160 | 1930 | 1740 | 2310 | 2610 | 2390 | 1510 | 1380 | 1340 | 1410 | 1650 |
| 20 | 1710 | 2100 | 1870 | 1800 | 2250 | 2570 | 2310 | 1430 | 1430 | 1320 | 1400 | 1560 |
| 21 | 1710 | 2300 | 2110 | 1770 | 2250 | 2630 | 2160 | 1550 | 1410 | 1360 | 1400 | 1550 |
| 22 | 1630 | 2190 | 1910 | 1780 | 2240 | 2610 | 2210 | 1460 | 1350 | 1330 | 1390 | 1550 |
| 23 | 1740 | 2110 | 1850 | 1700 | 2160 | 2400 | 2110 | 1390 | 1330 | 1340 | 1410 | 1590 |
| 24 | 1910 | 2200 | 1850 | 1720 | 2140 | 2350 | 2090 | 1420 | 1450 | 1370 | 1400 | 1510 |
| 25 | 1850 | 2320 | 1740 | 1850 | 2240 | 2340 | 1840 | 1460 | 1360 | 1320 | 1400 | 1480 |
| 26 | 1660 | 2200 | 1870 | 1760 | 2250 | 2430 | 1850 | 1400 | 1360 | 1370 | 1400 | 1460 |
| 27 | 1810 | 2200 | 1810 | 1710 | 2340 | 2460 | 1900 | 1390 | 1370 | 1380 | 1400 | 1480 |
| 28 | 1710 | 3300 | 1830 | 1780 | 2140 | 2570 | 1750 | 1380 | 1310 | 1380 | 1410 | 1500 |
| 29 | 1800 | 3750 | 1810 | 1760 | --- | 2450 | 1940 | 1620 | 1380 | 1350 | 1100 | 1560 |
| 30 | 1770 | 3450 | 1810 | 1720 | --- | 2520 | 1760 | 1540 | 1390 | 1380 | 1260 | 1530 |
| 31 | 1710 | --- | 1800 | 1640 | --- | 2700 | --- | 1500 | --- | 1340 | 1260 | --- |
| TOTAL | 52420 | 68800 | 65890 | 54710 | 58140 | 72320 | 74670 | 47170 | 43560 | 41750 | 42410 | 45830 |
| MEAN | 1691 | 2293 | 2125 | 1765 | 2076 | 2333 | 2489 | 1522 | 1452 | 1347 | 1368 | 1528 |
| MAX | 1910 | 3750 | 3200 | 1990 | 2550 | 2700 | 3330 | 1790 | 1720 | 1390 | 1410 | 1940 |
| MIN | 1560 | 1690 | 1720 | 1520 | 1180 | 2010 | 1750 | 1370 | 1310 | 1310 | 1100 | 1280 |
| AC-FT | 104000 | 136500 | 130700 | 108500 | 115300 | 143400 | 148100 | 93560 | 86400 | 82810 | 84120 | 90900 |
| CAL YR 1984 | TOTAL | 847480 | MEAN | 2316 | MAX | 5950 | MIN | 860 | AC-FT | 1681000 | | |
| WTR YR 1985 | TOTAL | 667670 | MEAN | 1829 | MAX | 3750 | MIN | 1100 | AC-FT | 1324000 | | |

11355500 HAT CREEK NEAR HAT CREEK, CA

LOCATION.--Lat 40°41'12", long 121°25'25", in NW 1/4 SE 1/4 sec.28, T.33 N., R.5 E., Shasta County, Hydrologic Unit 18020003, on right bank 0.8 mi northeast of Old Station Post Office, and 8 mi southeast of Hat Creek Post Office.

DRAINAGE AREA.--162 mi², hydrologic drainage boundary uncertain owing to ground-water exchange.

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

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

GAGE.--Water-stage recorder. Elevation of gage is 4,300 ft above National Geodetic Vertical Datum of 1929, from topographic map. July 1926 to April 1928 at site 0.5 mi upstream at different datum. May 1928 to July 1965 at site 80 ft upstream at datum 2.76 ft higher.

REMARKS.--No estimated daily discharges. Records good. Diversions for irrigation of 260 acres above station. See schematic diagram of Pit and McCloud River basins.

AVERAGE DISCHARGE.--58 years (water years 1927-29, 1931-85), 142 ft³/s, 102,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,320 ft³/s, Dec. 11, 1937, gage height, 7.75 ft in gage well, affected by drawdown, site and datum then in use, from rating curve extended above 610 ft³/s on basis of slope-area measurement of peak flow; minimum, 67 ft³/s, Sept. 7, 1934.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 220 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|--------|------|-----------------------------------|---------------------|------|------|-----------------------------------|---------------------|
| Nov. 2 | 2200 | *243 | *3.26 | | | | |

Minimum daily, 140 ft³/s, Aug. 8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|-------|-------|-------|------|------|-------|-------|-------|--------|------|------|
| 1 | 174 | 172 | 177 | 163 | 160 | 163 | 163 | 195 | 178 | 159 | 144 | 152 |
| 2 | 171 | 195 | 176 | 165 | 164 | 160 | 164 | 199 | 177 | 158 | 143 | 154 |
| 3 | 169 | 198 | 176 | 166 | 165 | 162 | 165 | 202 | 174 | 157 | 142 | 154 |
| 4 | 169 | 182 | 173 | 166 | 163 | 163 | 163 | 194 | 175 | 158 | 142 | 153 |
| 5 | 169 | 180 | 174 | 167 | 160 | 161 | 163 | 194 | 180 | 156 | 141 | 153 |
| 6 | 169 | 181 | 173 | 168 | 164 | 161 | 165 | 196 | 186 | 157 | 142 | 154 |
| 7 | 168 | 180 | 173 | 169 | 167 | 160 | 168 | 194 | 192 | 157 | 141 | 156 |
| 8 | 167 | 180 | 173 | 169 | 165 | 159 | 168 | 190 | 190 | 156 | 140 | 194 |
| 9 | 167 | 177 | 173 | 169 | 159 | 159 | 166 | 187 | 186 | 155 | 147 | 175 |
| 10 | 168 | 181 | 175 | 167 | 163 | 163 | 172 | 184 | 181 | 149 | 151 | 167 |
| 11 | 192 | 186 | 175 | 163 | 165 | 162 | 176 | 181 | 179 | 145 | 151 | 165 |
| 12 | 176 | 188 | 174 | 164 | 165 | 162 | 175 | 178 | 177 | 146 | 151 | 163 |
| 13 | 176 | 189 | 170 | 165 | 163 | 161 | 176 | 179 | 178 | 144 | 151 | 163 |
| 14 | 173 | 181 | 164 | 168 | 163 | 162 | 181 | 187 | 175 | 144 | 151 | 163 |
| 15 | 171 | 180 | 171 | 168 | 163 | 162 | 191 | 185 | 173 | 143 | 151 | 163 |
| 16 | 173 | 179 | 166 | 167 | 162 | 162 | 193 | 188 | 172 | 143 | 151 | 158 |
| 17 | 171 | 179 | 163 | 166 | 162 | 162 | 184 | 192 | 169 | 142 | 152 | 158 |
| 18 | 170 | 179 | 160 | 166 | 162 | 164 | 180 | 197 | 167 | 143 | 152 | 159 |
| 19 | 173 | 177 | 161 | 166 | 162 | 162 | 181 | 196 | 167 | 142 | 148 | 158 |
| 20 | 176 | 178 | 160 | 166 | 161 | 162 | 177 | 196 | 165 | 145 | 143 | 157 |
| 21 | 175 | 177 | 161 | 165 | 161 | 161 | 174 | 192 | 161 | 150 | 142 | 157 |
| 22 | 174 | 175 | 162 | 164 | 162 | 159 | 171 | 197 | 159 | 151 | 142 | 157 |
| 23 | 173 | 177 | 162 | 164 | 161 | 160 | 170 | 204 | 156 | 151 | 142 | 157 |
| 24 | 172 | 181 | 162 | 168 | 162 | 163 | 172 | 210 | 154 | 150 | 142 | 156 |
| 25 | 171 | 174 | 162 | 168 | 162 | 162 | 171 | 204 | 153 | 151 | 142 | 156 |
| 26 | 173 | 165 | 164 | 167 | 161 | 159 | 169 | 198 | 150 | 150 | 143 | 156 |
| 27 | 172 | 175 | 164 | 164 | 162 | 153 | 174 | 193 | 147 | 151 | 143 | 156 |
| 28 | 172 | 172 | 165 | 168 | 161 | 155 | 180 | 192 | 145 | 151 | 141 | 156 |
| 29 | 173 | 170 | 164 | 164 | --- | 160 | 185 | 192 | 146 | 150 | 147 | 156 |
| 30 | 173 | 178 | 166 | 164 | --- | 163 | 189 | 184 | 156 | 146 | 152 | 157 |
| 31 | 172 | --- | 166 | 160 | --- | 163 | --- | 182 | --- | 143 | 152 | --- |
| TOTAL | 5342 | 5386 | 5205 | 5144 | 4550 | 4990 | 5226 | 5962 | 5068 | 4643 | 4522 | 4783 |
| MEAN | 172 | 180 | 168 | 166 | 163 | 161 | 174 | 192 | 169 | 150 | 146 | 159 |
| MAX | 192 | 198 | 177 | 169 | 167 | 164 | 193 | 210 | 192 | 159 | 152 | 194 |
| MIN | 167 | 165 | 160 | 160 | 159 | 153 | 163 | 178 | 145 | 142 | 140 | 152 |
| AC-FT | 10600 | 10680 | 10320 | 10200 | 9020 | 9900 | 10370 | 11830 | 10050 | 9210 | 8970 | 9490 |
| CAL YR 1984 | TOTAL | 68379 | MEAN | 187 | MAX | 273 | MIN | 160 | AC-FT | 135600 | | |
| WTR YR 1985 | TOTAL | 60821 | MEAN | 167 | MAX | 210 | MIN | 140 | AC-FT | 120600 | | |

RESERVOIRS IN PIT AND MCCLLOUD RIVER BASINS, CA

- 11361400 LAKE BRITTON NEAR BURNEY.--Lat 41°01'20", long 121°40'32", in SW 1/4 SW 1/4 sec.30, T.37 N., R.3 E., Shasta County, Hydrologic Unit 18020003, Shasta National Forest, at control house on right bank 200 ft upstream from dam on Pit River, 1.1 mi downstream from Clark Creek, 1.3 mi northwest of Burney Falls, and 9 mi north of Burney. DRAINAGE AREA, 4,607 mi². PERIOD OF RECORD, October 1965 to current year (month-end contents only). GAGE, remote telemark read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pacific Gas and Electric Co.).
- REMARKS.--Reservoir is formed by gravity-type concrete dam. Storage began July 15, 1925. Usable capacity, 41,877 acre-ft between elevations 2,665.0 ft, invert of sluice gate and 2,758.0 ft, top of flash boards. Dead storage, 30 acre-ft. Normal operating pool is from elevation 2,744.0 ft, capacity, 26,183 acre-ft, to 2,757.0 ft, capacity, 40,626 acre-ft.
- COOPERATION.--Figures given herein represent total contents. Lake is used for power generation. Record of contents collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project. See schematic diagram of Pit and McCloud River basins. Records prior to water year 1977 reported usable contents only.
- EXTREMES (at 2400) FOR PERIOD OF RECORD: Maximum total contents, 46,576 acre-ft, Jan. 25, 1970, elevation, 2,761.55 ft; minimum total contents, 26,755 acre-ft, Oct. 9, 1976, elevation, 2,744.60 ft.
- EXTREMES (at 2400) FOR CURRENT YEAR: Maximum contents, 38,625 acre-ft, Oct. 11, elevation, 2,755.40 ft; minimum, 26,948 acre-ft, May 5, elevation, 2,744.80 ft.
- 11363920 IRON CANYON RESERVOIR NEAR BIG BEND.--Lat 41°02'41", long 121°58'52", in SW 1/4 SE 1/4 sec.21, T.37 N., R.1 W., Shasta County, Hydrologic Unit 18020003, Shasta National Forest, in control house on left bank 500 ft upstream from Iron Canyon Dam on Iron Canyon Creek, 3.7 mi northwest of Big Bend. DRAINAGE AREA, 11.1 mi². PERIOD OF RECORD, December 1965 to current year (monthend contents only). GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pacific Gas and Electric Co.).
- REMARKS.--Reservoir is formed by a rockfill dam completed in 1965. Usable capacity is 24,197 acre-ft between elevations 2,525.00 ft, invert of sluice pipe and 2,665.00 ft, crest of spillway. Dead storage, 44 acre-ft. Normal operating pool is from elevation 2,565.0 ft, capacity, 990 acre-ft, to 2,664.0 ft, capacity, 23,738 acre-ft. Water is diverted from Lake McCloud (station 11367740) through a tunnel to Iron Canyon Reservoir and then into the Pit River via James B. Black powerplant (station 11363910).
- COOPERATION.--Figures given herein represent total contents. Water is used for power generation. Record of contents collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project. See schematic diagram of Pit and McCloud River basins.
- EXTREMES (at 2400) FOR PERIOD OF RECORD: Maximum contents, 23,539 acre-ft, May 16, 22, 1977, elevation, 2,663.60 ft; normal minimum since reservoir first filled, 2,860 acre-ft, May 23, 24, 29, June 2, 7, 9, 14, 23, 24, 1966, elevation, 2,590.00 ft. Contents reduced to 195 acre-ft, elevation, 2,540.00 ft, Feb. 10, 1971 when reservoir was drained for inspection.
- EXTREMES (at 2400) FOR CURRENT YEAR: Maximum contents, 21,562 acre-ft, May 27, June 3, elevation, 2,659.50 ft; minimum, 3,429 acre-ft, Dec. 23, elevation, 2,594.90 ft.
- 11367740 LAKE MCCLLOUD NEAR MCCLLOUD.--Lat 41°08'06", long 122°04'26", in SE 1/4 SW 1/4 sec.22, T.38 N., R.2 W., Shasta County, Hydrologic Unit 18020004, Shasta National Forest, on McCloud Dam near spillway on McCloud River, 200 ft downstream from Panther Creek, and 8.8 mi southeast of McCloud. DRAINAGE AREA, 403 mi². PERIOD OF RECORD, October 1965 to current year (monthend contents only). GAGE, water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pacific Gas and Electric Co.).
- REMARKS.--Reservoir is formed by a rockfill dam completed in 1965. Usable capacity, 35,231 acre-ft between elevations 2,471.30 ft, invert of sluice pipe and 2,680.00 ft, maximum operational water surface. Dead storage, 3 acre-ft. Normal operating pool is from elevation 2,635.00 ft, capacity, 16,425 acre-ft, to 2,680.00 ft, capacity, 35,234 acre-ft. Water is diverted from Lake McCloud (station 11367740) through a diversion tunnel to Iron Canyon Reservoir (station 11363920) and then into the Pit River via James B. Black powerplant (station 11363910).
- COOPERATION.--Figures given herein represent total content, water is used for power generation. Record of contents collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project. See schematic diagram of Pit and McCloud River basins.
- EXTREMES (at 2400) FOR PERIOD OF RECORD: Maximum contents, 35,967 acre-ft, Jan. 15, 1974, elevation, 2,681.40 ft; minimum since reservoir first filled, 13,017 acre-ft, Oct. 14-22, 1981, elevation, 2,632.50 ft.
- EXTREMES (at 2400) FOR CURRENT YEAR: Maximum contents, 34,511 acre-ft, June 11, 12, elevation, 2,678.60 ft; minimum, 16,328 acre-ft, Feb. 5, 6, elevation, 2,634.70 ft.

MONTHEND ELEVATION NGVD AND CONTENTS, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| Date | Elevation (feet) | Contents (acre- feet) | Change in contents (acre- feet) | Elevation (feet) | Contents (acre- feet) | Change in contents (acre- feet) | Elevation (feet) | Contents (acre- feet) | Change in contents (acre- feet) |
|---------------|-----------------------|-----------------------------|--|--------------------------------|-----------------------------|--|------------------------|-----------------------------|--|
| | 11361400 LAKE BRITTON | | | 11363920 IRON CANYON RESERVOIR | | | 11367740 LAKE MCCLLOUD | | |
| Sept. 30..... | 2752.80 | 35504 | -- | 2616.30 | 7084 | -- | 2648.70 | 21227 | -- |
| Oct. 31..... | 2748.70 | 30918 | -4586 | 2604.50 | 4808 | -2276 | 2639.60 | 17950 | -3277 |
| Nov. 30..... | 2754.35 | 37345 | +6427 | 2611.00 | 5976 | +1168 | 2647.20 | 20663 | +2713 |
| Dec. 31..... | 2747.50 | 29655 | -7690 | 2601.10 | 4276 | -1700 | 2636.00 | 16749 | -3914 |
| CAL YR 1984.. | -- | -- | +9589 | -- | -- | +629 | -- | -- | -18174 |
| Jan. 31..... | 2747.10 | 29242 | -413 | 2605.80 | 5026 | +750 | 2635.20 | 16489 | -260 |
| Feb. 28..... | 2746.50 | 28630 | -612 | 2611.80 | 6134 | +1108 | 2637.40 | 17210 | +721 |
| Mar. 31..... | 2750.10 | 32437 | +3807 | 2601.70 | 4366 | -1768 | 2639.10 | 17780 | +570 |
| Apr. 30..... | 2750.30 | 32658 | +221 | 2622.10 | 8463 | +4097 | 2649.60 | 21571 | +3791 |
| May 31..... | 2748.90 | 31132 | -1526 | 2657.60 | 20684 | +12221 | 2673.50 | 31959 | +10388 |
| June 30..... | 2752.90 | 35621 | +4489 | 2652.90 | 18618 | -2066 | 2676.20 | 33294 | +1335 |
| July 31..... | 2753.85 | 36745 | +1124 | 2632.40 | 11289 | -7329 | 2661.80 | 26567 | -6727 |
| Aug. 31..... | 2752.35 | 34981 | -1764 | 2626.30 | 9558 | -1731 | 2647.90 | 20925 | -5642 |
| Sept. 30..... | 2753.95 | 36864 | +1883 | 2625.30 | 9290 | -268 | 2646.70 | 20477 | -448 |
| WTR YR 1985.. | -- | -- | +1360 | -- | -- | +2206 | -- | -- | -750 |

SACRAMENTO RIVER BASIN

11362500 PIT RIVER BELOW PIT NO. 4 DAM, CA

LOCATION.--Lat 40°58'25", long 121°46'42", unsurveyed, T.36 N., R.2 E., Shasta County, Hydrologic Unit 18020003, Shasta National Forest, on right bank 0.6 mi downstream from Ruling Creek, 1.3 mi downstream from Pit No. 4 Dam, and 2.7 mi downstream from Pit No. 3 powerhouse.

DRAINAGE AREA.--4,648 mi², excluding Goose Lake basin.

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

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

GAGE.--Water-stage recorder. Elevation of gage is 2,358 ft above National Geodetic Vertical Datum of 1929, from river-profile map. Prior to November 1922, water-stage recorder at site at Pecks Bridge 7.4 mi upstream at different datum. November 1922 to June 20, 1927, at site at Lindsay Flat 1.8 mi upstream at different datum.

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

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

AVERAGE DISCHARGE.--32 years (water years 1923-54), 2,511 ft³/s, 1,819,000 acre-ft/yr, prior to diversion; 31 years (water years 1955-85), 3,046 ft³/s, 2,207,000 acre-ft/yr, adjusted for diversion to Pit No. 4 powerplant; unadjusted for same period, 506 ft³/s, 366,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 31,000 ft³/s, Jan. 25, 1970, gage height, 18.04 ft, from rating curve extended above 17,000 ft³/s; minimum daily, 234 ft³/s, Sept. 13, 1953. Minimum daily, since diversion to Pit No. 4 powerplant in 1955, 22 ft³/s, Dec. 2-4, 1969.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,950 ft³/s, Nov. 30, gage height, 8.83 ft; minimum daily, 55 ft³/s, several days during year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | | |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|---------|
| 1 | 125 | 84 | 2760 | 56 | 59 | 58 | 103 | 180 | 170 | 177 | 171 | 175 | | |
| 2 | 126 | 87 | 2420 | 55 | 56 | 60 | 105 | 185 | 169 | 172 | 169 | 175 | | |
| 3 | 121 | 81 | 2120 | 57 | 58 | 59 | 104 | 183 | 196 | 172 | 170 | 176 | | |
| 4 | 119 | 81 | 1840 | 58 | 58 | 60 | 115 | 178 | 172 | 171 | 170 | 176 | | |
| 5 | 117 | 87 | 1670 | 59 | 59 | 59 | 117 | 176 | 171 | 166 | 171 | 174 | | |
| 6 | 117 | 84 | 1620 | 61 | 55 | 58 | 114 | 178 | 170 | 172 | 172 | 175 | | |
| 7 | 117 | 94 | 1220 | 58 | 79 | 57 | 114 | 178 | 170 | 174 | 170 | 173 | | |
| 8 | 117 | 96 | 73 | 59 | 66 | 58 | 114 | 170 | 170 | 172 | 175 | 175 | | |
| 9 | 118 | 89 | 62 | 59 | 57 | 60 | 119 | 174 | 170 | 176 | 171 | 174 | | |
| 10 | 117 | 84 | 61 | 63 | 58 | 60 | 113 | 170 | 170 | 177 | 172 | 172 | | |
| 11 | 118 | 88 | 58 | 59 | 59 | 60 | 114 | 170 | 170 | 170 | 171 | 172 | | |
| 12 | 118 | 82 | 57 | 56 | 61 | 59 | 114 | 170 | 170 | 169 | 172 | 175 | | |
| 13 | 115 | 85 | 64 | 57 | 58 | 59 | 119 | 170 | 188 | 171 | 172 | 175 | | |
| 14 | 115 | 82 | 56 | 56 | 59 | 59 | 116 | 170 | 179 | 172 | 170 | 174 | | |
| 15 | 113 | 88 | 57 | 56 | 59 | 60 | 114 | 171 | 167 | 170 | 172 | 175 | | |
| 16 | 109 | 94 | 57 | 55 | 62 | 62 | 115 | 171 | 169 | 169 | 173 | 174 | | |
| 17 | 113 | 98 | 59 | 56 | 57 | 61 | 116 | 172 | 172 | 170 | 174 | 174 | | |
| 18 | 112 | 99 | 58 | 60 | 60 | 61 | 119 | 175 | 174 | 170 | 172 | 175 | | |
| 19 | 114 | 93 | 57 | 56 | 58 | 62 | 115 | 172 | 175 | 172 | 175 | 174 | | |
| 20 | 113 | 97 | 58 | 55 | 59 | 61 | 115 | 171 | 176 | 179 | 174 | 175 | | |
| 21 | 112 | 94 | 59 | 56 | 60 | 59 | 114 | 170 | 174 | 177 | 175 | 176 | | |
| 22 | 113 | 90 | 57 | 59 | 58 | 59 | 113 | 170 | 174 | 172 | 174 | 176 | | |
| 23 | 111 | 92 | 59 | 58 | 59 | 59 | 114 | 170 | 175 | 172 | 172 | 176 | | |
| 24 | 112 | 88 | 56 | 61 | 56 | 59 | 114 | 170 | 173 | 171 | 172 | 176 | | |
| 25 | 110 | 103 | 58 | 57 | 58 | 58 | 114 | 172 | 172 | 171 | 175 | 174 | | |
| 26 | 115 | 254 | 56 | 58 | 58 | 59 | 120 | 171 | 168 | 171 | 175 | 173 | | |
| 27 | 118 | 1790 | 56 | 59 | 60 | 63 | 172 | 172 | 171 | 171 | 174 | 174 | | |
| 28 | 114 | 1050 | 58 | 58 | 59 | 61 | 171 | 171 | 172 | 170 | 174 | 174 | | |
| 29 | 110 | 2080 | 57 | 58 | --- | 59 | 176 | 170 | 171 | 173 | 171 | 175 | | |
| 30 | 112 | 3030 | 57 | 57 | --- | 57 | 180 | 170 | 174 | 172 | 175 | 176 | | |
| 31 | 115 | --- | 55 | 57 | --- | 61 | --- | 170 | --- | 171 | 174 | --- | | |
| TOTAL | 3576 | 10444 | 15055 | 1789 | 1665 | 1847 | 3663 | 5360 | 5192 | 5332 | 5347 | 5232 | | |
| MEAN | 115 | 348 | 486 | 57.7 | 59.5 | 59.6 | 122 | 173 | 173 | 172 | 172 | 174 | | |
| MAX | 126 | 3030 | 2760 | 63 | 79 | 63 | 180 | 185 | 196 | 179 | 175 | 176 | | |
| MIN | 109 | 81 | 55 | 55 | 55 | 57 | 103 | 170 | 167 | 166 | 169 | 172 | | |
| AC-FT | 7090 | 20720 | 29860 | 3550 | 3300 | 3660 | 7270 | 10630 | 10300 | 10580 | 10610 | 10380 | | |
| MEAN a | 2817 | 3440 | 3415 | 2782 | 3162 | 3371 | 3456 | 2445 | 2270 | 2172 | 2205 | 2433 | | |
| AC-FT a | 173200 | 204700 | 210000 | 171000 | 175600 | 207300 | 205700 | 150300 | 135100 | 133600 | 135600 | 144800 | | |
| CAL YR 1984 | TOTAL | 138207 | MEAN | 378 | MAX | 3600 | MIN | 45 | AC-FT | 274100 | MEAN a | 3428 | AC-FT a | 2488000 |
| WTR YR 1985 | TOTAL | 64503 | MEAN | 177 | MAX | 3030 | MIN | 55 | AC-FT | 127900 | MEAN a | 2827 | AC-FT a | 2047000 |

a Adjusted for diversion to Pit No. 4 powerplant

11363000 PIT RIVER AT BIG BEND, CA

LOCATION.--Lat 41°01'10", long 121°54'36", in NW 1/4 SW 1/4 sec.31, T.37 N., R.1 E., Shasta County, Hydrologic Unit 18020003, on left bank at Big Bend, 0.4 mi downstream from Nelson Creek, and 1.5 mi upstream from Kosk Creek.

DRAINAGE AREA.--4,711 mi², excluding Goose Lake basin.

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

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

GAGE.--Water-stage recorder. Datum of gage is 1,674.47 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 28, 1912, nonrecording gage and Dec. 28, 1912, to June 21, 1924, water-stage recorder at same site, but at datum 7.69 ft higher.

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

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

AVERAGE DISCHARGE.--33 years (water years 1911-43) prior to diversion to Pit No. 5 powerplant, 2,931 ft³/s, 2,122,000 acre-ft/yr; 42 years (water years 1944-85), 573 ft³/s, 415,100 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,000 ft³/s, Jan. 25, 1970, gage height, 18.17 ft in gage well, 19.0 ft from floodmarks, from rating curve extended above 17,000 ft³/s, partly affected by gate operation at Pit No. 4 Dam; minimum daily, 34 ft³/s, Mar. 29, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,470 ft³/s, Nov. 30, gage height, 8.78 ft; minimum daily, 54 ft³/s, Feb. 3-6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|----------|----------|--------|--------------|------|------|------|------|------|------|
| 1 | 118 | 95 | 1000 | 67 | 57 | 70 | 108 | 126 | 129 | 113 | 109 | 101 |
| 2 | 124 | 143 | 704 | 66 | 55 | 69 | 111 | 135 | 129 | 110 | 113 | 108 |
| 3 | 116 | 105 | 337 | 66 | 54 | 66 | 112 | 133 | 125 | 115 | 106 | 106 |
| 4 | 115 | 86 | 179 | 66 | 54 | 66 | 293 | 137 | 123 | 119 | 111 | 101 |
| 5 | 115 | 86 | 90 | 65 | 54 | 69 | 544 | 131 | 125 | 117 | 112 | 101 |
| 6 | 117 | 100 | 85 | 66 | 54 | 71 | 519 | 133 | 122 | 115 | 114 | 110 |
| 7 | 122 | 113 | 134 | 67 | 76 | 72 | 394 | 132 | 120 | 110 | 111 | 130 |
| 8 | 119 | 128 | 104 | 66 | 111 | 70 | 292 | 130 | 121 | 114 | 106 | 164 |
| 9 | 116 | 113 | 84 | 67 | 77 | 69 | 229 | 128 | 123 | 113 | 113 | 146 |
| 10 | 123 | 137 | 157 | 66 | 71 | 70 | 206 | 127 | 121 | 109 | 109 | 114 |
| 11 | 142 | 187 | 154 | 65 | 66 | 72 | 200 | 125 | 120 | 110 | 106 | 113 |
| 12 | 125 | 229 | 137 | 63 | 66 | 75 | 218 | 123 | 119 | 111 | 109 | 110 |
| 13 | 120 | 253 | 120 | 62 | 69 | 74 | 105 | 123 | 115 | 108 | 110 | 111 |
| 14 | 120 | 173 | 111 | 61 | 70 | 74 | 104 | 123 | 108 | 112 | 110 | 108 |
| 15 | 121 | 139 | 110 | 61 | 72 | 73 | 102 | 122 | 108 | 108 | 110 | 109 |
| 16 | 130 | 129 | 102 | 60 | 72 | 71 | 98 | 124 | 113 | 113 | 111 | 112 |
| 17 | 129 | 120 | 97 | 60 | 74 | 72 | 95 | 125 | 112 | 114 | 109 | 107 |
| 18 | 128 | 152 | 93 | 61 | 74 | 74 | 92 | 129 | 114 | 112 | 112 | 108 |
| 19 | 133 | 128 | 89 | 60 | 73 | 73 | 89 | 127 | 120 | 113 | 112 | 105 |
| 20 | 130 | 137 | 85 | 60 | 72 | 74 | 87 | 126 | 118 | 112 | 113 | 103 |
| 21 | 126 | 127 | 83 | 60 | 71 | 75 | 94 | 128 | 119 | 112 | 114 | 103 |
| 22 | 124 | 118 | 80 | 59 | 71 | 74 | 92 | 128 | 118 | 106 | 113 | 103 |
| 23 | 123 | 118 | 79 | 59 | 71 | 75 | 86 | 128 | 118 | 113 | 109 | 102 |
| 24 | 121 | 165 | 78 | 59 | 71 | 101 | 84 | 127 | 118 | 113 | 101 | 104 |
| 25 | 123 | 135 | 76 | 60 | 72 | 89 | 82 | 127 | 117 | 113 | 105 | 108 |
| 26 | 123 | 123 | 73 | 57 | 72 | 94 | 78 | 126 | 110 | 112 | 108 | 106 |
| 27 | 124 | 143 | 74 | 58 | 71 | 90 | 74 | 127 | 117 | 113 | 105 | 102 |
| 28 | 121 | 188 | 73 | 60 | 68 | 87 | 76 | 135 | 119 | 109 | 105 | 103 |
| 29 | 126 | 168 | 69 | 59 | --- | 88 | 75 | 132 | 115 | 111 | 96 | 99 |
| 30 | 121 | 1060 | 69 | 58 | --- | 94 | 73 | 128 | 115 | 115 | 105 | 102 |
| 31 | 118 | --- | 67 | 56 | --- | 102 | --- | 127 | --- | 114 | 108 | --- |
| TOTAL | 3813 | 5098 | 4793 | 1920 | 1938 | 2393 | 4812 | 3972 | 3551 | 3479 | 3375 | 3311 |
| MEAN | 123 | 170 | 155 | 61.9 | 69.2 | 77.2 | 160 | 128 | 118 | 112 | 109 | 110 |
| MAX | 142 | 1060 | 1000 | 67 | 111 | 102 | 544 | 137 | 129 | 119 | 114 | 164 |
| MIN | 115 | 86 | 67 | 56 | 54 | 66 | 73 | 122 | 108 | 106 | 96 | 99 |
| AC-FT | 7560 | 10110 | 9510 | 3810 | 3840 | 4750 | 9540 | 7880 | 7040 | 6900 | 6690 | 6570 |
| CAL YR 1984 | TOTAL | 153361 | MEAN 419 | MAX 4170 | MIN 67 | AC-FT 304200 | | | | | | |
| WTR YR 1985 | TOTAL | 42455 | MEAN 116 | MAX 1060 | MIN 54 | AC-FT 84210 | | | | | | |

SACRAMENTO RIVER BASIN

11363910 JAMES B. BLACK POWERPLANT NEAR BIG BEND, CA

LOCATION.--Lat 40°59'12", long 121°58'35", in SW 1/4 SE 1/4 sec.9, T.36 N., R.1 W., Shasta County, Hydrologic Unit 18020003, at powerplant on right bank of Pit River, 5.8 mi downstream from Big Bend.

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

GAGE.--Discharge computed from powerplant output.

REMARKS.--Water is diverted from Lake McCloud (station 11367740) at SE 1/4 SW 1/4 sec.22, T.38 N., R.2 W., to Iron Canyon Reservoir (station 11363920), and then into the penstock for James B. Black powerplant. Records are combined flow of diversion from McCloud River at McCloud Dam plus Iron Canyon Creek.

COOPERATION.--Records were collected by Pacific Gas and Electric Co. in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--19 years (water years 1967-85), 984 ft³/s, 712,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,420 ft³/s, July 15, 1966; no flow several days during most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|
| 1 | 841 | 1000 | 989 | 832 | 1090 | 1020 | 846 | 1070 | 436 | 799 | 885 | 449 |
| 2 | 756 | 984 | 988 | 1030 | 706 | 1350 | 1000 | 738 | 628 | 627 | 974 | 777 |
| 3 | 717 | 1000 | 991 | 891 | 832 | 831 | 1010 | 563 | 528 | 1360 | 1240 | 633 |
| 4 | 1020 | 978 | 991 | 748 | 755 | 1030 | 860 | 563 | 993 | 1300 | 460 | 581 |
| 5 | 758 | 1010 | 991 | 775 | 891 | 846 | 1050 | 336 | 845 | 1230 | 968 | 562 |
| 6 | 1110 | 988 | 981 | 1000 | 699 | 825 | 984 | 222 | 867 | 598 | 819 | 826 |
| 7 | 695 | 995 | 998 | 887 | 536 | 1030 | 942 | 533 | 1020 | 510 | 882 | 449 |
| 8 | 916 | 966 | 991 | 745 | 1320 | 701 | 1260 | 799 | 462 | 704 | 922 | 988 |
| 9 | 1230 | 991 | 772 | 922 | 1030 | 597 | 1010 | 939 | 752 | 513 | 978 | 546 |
| 10 | 1010 | 998 | 983 | 1080 | 808 | 677 | 1050 | 443 | 364 | 825 | 270 | 757 |
| 11 | 962 | 991 | 1000 | 1030 | 694 | 981 | 1050 | 0 | 891 | 1560 | 924 | 682 |
| 12 | 948 | 991 | 978 | 900 | 706 | 877 | 782 | 217 | 1410 | 1070 | 869 | 806 |
| 13 | 785 | 967 | 1770 | 612 | 856 | 723 | 935 | 824 | 1220 | 706 | 647 | 806 |
| 14 | 569 | 998 | 1320 | 910 | 866 | 778 | 858 | 613 | 1030 | 1180 | 817 | 354 |
| 15 | 783 | 997 | 1120 | 753 | 1070 | 936 | 1100 | 558 | 457 | 1030 | 776 | 613 |
| 16 | 984 | 993 | 1030 | 874 | 853 | 833 | 912 | 654 | 487 | 1220 | 669 | 969 |
| 17 | 990 | 979 | 1080 | 724 | 831 | 736 | 1130 | 641 | 1040 | 981 | 810 | 551 |
| 18 | 996 | 985 | 1080 | 934 | 681 | 728 | 1070 | 367 | 773 | 993 | 674 | 748 |
| 19 | 993 | 995 | 1070 | 794 | 762 | 812 | 1010 | 0 | 769 | 971 | 669 | 663 |
| 20 | 1000 | 968 | 951 | 687 | 850 | 936 | 615 | 1020 | 824 | 634 | 782 | 677 |
| 21 | 1000 | 948 | 1010 | 955 | 834 | 875 | 525 | 678 | 859 | 710 | 760 | 598 |
| 22 | 972 | 1000 | 1160 | 909 | 849 | 1050 | 1020 | 173 | 722 | 1150 | 920 | 865 |
| 23 | 996 | 995 | 1020 | 808 | 546 | 634 | 732 | 374 | 760 | 1130 | 736 | 634 |
| 24 | 987 | 997 | 995 | 1040 | 806 | 933 | 894 | 426 | 821 | 813 | 644 | 931 |
| 25 | 963 | 998 | 953 | 798 | 1030 | 878 | 954 | 68 | 994 | 1050 | 699 | 510 |
| 26 | 986 | 1000 | 998 | 788 | 834 | 912 | 738 | 0 | 837 | 851 | 681 | 486 |
| 27 | 993 | 993 | 941 | 1010 | 814 | 786 | 297 | 117 | 517 | 914 | 704 | 759 |
| 28 | 1030 | 989 | 976 | 754 | 322 | 988 | 769 | 961 | 761 | 570 | 918 | 494 |
| 29 | 906 | 996 | 934 | 990 | --- | 1220 | 494 | 297 | 549 | 1090 | 448 | 717 |
| 30 | 993 | 862 | 941 | 711 | --- | 939 | 901 | 696 | 1080 | 935 | 812 | 995 |
| 31 | 993 | --- | 604 | 806 | --- | 866 | --- | 891 | --- | 1120 | 724 | --- |
| TOTAL | 28882 | 29552 | 31606 | 26697 | 22871 | 27328 | 26798 | 15781 | 23696 | 29144 | 24081 | 20435 |
| MEAN | 932 | 985 | 1020 | 861 | 817 | 882 | 893 | 509 | 790 | 940 | 777 | 681 |
| MAX | 1230 | 1010 | 1770 | 1080 | 1320 | 1350 | 1260 | 1070 | 1410 | 1560 | 1240 | 995 |
| MIN | 569 | 862 | 604 | 612 | 322 | 597 | 297 | 0 | 364 | 510 | 270 | 354 |
| AC-FT | 57290 | 58620 | 62690 | 52950 | 45360 | 54210 | 53150 | 31300 | 47000 | 57810 | 47760 | 40530 |
| CAL YR 1984 | TOTAL | 409522 | MEAN | 1119 | MAX | 1820 | MIN | 391 | AC-FT | 812300 | | |
| WTR YR 1985 | TOTAL | 306871 | MEAN | 841 | MAX | 1770 | MIN | .00 | AC-FT | 608700 | | |

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

LOCATION.--Lat 41°02'27", long 121°59'02", in NW 1/4 NW 1/4 sec.28, T.37 N., R.1 W., Shasta County, Hydrologic Unit 18020003, on left bank 0.2 mi downstream from Iron Canyon Dam, and 4.2 mi west of Big Bend.

DRAINAGE AREA.--11.6 mi².

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

GAGE.--Water-stage recorder, 60° sharp-crested V-notch weir, and concrete control. Datum of gage is 2,461.52 ft above National Geodetic Vertical Datum of 1929 (levels by Pacific Gas and Electric Co.).

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

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

AVERAGE DISCHARGE.--19 years, 5.98 ft³/s, 4,330 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 582 ft³/s, Feb. 25, 1978, gage height, 3.24 ft, flow was the result of failure of the James B. Black penstock; no flow, July 15-18, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, unknown, Dec. 5, gage height, 1.52 ft (flash board removed from weir; minimum daily, 3.0 ft³/s, many days during year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|-------|-------|------|-------|------|-------|-------|-------|------|------|
| 1 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.4 | 3.1 | 3.0 |
| 2 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.4 | 3.1 | 3.0 |
| 3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.4 | 3.1 | 3.0 |
| 4 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.4 | 3.1 | 3.0 |
| 5 | 3.3 | 3.3 | 6.0 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.4 | 3.1 | 3.0 |
| 6 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.3 | 3.1 | 3.1 |
| 7 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.3 | 3.3 | 3.3 | 3.4 | 3.3 | 3.1 | 3.3 |
| 8 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.3 | 3.0 | 3.3 |
| 9 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.2 | 3.4 | 3.3 | 3.0 | 3.3 |
| 10 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.3 | 3.0 | 3.3 |
| 11 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.3 | 3.3 | 3.4 | 3.3 | 3.0 | 3.3 |
| 12 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.0 | 3.3 | 3.3 | 3.4 | 3.3 | 3.0 | 3.3 |
| 13 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.3 | 3.0 | 3.3 |
| 14 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.3 | 3.0 | 3.3 |
| 15 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.3 | 3.0 | 3.3 |
| 16 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.4 | 3.4 | 3.2 | 3.0 | 3.3 |
| 17 | 3.3 | 3.3 | 3.3 | 3.1 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.2 | 3.0 | 3.3 |
| 18 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.3 | 3.4 | 3.2 | 3.0 | 3.3 |
| 19 | 3.3 | 3.3 | 3.0 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.2 | 3.0 | 3.3 |
| 20 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.2 | 3.0 | 3.3 |
| 21 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.2 | 3.0 | 3.3 |
| 22 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.2 | 3.0 | 3.3 |
| 23 | 3.1 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.2 | 3.0 | 3.3 |
| 24 | 3.3 | 3.3 | 3.3 | 3.2 | 3.3 | 3.3 | 3.3 | 3.4 | 3.4 | 3.2 | 3.0 | 3.3 |
| 25 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.4 | 3.1 | 3.0 | 3.3 |
| 26 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.4 | 3.1 | 3.0 | 3.3 |
| 27 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.4 | 3.1 | 3.0 | 3.3 |
| 28 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.3 | 3.4 | 3.4 | 3.1 | 3.0 | 3.3 |
| 29 | 3.3 | 3.3 | 3.3 | 3.3 | --- | 3.4 | 3.3 | 3.4 | 3.4 | 3.1 | 3.0 | 3.3 |
| 30 | 3.3 | 3.3 | 3.3 | 3.3 | --- | 3.3 | 3.3 | 3.4 | 3.4 | 3.1 | 3.0 | 3.3 |
| 31 | 3.3 | --- | 3.3 | 3.3 | --- | 3.3 | --- | 3.4 | --- | 3.1 | 3.0 | --- |
| TOTAL | 102.1 | 99.0 | 104.7 | 102.0 | 92.5 | 102.2 | 99.2 | 103.1 | 102.0 | 100.5 | 93.7 | 97.3 |
| MEAN | 3.29 | 3.30 | 3.38 | 3.29 | 3.30 | 3.30 | 3.31 | 3.33 | 3.40 | 3.24 | 3.02 | 3.24 |
| MAX | 3.3 | 3.3 | 6.0 | 3.3 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.4 | 3.1 | 3.3 |
| MIN | 3.1 | 3.3 | 3.0 | 3.1 | 3.3 | 3.0 | 3.3 | 3.2 | 3.4 | 3.1 | 3.0 | 3.0 |
| AC-FT | 203 | 196 | 208 | 202 | 183 | 203 | 197 | 204 | 202 | 199 | 186 | 193 |
| CAL YR 1984 | TOTAL | 1202.42 | MEAN | 3.29 | MAX | 6.0 | MIN | .42 | AC-FT | 2380 | | |
| WTR YR 1985 | TOTAL | 1198.30 | MEAN | 3.28 | MAX | 6.0 | MIN | 3.0 | AC-FT | 2380 | | |

SACRAMENTO RIVER BASIN

11365000 PIT RIVER NEAR MONTGOMERY CREEK, CA

LOCATION.--Lat 40°50'36", long 122°00'58", in NE 1/4 SW 1/4 sec.32, T.35 N., R.1 W., Shasta County, Hydrologic Unit 18020003, Shasta National Forest, on left bank 0.9 mi downstream from Pit No. 7 Dam and powerhouse, 1.5 mi upstream from Potem Creek, and 4.1 mi west of town of Montgomery Creek.

DRAINAGE AREA.--4,952 mi², excluding Goose Lake Basin.

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

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Pacific Gas and Electric Co.). October 1944 to Feb. 17, 1963, at site 0.9 mi upstream at different datum. Feb. 17, 1963, to May 21, 1965, at site 1.7 mi upstream at different datum. May 21, 1965, to June 20, 1981, at site 1.0 mi downstream at datum 1,036.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Low flow completely regulated by many reservoirs and powerplants, total usable reservoir capacity, 337,000 acre-ft. Many diversions above station for irrigation. Diversion from McCloud River to Iron Canyon Reservoir (station 11363920) began December 1965. See schematic diagram of Pit and McCloud River basins.

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

AVERAGE DISCHARGE.--21 years (water years 1945-65) prior to diversion from McCloud River, 3,759 ft³/s, 2,721,000 acre-ft/yr; 20 years (water years 1966-85), 5,209 ft³/s, 3,774,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 73,000 ft³/s, Jan. 24, 1970, gage height, 32.36 ft, site and datum then in use; minimum daily, 30 ft³/s, July 12, 27, 1975, result of construction work below Pit No. 7 powerplant.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 11,600 ft³/s, Aug. 28, gage height, 64.29 ft; minimum daily, 701 ft³/s, Dec. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|--------|---------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|
| 1 | 5060 | 3810 | 5500 | 5360 | 6910 | 5820 | 7150 | 5160 | 3070 | 2040 | 3840 | 1760 |
| 2 | 4480 | 5730 | 5340 | 3250 | 6670 | 6100 | 6980 | 5460 | 3790 | 6120 | 4890 | 1880 |
| 3 | 4760 | 5420 | 3100 | 5210 | 4750 | 5370 | 7080 | 5350 | 3880 | 2860 | 1520 | 3830 |
| 4 | 4400 | 5050 | 701 | 3960 | 2900 | 5310 | 8130 | 4750 | 4810 | 4620 | 3460 | 2730 |
| 5 | 3120 | 5760 | 4100 | 2820 | 4860 | 6080 | 8350 | 4320 | 3330 | 5070 | 2690 | 3190 |
| 6 | 4300 | 6610 | 5270 | 2830 | 3940 | 5840 | 7980 | 3390 | 5130 | 3370 | 3130 | 3380 |
| 7 | 4780 | 5630 | 6020 | 5200 | 4120 | 6510 | 6700 | 3960 | 4120 | 3000 | 3510 | 1930 |
| 8 | 4550 | 4420 | 7520 | 3450 | 8020 | 5570 | 8560 | 4320 | 2970 | 2480 | 3940 | 3700 |
| 9 | 4330 | 6640 | 3690 | 4650 | 9900 | 3090 | 6290 | 3670 | 5090 | 2800 | 3640 | 3140 |
| 10 | 4910 | 6590 | 6890 | 5220 | 9920 | 5370 | 6620 | 3820 | 2970 | 4100 | 3920 | 3920 |
| 11 | 4610 | 8320 | 8830 | 5150 | 5690 | 5940 | 7560 | 3110 | 4520 | 5100 | 5060 | 4400 |
| 12 | 4310 | 8000 | 6350 | 2730 | 4750 | 5570 | 7450 | 3220 | 6180 | 5470 | 3270 | 4580 |
| 13 | 4560 | 8580 | 7930 | 3090 | 5230 | 6020 | 6760 | 3700 | 5000 | 3070 | 2110 | 4110 |
| 14 | 4520 | 6540 | 6630 | 4340 | 5300 | 5370 | 9140 | 4200 | 2950 | 2790 | 4870 | 1910 |
| 15 | 4310 | 6070 | 6670 | 4490 | 5400 | 6610 | 3940 | 4650 | 2710 | 2640 | 4750 | 4130 |
| 16 | 5580 | 7050 | 7620 | 4270 | 5430 | 5820 | 3950 | 2200 | 3300 | 3730 | 4960 | 6030 |
| 17 | 3420 | 5890 | 5390 | 4890 | 5420 | 5330 | 5170 | 4500 | 4090 | 4370 | 2190 | 4540 |
| 18 | 3810 | 6250 | 6800 | 5410 | 5420 | 5110 | 5290 | 4920 | 5080 | 4480 | 2170 | 4250 |
| 19 | 6100 | 5550 | 7060 | 3130 | 8840 | 6100 | 5140 | 2860 | 3620 | 4530 | 3660 | 4290 |
| 20 | 6490 | 5610 | 6000 | 3860 | 5430 | 5870 | 5340 | 6140 | 3920 | 3490 | 1720 | 3930 |
| 21 | 4230 | 5710 | 6690 | 5010 | 3670 | 5870 | 4310 | 1100 | 4640 | 2130 | 3320 | 3540 |
| 22 | 4720 | 5790 | 6180 | 5740 | 4650 | 6670 | 4900 | 3470 | 3520 | 3900 | 4570 | 2930 |
| 23 | 5980 | 4390 | 4390 | 4390 | 5420 | 5790 | 4980 | 4320 | 4440 | 4800 | 3950 | 2910 |
| 24 | 5380 | 6500 | 5190 | 5780 | 5430 | 6790 | 5040 | 1690 | 3310 | 3610 | 4020 | 6040 |
| 25 | 5750 | 4620 | 2650 | 5540 | 5360 | 7560 | 5370 | 3690 | 4600 | 4990 | 3540 | 4710 |
| 26 | 6290 | 3970 | 4340 | 2790 | 5200 | 8250 | 4920 | 2330 | 4520 | 4770 | 3390 | 3080 |
| 27 | 6340 | 5480 | 6140 | 4440 | 5150 | 4610 | 1000 | 1820 | 3050 | 2620 | 3200 | 4330 |
| 28 | 4040 | 7560 | 4780 | 4810 | 5430 | 5330 | 3830 | 4530 | 3770 | 3090 | 4940 | 2670 |
| 29 | 5760 | 7750 | 3110 | 6210 | --- | 7630 | 4970 | 3560 | 1010 | 5110 | 1670 | 3090 |
| 30 | 3750 | 7750 | 4140 | 5300 | --- | 6460 | 6100 | 3670 | 3210 | 4600 | 2100 | 4380 |
| 31 | 4290 | --- | 5970 | 4790 | --- | 5920 | --- | 4360 | --- | 4250 | 3100 | --- |
| TOTAL | 148930 | 183040 | 170991 | 138110 | 159210 | 183680 | 179000 | 118240 | 116600 | 120000 | 107100 | 109310 |
| MEAN | 4804 | 6101 | 5516 | 4455 | 5686 | 5925 | 5967 | 3814 | 3887 | 3871 | 3455 | 3644 |
| MAX | 6490 | 8580 | 8830 | 6210 | 9920 | 8250 | 9140 | 6140 | 6180 | 6120 | 5060 | 6040 |
| MIN | 3120 | 3810 | 701 | 2730 | 2900 | 3090 | 1000 | 1100 | 1010 | 2040 | 1520 | 1760 |
| AC-FT | 295400 | 363100 | 339200 | 273900 | 315800 | 364300 | 355000 | 234500 | 231300 | 238000 | 212400 | 216800 |
| CAL YR 1984 | TOTAL | 1938655 | MEAN | 5297 | MAX | 11400 | MIN | 46 | AC-FT | 3845000 | | |
| WTR YR 1985 | TOTAL | 1734211 | MEAN | 4751 | MAX | 9920 | MIN | 701 | AC-FT | 3440000 | | |

11367500 McCloud River Near McCloud, CA

LOCATION.--Lat 41°11'18", long 122°03'52", in NW 1/4 NE 1/4 sec.34, T.39 N., R.2 W., Siskiyou County, Hydrologic Unit 18020004, on right bank 0.4 mi downstream from Angel Creek, and 6 mi southeast of McCloud.

DRAINAGE AREA.--358 mi².

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

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

GAGE.--Water-stage recorder. Elevation of gage is 2,711.2 ft above National Geodetic Vertical Datum of 1929, from river-profile map.

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

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

AVERAGE DISCHARGE.--54 years, 935 ft³/s, 677,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,800 ft³/s, Dec. 21, 1955, gage heights, 9.42 ft, in gage well, 10.7 ft from floodmarks, from rating curve extended above 8,800 ft³/s on basis of slope-area measurement of peak flow; minimum discharge, 524 ft³/s, Nov. 23, 24, 1932.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|--|------|--------------------------------|------------------|------|------|--------------------------------|------------------|
| Nov. 13 | 1145 | *1,320 | *2.22 | | | | |
| Minimum daily, 758 ft ³ /s, Sept. 29, 30. | | | | | | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|
| 1 | 925 | 912 | 933 | 893 | 868 | 861 | 901 | 915 | 849 | 793 | 780 | 760 |
| 2 | 925 | 916 | 932 | 893 | 868 | 861 | 908 | 916 | 876 | 789 | 777 | 762 |
| 3 | 925 | 948 | 930 | 893 | 868 | 857 | 923 | 916 | 875 | 789 | 777 | 764 |
| 4 | 925 | 925 | 925 | 889 | 864 | 861 | 935 | 910 | 853 | 789 | 777 | 760 |
| 5 | 925 | 911 | 922 | 886 | 861 | 861 | 947 | 905 | 841 | 789 | 777 | 760 |
| 6 | 923 | 914 | 918 | 887 | 861 | 864 | 963 | 899 | 837 | 789 | 777 | 760 |
| 7 | 918 | 919 | 918 | 891 | 870 | 861 | 990 | 893 | 835 | 789 | 776 | 765 |
| 8 | 918 | 924 | 918 | 887 | 868 | 855 | 1010 | 892 | 831 | 789 | 771 | 811 |
| 9 | 918 | 930 | 918 | 888 | 863 | 855 | 1010 | 887 | 826 | 789 | 771 | 793 |
| 10 | 925 | 931 | 944 | 886 | 861 | 856 | 1020 | 885 | 823 | 787 | 771 | 776 |
| 11 | 930 | 940 | 981 | 886 | 861 | 858 | 1030 | 880 | 819 | 783 | 771 | 770 |
| 12 | 920 | 1030 | 965 | 883 | 861 | 859 | 1020 | 874 | 819 | 783 | 771 | 765 |
| 13 | 918 | 1270 | 947 | 880 | 860 | 859 | 1010 | 872 | 816 | 783 | 771 | 765 |
| 14 | 918 | 1170 | 939 | 880 | 859 | 860 | 1020 | 868 | 813 | 783 | 771 | 767 |
| 15 | 918 | 1060 | 939 | 880 | 861 | 860 | 1040 | 865 | 812 | 783 | 771 | 765 |
| 16 | 920 | 1010 | 931 | 880 | 861 | 861 | 1040 | 861 | 807 | 783 | 770 | 765 |
| 17 | 919 | 985 | 925 | 880 | 861 | 861 | 1010 | 865 | 807 | 783 | 765 | 765 |
| 18 | 918 | 984 | 920 | 880 | 860 | 864 | 985 | 880 | 807 | 783 | 769 | 762 |
| 19 | 918 | 981 | 918 | 880 | 861 | 868 | 976 | 880 | 806 | 783 | 771 | 760 |
| 20 | 918 | 976 | 915 | 880 | 861 | 868 | 963 | 869 | 801 | 783 | 768 | 760 |
| 21 | 917 | 965 | 912 | 880 | 860 | 873 | 953 | 855 | 801 | 783 | 765 | 760 |
| 22 | 912 | 954 | 912 | 880 | 861 | 870 | 944 | 851 | 801 | 781 | 765 | 760 |
| 23 | 912 | 954 | 909 | 877 | 861 | 870 | 935 | 849 | 801 | 778 | 765 | 760 |
| 24 | 912 | 954 | 905 | 874 | 861 | 909 | 926 | 847 | 798 | 777 | 765 | 760 |
| 25 | 912 | 939 | 905 | 874 | 861 | 931 | 921 | 843 | 795 | 777 | 765 | 760 |
| 26 | 912 | 932 | 905 | 874 | 861 | 925 | 915 | 842 | 795 | 777 | 765 | 760 |
| 27 | 912 | 947 | 905 | 874 | 861 | 911 | 912 | 837 | 795 | 777 | 765 | 760 |
| 28 | 912 | 949 | 900 | 874 | 861 | 897 | 915 | 840 | 795 | 777 | 765 | 759 |
| 29 | 912 | 945 | 899 | 871 | --- | 888 | 917 | 852 | 795 | 777 | 765 | 758 |
| 30 | 912 | 939 | 898 | 868 | --- | 887 | 915 | 850 | 795 | 778 | 765 | 758 |
| 31 | 912 | --- | 893 | 868 | --- | 893 | --- | 847 | --- | 784 | 760 | --- |
| TOTAL | 28461 | 29114 | 28581 | 27316 | 24145 | 27064 | 28954 | 27045 | 24524 | 24288 | 23862 | 22951 |
| MEAN | 918 | 970 | 922 | 881 | 862 | 873 | 965 | 872 | 817 | 783 | 770 | 765 |
| MAX | 930 | 1270 | 981 | 893 | 870 | 931 | 1040 | 916 | 876 | 793 | 780 | 811 |
| MIN | 912 | 911 | 893 | 868 | 859 | 855 | 901 | 837 | 795 | 777 | 760 | 758 |
| AC-FT | 56450 | 57750 | 56690 | 54180 | 47890 | 53680 | 57430 | 53640 | 48640 | 48180 | 47330 | 45520 |
| CAL YR 1984 | TOTAL | 393768 | MEAN | 1076 | MAX | 2130 | MIN | 893 | AC-FT | 781000 | | |
| WTR YR 1985 | TOTAL | 316305 | MEAN | 867 | MAX | 1270 | MIN | 758 | AC-FT | 627400 | | |

SACRAMENTO RIVER BASIN

11367720 McCLOUD-IRON CANYON DIVERSION TUNNEL NEAR McCLOUD, CA

LOCATION.--Lat 41°08'06", long 122°04'26", in SE 1/4 SW 1/4 sec.22, T.38 N., R.2 W., Shasta County, Hydrologic Unit 18020004, Shasta National Forest, on left bank of Lake McCCloud, 8.8 mi southeast of McCCloud.

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

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

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

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

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

AVERAGE DISCHARGE.--19 years (water years 1967-85), 966 ft³/s, 699,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,890 ft³/s several days during May and June 1967; no flow several days in 1965-68, 1971, 1978.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|
| 1 | 848 | 913 | 925 | 895 | 881 | 827 | 926 | 826 | 575 | 720 | 823 | 654 |
| 2 | 830 | 921 | 925 | 922 | 850 | 916 | 948 | 816 | 590 | 707 | 828 | 668 |
| 3 | 813 | 928 | 925 | 920 | 852 | 898 | 959 | 785 | 592 | 753 | 863 | 659 |
| 4 | 833 | 929 | 924 | 890 | 839 | 923 | 939 | 760 | 627 | 789 | 808 | 643 |
| 5 | 817 | 930 | 920 | 872 | 848 | 902 | 958 | 713 | 645 | 819 | 811 | 628 |
| 6 | 880 | 933 | 922 | 906 | 825 | 886 | 977 | 663 | 663 | 793 | 803 | 646 |
| 7 | 831 | 936 | 920 | 909 | 776 | 917 | 980 | 656 | 690 | 761 | 803 | 618 |
| 8 | 836 | 936 | 920 | 878 | 874 | 873 | 1060 | 686 | 671 | 750 | 810 | 680 |
| 9 | 906 | 941 | 890 | 893 | 902 | 835 | 1050 | 717 | 676 | 724 | 819 | 665 |
| 10 | 910 | 946 | 899 | 934 | 878 | 810 | 1070 | 690 | 656 | 726 | 744 | 672 |
| 11 | 917 | 961 | 915 | 952 | 838 | 840 | 1070 | 619 | 674 | 789 | 760 | 664 |
| 12 | 918 | 988 | 924 | 941 | 810 | 854 | 1020 | 582 | 727 | 807 | 765 | 680 |
| 13 | 896 | 1000 | 1070 | 881 | 820 | 832 | 1020 | 622 | 678 | 789 | 743 | 689 |
| 14 | 847 | 1010 | 1100 | 898 | 840 | 826 | 998 | 631 | 773 | 814 | 746 | 644 |
| 15 | 812 | 1000 | 1090 | 875 | 895 | 850 | 1030 | 631 | 740 | 826 | 743 | 635 |
| 16 | 847 | 993 | 1080 | 874 | 882 | 856 | 1010 | 639 | 712 | 850 | 725 | 670 |
| 17 | 859 | 984 | 1080 | 850 | 886 | 846 | 1030 | 643 | 733 | 849 | 731 | 650 |
| 18 | 870 | 980 | 1070 | 877 | 848 | 824 | 1040 | 618 | 727 | 852 | 720 | 659 |
| 19 | 878 | 975 | 1070 | 877 | 832 | 829 | 1040 | 561 | 722 | 853 | 708 | 654 |
| 20 | 884 | 967 | 1040 | 850 | 835 | 851 | 969 | 614 | 725 | 823 | 711 | 648 |
| 21 | 888 | 960 | 1030 | 871 | 845 | 854 | 904 | 622 | 729 | 804 | 711 | 635 |
| 22 | 893 | 956 | 1040 | 881 | 845 | 892 | 921 | 582 | 719 | 827 | 730 | 664 |
| 23 | 897 | 954 | 1040 | 863 | 798 | 854 | 895 | 567 | 715 | 869 | 725 | 652 |
| 24 | 900 | 950 | 1020 | 897 | 804 | 884 | 899 | 563 | 715 | 833 | 708 | 691 |
| 25 | 900 | 946 | 998 | 878 | 851 | 892 | 908 | 524 | 732 | 834 | 705 | 661 |
| 26 | 904 | 943 | 1010 | 860 | 856 | 908 | 889 | 481 | 732 | 833 | 696 | 629 |
| 27 | 908 | 943 | 998 | 883 | 897 | 893 | 792 | 458 | 709 | 830 | 689 | 646 |
| 28 | 908 | 943 | 999 | 859 | 776 | 910 | 801 | 526 | 705 | 792 | 715 | 622 |
| 29 | 900 | 943 | 988 | 877 | --- | 959 | 765 | 517 | 688 | 814 | 670 | 639 |
| 30 | 905 | 924 | 980 | 841 | --- | 954 | 785 | 544 | 719 | 814 | 689 | 686 |
| 31 | 909 | --- | 907 | 832 | --- | 939 | --- | 584 | --- | 814 | 689 | --- |
| TOTAL | 27144 | 28633 | 30619 | 27436 | 23683 | 27134 | 28653 | 19440 | 20759 | 24863 | 23191 | 19653 |
| MEAN | 876 | 954 | 988 | 885 | 846 | 875 | 955 | 627 | 692 | 802 | 748 | 655 |
| MAX | 918 | 1010 | 1100 | 952 | 902 | 959 | 1070 | 826 | 773 | 869 | 863 | 691 |
| MIN | 812 | 913 | 890 | 832 | 776 | 810 | 765 | 458 | 575 | 707 | 670 | 618 |
| AC-FT | 53840 | 56790 | 60730 | 54420 | 46980 | 53820 | 56830 | 38560 | 41180 | 49320 | 46000 | 38980 |
| CAL YR 1984 | TOTAL | 401513 | MEAN | 1097 | MAX | 1420 | MIN | 812 | AC-FT | 796400 | | |
| WTR YR 1985 | TOTAL | 301208 | MEAN | 825 | MAX | 1100 | MIN | 458 | AC-FT | 597400 | | |

11367760 McCLOUD RIVER BELOW McCLOUD DAM, NEAR McCLOUD, CA

LOCATION.--Lat 41°07'44", long 122°04'08", in SW 1/4 NE 1/4 sec.27, T.38 N., R.2 W., Shasta County, Hydrologic Unit 18020004, Shasta National Forest, on left bank 0.1 mi downstream from Lizard Creek, 0.6 mi downstream from McCloud Dam, and 9 mi southeast of McCloud.

DRAINAGE AREA.--404 mi².

PERIOD OF RECORD.--April 1966 to current year (operated as a low-flow station only).

GAGE.--Water-stage recorder. Datum of gage is 2,398.76 ft above National Geodetic Vertical Datum of 1929 (levels by Pacific Gas and Electric Co.) Prior to April 7, 1972, at datum 3.00 ft higher.

REMARKS.--Low flow regulated by Lake McCloud (station 11367740) since November 1965. Most of McCloud River runoff is diverted from reservoir through tunnel to Iron Canyon Reservoir (station 11363920) in Pit River basin. This station records fishwater release. Prior to water year 1974, flow was computed up to 400 ft³/s. During water years 1975-81, because of channel changes, flow was computed up to 200 ft³/s. Currently, because of maximum required release, flow is computed to 210 ft³/s. See schematic diagram of Pit and McCloud River basins.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|------|------|------|------|------|------|-------|-------|-------|-------|-----|
| 1 | 204 | 205 | 154 | 137 | 141 | 144 | 108 | 139 | 185 | 193 | 193 | --- |
| 2 | 204 | 189 | 160 | 136 | 142 | 145 | 95 | 143 | 177 | 194 | 193 | --- |
| 3 | 204 | 194 | 163 | 136 | 144 | 146 | 80 | 143 | 181 | 194 | 193 | --- |
| 4 | 204 | 201 | 168 | 136 | 143 | 147 | 77 | 143 | 183 | 194 | 194 | --- |
| 5 | 204 | 203 | 173 | 136 | 145 | 146 | 78 | 142 | 184 | 194 | 196 | --- |
| 6 | 204 | 197 | 174 | 136 | 144 | 145 | 76 | 143 | 185 | 194 | 196 | --- |
| 7 | 204 | 196 | 177 | 132 | 141 | 144 | 76 | 144 | 172 | 194 | 196 | --- |
| 8 | 204 | 192 | 177 | 134 | 128 | 145 | 83 | 144 | 142 | 194 | 196 | 185 |
| 9 | 204 | 190 | 176 | 134 | 136 | 147 | 86 | 145 | 144 | 196 | 196 | 196 |
| 10 | 203 | 168 | 147 | 134 | 140 | 148 | 93 | 145 | 164 | 197 | 195 | 207 |
| 11 | 198 | 131 | 78 | 134 | 139 | 148 | 94 | 146 | 188 | 197 | 194 | 209 |
| 12 | 201 | 75 | 104 | 135 | 138 | 144 | 101 | 146 | 191 | 197 | 194 | --- |
| 13 | 201 | 74 | 127 | 136 | 139 | 142 | 112 | 146 | 191 | 196 | 196 | --- |
| 14 | 202 | 78 | 140 | 136 | 139 | 140 | 108 | 147 | 191 | 196 | 197 | --- |
| 15 | 202 | 117 | 147 | 136 | 136 | 139 | 113 | 151 | 192 | 196 | 199 | --- |
| 16 | 202 | 139 | 110 | 138 | 134 | 136 | 115 | 182 | 192 | 195 | 199 | --- |
| 17 | 202 | 147 | 97 | 138 | 134 | 130 | 118 | 183 | 191 | 193 | 200 | --- |
| 18 | 202 | 124 | 119 | 138 | 134 | 130 | 121 | 184 | 191 | 194 | 200 | --- |
| 19 | 202 | 132 | 122 | 138 | 134 | 127 | 124 | 184 | 191 | 193 | 200 | --- |
| 20 | 202 | 136 | 126 | 137 | 132 | 125 | 127 | 184 | 191 | 193 | 200 | --- |
| 21 | 202 | 144 | 128 | 137 | 132 | 127 | 127 | 184 | 191 | 193 | 200 | --- |
| 22 | 202 | 151 | 131 | 137 | 131 | 128 | 129 | 185 | 191 | 193 | 201 | --- |
| 23 | 202 | 158 | 133 | 136 | 132 | 131 | 131 | 186 | 191 | 193 | 201 | --- |
| 24 | 203 | 152 | 135 | 137 | 133 | 93 | 136 | 186 | 190 | 193 | 201 | --- |
| 25 | 203 | 159 | 136 | 137 | 133 | 107 | 142 | 186 | 192 | 193 | 202 | --- |
| 26 | 203 | 166 | 137 | 138 | 133 | 104 | 140 | 187 | 191 | 194 | 202 | --- |
| 27 | 203 | 161 | 138 | 138 | 132 | 112 | 138 | 187 | 192 | 141 | 203 | --- |
| 28 | 202 | 123 | 140 | 138 | 134 | 118 | 139 | 187 | 191 | 194 | 205 | --- |
| 29 | 202 | 130 | 141 | 140 | --- | 123 | 138 | 184 | 191 | 194 | 205 | --- |
| 30 | 202 | 143 | 141 | 140 | --- | 124 | 138 | 187 | 191 | 194 | 205 | --- |
| 31 | 204 | --- | 141 | 141 | --- | 118 | --- | 186 | --- | 194 | 206 | --- |
| TOTAL | 6281 | 4575 | 4340 | 4236 | 3823 | 4103 | 3343 | 5129 | 5537 | 5970 | 6158 | --- |
| MEAN | 203 | 153 | 140 | 137 | 137 | 132 | 111 | 165 | 185 | 193 | 199 | --- |
| MAX | 204 | 205 | 177 | 141 | 145 | 148 | 142 | 187 | 192 | 197 | 206 | --- |
| MIN | 198 | 74 | 78 | 132 | 128 | 93 | 76 | 139 | 142 | 141 | 193 | --- |
| AC-FT | 12460 | 9070 | 8610 | 8400 | 7580 | 8140 | 6630 | 10170 | 10980 | 11840 | 12210 | --- |

SACRAMENTO RIVER BASIN

11367800 McCloud River at Ah-Di-Na, Near McCloud, CA

LOCATION.--Lat 41°06'39", long 122°05'42", in NE 1/4 SW 1/4 sec.33, T.38 N., R.2 W., Shasta County, Hydrologic Unit 18020004, Shasta National Forest, on right bank at Ah-Di-Na, 1.8 mi downstream from Squirrel Creek, 3.9 mi downstream from McCloud Dam, and 9.6 mi south of McCloud.

DRAINAGE AREA.--427 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 2,160 ft above National Geodetic Vertical Datum of 1929, from topographic map.

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

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

AVERAGE DISCHARGE.--21 years (water years 1965-85), 347 ft³/s, 251,400 acre-ft/yr, unadjusted. 20 years, (water years 1966-85), 1,254 ft³/s, 908,500 acre-ft/yr, adjusted for diversion to Iron Canyon Reservoir and change in contents in Lake McCloud.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge prior to completion of McCloud Dam, 9,660 ft³/s, Dec. 22, 1964, gage height, 9.43 ft, from rating curve extended above 2,500 ft³/s; minimum daily, 86 ft³/s, Oct. 1-26, 1964. Maximum discharge since completion of McCloud Dam in 1965, 26,400 ft³/s, Jan. 16, 1974, gage height, 13.68 ft, in gage well, 15.38 ft from floodmarks, from rating curve extended above 8,000 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 41 ft³/s, Dec. 18-20, 1971 (caused by valve malfunction at dam).

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 21, 1955, reached a stage of 12.5 ft, discharge, 17,800 ft³/s, from rating curve extended above 2,500 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 406 ft³/s, Nov. 13, gage height, 2.09 ft; minimum daily, 159 ft³/s, July 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 216 | 214 | 213 | 168 | 168 | 183 | 180 | 174 | 209 | 207 | 204 | 213 |
| 2 | 216 | 234 | 214 | 166 | 167 | 183 | 181 | 176 | 212 | 208 | 203 | 214 |
| 3 | 215 | 213 | 213 | 165 | 169 | 183 | 181 | 175 | 205 | 208 | 203 | 214 |
| 4 | 215 | 214 | 214 | 165 | 168 | 184 | 175 | 175 | 205 | 208 | 204 | 214 |
| 5 | 215 | 214 | 215 | 165 | 172 | 185 | 176 | 174 | 205 | 207 | 205 | 214 |
| 6 | 215 | 217 | 214 | 165 | 170 | 185 | 173 | 174 | 205 | 207 | 203 | 217 |
| 7 | 215 | 214 | 214 | 166 | 174 | 183 | 173 | 174 | 196 | 207 | 203 | 214 |
| 8 | 214 | 217 | 214 | 165 | 171 | 174 | 173 | 174 | 165 | 207 | 203 | 229 |
| 9 | 214 | 216 | 215 | 165 | 170 | 175 | 172 | 174 | 166 | 208 | 203 | 219 |
| 10 | 218 | 225 | 240 | 165 | 170 | 177 | 172 | 174 | 179 | 209 | 202 | 218 |
| 11 | 215 | 248 | 220 | 164 | 169 | 179 | 169 | 174 | 206 | 207 | 201 | 216 |
| 12 | 214 | 289 | 213 | 164 | 169 | 178 | 170 | 174 | 208 | 207 | 201 | 217 |
| 13 | 214 | 340 | 213 | 165 | 169 | 178 | 176 | 173 | 207 | 207 | 202 | 214 |
| 14 | 214 | 216 | 213 | 165 | 170 | 177 | 171 | 174 | 208 | 206 | 204 | 216 |
| 15 | 214 | 210 | 214 | 164 | 170 | 178 | 172 | 176 | 209 | 206 | 205 | 217 |
| 16 | 216 | 213 | 175 | 165 | 170 | 179 | 171 | 203 | 208 | 205 | 205 | 217 |
| 17 | 214 | 214 | 166 | 167 | 170 | 174 | 170 | 206 | 207 | 203 | 205 | 219 |
| 18 | 214 | 216 | 171 | 167 | 169 | 178 | 170 | 206 | 207 | 203 | 206 | 219 |
| 19 | 214 | 212 | 171 | 167 | 171 | 177 | 170 | 206 | 207 | 203 | 206 | 219 |
| 20 | 214 | 214 | 170 | 167 | 170 | 175 | 172 | 206 | 206 | 203 | 205 | 219 |
| 21 | 214 | 212 | 171 | 167 | 169 | 176 | 172 | 206 | 205 | 203 | 204 | 219 |
| 22 | 214 | 212 | 171 | 167 | 169 | 175 | 171 | 206 | 205 | 203 | 205 | 219 |
| 23 | 214 | 214 | 171 | 166 | 169 | 177 | 171 | 206 | 205 | 203 | 205 | 221 |
| 24 | 214 | 212 | 170 | 167 | 171 | 177 | 173 | 206 | 205 | 203 | 205 | 221 |
| 25 | 214 | 212 | 172 | 166 | 172 | 177 | 178 | 206 | 206 | 203 | 206 | 219 |
| 26 | 214 | 213 | 170 | 167 | 174 | 174 | 177 | 207 | 206 | 204 | 207 | 219 |
| 27 | 212 | 223 | 174 | 167 | 172 | 172 | 175 | 207 | 205 | 159 | 208 | 220 |
| 28 | 213 | 216 | 172 | 167 | 172 | 174 | 175 | 212 | 205 | 203 | 209 | 218 |
| 29 | 215 | 213 | 174 | 167 | --- | 174 | 174 | 206 | 205 | 203 | 209 | 220 |
| 30 | 213 | 213 | 173 | 167 | --- | 177 | 174 | 207 | 205 | 205 | 209 | 219 |
| 31 | 213 | --- | 172 | 167 | --- | 176 | --- | 207 | --- | 206 | 209 | --- |
| TOTAL | 6646 | 6690 | 5982 | 5145 | 4764 | 5514 | 5207 | 5918 | 6072 | 6321 | 6349 | 6560 |
| MEAN | 214 | 223 | 193 | 166 | 170 | 178 | 174 | 191 | 202 | 204 | 205 | 219 |
| MAX | 218 | 340 | 240 | 168 | 174 | 185 | 181 | 212 | 212 | 209 | 209 | 234 |
| MIN | 212 | 210 | 166 | 164 | 167 | 172 | 169 | 173 | 165 | 159 | 201 | 213 |
| AC-FT | 13180 | 13270 | 11870 | 10210 | 9450 | 10940 | 10330 | 11740 | 12040 | 12540 | 12590 | 13010 |
| MEAN a | 1037 | 1223 | 1117 | 1047 | 1029 | 1062 | 1192 | 987 | 917 | 897 | 861 | 866 |
| AC-FT a | 64740 | 72770 | 68690 | 64370 | 57150 | 65330 | 70950 | 60690 | 54560 | 55130 | 52950 | 51540 |

CAL YR 1984 TOTAL 82186 MEAN 225 MAX 721 MIN 166 AC-FT 163000 MEAN a 1297 AC-FT a 941200
WTR YR 1985 TOTAL 71168 MEAN 195 MAX 340 MIN 159 AC-FT 141200 MEAN a 1019 AC-FT a 737900

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

11368000 McCLOUD RIVER ABOVE SHASTA LAKE, CA

LOCATION.--Lat 40°57'30", long 122°13'07", unsurveyed, T.36 N., R.3 W., Shasta County, Hydrologic Unit 18020004, on right bank just upstream from Shasta Lake, 0.2 mi downstream from Big Bollibokka Creek, and 11.3 mi east of Lamoine.

DRAINAGE AREA.--604 mi².

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

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

GAGE.--Water-stage recorder. Datum of gage is 1,100.00 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Low flow completely regulated by Lake McCloud (station 11367740) 16.5 mi upstream since Nov. 3, 1965. Diversions to Iron Canyon Reservoir (station 11363920) began Dec. 1, 1965. See schematic diagram of Pit and McCloud River basins.

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

AVERAGE DISCHARGE.--20 years (water years 1946-65), 1,699 ft³/s, 1,230,000 acre-ft/yr prior to storage and interbasin diversion to Pit River; 20 years (water years 1966-85), 813 ft³/s, 589,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 45,500 ft³/s, Jan. 16, 1974, gage height, 28.26 ft, from rating curve extended above 15,000 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 109 ft³/s, Dec. 16-20, 1971.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,200 ft³/s, Nov. 13, gage height, 13.40 ft; minimum daily, 221 ft³/s, July 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|----------|----------|---------|--------------|-------|-------|-------|-------|-------|-------|
| 1 | 308 | 308 | 696 | 365 | 312 | 352 | 622 | 325 | 348 | 273 | 277 | 269 |
| 2 | 304 | 558 | 639 | 359 | 313 | 351 | 638 | 326 | 392 | 275 | 273 | 275 |
| 3 | 302 | 396 | 616 | 354 | 312 | 346 | 614 | 323 | 312 | 274 | 269 | 275 |
| 4 | 302 | 334 | 584 | 350 | 308 | 351 | 573 | 319 | 312 | 274 | 267 | 273 |
| 5 | 301 | 324 | 563 | 347 | 308 | 356 | 546 | 318 | 312 | 273 | 270 | 272 |
| 6 | 301 | 395 | 541 | 348 | 308 | 370 | 521 | 316 | 308 | 272 | 267 | 277 |
| 7 | 300 | 373 | 526 | 378 | 392 | 381 | 503 | 311 | 308 | 271 | 265 | 354 |
| 8 | 300 | 447 | 517 | 367 | 674 | 360 | 485 | 308 | 270 | 270 | 263 | 528 |
| 9 | 300 | 412 | 513 | 371 | 498 | 363 | 466 | 314 | 262 | 268 | 262 | 387 |
| 10 | 320 | 694 | 706 | 363 | 432 | 384 | 455 | 320 | 267 | 270 | 259 | 334 |
| 11 | 342 | 1100 | 899 | 355 | 403 | 408 | 439 | 319 | 295 | 267 | 259 | 314 |
| 12 | 306 | 2210 | 808 | 350 | 391 | 434 | 424 | 316 | 295 | 267 | 258 | 308 |
| 13 | 305 | 2520 | 718 | 349 | 385 | 433 | 420 | 312 | 292 | 266 | 257 | 304 |
| 14 | 301 | 1160 | 650 | 346 | 386 | 431 | 415 | 307 | 291 | 265 | 255 | 308 |
| 15 | 300 | 775 | 636 | 342 | 389 | 434 | 410 | 307 | 290 | 264 | 259 | 296 |
| 16 | 318 | 760 | 563 | 340 | 395 | 433 | 401 | 324 | 289 | 263 | 258 | 292 |
| 17 | 320 | 710 | 515 | 336 | 395 | 428 | 391 | 336 | 287 | 260 | 258 | 291 |
| 18 | 315 | 897 | 493 | 336 | 389 | 427 | 384 | 334 | 286 | 260 | 268 | 292 |
| 19 | 320 | 772 | 474 | 336 | 385 | 420 | 376 | 333 | 286 | 260 | 271 | 292 |
| 20 | 314 | 796 | 458 | 334 | 379 | 411 | 370 | 331 | 285 | 260 | 267 | 292 |
| 21 | 308 | 759 | 446 | 332 | 370 | 402 | 380 | 329 | 280 | 262 | 266 | 292 |
| 22 | 304 | 671 | 432 | 328 | 368 | 393 | 366 | 328 | 280 | 265 | 265 | 288 |
| 23 | 304 | 618 | 423 | 326 | 365 | 389 | 355 | 326 | 282 | 261 | 262 | 292 |
| 24 | 304 | 768 | 415 | 325 | 362 | 509 | 346 | 326 | 279 | 258 | 262 | 292 |
| 25 | 303 | 700 | 412 | 322 | 360 | 451 | 349 | 321 | 278 | 255 | 261 | 285 |
| 26 | 304 | 627 | 405 | 322 | 355 | 467 | 345 | 322 | 277 | 256 | 262 | 285 |
| 27 | 302 | 821 | 400 | 320 | 349 | 454 | 338 | 326 | 275 | 255 | 261 | 286 |
| 28 | 315 | 1270 | 393 | 322 | 345 | 447 | 333 | 348 | 273 | 221 | 263 | 285 |
| 29 | 332 | 960 | 386 | 317 | --- | 445 | 328 | 348 | 272 | 258 | 262 | 285 |
| 30 | 310 | 803 | 382 | 315 | --- | 477 | 326 | 331 | 272 | 268 | 263 | 286 |
| 31 | 306 | --- | 370 | 312 | --- | 558 | --- | 330 | --- | 304 | 263 | --- |
| TOTAL | 9571 | 23938 | 16579 | 10567 | 10628 | 12865 | 12919 | 10034 | 8755 | 8215 | 8172 | 9110 |
| MEAN | 309 | 798 | 535 | 341 | 380 | 415 | 431 | 324 | 292 | 265 | 264 | 304 |
| MAX | 342 | 2520 | 899 | 378 | 674 | 558 | 638 | 348 | 392 | 304 | 277 | 528 |
| MIN | 300 | 308 | 370 | 312 | 308 | 346 | 326 | 307 | 262 | 221 | 255 | 269 |
| AC-FT | 18980 | 47480 | 32880 | 20960 | 21080 | 25520 | 25620 | 19900 | 17370 | 16290 | 16210 | 18070 |
| CAL YR 1984 | TOTAL | 204538 | MEAN 559 | MAX 4070 | MIN 294 | AC-FT 405700 | | | | | | |
| WTR YR 1985 | TOTAL | 141353 | MEAN 387 | MAX 2520 | MIN 221 | AC-FT 280400 | | | | | | |

SACRAMENTO RIVER BASIN

11370000 SHASTA LAKE NEAR REDDING, CA

LOCATION.--Lat 40°43'08", long 122°25'12", in SE 1/4 NW 1/4 sec.15, T.33 N., R.5 W., Shasta County, Hydrologic Unit 18020005, in Shasta Dam on Sacramento River near right bank, 2 mi downstream from Squaw Creek, and 9.5 mi north of Redding.

DRAINAGE AREA.--6,421 mi², excluding Goose Lake basin.

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

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to July 10, 1944, nonrecording gage at various sites near dam at same datum.

REMARKS.--Lake is formed by concrete gravity-type dam completed in 1949; regulation began Dec. 30, 1943. Usable capacity, 4,436,400 acre-ft between elevations 737.75 ft, invert of lowest set of river outlets and 1,067.0 ft, top of flashboard gates on drum-type spillway gates. Operating pool elevation 840.0 ft, capacity, 587,127 acre-ft to 1,067.0 ft, capacity, 4,552,090 acre-ft. Dead storage, 115,800 acre-ft. Installation of flashboard gates on top of drum gates completed Nov. 12, 1964. All water passes down the Sacramento River, most of which is through powerplant at dam. Figures given herein represent total contents at 2400 hours. Lake is used for flood control, power generation, irrigation and recreation. See schematic diagram of Pit and McCloud River basins.

COOPERATION.--Records were provided by Bureau of Reclamation.

EXTREMES (at 2400) FOR PERIOD OF RECORD.--Maximum contents, 4,550,300 acre-ft, May 19, 1967, elevation, 1,066.94 ft; minimum since first filling, 562,600 acre-ft, Sept. 13, 1977, elevation, 836.68 ft.

EXTREMES (at 2400) FOR CURRENT YEAR.--Maximum contents, 3,595,000 acre-ft, Apr. 19-21, elevation, 1,032.42 ft; minimum, 1,891,000 acre-ft, Sept. 6, elevation, 950.85 ft.

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

| | | | | | |
|-----|-----------|-----|-----------|-------|-----------|
| 830 | 515,500 | 910 | 1,291,900 | 990 | 2,616,600 |
| 840 | 587,100 | 920 | 1,424,800 | 1,000 | 2,828,500 |
| 850 | 665,500 | 930 | 1,566,200 | 1,010 | 3,051,800 |
| 860 | 751,000 | 940 | 1,717,300 | 1,020 | 3,286,900 |
| 870 | 843,600 | 950 | 1,877,000 | 1,030 | 3,533,500 |
| 880 | 943,900 | 960 | 2,046,800 | 1,050 | 4,063,100 |
| 890 | 1,051,700 | 970 | 2,226,100 | 1,067 | 4,552,100 |
| 900 | 1,167,900 | 980 | 2,416,000 | | |

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1 | 3234000 | 3151000 | 3258000 | 3102000 | 3120000 | 3245000 | 3455000 | 3539000 | 3248000 | 2835000 | 2276000 | 1919000 |
| 2 | 3228000 | 3158000 | 3265000 | 3101000 | 3123000 | 3249000 | 3465000 | 3532000 | 3243000 | 2822000 | 2261000 | 1910000 |
| 3 | 3222000 | 3159000 | 3260000 | 3103000 | 3121000 | 3253000 | 3475000 | 3525000 | 3235000 | 2802000 | 2249000 | 1904000 |
| 4 | 3217000 | 3157000 | 3242000 | 3103000 | 3117000 | 3257000 | 3487000 | 3518000 | 3229000 | 2786000 | 2232000 | 1897000 |
| 5 | 3209000 | 3157000 | 3230000 | 3100000 | 3116000 | 3262000 | 3499000 | 3512000 | 3221000 | 2770000 | 2218000 | 1894000 |
| 6 | 3203000 | 3159000 | 3218000 | 3097000 | 3114000 | 3269000 | 3511000 | 3505000 | 3215000 | 2750000 | 2202000 | 1891000 |
| 7 | 3197000 | 3162000 | 3205000 | 3101000 | 3123000 | 3277000 | 3521000 | 3497000 | 3206000 | 2731000 | 2187000 | 1892000 |
| 8 | 3196000 | 3164000 | 3195000 | 3099000 | 3138000 | 3281000 | 3533000 | 3487000 | 3193000 | 2710000 | 2175000 | 1896000 |
| 9 | 3191000 | 3166000 | 3180000 | 3101000 | 3151000 | 3282000 | 3542000 | 3475000 | 3183000 | 2691000 | 2162000 | 1901000 |
| 10 | 3191000 | 3176000 | 3174000 | 3103000 | 3162000 | 3287000 | 3550000 | 3467000 | 3169000 | 2670000 | 2144000 | 1906000 |
| 11 | 3189000 | 3197000 | 3169000 | 3105000 | 3165000 | 3292000 | 3559000 | 3457000 | 3158000 | 2653000 | 2129000 | 1909000 |
| 12 | 3186000 | 3234000 | 3162000 | 3101000 | 3169000 | 3297000 | 3567000 | 3447000 | 3150000 | 2637000 | 2115000 | 1911000 |
| 13 | 3183000 | 3270000 | 3154000 | 3098000 | 3174000 | 3303000 | 3571000 | 3440000 | 3139000 | 2616000 | 2101000 | 1914000 |
| 14 | 3180000 | 3272000 | 3143000 | 3099000 | 3179000 | 3310000 | 3580000 | 3422000 | 3124000 | 2595000 | 2089000 | 1915000 |
| 15 | 3176000 | 3268000 | 3139000 | 3099000 | 3184000 | 3318000 | 3583000 | 3404000 | 3109000 | 2574000 | 2074000 | 1919000 |
| 16 | 3175000 | 3268000 | 3136000 | 3099000 | 3190000 | 3323000 | 3584000 | 3382000 | 3095000 | 2553000 | 2059000 | 1925000 |
| 17 | 3170000 | 3264000 | 3130000 | 3099000 | 3197000 | 3328000 | 3588000 | 3375000 | 3081000 | 2535000 | 2043000 | 1929000 |
| 18 | 3167000 | 3258000 | 3125000 | 3100000 | 3203000 | 3332000 | 3592000 | 3369000 | 3069000 | 2515000 | 2030000 | 1933000 |
| 19 | 3166000 | 3250000 | 3121000 | 3099000 | 3210000 | 3339000 | 3595000 | 3362000 | 3052000 | 2494000 | 2018000 | 1936000 |
| 20 | 3166000 | 3245000 | 3117000 | 3099000 | 3216000 | 3352000 | 3595000 | 3352000 | 3038000 | 2473000 | 2010000 | 1939000 |
| 21 | 3161000 | 3238000 | 3114000 | 3101000 | 3218000 | 3365000 | 3595000 | 3342000 | 3026000 | 2449000 | 2000000 | 1942000 |
| 22 | 3159000 | 3230000 | 3115000 | 3103000 | 3221000 | 3372000 | 3594000 | 3332000 | 3008000 | 2428000 | 1992000 | 1944000 |
| 23 | 3160000 | 3220000 | 3115000 | 3104000 | 3225000 | 3378000 | 3593000 | 3326000 | 2993000 | 2409000 | 1984000 | 1947000 |
| 24 | 3162000 | 3220000 | 3115000 | 3107000 | 3228000 | 3386000 | 3592000 | 3314000 | 2975000 | 2394000 | 1975000 | 1955000 |
| 25 | 3164000 | 3208000 | 3112000 | 3109000 | 3232000 | 3394000 | 3590000 | 3304000 | 2958000 | 2380000 | 1966000 | 1962000 |
| 26 | 3164000 | 3201000 | 3110000 | 3109000 | 3235000 | 3409000 | 3589000 | 3293000 | 2944000 | 2367000 | 1963000 | 1963000 |
| 27 | 3165000 | 3215000 | 3110000 | 3109000 | 3237000 | 3414000 | 3579000 | 3281000 | 2923000 | 2349000 | 1958000 | 1967000 |
| 28 | 3162000 | 3230000 | 3111000 | 3111000 | 3240000 | 3420000 | 3568000 | 3275000 | 2902000 | 2332000 | 1954000 | 1970000 |
| 29 | 3162000 | 3242000 | 3108000 | 3114000 | --- | 3429000 | 3557000 | 3268000 | 2878000 | 2317000 | 1944000 | 1974000 |
| 30 | 3158000 | 3252000 | 3108000 | 3117000 | --- | 3437000 | 3546000 | 3260000 | 2856000 | 2302000 | 1935000 | 1977000 |
| 31 | 3155000 | --- | 3105000 | 3118000 | --- | 3445000 | --- | 3255000 | --- | 2292000 | 1929000 | --- |
| MAX | 3234000 | 3272000 | 3265000 | 3118000 | 3240000 | 3445000 | 3595000 | 3539000 | 3248000 | 2835000 | 2276000 | 1977000 |
| MIN | 3155000 | 3151000 | 3105000 | 3097000 | 3114000 | 3245000 | 3455000 | 3255000 | 2856000 | 2292000 | 1929000 | 1891000 |
| a | 1014.47 | 1018.56 | 1012.33 | 1012.88 | 1018.06 | 1026.49 | 1030.33 | 1018.69 | 1001.27 | 973.54 | 953.13 | 956.01 |
| b | -85100 | +97000 | -147000 | +13000 | +122000 | +205000 | +101000 | -291000 | -399000 | -564000 | -363000 | +48000 |
| c | 4080 | 2000 | 1690 | 2430 | 3770 | 4200 | 8600 | 10930 | 13290 | 13800 | 9910 | 4810 |

CAL YR 1984 b -352500

WTR YR 1985 b -1263100

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

c Evaporation, in acre-feet.

11370500 SACRAMENTO RIVER AT KESWICK, CA
(National stream-quality accounting network station)

LOCATION.--Lat 40°36'04", long 122°26'36", in SW 1/4 NW 1/4 sec.28, T.32 N., R.5 W., Shasta County, Hydrologic Unit 18020101, on right bank 0.4 mi upstream from Middle Creek, 0.8 mi downstream from Keswick Dam, 1.6 mi downstream from Keswick, and 10 mi downstream from Shasta Dam.

DRAINAGE AREA.--6,468 mi², excluding Goose Lake basin.

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 479.81 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1939, at site 1.5 mi upstream at datum 20.2 ft higher and Oct. 1, 1939, to Apr. 30, 1942, at site 1.5 mi upstream at datum 15.2 ft higher. Aug. 20, 1960, to July 3, 1973, auxiliary water-stage recorder at city of Redding pumping plant 2.1 mi downstream.

REMARKS.--Estimated daily discharges Oct. 21-25 and Apr. 4-9. Records good. Flow completely regulated by Shasta Dam beginning Dec. 30, 1943 (station 11370000) and Keswick Reservoir, capacity, 4,170 acre-ft. No diversion for irrigation between Shasta Dam and station at Keswick. Since December 1963, water is released from Whiskeytown Lake (station 11371700), through a tunnel to Spring Creek powerplant (station 11371600), and then into Keswick Reservoir. See schematic diagram of Pit and McCloud River basins.

AVERAGE DISCHARGE.--25 years (water years 1939-63), 8,376 ft³/s, 6,064,000 acre-ft/yr, adjusted for change in contents and evaporation from Shasta Lake prior to transbasin diversion to Keswick Reservoir; 22 years (water years 1964-85), 9,059 ft³/s, 6,563,000 acre-ft/yr, including adjustment for transbasin diversion; unadjusted flow for period of record, 9,412 ft³/s, 6,819,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 186,000 ft³/s, Feb. 23, 1940, gage height, 47.2 ft site and datum then in use, from rating curve extended above 75,000 ft³/s on basis of peak discharge at Kennet plus 4,000 ft³/s estimated inflow; minimum observed, 2,730 ft³/s, Aug. 22, 1939. Maximum discharge since completion of Shasta Dam in 1944, 81,400 ft³/s, Apr. 1, 1974, gage height, 31.92 ft; maximum gage height, 32.22 ft, Jan. 24, 1970; minimum, 154 ft³/s, May 15, 1948.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 15,800 ft³/s, Nov. 25, gage height, 16.75 ft; minimum daily, 3,860 ft³/s, Sept. 17.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 7820 | 6870 | 9070 | 7230 | 6320 | 5270 | 4150 | 9520 | 8550 | 14300 | 12200 | 9010 |
| 2 | 7780 | 6890 | 9140 | 6310 | 6250 | 5250 | 4160 | 9550 | 8440 | 14600 | 12300 | 9080 |
| 3 | 7850 | 6850 | 12600 | 6330 | 6280 | 5270 | 4180 | 9490 | 8640 | 14600 | 12300 | 9050 |
| 4 | 7910 | 6870 | 14700 | 6240 | 6310 | 5390 | 4160 | 9520 | 8400 | 14500 | 12300 | 8600 |
| 5 | 7860 | 6860 | 14900 | 6250 | 6300 | 5310 | 4150 | 9560 | 8350 | 14600 | 12100 | 8080 |
| 6 | 7840 | 6870 | 15100 | 6170 | 6410 | 5280 | 4140 | 9540 | 8970 | 14600 | 12300 | 8070 |
| 7 | 7350 | 6860 | 15000 | 6200 | 6340 | 5270 | 4130 | 9550 | 9710 | 14800 | 12400 | 8020 |
| 8 | 6860 | 7060 | 14800 | 6210 | 6470 | 5260 | 4100 | 9620 | 10600 | 14900 | 12200 | 7740 |
| 9 | 6130 | 7170 | 15100 | 6210 | 6340 | 5290 | 4050 | 9600 | 10500 | 15200 | 12300 | 7290 |
| 10 | 6010 | 7280 | 15100 | 6230 | 6280 | 5290 | 4010 | 9600 | 10700 | 14500 | 12300 | 5930 |
| 11 | 6030 | 7320 | 15000 | 6140 | 6270 | 5280 | 4080 | 9200 | 10600 | 14700 | 12300 | 5890 |
| 12 | 6030 | 7560 | 14900 | 5910 | 5340 | 5250 | 5190 | 9160 | 10600 | 14600 | 12300 | 5310 |
| 13 | 6030 | 9420 | 14800 | 5890 | 4320 | 4100 | 6220 | 9330 | 10800 | 14500 | 12400 | 5300 |
| 14 | 6000 | 14900 | 15200 | 5990 | 4190 | 3980 | 6280 | 14500 | 11100 | 14700 | 12000 | 4740 |
| 15 | 6030 | 14700 | 12300 | 5900 | 4210 | 4140 | 6310 | 14000 | 11100 | 15000 | 12300 | 4640 |
| 16 | 6070 | 14900 | 12100 | 6060 | 4210 | 4160 | 6400 | 14100 | 11100 | 15200 | 12400 | 4640 |
| 17 | 6080 | 14600 | 12300 | 6040 | 4200 | 4190 | 6470 | 8870 | 11400 | 15000 | 12400 | 3860 |
| 18 | 6010 | 14700 | 12100 | 6280 | 4530 | 4140 | 6310 | 9470 | 11800 | 15400 | 10800 | 4650 |
| 19 | 6050 | 14700 | 12100 | 6280 | 5160 | 4150 | 6220 | 9470 | 11800 | 15400 | 10500 | 4980 |
| 20 | 6040 | 14500 | 10500 | 6210 | 5220 | 4140 | 7180 | 9420 | 11900 | 15400 | 10600 | 4960 |
| 21 | 5580 | 14800 | 10100 | 6190 | 5250 | 4110 | 7300 | 8940 | 12100 | 15500 | 10500 | 4160 |
| 22 | 4840 | 15200 | 8640 | 6210 | 5260 | 4130 | 7320 | 8870 | 12600 | 14900 | 10600 | 4110 |
| 23 | 4790 | 14500 | 8200 | 6300 | 5200 | 4140 | 7300 | 8610 | 12700 | 14100 | 9450 | 4090 |
| 24 | 4800 | 15100 | 8190 | 6180 | 5230 | 4140 | 7360 | 9280 | 12600 | 13300 | 9110 | 4710 |
| 25 | 4790 | 15200 | 8180 | 6230 | 5290 | 4120 | 7330 | 9440 | 12600 | 12400 | 8720 | 5150 |
| 26 | 5990 | 12100 | 8350 | 6220 | 5270 | 4170 | 7360 | 9400 | 12000 | 12300 | 8580 | 5150 |
| 27 | 6180 | 9750 | 8180 | 6240 | 5230 | 4150 | 8090 | 9360 | 14200 | 12200 | 8600 | 5120 |
| 28 | 6190 | 9730 | 8130 | 6250 | 5250 | 4160 | 8620 | 8980 | 14000 | 12300 | 9110 | 5160 |
| 29 | 6200 | 9690 | 8130 | 6250 | --- | 4160 | 8710 | 8540 | 14200 | 12300 | 9250 | 5170 |
| 30 | 6180 | 9740 | 8140 | 6260 | --- | 4160 | 9160 | 8580 | 14100 | 12200 | 9040 | 5090 |
| 31 | 5860 | --- | 8170 | 6280 | --- | 4160 | --- | 8710 | --- | 12300 | 9080 | --- |
| TOTAL | 196180 | 122690 | 359220 | 192690 | 152930 | 142010 | 180440 | 301780 | 336160 | 440300 | 342740 | 177750 |
| MEAN | 6328 | 10760 | 11590 | 6216 | 5462 | 4581 | 6015 | 9735 | 11210 | 14200 | 11060 | 5925 |
| MAX | 7910 | 15200 | 15200 | 7230 | 6470 | 5390 | 9160 | 14500 | 14200 | 15500 | 12400 | 9080 |
| MIN | 4790 | 6850 | 8130 | 5890 | 4190 | 3980 | 4010 | 8540 | 8350 | 12200 | 8580 | 3860 |
| AC-FT | 389100 | 640100 | 712500 | 382200 | 303300 | 281700 | 357900 | 598600 | 666800 | 873300 | 679800 | 352600 |
| MEAN a | 4439 | 10380 | 7418 | 5506 | 6785 | 7237 | 7718 | 4771 | 4466 | 4052 | 3969 | 4273 |
| AC-FT a | 273000 | 617600 | 456100 | 338600 | 376800 | 445000 | 459200 | 293300 | 265700 | 249100 | 244100 | 254300 |

CAL YR 1984 TOTAL 3656150 MEAN 9989 MAX 20900 MIN 4140 AC-FT 7252000 MEAN a 7921 AC-FT a 5750000
WTR YR 1985 TOTAL 3144890 MEAN 8616 MAX 15500 MIN 3860 AC-FT 6238000 MEAN a 5902 AC-FT a 4273000

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

SACRAMENTO RIVER BASIN

11370500 SACRAMENTO RIVER AT KESWICK, CA--Continued

WATER-QUALITY RECORDS

LOCATION.--Samples collected 2.1 mi downstream from gaging station.

PERIOD OF RECORD.--Water years 1951 to current year.

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

SPECIFIC CONDUCTANCE: Water years 1981-83.

WATER TEMPERATURES: Water years 1981-83.

SEDIMENT RECORDS: Water years 1978 to current year.

PERIOD OF DAILY RECORD.--

SPECIFIC CONDUCTANCE: October 1980 to September 1983.

WATER TEMPERATURES: October 1980 to September 1983.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | TIME | STREAM- FLOW, INSTAN- TANEOUS (CFS) | SPE- CIFIC CON- DUC- TANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | BARO- METRIC PRES- SURE (MM OF HG) | TUR- BID- ITY (NTU) | OXYGEN, DIS- SOLVED (MG/L) | OXYGEN, DIS- SOLVED SATUR- ATION) | COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) | STREP- TOCOCCI FECAL, KF AGAR (COLS. PER 100 ML) | HARD- NESS (MG/L AS CACO3) |
|--------------|------|---|---|--------------------------------|-----------------------------|--|------------------------------|-------------------------------------|---|--|--|--|
| NOV 19... | 0900 | 14900 | 123 | 7.1 | 12.0 | 770 | 2.7 | 8.5 | 78 | K4 | K8 | 46 |
| JAN 21... | 1045 | 6260 | 122 | 7.7 | 9.0 | 750 | 2.6 | 11.0 | 97 | K1 | K5 | 47 |
| FEB 20... | 1000 | 5200 | 116 | 7.4 | 8.0 | 745 | 2.7 | 11.6 | 100 | K2 | K7 | 46 |
| MAY 21... | 0850 | 8850 | 128 | 7.3 | 9.5 | 745 | 1.1 | 10.4 | 93 | K3 | >400 | 49 |
| JUL 24... | 0915 | 13300 | 128 | 7.5 | 11.5 | 745 | 1.5 | 10.0 | 94 | K21 | K8 | 49 |
| SEP 24... | 0900 | 4700 | 104 | 7.7 | 14.0 | 750 | 1.6 | 8.6 | 85 | K7 | K3 | 48 |

| DATE | HARD- NESS, NONCAR- BONATE (MG/L CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | BICAR- BONATE IT-FLD (MG/L AS HCO3) | ALKA- LINITY, CARBON- ATE IT-FLD (MG/L - CACO3) | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|--------------|--|--|--|--|-------------------|---|---|--|---|---|---|---|
| NOV 19... | 0 | 10 | 5.2 | 7.0 | 24 | .5 | 1.6 | 69 | 56 | 58 | 3.9 | 4.0 |
| JAN 21... | 0 | 10 | 5.3 | 6.7 | 23 | .4 | 1.3 | 71 | 58 | 58 | 5.5 | 2.0 |
| FEB 20... | 0 | 9.3 | 5.5 | 6.2 | 22 | .4 | 1.2 | 64 | 53 | 53 | 8.1 | 3.0 |
| MAY 21... | 0 | 11 | 5.2 | 7.0 | 23 | .4 | 1.5 | 73 | 60 | 60 | 5.6 | 3.1 |
| JUL 24... | 0 | 11 | 5.2 | 7.1 | 23 | .5 | 1.5 | 80 | 65 | 65 | 3.8 | 2.3 |
| SEP 24... | 0 | 8.8 | 6.2 | 4.6 | 17 | .3 | 1.0 | 63 | 52 | 53 | 3.7 | 1.7 |

| DATE | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SiO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) | SOLIDS, DIS- SOLVED (TONS PER AC-FT) | SOLIDS, DIS- SOLVED (TONS PER DAY) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) |
|--------------|--|---|--|--|---|---|---|---|--|--|--|--|
| NOV 19... | <.10 | 26 | 79 | 92 | .11 | 3180 | .12 | <.010 | <.20 | .040 | .030 | .050 |
| JAN 21... | <.10 | 25 | 88 | 91 | .12 | 1490 | <.10 | <.010 | <.20 | .020 | .020 | .020 |
| FEB 20... | <.10 | 24 | 85 | 89 | .12 | 1190 | <.10 | .010 | <.20 | .010 | <.010 | <.010 |
| MAY 21... | <.10 | 25 | 77 | 95 | .10 | 1840 | <.10 | .020 | <.20 | .110 | .020 | .020 |
| JUL 24... | <.10 | 25 | 90 | 120 | .12 | 3230 | <.10 | .010 | .20 | .020 | .020 | .020 |
| SEP 24... | <.10 | 19 | 69 | 76 | .09 | 876 | <.10 | .020 | .30 | .010 | <.010 | .010 |

See footnotes at end of table.

SACRAMENTO RIVER BASIN

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11370500 SACRAMENTO RIVER AT KESWICK, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | TIME | ALUM- INUM, DIS- SOLVED (UG/L AS AL) | ARSENIC DIS- SOLVED (UG/L AS AS) | BARIUM, DIS- SOLVED (UG/L AS BA) | BERYL- LIUM, DIS- SOLVED (UG/L AS BE) | CADMIUM DIS- SOLVED (UG/L AS CD) | CHRO- MIUM, DIS- SOLVED (UG/L AS CR) | COBALT, DIS- SOLVED (UG/L AS CO) | COPPER, DIS- SOLVED (UG/L AS CU) | IRON, DIS- SOLVED (UG/L AS FE) | LEAD, DIS- SOLVED (UG/L AS PB) |
|--------------|------|---|--|--|--|--|---|--|--|--|--|
| NOV 19... | 0900 | 20 | 1 | 17 | <.5 | <1 | <1 | <3 | 4 | 21 | <1 |
| JAN 21... | 1045 | 40 | 1 | 22 | <.5 | <1 | 1 | <3 | 3 | 46 | 1 |
| MAY 21... | 0850 | 20 | <1 | 18 | <.5 | <1 | <1 | <3 | 3 | 14 | 7 |
| SEP 24... | 0900 | 50 | 1 | 18 | <.5 | <1 | <1 | <3 | 3 | 27 | 1 |

| DATE | LITHIUM DIS- SOLVED (UG/L AS LI) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) | MERCURY DIS- SOLVED (UG/L AS HG) | MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) | NICKEL, DIS- SOLVED (UG/L AS NI) | SELE- NIUM, DIS- SOLVED (UG/L AS SE) | SILVER, DIS- SOLVED (UG/L AS AG) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) | VANA- DIUM, DIS- SOLVED (UG/L AS V) | ZINC, DIS- SOLVED (UG/L AS ZN) |
|--------------|--|--|--|---|--|---|--|--|--|--|
| NOV 19... | 6 | 4 | .2 | <10 | <1 | <1 | <1 | 56 | <6 | 27 |
| JAN 21... | 5 | 4 | <.1 | <10 | 4 | <1 | <1 | 53 | <6 | 19 |
| MAY 21... | <4 | 3 | <.1 | <10 | <1 | <1 | 1 | 56 | <6 | 36 |
| SEP 24... | <4 | 4 | <.1 | <10 | <1 | <1 | <1 | 39 | <6 | 40 |

K Results based on colony count outside the acceptable range (non-ideal colony count).
 > Actual value is known to be greater than the value shown.
 < Actual value is known to be less than the value shown.

CROSS-SECTIONAL DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | TIME | SAMPLE LOC- ATION, CROSS SECTION (FT FM L BANK) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | OXYGEN, DIS- SOLVED (MG/L) |
|--------------|------|---|---|--------------------------------|-----------------------------|-------------------------------------|
| JAN 30... | 1000 | 48 | 120 | 7.8 | 8.0 | 11.6 |
| 30... | 1015 | 108 | 120 | 7.9 | 8.0 | 11.7 |
| 30... | 1030 | 188 | 121 | 7.8 | 8.0 | 11.6 |
| 30... | 1045 | 253 | 121 | 8.0 | 8.0 | 11.6 |
| 30... | 1100 | 368 | 121 | 8.2 | 8.0 | 11.6 |

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | TIME | STREAM- FLOW, INSTAN- TANEOUS (CFS) | TEMPER- ATURE (DEG C) | SEDI- MENT, SUS- PENDE (MG/L) | SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) |
|--------------|------|---|-----------------------------|---|---|
| NOV 19... | 0900 | 14900 | 12.0 | 3 | 121 |
| JAN 21... | 1045 | 6260 | 9.0 | 2 | 34 |
| FEB 20... | 1000 | 5200 | 8.0 | 3 | 42 |
| MAY 21... | 0850 | 8850 | 9.5 | 1 | 24 |
| JUL 24... | 0915 | 13300 | 11.5 | 2 | 72 |
| SEP 24... | 0900 | 4700 | 14.0 | 3 | 38 |

SACRAMENTO RIVER BASIN

11371000 CLEAR CREEK AT FRENCH GULCH, CA

LOCATION.--Lat 40°41'42", long 122°38'08", unsurveyed, Shasta County, Hydrologic Unit 18020112, on right bank 1,200 ft downstream from French Gulch, 0.3 mi south of town of French Gulch, and 15 mi northwest of Redding.

DRAINAGE AREA.--115 mi².

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

REVISED RECORDS.--WSP 1285: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,320.60 ft above National Geodetic Vertical Datum of 1929. Prior to Dec. 28, 1959, water-stage recorder at datum 1,323.60 ft.

REMARKS.--Estimated daily discharges: Oct. 1-5 and Aug. 7 to Sept. 9. Records good. No large diversion above station. See schematic diagram of Pit and McCloud River basins.

AVERAGE DISCHARGE.--35 years, 223 ft³/s, 161,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,600 ft³/s, Jan. 16, 1974, gage height, 14.99 ft, from rating curve extended above 5,200 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 1.5 ft³/s, July 19-22, 1977.

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

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|---|------|-----------------------------------|---------------------|------|------|-----------------------------------|---------------------|
| Nov. 13 | 0545 | *2,310 | *7.33 | | | | |
| Minimum daily, 9.0 ft ³ /s, July 26. | | | | | | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|-------|------|------|------|------|------|-------|--------|------|------|
| 1 | 12 | 29 | 312 | 119 | 82 | 115 | 222 | 75 | 47 | 17 | 29 | 13 |
| 2 | 12 | 122 | 284 | 111 | 84 | 113 | 247 | 74 | 55 | 16 | 22 | 14 |
| 3 | 13 | 79 | 299 | 109 | 82 | 107 | 241 | 72 | 47 | 15 | 18 | 14 |
| 4 | 14 | 45 | 298 | 105 | 78 | 103 | 222 | 70 | 45 | 15 | 16 | 13 |
| 5 | 16 | 40 | 308 | 105 | 76 | 101 | 208 | 69 | 44 | 14 | 14 | 13 |
| 6 | 17 | 70 | 308 | 105 | 76 | 106 | 200 | 67 | 43 | 14 | 14 | 15 |
| 7 | 17 | 82 | 295 | 121 | 102 | 116 | 193 | 68 | 40 | 13 | 12 | 18 |
| 8 | 17 | 94 | 278 | 124 | 238 | 106 | 183 | 66 | 39 | 13 | 12 | 22 |
| 9 | 18 | 88 | 264 | 128 | 174 | 103 | 173 | 64 | 37 | 12 | 12 | 26 |
| 10 | 21 | 313 | 350 | 127 | 146 | 108 | 164 | 64 | 34 | 12 | 12 | 24 |
| 11 | 36 | 591 | 457 | 123 | 132 | 112 | 154 | 64 | 32 | 12 | 12 | 19 |
| 12 | 28 | 1460 | 403 | 118 | 137 | 120 | 145 | 61 | 30 | 11 | 12 | 17 |
| 13 | 25 | 1690 | 341 | 115 | 138 | 124 | 136 | 59 | 29 | 12 | 12 | 17 |
| 14 | 24 | 683 | 304 | 111 | 142 | 125 | 131 | 57 | 28 | 11 | 12 | 18 |
| 15 | 23 | 428 | 274 | 108 | 154 | 126 | 128 | 56 | 26 | 11 | 12 | 18 |
| 16 | 27 | 411 | 248 | 105 | 170 | 127 | 125 | 55 | 25 | 11 | 12 | 16 |
| 17 | 32 | 399 | 220 | 104 | 171 | 128 | 121 | 55 | 24 | 11 | 12 | 15 |
| 18 | 29 | 420 | 216 | 111 | 163 | 128 | 116 | 54 | 23 | 11 | 22 | 15 |
| 19 | 29 | 363 | 207 | 116 | 156 | 127 | 112 | 53 | 23 | 11 | 20 | 15 |
| 20 | 29 | 348 | 184 | 117 | 150 | 122 | 108 | 52 | 26 | 11 | 15 | 15 |
| 21 | 29 | 332 | 174 | 114 | 143 | 119 | 112 | 50 | 23 | 11 | 13 | 14 |
| 22 | 27 | 288 | 169 | 109 | 138 | 114 | 107 | 48 | 21 | 14 | 13 | 13 |
| 23 | 26 | 256 | 160 | 106 | 142 | 111 | 99 | 44 | 21 | 13 | 12 | 13 |
| 24 | 25 | 342 | 156 | 102 | 141 | 125 | 92 | 46 | 21 | 11 | 12 | 12 |
| 25 | 25 | 309 | 149 | 99 | 138 | 117 | 89 | 46 | 20 | 9.4 | 12 | 12 |
| 26 | 25 | 265 | 147 | 96 | 131 | 126 | 87 | 44 | 20 | 9.0 | 12 | 12 |
| 27 | 25 | 352 | 139 | 93 | 124 | 123 | 85 | 43 | 19 | 11 | 13 | 12 |
| 28 | 28 | 503 | 134 | 92 | 118 | 121 | 83 | 48 | 18 | 12 | 12 | 12 |
| 29 | 40 | 432 | 131 | 90 | --- | 124 | 80 | 54 | 17 | 11 | 12 | 13 |
| 30 | 34 | 362 | 126 | 85 | --- | 135 | 78 | 46 | 17 | 11 | 13 | 13 |
| 31 | 31 | --- | 120 | 83 | --- | 175 | --- | 44 | --- | 22 | 13 | --- |
| TOTAL | 754 | 11196 | 7455 | 3351 | 3726 | 3707 | 4241 | 1768 | 894 | 387.4 | 439 | 464 |
| MEAN | 24.3 | 373 | 240 | 108 | 133 | 120 | 141 | 57.0 | 29.8 | 12.5 | 14.2 | 15.1 |
| MAX | 40 | 1690 | 457 | 128 | 238 | 175 | 247 | 75 | 55 | 22 | 29 | 26 |
| MIN | 12 | 29 | 120 | 83 | 76 | 101 | 78 | 43 | 17 | 9.0 | 12 | 10 |
| AC-FT | 1500 | 22210 | 14790 | 6650 | 7390 | 7350 | 8410 | 3510 | 1770 | 768 | 871 | 920 |
| CAL YR 1984 | TOTAL | 57665 | MEAN | 158 | MAX | 1690 | MIN | 11 | AC-FT | 114400 | | |
| WTR YR 1985 | TOTAL | 38382.4 | MEAN | 105 | MAX | 1690 | MIN | 9.0 | AC-FT | 76130 | | |

11525430 JUDGE FRANCIS CARR POWERPLANT NEAR FRENCH GULCH, CA

LOCATION.--Lat 40°38'49", long 122°37'34", Shasta County, Hydrologic Unit 18010212, at powerplant 1.6 mi downstream from Mill Creek, and 3.8 mi south of French Gulch.

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

GAGE.--Recorded powerplant output.

REMARKS.--Water is diverted from Trinity River at NW 1/4 SE 1/4 sec.8, T.33 N., R.8 W., through a tunnel to powerplant and then into Whiskeytown Lake (station 11371700). See schematic diagram of Pit and McCloud River basins.

COOPERATION.--Records were provided by Bureau of Reclamation.

AVERAGE DISCHARGE.--22 years, 1,555 ft³/s, 1,127,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 3,910 ft³/s, Feb. '11, 1970; no flow many days in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------------|-----------|-------|-------|-----------|----------|-------|---------------|-------|-------|-------|-------|--------|
| 1 | 1456 | 480 | 1493 | 452 | 614 | 1009 | 245 | 707 | 249 | 1500 | 1097 | 1368 |
| 2 | 532 | 442 | 1493 | 458 | 452 | 995 | 245 | 718 | 250 | 1815 | 1094 | 1417 |
| 3 | 532 | 387 | 1493 | 492 | 498 | 995 | 255 | 709 | 247 | 1493 | 1094 | 1386 |
| 4 | 532 | 247 | 1493 | 452 | 388 | 1022 | 248 | 720 | 250 | 1641 | 1094 | 1379 |
| 5 | 532 | 224 | 1493 | 452 | 452 | 982 | 249 | 660 | 253 | 1641 | 1075 | 2336 |
| 6 | 246 | 215 | 933 | 0 | 252 | 982 | 258 | 688 | 249 | 1640 | 1091 | 2336 |
| 7 | 246 | 220 | 1475 | 472 | 498 | 1034 | 128 | 660 | 249 | 1531 | 1091 | 2380 |
| 8 | 521 | 351 | 1453 | 284 | 552 | 1009 | 720 | 658 | 250 | 1531 | 1496 | 2380 |
| 9 | 530 | 380 | 1453 | 275 | 504 | 1009 | 492 | 658 | 250 | 1556 | 1418 | 2424 |
| 10 | 521 | 606 | 1003 | 270 | 504 | 1009 | 480 | 553 | 144 | 1641 | 1405 | 2417 |
| 11 | 463 | 598 | 1396 | 266 | 435 | 1009 | 492 | 621 | 279 | 1438 | 1406 | 2417 |
| 12 | 464 | 652 | 1453 | 0 | 1006 | 1006 | 480 | 608 | 295 | 1504 | 1406 | 2373 |
| 13 | 246 | 923 | 1453 | 0 | 1017 | 982 | 487 | 730 | 380 | 1056 | 1406 | 2373 |
| 14 | 250 | 1541 | 1435 | 270 | 987 | 982 | 541 | 349 | 247 | 962 | 1406 | 2373 |
| 15 | 439 | 1575 | 1513 | 274 | 918 | 265 | 500 | 355 | 249 | 1057 | 1406 | 2373 |
| 16 | 444 | 1575 | 1493 | 162 | 989 | 262 | 494 | 267 | 252 | 1058 | 1381 | 2359 |
| 17 | 445 | 1533 | 1453 | 0 | 995 | 0 | 494 | 271 | 249 | 1055 | 1381 | 2359 |
| 18 | 459 | 1493 | 1551 | 509 | 1009 | 245 | 494 | 271 | 251 | 1094 | 1385 | 2448 |
| 19 | 0 | 1493 | 1473 | 1493 | 994 | 249 | 512 | 125 | 255 | 1060 | 1326 | 2329 |
| 20 | 255 | 1493 | 1493 | 1473 | 995 | 307 | 488 | 271 | 255 | 1111 | 1385 | 2407 |
| 21 | 247 | 1493 | 1493 | 1453 | 981 | 245 | 476 | 263 | 892 | 1000 | 1385 | 2402 |
| 22 | 0 | 1493 | 1473 | 1453 | 1019 | 443 | 491 | 271 | 255 | 1094 | 1385 | 2402 |
| 23 | 100 | 1493 | 1493 | 1473 | 1003 | 122 | 495 | 500 | 255 | 1094 | 1410 | 2595 |
| 24 | 259 | 1493 | 1473 | 1473 | 989 | 0 | 497 | 500 | 256 | 1116 | 1913 | 3430 |
| 25 | 423 | 1570 | 1473 | 1473 | 883 | 239 | 497 | 250 | 256 | 1039 | 1966 | 3555 |
| 26 | 458 | 1493 | 1473 | 1416 | 995 | 239 | 716 | 250 | 295 | 1039 | 1954 | 3037 |
| 27 | 261 | 1493 | 1493 | 1356 | 1048 | 242 | 716 | 247 | 252 | 1116 | 1410 | 3555 |
| 28 | 281 | 1473 | 1473 | 1453 | 1008 | 233 | 747 | 250 | 260 | 1057 | 1385 | 883 |
| 29 | 456 | 1493 | 1473 | 1473 | --- | 236 | 514 | 250 | 246 | 1057 | 1398 | 209 |
| 30 | 450 | 1493 | 1473 | 1473 | --- | 245 | 718 | 273 | 250 | 1097 | 1398 | 3360 |
| 31 | 462 | --- | 1513 | 1473 | --- | 0 | --- | 250 | --- | 1004 | 1398 | --- |
| TOTAL | 12510 | 31415 | 44798 | 24023 | 21985 | 17597 | 14169 | 13903 | 8320 | 39097 | 42845 | 69057 |
| MEAN | 403 | 1047 | 1445 | 774 | 785 | 567 | 472 | 448 | 277 | 1261 | 1382 | 2301 |
| MAX | 1456 | 1575 | 1551 | 1493 | 1048 | 1034 | 747 | 730 | 892 | 1815 | 1966 | 3555 |
| MIN | 0 | 215 | 933 | 0 | 252 | 0 | 128 | 125 | 144 | 962 | 1075 | 209 |
| AC-FT | 24810 | 62310 | 88860 | 47650 | 43610 | 34900 | 28100 | 27580 | 16500 | 77550 | 84980 | 137000 |
| CAL YR 1984 TOTAL | 538434.00 | | | MEAN 1471 | MAX 3680 | MIN 0 | AC-FT 1068000 | | | | | |
| WTR YR 1985 TOTAL | 339719.00 | | | MEAN 931 | MAX 3555 | MIN 0 | AC-FT 673800 | | | | | |

SACRAMENTO RIVER BASIN

11371600 SPRING CREEK POWERPLANT AT KESWICK, CA

LOCATION.--Lat 40°37'41", long 122°27'59", in NE 1/4 SE 1/4 sec.18, T.32 N., R.5 W., Shasta County, Hydrologic Unit 18020112, at powerplant on Spring Creek, 0.4 mi northwest of Keswick, and 4.9 mi northwest of Redding.

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

GAGE.--Discharge computed from powerplant output.

REMARKS.--Water is released from Whiskeytown Lake (station 11371700) through a tunnel to powerplant and then into Keswick Reservoir. See schematic diagram of Pit and McCloud River basins.

COOPERATION.--Records were provided by Bureau of Reclamation.

AVERAGE DISCHARGE.--21 years (water years 1965-85), 1,948 ft³/s, 1,411,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4,800 ft³/s, May 2, 1983; no flow for many days in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|--------|--------|-------|-------|-------|------|-------|-------|-------|-------|--------|
| 1 | 1624 | 995 | 2248 | 762 | 807 | 1343 | 212 | 0 | 274 | 1098 | 1048 | 1299 |
| 2 | 819 | 1008 | 2298 | 702 | 705 | 1203 | 272 | 0 | 274 | 1382 | 1063 | 1315 |
| 3 | 786 | 965 | 1991 | 749 | 597 | 1268 | 262 | 0 | 272 | 1589 | 1061 | 1557 |
| 4 | 719 | 991 | 2211 | 757 | 514 | 1199 | 326 | 322 | 286 | 1589 | 1066 | 993 |
| 5 | 775 | 969 | 1840 | 743 | 181 | 1195 | 266 | 754 | 170 | 1686 | 1054 | 2256 |
| 6 | 304 | 1023 | 1151 | 0 | 530 | 1226 | 249 | 1220 | 268 | 1604 | 1084 | 2406 |
| 7 | 320 | 1012 | 1880 | 594 | 419 | 1186 | 0 | 715 | 278 | 1607 | 1048 | 2352 |
| 8 | 864 | 1175 | 2129 | 419 | 414 | 1172 | 254 | 708 | 275 | 1579 | 1507 | 2382 |
| 9 | 849 | 1265 | 1902 | 419 | 1256 | 1191 | 270 | 723 | 275 | 1553 | 1398 | 3136 |
| 10 | 853 | 1415 | 1274 | 429 | 932 | 1187 | 251 | 731 | 275 | 1010 | 1416 | 3846 |
| 11 | 495 | 1518 | 1547 | 420 | 647 | 1034 | 254 | 489 | 275 | 1411 | 1412 | 2761 |
| 12 | 547 | 2264 | 2109 | 0 | 1052 | 1112 | 206 | 683 | 268 | 1570 | 1356 | 2448 |
| 13 | 241 | 3395 | 2168 | 0 | 1201 | 1101 | 258 | 455 | 277 | 1096 | 1356 | 2472 |
| 14 | 297 | 4064 | 2135 | 349 | 1193 | 1101 | 50 | 221 | 275 | 1094 | 1337 | 2407 |
| 15 | 0 | 4220 | 1938 | 419 | 810 | 362 | 290 | 407 | 278 | 1071 | 1557 | 2352 |
| 16 | 0 | 4151 | 1730 | 425 | 1271 | 519 | 287 | 423 | 275 | 1121 | 1237 | 2361 |
| 17 | 0 | 4273 | 1848 | 492 | 818 | 0 | 0 | 356 | 278 | 1099 | 1106 | 2416 |
| 18 | 0 | 2266 | 1751 | 557 | 1197 | 301 | 0 | 342 | 206 | 1082 | 1133 | 2440 |
| 19 | 0 | 2163 | 1888 | 1586 | 522 | 356 | 499 | 146 | 156 | 784 | 1290 | 2453 |
| 20 | 0 | 2487 | 1919 | 1537 | 1730 | 345 | 0 | 288 | 150 | 929 | 1328 | 2416 |
| 21 | 0 | 2119 | 1919 | 1724 | 1117 | 327 | 0 | 281 | 1014 | 929 | 1270 | 2393 |
| 22 | 0 | 1736 | 1807 | 1529 | 1114 | 524 | 0 | 285 | 142 | 1033 | 1205 | 2324 |
| 23 | 0 | 1899 | 1748 | 1609 | 1117 | 348 | 0 | 524 | 136 | 961 | 1428 | 2476 |
| 24 | 1249 | 1901 | 1599 | 1613 | 1100 | 0 | 0 | 481 | 131 | 961 | 1821 | 3214 |
| 25 | 1218 | 1872 | 1505 | 1396 | 1160 | 451 | 37 | 275 | 134 | 1058 | 1727 | 3351 |
| 26 | 948 | 1777 | 1585 | 1675 | 1141 | 507 | 0 | 275 | 121 | 1091 | 1984 | 2464 |
| 27 | 936 | 1807 | 1514 | 1670 | 1117 | 520 | 126 | 259 | 130 | 1071 | 1274 | 3552 |
| 28 | 1045 | 2256 | 1514 | 1930 | 1271 | 1136 | 0 | 259 | 243 | 1075 | 1499 | 3924 |
| 29 | 749 | 2038 | 1608 | 1394 | --- | 451 | 0 | 275 | 358 | 962 | 1817 | 4064 |
| 30 | 1244 | 2183 | 1608 | 1822 | --- | 526 | 0 | 275 | 204 | 1104 | 1403 | 2709 |
| 31 | 983 | --- | 1726 | 1901 | --- | 0 | --- | 278 | --- | 989 | 1379 | --- |
| TOTAL | 17865 | 61207 | 56090 | 29622 | 26433 | 23191 | 4369 | 12447 | 7698 | 37188 | 41664 | 76539 |
| MEAN | 576 | 2040 | 1809 | 955 | 944 | 748 | 145 | 401 | 256 | 1199 | 1344 | 2551 |
| MAX | 1624 | 4273 | 2298 | 1930 | 1730 | 1343 | 499 | 1220 | 1014 | 1686 | 1984 | 4064 |
| MIN | 0 | 965 | 1151 | 0 | 414 | 0 | 0 | 0 | 121 | 784 | 1048 | 993 |
| AC-FT | 35440 | 121400 | 111300 | 58760 | 52430 | 46000 | 8670 | 24690 | 15270 | 73760 | 82640 | 151800 |

CAL YR 1984 TOTAL 629159.00 MEAN 1719 MAX 4590 MIN 0 AC-FT 1248000
WTR YR 1985 TOTAL 394313.00 MEAN 1080 MAX 4273 MIN 0 AC-FT 782100

11371700 WHISKEYTOWN LAKE NEAR IGO, CA

LOCATION.--Lat 40°37'03", long 122°31'31", unsurveyed, Shasta County, Hydrologic Unit 18010112, Whiskeytown-Shasta-Trinity National Recreation Area, at outlet works to Spring Creek powerplant on Clear Creek, 1.8 mi downstream from Whiskey Creek, and 7.8 mi northeast of Igo.

DRAINAGE AREA.--200 mi².

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

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Lake is formed by earth- and rockfill dam. Storage began in May 1963. Usable capacity, 241,088 acre-ft between elevations 972.0 ft, invert of sluice pipe and 1,210.00 ft, crest of Glory Hole spillway. Dead storage 8 acre-ft. Normal operating pool is from elevation 1,197.0 ft, capacity, 201,288 acre-ft, to 1,210.0 ft, capacity, 241,096 acre-ft. Transbasin water enters the reservoir through Judge Francis Carr powerplant (station 11525430) and is released through Spring Creek tunnel to Spring Creek powerplant (station 11371600) and Keswick Reservoir. Figures given herein represent total contents at 2400 hours. Lake is used for power generation and recreation. See schematic diagram of Pit and McCloud River basins.

COOPERATION.--Records were provided by Bureau of Reclamation.

EXTREMES (at 2400) FOR PERIOD OF RECORD.--Maximum contents, 258,600 acre-ft, Mar. 2, 1983, elevation, 1,215.34 ft; minimum since first filling, 159,000 acre-ft, Oct. 25, 1970, elevation, 1,181.48 ft.

EXTREMES (at 2400) FOR CURRENT YEAR.--Maximum contents, 239,600 acre-ft, Sept. 8, elevation, 1,209.53 ft; minimum, 203,500 acre-ft, Nov. 21, elevation, 1,197.76 ft.

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

| | | | |
|-------|-------|-------|---------|
| 1,015 | 714 | 1,080 | 15,100 |
| 1,020 | 994 | 1,100 | 27,500 |
| 1,030 | 1,800 | 1,120 | 46,700 |
| 1,040 | 3,060 | 1,140 | 74,000 |
| 1,050 | 4,900 | 1,180 | 155,300 |
| 1,060 | 7,420 | 1,220 | 274,400 |

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1 | 233600 | 224000 | 205700 | 205200 | 204600 | 205700 | 205800 | 235200 | 238300 | 238800 | 238200 | 238200 |
| 2 | 233100 | 223700 | 205400 | 205000 | 204500 | 205600 | 206300 | 236800 | 238400 | 239200 | 238200 | 238300 |
| 3 | 232500 | 222800 | 205000 | 204800 | 204500 | 205400 | 206900 | 238200 | 238400 | 239200 | 238100 | 237900 |
| 4 | 232100 | 221400 | 204500 | 204500 | 204400 | 205200 | 207300 | 239100 | 238400 | 239500 | 238000 | 238800 |
| 5 | 231700 | 219900 | 204700 | 204200 | 204100 | 205100 | 207800 | 239000 | 238500 | 238900 | 237900 | 238700 |
| 6 | 231600 | 218700 | 205100 | 204500 | 203700 | 205200 | 208300 | 238000 | 238500 | 238700 | 237900 | 238500 |
| 7 | 231400 | 217500 | 205000 | 204800 | 204700 | 205300 | 209200 | 238100 | 238500 | 238500 | 237700 | 239000 |
| 8 | 230600 | 216200 | 204400 | 204900 | 205800 | 205200 | 210200 | 238100 | 238400 | 238200 | 237600 | 239600 |
| 9 | 230000 | 214700 | 204200 | 205100 | 204700 | 205200 | 211100 | 238200 | 238300 | 238100 | 237500 | 238500 |
| 10 | 229600 | 214600 | 204900 | 205100 | 204200 | 205200 | 211900 | 237900 | 238100 | 239200 | 237400 | 235800 |
| 11 | 229500 | 215400 | 205900 | 205200 | 204200 | 205300 | 212700 | 238200 | 238000 | 239000 | 237400 | 235100 |
| 12 | 229400 | 218400 | 205600 | 205400 | 204400 | 205400 | 213600 | 238100 | 238000 | 238700 | 237400 | 235000 |
| 13 | 229400 | 219200 | 205200 | 205700 | 204300 | 205500 | 214300 | 238800 | 238200 | 238700 | 237400 | 234900 |
| 14 | 229200 | 215900 | 204500 | 205800 | 204200 | 205500 | 215600 | 239000 | 238000 | 238400 | 237500 | 234800 |
| 15 | 230000 | 212200 | 204500 | 205800 | 204700 | 205600 | 216200 | 239000 | 237800 | 238200 | 237400 | 234900 |
| 16 | 231300 | 208600 | 204700 | 205600 | 204700 | 205600 | 216900 | 238700 | 237600 | 238000 | 237600 | 234800 |
| 17 | 232200 | 204600 | 204700 | 204900 | 205400 | 205900 | 218100 | 238500 | 237500 | 237800 | 238100 | 234700 |
| 18 | 233100 | 204300 | 205100 | 205100 | 205400 | 206100 | 219300 | 238400 | 237500 | 237800 | 238700 | 234800 |
| 19 | 233300 | 204200 | 204800 | 205200 | 206600 | 206200 | 219600 | 238400 | 237600 | 238000 | 238600 | 234500 |
| 20 | 233900 | 203800 | 204400 | 205600 | 205700 | 206400 | 220800 | 238300 | 237700 | 238200 | 238700 | 234500 |
| 21 | 234400 | 203500 | 204000 | 206100 | 205700 | 206400 | 222000 | 238300 | 237600 | 238300 | 238800 | 234500 |
| 22 | 234500 | 203700 | 203800 | 206200 | 205900 | 206600 | 223300 | 238300 | 237700 | 238300 | 239100 | 234600 |
| 23 | 234700 | 204000 | 203700 | 206300 | 206200 | 206300 | 224500 | 238200 | 237900 | 238500 | 238900 | 234800 |
| 24 | 233000 | 204400 | 203900 | 206300 | 206500 | 206600 | 225500 | 238300 | 237900 | 238700 | 239000 | 235200 |
| 25 | 231500 | 204600 | 204300 | 206700 | 206300 | 206200 | 226700 | 238200 | 238000 | 238500 | 239400 | 235700 |
| 26 | 230500 | 204500 | 204600 | 206500 | 206300 | 206500 | 228200 | 238100 | 238200 | 238300 | 239300 | 236600 |
| 27 | 229200 | 206200 | 204900 | 206200 | 206200 | 206300 | 229500 | 238200 | 238300 | 238100 | 239400 | 237000 |
| 28 | 227900 | 206300 | 205200 | 205700 | 206000 | 205200 | 231000 | 238200 | 238200 | 238000 | 239100 | 231200 |
| 29 | 226900 | 206200 | 205300 | 206200 | --- | 205000 | 232200 | 238200 | 237800 | 238000 | 238200 | 223700 |
| 30 | 225900 | 206300 | 205400 | 205200 | --- | 204800 | 233700 | 238200 | 237700 | 238000 | 238100 | 224800 |
| 31 | 224800 | --- | 205400 | 204800 | --- | 205200 | --- | 238300 | --- | 238200 | 238100 | --- |
| MAX | 234700 | 224000 | 205900 | 206700 | 206600 | 206600 | 233700 | 239100 | 238500 | 239500 | 239400 | 239600 |
| MIN | 224800 | 203500 | 203700 | 204200 | 203700 | 204800 | 205800 | 235200 | 237500 | 237800 | 237400 | 223700 |
| a | 1204.84 | 1198.72 | 1198.40 | 1198.20 | 1198.60 | 1198.35 | 1207.67 | 1209.12 | 1208.95 | 1209.08 | 1209.07 | 1204.82 |
| b | -9100 | -18500 | -900 | -600 | +1200 | -800 | +28500 | +4600 | -600 | +500 | -100 | -13300 |
| c | 430 | 120 | 90 | 150 | 270 | 310 | 830 | 1260 | 1530 | 1770 | 1390 | 690 |

CAL YR 1984 b -1300

WTR YR 1985 b -9100

- a Elevation, in feet NGVD, at end of month.
- b Change in contents, in acre-feet.
- c Evaporation, in acre-feet.

11372000 CLEAR CREEK NEAR IGO, CA

LOCATION.--Lat 40°30'48", long 122°31'23", unsurveyed, Shasta County, Hydrologic Unit 18020112, on left bank at old highway bridge on Redding-Igo Road 1.0 mi northeast of Igo, 7.0 mi downstream from Whiskeytown Dam; 8.3 mi southwest of Redding, and 10.4 mi upstream from mouth.

DRAINAGE AREA.--228 mi².

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

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

GAGE.--Water-stage recorder. Elevation of gage is 672.99 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Low flow completely regulated by Whiskeytown Lake (station 11371700) since May 1963. Transbasin diversion from Trinity River through Judge Francis Carr powerplant (station 11525430) to Whiskeytown Lake began in April 1963. Diversions from Whiskeytown Lake to Spring Creek powerplant (station 11371600) began in December 1963. See schematic diagram of Pit and McCloud River basins.

AVERAGE DISCHARGE.--22 years (water years 1941-62) prior to storage and diversions, 413 ft³/s, 299,200 acre-ft/yr; 23 years (water years 1963-85), 548 ft³/s, 397,000 acre-ft/yr, adjusted for storage, evaporation, and transbasin diversions to and from Whiskeytown Lake; unadjusted flow for same period was 187 ft³/s, 135,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,500 ft³/s, Dec. 21, 1955, gage height, 13.75 ft; minimum daily, 8.6 ft³/s, Sept. 4, 6, 7, 1950. Maximum discharge since completion of Whiskeytown Dam in 1963, 19,200 ft³/s, Mar. 3, 1983, gage height, 12.73 ft; minimum daily, 30 ft³/s, Oct. 10, 11, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,120 ft³/s, Nov. 13, gage height, 5.39 ft; minimum daily, 49 ft³/s, Oct. 1-3 and Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---------|------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|
| 1 | 49 | 65 | 165 | 71 | 64 | 68 | 85 | 60 | 56 | 52 | 55 | 53 |
| 2 | 49 | 142 | 178 | 69 | 64 | 67 | 80 | 59 | 60 | 52 | 53 | 52 |
| 3 | 49 | 101 | 187 | 67 | 64 | 67 | 77 | 60 | 55 | 52 | 53 | 52 |
| 4 | 50 | 95 | 171 | 67 | 63 | 67 | 74 | 60 | 55 | 52 | 53 | 52 |
| 5 | 50 | 94 | 167 | 66 | 63 | 69 | 73 | 60 | 55 | 54 | 52 | 52 |
| 6 | 51 | 116 | 157 | 66 | 63 | 73 | 71 | 60 | 54 | 52 | 52 | 52 |
| 7 | 50 | 108 | 151 | 78 | 197 | 79 | 71 | 60 | 53 | 52 | 51 | 68 |
| 8 | 50 | 141 | 146 | 72 | 381 | 74 | 70 | 60 | 55 | 52 | 53 | 60 |
| 9 | 50 | 106 | 147 | 83 | 162 | 72 | 68 | 58 | 53 | 53 | 51 | 57 |
| 10 | 52 | 310 | 185 | 78 | 121 | 73 | 67 | 58 | 52 | 55 | 51 | 56 |
| 11 | 51 | 302 | 178 | 75 | 103 | 72 | 67 | 58 | 54 | 54 | 51 | 53 |
| 12 | 51 | 611 | 166 | 72 | 94 | 71 | 67 | 58 | 52 | 54 | 51 | 52 |
| 13 | 50 | 516 | 156 | 72 | 89 | 70 | 66 | 57 | 52 | 54 | 52 | 52 |
| 14 | 50 | 194 | 149 | 71 | 85 | 69 | 65 | 58 | 52 | 55 | 52 | 52 |
| 15 | 50 | 165 | 149 | 70 | 82 | 69 | 65 | 57 | 53 | 54 | 52 | 51 |
| 16 | 56 | 205 | 143 | 69 | 81 | 68 | 66 | 56 | 51 | 54 | 52 | 50 |
| 17 | 52 | 189 | 144 | 69 | 78 | 69 | 65 | 57 | 51 | 54 | 52 | 50 |
| 18 | 51 | 190 | 140 | 68 | 77 | 69 | 65 | 57 | 51 | 54 | 53 | 50 |
| 19 | 52 | 162 | 135 | 67 | 76 | 68 | 64 | 56 | 52 | 54 | 52 | 50 |
| 20 | 51 | 200 | 132 | 67 | 74 | 68 | 64 | 55 | 53 | 54 | 52 | 50 |
| 21 | 51 | 173 | 131 | 66 | 73 | 67 | 70 | 55 | 52 | 55 | 52 | 50 |
| 22 | 51 | 153 | 129 | 65 | 72 | 67 | 66 | 54 | 53 | 55 | 52 | 50 |
| 23 | 51 | 158 | 128 | 65 | 72 | 64 | 64 | 54 | 53 | 55 | 52 | 50 |
| 24 | 51 | 279 | 126 | 65 | 71 | 67 | 64 | 54 | 52 | 54 | 52 | 50 |
| 25 | 51 | 184 | 124 | 65 | 71 | 65 | 63 | 54 | 52 | 54 | 51 | 50 |
| 26 | 50 | 159 | 124 | 65 | 69 | 74 | 63 | 53 | 52 | 55 | 52 | 50 |
| 27 | 51 | 417 | 123 | 64 | 68 | 76 | 62 | 54 | 52 | 55 | 52 | 50 |
| 28 | 52 | 330 | 122 | 64 | 68 | 80 | 62 | 59 | 52 | 55 | 52 | 50 |
| 29 | 52 | 218 | 121 | 64 | --- | 84 | 61 | 57 | 52 | 55 | 51 | 50 |
| 30 | 51 | 183 | 121 | 64 | --- | 88 | 60 | 55 | 52 | 58 | 52 | 49 |
| 31 | 51 | --- | 102 | 63 | --- | 89 | --- | 55 | --- | 57 | 52 | --- |
| TOTAL | 1576 | 6266 | 4497 | 2127 | 2645 | 2223 | 2025 | 1768 | 1591 | 1675 | 1613 | 1563 |
| MEAN | 50.8 | 209 | 145 | 68.6 | 94.5 | 71.7 | 67.5 | 57.0 | 53.0 | 54.0 | 52.0 | 52.1 |
| MAX | 56 | 611 | 187 | 83 | 381 | 89 | 85 | 60 | 60 | 58 | 55 | 68 |
| MIN | 49 | 65 | 102 | 63 | 63 | 64 | 60 | 53 | 51 | 52 | 51 | 49 |
| AC-FT | 3130 | 12430 | 8920 | 4220 | 5250 | 4410 | 4020 | 3510 | 3160 | 3320 | 3200 | 3100 |
| MEAN a | 83.6 | 893 | 496 | 242 | 280 | 244 | 235 | 105 | 48.1 | 29.3 | 35.0 | 89.7 |
| AC-FT a | 5140 | 53140 | 30500 | 14880 | 15540 | 15020 | 13980 | 6480 | 2860 | 1800 | 2150 | 5340 |

CAL YR 1984 TOTAL 33740 MEAN 92.2 MAX 611 MIN 49 AC-FT 66920 MEAN a 351 AC-FT a 255000
WTR YR 1985 TOTAL 29569 MEAN 81.0 MAX 611 MIN 49 AC-FT 58650 MEAN a 230 AC-FT a 166800

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

11374000 COW CREEK NEAR MILLVILLE, CA

LOCATION.--Lat 40°30'19", long 122°13'56", in NE 1/4 NW 1/4 sec.32, T.31 N., R.3 W., Shasta County, Hydrologic Unit 18020101, on right bank 2.9 mi upstream from mouth, 4.2 mi southwest of Millville, and 4.3 mi downstream from Little Cow Creek.

DRAINAGE AREA.--425 mi².

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

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 388.7 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Jan. 9, 10. Records good. Numerous small diversions above station for irrigation.

AVERAGE DISCHARGE.--36 years, 704 ft³/s, 510,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 48,700 ft³/s, Nov. 16, 1981, gage height, 21.22 ft, from rating curve extended above 36,000 ft³/s; maximum gage height, 21.55 ft, Dec. 27, 1951; minimum daily, 0.02 ft³/s, July 29, 1977.

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

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 13,900 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|---------|------|-----------------------------------|---------------------|------|------|-----------------------------------|---------------------|
| Nov. 24 | 0645 | *15,800 | *12.12 | | | | |

Minimum daily, 13 ft³/s, Aug. 14.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|------|------|
| 1 | 162 | 151 | 686 | 246 | 177 | 221 | 789 | 228 | 166 | 29 | 23 | 19 |
| 2 | 119 | 217 | 666 | 238 | 184 | 230 | 634 | 231 | 180 | 31 | 23 | 18 |
| 3 | 104 | 499 | 1440 | 232 | 182 | 212 | 563 | 236 | 161 | 30 | 23 | 21 |
| 4 | 109 | 274 | 760 | 225 | 178 | 215 | 509 | 225 | 139 | 28 | 24 | 20 |
| 5 | 114 | 201 | 640 | 217 | 169 | 238 | 521 | 212 | 131 | 30 | 21 | 20 |
| 6 | 115 | 285 | 532 | 214 | 170 | 293 | 522 | 212 | 124 | 29 | 21 | 23 |
| 7 | 120 | 434 | 460 | 300 | 758 | 626 | 524 | 208 | 107 | 29 | 21 | 29 |
| 8 | 120 | 1150 | 411 | 360 | 4310 | 635 | 511 | 198 | 94 | 24 | 21 | 336 |
| 9 | 121 | 612 | 393 | 358 | 1080 | 487 | 501 | 184 | 77 | 26 | 21 | 481 |
| 10 | 143 | 1040 | 1170 | 381 | 639 | 766 | 501 | 182 | 74 | 26 | 19 | 296 |
| 11 | 800 | 3150 | 1880 | 301 | 487 | 632 | 493 | 187 | 56 | 25 | 18 | 160 |
| 12 | 254 | 1930 | 989 | 270 | 420 | 464 | 483 | 168 | 50 | 24 | 16 | 127 |
| 13 | 170 | 3580 | 752 | 253 | 388 | 381 | 461 | 168 | 45 | 26 | 14 | 106 |
| 14 | 151 | 1420 | 608 | 244 | 344 | 337 | 455 | 163 | 44 | 26 | 13 | 104 |
| 15 | 132 | 761 | 708 | 240 | 320 | 312 | 460 | 146 | 43 | 24 | 16 | 99 |
| 16 | 156 | 1260 | 1180 | 233 | 308 | 291 | 445 | 148 | 43 | 22 | 17 | 94 |
| 17 | 279 | 785 | 753 | 222 | 298 | 282 | 409 | 150 | 41 | 23 | 17 | 88 |
| 18 | 178 | 1310 | 636 | 219 | 281 | 280 | 373 | 153 | 39 | 23 | 19 | 84 |
| 19 | 175 | 881 | 536 | 217 | 272 | 269 | 363 | 147 | 38 | 24 | 21 | 89 |
| 20 | 166 | 1580 | 465 | 214 | 257 | 261 | 333 | 133 | 41 | 22 | 21 | 82 |
| 21 | 157 | 1300 | 435 | 209 | 249 | 260 | 341 | 120 | 42 | 22 | 19 | 82 |
| 22 | 146 | 676 | 394 | 203 | 247 | 253 | 361 | 114 | 40 | 25 | 20 | 76 |
| 23 | 138 | 510 | 368 | 198 | 244 | 244 | 323 | 123 | 39 | 30 | 21 | 72 |
| 24 | 135 | 6390 | 347 | 198 | 242 | 368 | 293 | 114 | 37 | 28 | 20 | 62 |
| 25 | 128 | 1420 | 328 | 190 | 235 | 378 | 273 | 108 | 35 | 29 | 22 | 50 |
| 26 | 126 | 849 | 314 | 192 | 231 | 432 | 262 | 102 | 33 | 26 | 20 | 52 |
| 27 | 126 | 2430 | 298 | 188 | 227 | 905 | 250 | 102 | 34 | 26 | 18 | 52 |
| 28 | 128 | 2980 | 287 | 193 | 221 | 1320 | 247 | 99 | 32 | 26 | 18 | 55 |
| 29 | 209 | 1190 | 271 | 208 | --- | 1140 | 243 | 238 | 31 | 22 | 18 | 56 |
| 30 | 242 | 837 | 265 | 185 | --- | 1050 | 235 | 180 | 29 | 19 | 20 | 53 |
| 31 | 171 | --- | 261 | 178 | --- | 952 | --- | 154 | --- | 22 | 19 | --- |
| TOTAL | 5394 | 40102 | 19233 | 7326 | 13118 | 14734 | 12678 | 5133 | 2045 | 796 | 604 | 2906 |
| MEAN | 174 | 1337 | 620 | 236 | 468 | 475 | 423 | 166 | 68.2 | 25.7 | 19.5 | 96.9 |
| MAX | 800 | 6390 | 1880 | 381 | 4310 | 1320 | 789 | 238 | 180 | 31 | 24 | 481 |
| MIN | 104 | 151 | 261 | 178 | 169 | 212 | 235 | 99 | 29 | 19 | 13 | 18 |
| AC-FT | 10700 | 79540 | 38150 | 14530 | 26020 | 29220 | 25150 | 10180 | 4060 | 1580 | 1200 | 5760 |
| CAL YR 1984 | TOTAL | 178104 | MEAN | 487 | MAX | 6390 | MIN | 40 | AC-FT | 353300 | | |
| WTR YR 1985 | TOTAL | 124069 | MEAN | 340 | MAX | 6390 | MIN | 13 | AC-FT | 246100 | | |

SACRAMENTO RIVER BASIN

11375810 COTTONWOOD CREEK NEAR OLINDA, CA

LOCATION.--Lat 40°23'06", long 122°28'31", in SE 1/4 NW 1/4 sec.7, T.29 N., R.5 W., Shasta County, Hydrologic Unit 18020102, on left bank 1.0 mi downstream from Dutch Gulch, and 5.5 mi southwest of Olinda.

DRAINAGE AREA.--395 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 498.01 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Numerous pumping diversions above station.

AVERAGE DISCHARGE.--14 years, 511 ft³/s, 370,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,900 ft³/s, Jan. 16, 1974, gage height, 21.44 ft, from rating curve extended above 14,000 ft³/s on basis of slope-area measurement of peak flow; no flow Aug. 30, Sept. 7, 8, 1972, and many days in 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,000 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|---------|------|-----------------------------------|---------------------|---------|------|-----------------------------------|---------------------|
| Nov. 13 | 0515 | 5,660 | 11.10 | Nov. 27 | 1615 | *6,040 | *11.30 |
| Nov. 24 | 0215 | 4,560 | 10.52 | Feb. 8 | 0345 | 3,630 | 9.96 |

Minimum daily, 8.5 ft³/s, Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|-------|-------|-------|-------|-------|------|-------|--------|-------|-------|
| 1 | 34 | 39 | 854 | 252 | 174 | 226 | 553 | 137 | 79 | 16 | 18 | 9.4 |
| 2 | 39 | 143 | 1050 | 245 | 176 | 222 | 649 | 130 | 85 | 15 | 16 | 9.8 |
| 3 | 35 | 314 | 1180 | 232 | 173 | 216 | 681 | 125 | 75 | 15 | 14 | 10 |
| 4 | 34 | 161 | 840 | 230 | 168 | 212 | 601 | 122 | 66 | 15 | 13 | 11 |
| 5 | 34 | 109 | 1050 | 227 | 164 | 215 | 542 | 120 | 62 | 14 | 13 | 11 |
| 6 | 37 | 160 | 918 | 224 | 160 | 231 | 504 | 115 | 60 | 14 | 13 | 11 |
| 7 | 33 | 188 | 812 | 321 | 299 | 303 | 471 | 113 | 58 | 13 | 10 | 14 |
| 8 | 31 | 271 | 741 | 288 | 1800 | 279 | 429 | 111 | 55 | 13 | 8.7 | 66 |
| 9 | 30 | 261 | 706 | 498 | 679 | 235 | 402 | 102 | 52 | 12 | 8.7 | 45 |
| 10 | 31 | 1020 | 1010 | 383 | 481 | 249 | 385 | 98 | 48 | 12 | 8.9 | 82 |
| 11 | 46 | 1660 | 952 | 317 | 402 | 273 | 360 | 98 | 43 | 11 | 8.7 | 48 |
| 12 | 54 | 3190 | 804 | 290 | 380 | 265 | 333 | 97 | 42 | 12 | 8.5 | 32 |
| 13 | 40 | 3390 | 700 | 274 | 400 | 256 | 311 | 93 | 39 | 11 | 8.9 | 26 |
| 14 | 34 | 1340 | 627 | 261 | 390 | 245 | 299 | 87 | 37 | 11 | 9.4 | 24 |
| 15 | 32 | 960 | 597 | 251 | 379 | 237 | 295 | 84 | 34 | 11 | 9.8 | 22 |
| 16 | 51 | 1160 | 544 | 243 | 382 | 231 | 283 | 82 | 33 | 11 | 10 | 21 |
| 17 | 92 | 945 | 521 | 240 | 370 | 228 | 271 | 80 | 32 | 10 | 10 | 20 |
| 18 | 56 | 1220 | 471 | 239 | 344 | 225 | 253 | 81 | 32 | 10 | 12 | 19 |
| 19 | 54 | 768 | 434 | 240 | 321 | 222 | 237 | 79 | 30 | 10 | 12 | 18 |
| 20 | 54 | 804 | 406 | 237 | 303 | 214 | 228 | 74 | 28 | 10 | 14 | 18 |
| 21 | 53 | 624 | 381 | 234 | 289 | 206 | 242 | 71 | 27 | 10 | 14 | 18 |
| 22 | 45 | 484 | 361 | 227 | 275 | 203 | 240 | 69 | 25 | 11 | 12 | 17 |
| 23 | 37 | 501 | 347 | 222 | 263 | 199 | 214 | 70 | 25 | 12 | 11 | 16 |
| 24 | 34 | 2210 | 335 | 217 | 261 | 207 | 199 | 74 | 26 | 12 | 11 | 16 |
| 25 | 33 | 919 | 323 | 212 | 257 | 208 | 189 | 70 | 23 | 10 | 10 | 15 |
| 26 | 29 | 652 | 319 | 208 | 250 | 245 | 178 | 68 | 20 | 9.4 | 9.7 | 15 |
| 27 | 29 | 2290 | 306 | 204 | 240 | 317 | 166 | 68 | 19 | 9.4 | 9.1 | 15 |
| 28 | 30 | 2100 | 293 | 200 | 231 | 474 | 151 | 80 | 18 | 9.9 | 9.1 | 15 |
| 29 | 41 | 1330 | 279 | 197 | --- | 521 | 145 | 82 | 16 | 9.9 | 8.7 | 16 |
| 30 | 49 | 1020 | 271 | 188 | --- | 463 | 142 | 72 | 16 | 10 | 8.8 | 16 |
| 31 | 45 | --- | 263 | 179 | --- | 486 | --- | 73 | --- | 21 | 9.4 | --- |
| TOTAL | 1276 | 30233 | 18695 | 7780 | 10011 | 8313 | 9953 | 2825 | 1205 | 370.6 | 339.4 | 676.2 |
| MEAN | 41.2 | 1008 | 603 | 251 | 358 | 268 | 332 | 91.1 | 40.2 | 12.0 | 10.9 | 22.5 |
| MAX | 92 | 3390 | 1180 | 498 | 1800 | 521 | 681 | 137 | 85 | 21 | 18 | 82 |
| MIN | 29 | 39 | 263 | 179 | 160 | 199 | 142 | 68 | 16 | 9.4 | 8.5 | 9.4 |
| AC-FT | 2530 | 59970 | 37080 | 15430 | 19860 | 16490 | 19740 | 5600 | 2390 | 735 | 673 | 1340 |
| CAL YR 1984 | TOTAL | 124562 | MEAN | 340 | MAX | 3390 | MIN | 12 | AC-FT | 247100 | | |
| WTR YR 1985 | TOTAL | 91677.2 | MEAN | 251 | MAX | 3390 | MIN | 8.5 | AC-FT | 181800 | | |

11375810 COTTONWOOD CREEK NEAR OLINDA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971, 1973 to October 1984 (discontinued).

CHEMICAL ANALYSES: Water years 1971, 1982 to October 1984 (discontinued).

WATER TEMPERATURES: Water years 1973-80.

SEDIMENT RECORDS: Water years 1977-83.

TURBIDITY: Water years 1977-79, 1981.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: February 1973 to September 1980.

SEDIMENT RECORDS: January 1977 to May 1980 (storm season only).

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | TIME | STREAM- FLOW, INSTAN- TANEOUS (CFS) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | OXYGEN, DIS- SOLVED (MG/L) | HARD- NESS (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) |
|--------------|--|---|---|---|---|--|---|--|--|---|---|
| OCT 01... | 1035 | 33 | 257 | 7.8 | 18.5 | 9.6 | 110 | 24 | 12 | 10 | 1.3 |
| DATE | ALKA- LITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, NITRITE (MG/L AS N) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | |
| OCT 01... | 109 | 7.5 | 11 | <1.0 | 19 | 151 | 150 | <0.01 | <0.10 | <0.10 | |
| DATE | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) | NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, TOTAL (MG/L AS P) | PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P) | PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) | BORON, DIS- SOLVED (UG/L AS B) | IRON, DIS- SOLVED (UG/L AS FE) | CARBON, ORGANIC TOTAL (MG/L AS C) | |
| OCT 01... | 0.08 | 0.03 | 0.27 | 0.3 | 0.02 | 0.02 | <0.01 | 60 | 15 | 1.1 | |

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

SACRAMENTO RIVER BASIN

11375815 COTTONWOOD CREEK ABOVE SOUTH FORK, NEAR COTTONWOOD, CA

LOCATION.--Lat 40°22'19", long 122°20'17", in NW 1/4 SW 1/4, sec.17, T.29 N., R.4 W., Tehama County, Hydrologic Unit 18020102, on right bank 0.67 mi upstream of confluence with South Fork Cottonwood Creek and 3.3 mi south-west of Cottonwood.

DRAINAGE AREA.--478 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--June 1982 to September 1985 (low flow only) (discontinued).

REVISED RECORDS.--WDR CA-83-4: 1982.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 421.90 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 28 to Jan. 15. Records good. Flow is computed up to 1,000 ft³/s. Numerous pumping diversions above station. Maximum recorded discharge, Mar. 1, 1983, was determined to be 40,000 ft³/s, gage height 19.59 ft, from rating curve extended above 13,000 ft³/s and peak flow at station near Olinda.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|------|-----|-----|-------|-----|-------|-------|------|------|-------|-------|-------|
| 1 | 33 | 40 | 888 | 260 | 180 | 230 | 544 | 159 | 92 | 14 | 15 | 7.1 |
| 2 | 34 | 68 | 936 | 250 | 182 | 230 | 620 | 152 | 96 | 15 | 15 | 8.8 |
| 3 | 38 | 356 | --- | 240 | 178 | 224 | 662 | 146 | 89 | 15 | 13 | 12 |
| 4 | 34 | 199 | 931 | 235 | 175 | 221 | 604 | 140 | 73 | 16 | 11 | 12 |
| 5 | 34 | 122 | --- | 230 | 167 | 223 | 545 | 134 | 71 | 16 | 9.1 | 11 |
| 6 | 35 | 138 | 948 | 230 | 161 | 238 | 510 | 125 | 67 | 15 | 9.1 | 13 |
| 7 | 32 | 206 | 829 | 330 | 182 | 306 | 479 | 121 | 64 | 14 | 8.1 | 15 |
| 8 | 29 | 285 | 754 | 300 | --- | 296 | 449 | 118 | 63 | 14 | 6.0 | 56 |
| 9 | 28 | 307 | 714 | 500 | 810 | 245 | 420 | 112 | 57 | 13 | 4.8 | 55 |
| 10 | 36 | 904 | --- | 425 | 554 | 256 | 409 | 106 | 51 | 12 | 4.0 | 74 |
| 11 | 39 | --- | --- | 335 | 452 | 287 | 385 | 104 | 46 | 12 | 3.8 | 53 |
| 12 | 41 | --- | 879 | 300 | 409 | 283 | 362 | 102 | 40 | 12 | 3.6 | 33 |
| 13 | 39 | --- | 778 | 279 | 422 | 272 | 348 | 100 | 35 | 12 | 3.2 | 25 |
| 14 | 34 | --- | 687 | 270 | 406 | 255 | 327 | 99 | 32 | 11 | 3.9 | 24 |
| 15 | 36 | --- | 645 | 260 | 389 | 242 | 319 | 94 | 32 | 11 | 5.0 | 23 |
| 16 | 39 | --- | 580 | 260 | 396 | 235 | 310 | 90 | 30 | 9.4 | 4.5 | 21 |
| 17 | 75 | 977 | 532 | 259 | 383 | 236 | 305 | 89 | 31 | 8.5 | 4.2 | 19 |
| 18 | 63 | --- | 490 | 250 | 353 | 235 | 294 | 91 | 30 | 8.6 | 5.2 | 18 |
| 19 | 56 | 924 | 452 | 250 | 329 | 233 | 267 | 89 | 30 | 8.2 | 6.0 | 17 |
| 20 | 56 | 887 | 425 | 248 | 319 | 228 | 254 | 79 | 28 | 6.9 | 7.0 | 18 |
| 21 | 54 | 776 | 402 | 243 | 303 | 216 | 271 | 71 | 27 | 6.1 | 9.7 | 17 |
| 22 | 50 | 619 | 375 | 233 | 285 | 209 | 276 | 69 | 26 | 5.8 | 9.5 | 17 |
| 23 | 44 | 519 | 363 | 226 | 280 | 200 | 250 | 68 | 25 | 6.6 | 8.7 | 17 |
| 24 | 39 | --- | 351 | 224 | 272 | 207 | 231 | 74 | 24 | 6.0 | 7.6 | 16 |
| 25 | 36 | --- | 337 | 222 | 268 | 218 | 214 | 73 | 22 | 5.9 | 7.4 | 16 |
| 26 | 34 | 846 | 334 | 220 | 259 | 240 | 208 | 71 | 20 | 5.6 | 6.2 | 16 |
| 27 | 33 | --- | 316 | 216 | 249 | 313 | 202 | 69 | 18 | 4.9 | 5.7 | 16 |
| 28 | 32 | --- | 300 | 212 | 233 | 430 | 175 | 76 | 17 | 4.8 | 5.8 | 16 |
| 29 | 36 | --- | 290 | 208 | --- | 554 | 167 | 94 | 14 | 5.0 | 5.5 | 15 |
| 30 | 44 | --- | 280 | 192 | --- | 487 | 164 | 80 | 14 | 5.7 | 5.6 | 15 |
| 31 | 43 | --- | 270 | 184 | --- | 489 | --- | 75 | --- | 9.0 | 7.2 | --- |
| TOTAL | 1256 | --- | --- | 8091 | --- | 8538 | 10571 | 3070 | 1264 | 309.0 | 220.4 | 675.9 |
| MEAN | 40.5 | --- | --- | 261 | --- | 275 | 352 | 99.0 | 42.1 | 9.97 | 7.11 | 22.5 |
| MAX | 75 | --- | --- | 500 | --- | 554 | 662 | 159 | 96 | 16 | 15 | 74 |
| MIN | 28 | --- | --- | 184 | --- | 200 | 164 | 68 | 14 | 4.8 | 3.2 | 7.1 |
| AC-PT | 2490 | --- | --- | 16050 | --- | 16940 | 20970 | 6090 | 2510 | 613 | 437 | 1340 |

11375815 COTTONWOOD CREEK ABOVE SOUTH FORK, NEAR COTTONWOOD, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1982 to October 1984 (discontinued).

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | TIME | STREAM- FLOW, INSTAN- TANEOUS (CFS) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | OXYGEN, DIS- SOLVED (MG/L) | HARD- NESS (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) |
|--------------|--|---|---|---|---|--|---|--|--|---|
| OCT 03... | 1120 | 41 | 271 | 8.0 | 8.5 | 120 | 25 | 14 | 10 | 1.3 |
| DATE | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) |
| OCT 03... | 119 | 7.9 | 10 | 0.1 | 20 | 157 | 160 | <0.01 | <0.10 | <0.10 |
| DATE | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) | NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, TOTAL (MG/L AS P) | PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P) | PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) | BORON, DIS- SOLVED (UG/L AS B) | IRON, DIS- SOLVED (UG/L AS FE) | CARBON, ORGANIC TOTAL (MG/L AS C) |
| OCT 03... | <0.01 | 0.02 | 0.18 | 0.2 | 0.01 | <0.01 | <0.01 | 30 | 9 | 1.1 |

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

SACRAMENTO RIVER BASIN

11375870 SOUTH FORK COTTONWOOD CREEK NEAR OLINDA, CA

LOCATION.--Lat 40°19'34", long 122°26'40", in SE 1/4 NE 1/4 sec.32, T.29 N., R.5 W., Tehama County, Hydrologic Unit 18020102, on left bank 250 ft downstream from Dry Creek and 8.0 mi south of Olinda.

DRAINAGE AREA.--371 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 501.28 ft above National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--8 years (water years 1978-85) 360 ft³/s, 260,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 35,800 ft³/s, Feb. 28, 1983, gage height, 15.38 ft from rating curve extended above 17,000 ft³/s; no flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 16, 1974 reached a stage of 13.5 ft, from floodmarks on right bank, discharge, 27,200 ft³/s.

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

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|---------|------|--------------------------------|------------------|------|------|--------------------------------|------------------|
| Nov. 27 | 2100 | *4,350 | *5.26 | | | | |

No flow many days during July, August, and September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|--------|----------|-------|------|-------|------|-------|------|-------|--------|-----|-------|
| 1 | .27 | 19 | 584 | 120 | 86 | 132 | 311 | 127 | 55 | 6.5 | | 0 |
| 2 | .64 | 20 | 560 | 117 | 85 | 130 | 417 | 128 | 61 | 5.6 | | 0 |
| 3 | 1.2 | 162 | 710 | 113 | 82 | 128 | 480 | 127 | 62 | 5.3 | | 0 |
| 4 | 1.8 | 127 | 526 | 109 | 80 | 126 | 443 | 120 | 52 | 6.1 | | 0 |
| 5 | 2.4 | 86 | 575 | 109 | 78 | 127 | 413 | 115 | 49 | 6.2 | | 0 |
| 6 | 3.9 | 78 | 532 | 109 | 76 | 132 | 403 | 109 | 47 | 5.8 | | 0 |
| 7 | 5.9 | 123 | 468 | 128 | 82 | 162 | 396 | 108 | 45 | 5.1 | | 0 |
| 8 | 7.0 | 122 | 430 | 137 | 845 | 152 | 368 | 102 | 44 | 4.6 | | 0 |
| 9 | 7.0 | 143 | 411 | 162 | 475 | 133 | 349 | 98 | 42 | 3.7 | | 0 |
| 10 | 9.0 | 200 | 560 | 155 | 320 | 138 | 341 | 95 | 39 | 2.1 | | .13 |
| 11 | 13 | 712 | 456 | 130 | 256 | 191 | 321 | 91 | 38 | 2.8 | | 0 |
| 12 | 12 | 1470 | 386 | 121 | 231 | 175 | 295 | 89 | 36 | .21 | | 0 |
| 13 | 17 | 1650 | 338 | 113 | 245 | 158 | 270 | 85 | 34 | .27 | | 0 |
| 14 | 16 | 733 | 306 | 109 | 238 | 151 | 272 | 79 | 31 | 0 | | 0 |
| 15 | 15 | 481 | 285 | 108 | 227 | 147 | 276 | 75 | 30 | 0 | | .19 |
| 16 | 18 | 614 | 265 | 106 | 223 | 145 | 265 | 75 | 29 | 0 | | 2.9 |
| 17 | 21 | 510 | 241 | 106 | 217 | 145 | 249 | 75 | 27 | 0 | | 4.8 |
| 18 | 23 | 624 | 227 | 107 | 206 | 143 | 232 | 74 | 27 | 0 | | 5.9 |
| 19 | 22 | 490 | 219 | 118 | 191 | 144 | 211 | 73 | 25 | 0 | | 8.6 |
| 20 | 21 | 412 | 205 | 122 | 178 | 139 | 196 | 70 | 23 | 0 | | 11 |
| 21 | 22 | 355 | 194 | 120 | 170 | 138 | 189 | 67 | 22 | 0 | | 9.6 |
| 22 | 23 | 303 | 179 | 120 | 161 | 135 | 182 | 67 | 21 | 0 | | 9.1 |
| 23 | 21 | 265 | 172 | 116 | 155 | 138 | 168 | 67 | 20 | 0 | | 7.1 |
| 24 | 19 | 951 | 165 | 110 | 154 | 138 | 154 | 67 | 18 | 0 | | 4.9 |
| 25 | 19 | 652 | 159 | 106 | 154 | 145 | 146 | 67 | 16 | 0 | | 3.3 |
| 26 | 18 | 469 | 154 | 103 | 152 | 163 | 139 | 66 | 16 | 0 | | 1.8 |
| 27 | 17 | 1630 | 149 | 100 | 147 | 197 | 135 | 62 | 15 | 0 | | 1.8 |
| 28 | 16 | 2310 | 142 | 96 | 141 | 216 | 129 | 61 | 13 | 0 | | .80 |
| 29 | 17 | 972 | 135 | 95 | --- | 236 | 128 | 62 | 11 | 0 | | .80 |
| 30 | 18 | 695 | 128 | 91 | --- | 222 | 126 | 57 | 8.9 | 0 | | 1.8 |
| 31 | 20 | --- | 125 | 88 | --- | 247 | --- | 54 | --- | 0 | | --- |
| TOTAL | 427.11 | 17378 | 9986 | 3544 | 5655 | 4873 | 8004 | 2612 | 956.9 | 54.28 | 0 | 74.52 |
| MEAN | 13.8 | 579 | 322 | 114 | 202 | 157 | 267 | 84.3 | 31.9 | 1.75 | 0 | 2.48 |
| MAX | 23 | 2310 | 710 | 162 | 845 | 247 | 480 | 128 | 62 | 6.5 | 0 | 11 |
| MIN | .27 | 19 | 125 | 88 | 76 | 126 | 126 | 54 | 8.9 | 0 | 0 | 0 |
| AC-FT | 847 | 34470 | 19810 | 7030 | 11220 | 9670 | 15880 | 5180 | 1900 | 108 | 0 | 148 |
| CAL YR 1984 | TOTAL | 69849.72 | MEAN | 191 | MAX | 2310 | MIN | 0 | AC-FT | 138500 | | |
| WTR YR 1985 | TOTAL | 53564.81 | MEAN | 147 | MAX | 2310 | MIN | 0 | AC-FT | 106200 | | |

11375870 SOUTH FORK COTTONWOOD CREEK NEAR OLINDA, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1977 to October 1984 (discontinued).
 CHEMICAL ANALYSES: Water years 1982 to October 1984 (discontinued).
 WATER TEMPERATURES: Water years 1977-80.
 SEDIMENT RECORDS: Water years 1977-80.
 TURBIDITY: Water years 1977-79, 1981.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: November 1976 to September 1980.
 SEDIMENT RECORDS: January 1977 to May 1980 (storm season only).

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | TIME | STREAM- FLOW, INSTAN- TANEOUS (CFS) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | OXYGEN, DIS- SOLVED (MG/L) | HARD- NESS (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) |
|--------------|--|---|---|---|---|--|---|--|--|---|---|
| OCT 03... | 1330 | 1.8 | 325 | 8.3 | 23.0 | 10.4 | 130 | 34 | 11 | 15 | 1.1 |
| DATE | ALKA- LITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | |
| OCT 03... | 106 | 16 | 25 | 0.1 | 14 | 190 | 180 | <0.01 | <0.10 | <0.10 | |
| DATE | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) | NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) | PHOS- PHORUS, TOTAL (MG/L AS P) | PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P) | PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) | BORON, DIS- SOLVED (UG/L AS B) | IRON, DIS- SOLVED (UG/L AS FE) | CARBON, ORGANIC TOTAL (MG/L AS C) | |
| OCT 03... | 0.02 | 0.05 | 0.25 | 0.3 | <0.01 | <0.01 | <0.01 | 90 | 8 | 0.9 | |

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

SACRAMENTO RIVER BASIN

11375900 SOUTH FORK COTTONWOOD CREEK AT EVERGREEN ROAD, NEAR COTTONWOOD, CA

LOCATION.--Lat 40°21'45", long 122°20'18", in SW 1/4 SE 1/4 sec.17, T.29 N., R.4 W., Tehama County, Hydrologic Unit 18020102, on left bank 30 ft downstream from Evergreen Road, and 3.6 mi southwest of Cottonwood.

DRAINAGE AREA.--397 mi².

PERIOD OF RECORD.--June 1982 to September 1985 (discontinued).

REVISED RECORDS.--WDR CA-83-4: 1982.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 427.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 18-24. Records fair. Numerous small diversions above station for irrigation.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 38,000 ft³/s, Mar. 1, 1983, gage height, 17.24 ft from rating curve extended above 11,000 ft³/s on basis of runoff comparison with station near Olinda; no flow at times most years.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 15.4 ft, Dec. 19, 1981, from floodmarks, discharge unknown.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,700 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|---------|------|-----------------------------------|---------------------|---------|------|-----------------------------------|---------------------|
| Nov. 13 | 0915 | 3,070 | 6.42 | Nov. 27 | 2345 | *5,060 | *7.65 |

No flow many days during October, and July to September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|--------|----------|-------|------|-------|------|-------|------|--------|--------|-----|-----|
| 1 | 0 | 11 | 541 | 105 | 58 | 130 | 204 | 107 | 61 | .03 | | |
| 2 | 0 | 12 | 487 | 105 | 57 | 132 | 340 | 110 | 61 | .46 | | |
| 3 | 0 | 84 | 867 | 105 | 58 | 133 | 442 | 106 | 56 | .46 | | |
| 4 | 0 | 89 | 508 | 106 | 61 | 128 | 384 | 114 | 50 | 0 | | |
| 5 | 0 | 58 | 561 | 102 | 65 | 128 | 365 | 104 | 52 | 0 | | |
| 6 | 0 | 57 | 473 | 99 | 67 | 137 | 352 | 102 | 49 | 0 | | |
| 7 | .02 | 88 | 362 | 121 | 63 | 153 | 341 | 94 | 44 | 0 | | |
| 8 | 0 | 96 | 334 | 122 | 1060 | 147 | 305 | 93 | 42 | 0 | | |
| 9 | 0 | 114 | 313 | 126 | 503 | 135 | 275 | 96 | 37 | 0 | | |
| 10 | 0 | 134 | 715 | 130 | 309 | 130 | 267 | 83 | 33 | 0 | | |
| 11 | .11 | 835 | 542 | 108 | 229 | 145 | 249 | 81 | 26 | 0 | | |
| 12 | 0 | 2050 | 401 | 90 | 203 | 134 | 224 | 78 | 24 | 0 | | |
| 13 | 0 | 2310 | 333 | 98 | 214 | 127 | 202 | 76 | 25 | 0 | | |
| 14 | 0 | 957 | 291 | 101 | 201 | 118 | 203 | 70 | 20 | 0 | | |
| 15 | 0 | 520 | 242 | 86 | 193 | 123 | 211 | 68 | 18 | 0 | | |
| 16 | 2.7 | 734 | 218 | 76 | 191 | 110 | 201 | 66 | 16 | 0 | | |
| 17 | 7.3 | 543 | 199 | 71 | 190 | 107 | 190 | 70 | 15 | 0 | | |
| 18 | 11 | 702 | 189 | 72 | 176 | 118 | 175 | 67 | 13 | 0 | | |
| 19 | 12 | 481 | 170 | 75 | 168 | 108 | 155 | 65 | 12 | 0 | | |
| 20 | 11 | 345 | 156 | 78 | 155 | 121 | 148 | 62 | 12 | 0 | | |
| 21 | 12 | 276 | 167 | 79 | 151 | 116 | 144 | 63 | 14 | 0 | | |
| 22 | 12 | 209 | 151 | 76 | 143 | 114 | 144 | 61 | 12 | 0 | | |
| 23 | 12 | 178 | 159 | 70 | 140 | 102 | 130 | 61 | 11 | 0 | | |
| 24 | 11 | 1200 | 133 | 70 | 139 | 96 | 108 | 61 | 8.4 | 0 | | |
| 25 | 11 | 714 | 132 | 69 | 137 | 103 | 105 | 61 | 6.7 | 0 | | |
| 26 | 9.2 | 387 | 131 | 72 | 133 | 114 | 102 | 59 | 4.6 | 0 | | |
| 27 | 8.6 | 1560 | 135 | 68 | 130 | 139 | 101 | 56 | .91 | 0 | | |
| 28 | 8.5 | 2950 | 126 | 63 | 126 | 148 | 102 | 53 | .94 | 0 | | |
| 29 | 10 | 1190 | 118 | 62 | --- | 152 | 100 | 54 | .07 | 0 | | |
| 30 | 10 | 698 | 119 | 62 | --- | 139 | 105 | 53 | .05 | 0 | | |
| 31 | 11 | --- | 115 | 63 | --- | 148 | --- | 60 | --- | 0 | | |
| TOTAL | 159.43 | 19582 | 9388 | 2730 | 5320 | 3935 | 6374 | 2354 | 724.67 | 0.95 | 0 | (1) |
| MEAN | 5.14 | 653 | 303 | 88.1 | 190 | 127 | 212 | 75.9 | 24.2 | .031 | 0 | (1) |
| MAX | 12 | 2950 | 867 | 130 | 1060 | 153 | 442 | 114 | 61 | .46 | 0 | (1) |
| MIN | 0 | 11 | 115 | 62 | 57 | 96 | 100 | 53 | .05 | 0 | 0 | (1) |
| AC-FT | 316 | 38840 | 18620 | 5410 | 10550 | 7810 | 12640 | 4670 | 1440 | 1.9 | 0 | (1) |
| CAL YR 1984 | TOTAL | 71474.97 | MEAN | 195 | MAX | 2950 | MIN | 0 | AC-FT | 141800 | | |
| WTR YR 1985 | TOTAL | 50568.05 | MEAN | 139 | MAX | 2950 | MIN | 0 | AC-FT | 100300 | | |

11376000 COTTONWOOD CREEK NEAR COTTONWOOD, CA

LOCATION.--Lat 40°23'14", long 122°14'15", in NE 1/4 NE 1/4 sec.7, T.29 N., R.3 W., Shasta County, Hydrologic Unit 18020102, on left bank 2.2 mi east of Cottonwood, and 2.5 mi upstream from mouth.

DRAINAGE AREA.--927 mi².

WATER-DISCHARGE RECORDS

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

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 363.80 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to July 26, 1963, on right bank at datum 3.59 ft higher. July 26, 1964, to Sept. 13, 1972, at site 250 ft downstream on right bank. Sept. 21, 1967, to Jan. 14, 1968, supplementary gage at a site 1,450 ft downstream on right bank at datum 2.35 ft higher.

REMARKS.--Estimated daily discharges: Oct. 15 to Nov. 9. Records good. Small diversions for irrigation above station. At times during irrigation season, Cottonwood Creek receives water above station from Sacramento River by way of Anderson-Cottonwood Canal.

AVERAGE DISCHARGE.--45 years, 894 ft³/s, 647,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 86,000 ft³/s, Mar. 1, 1983, gage height, 21.59 ft from rating curve extended above 34,000 ft³/s on basis of runoff comparisons with upstream stations; minimum, 15 ft³/s, on several days during September 1945.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 8,900 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|---------|------|--------------------------------|------------------|------|------|--------------------------------|------------------|
| Nov. 27 | 2000 | *8,660 | *11.22 | | | | |

Minimum daily, 41 ft³/s, Aug. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|------|------|
| 1 | 127 | 155 | 1580 | 450 | 340 | 402 | 819 | 324 | 241 | 82 | 60 | 49 |
| 2 | 133 | 210 | 1430 | 433 | 341 | 394 | 991 | 321 | 276 | 79 | 63 | 46 |
| 3 | 115 | 500 | 2470 | 416 | 341 | 383 | 1110 | 309 | 297 | 70 | 61 | 45 |
| 4 | 103 | 340 | 1840 | 404 | 336 | 372 | 1060 | 305 | 266 | 70 | 53 | 47 |
| 5 | 122 | 170 | 1780 | 393 | 330 | 366 | 962 | 302 | 246 | 64 | 49 | 59 |
| 6 | 120 | 190 | 1630 | 390 | 325 | 386 | 900 | 288 | 194 | 62 | 57 | 63 |
| 7 | 108 | 300 | 1390 | 437 | 333 | 474 | 859 | 291 | 198 | 57 | 54 | 67 |
| 8 | 109 | 370 | 1250 | 512 | 2410 | 491 | 798 | 296 | 202 | 55 | 51 | 152 |
| 9 | 118 | 419 | 1160 | 600 | 1400 | 430 | 757 | 281 | 183 | 55 | 54 | 142 |
| 10 | 141 | 986 | 1950 | 655 | 947 | 416 | 787 | 263 | 149 | 56 | 55 | 124 |
| 11 | 210 | 2690 | 2070 | 523 | 760 | 480 | 717 | 257 | 139 | 62 | 52 | 118 |
| 12 | 114 | 5160 | 1470 | 478 | 676 | 478 | 644 | 261 | 143 | 50 | 51 | 99 |
| 13 | 107 | 5650 | 1250 | 452 | 677 | 455 | 611 | 242 | 123 | 49 | 48 | 83 |
| 14 | 109 | 2880 | 1100 | 430 | 665 | 434 | 588 | 230 | 119 | 50 | 45 | 75 |
| 15 | 112 | 1580 | 1030 | 408 | 639 | 417 | 594 | 220 | 114 | 57 | 43 | 67 |
| 16 | 150 | 2010 | 974 | 389 | 634 | 404 | 580 | 220 | 109 | 62 | 47 | 63 |
| 17 | 250 | 1660 | 902 | 381 | 619 | 399 | 558 | 223 | 115 | 63 | 53 | 60 |
| 18 | 210 | 2510 | 832 | 382 | 586 | 394 | 534 | 220 | 118 | 58 | 46 | 68 |
| 19 | 195 | 1600 | 782 | 386 | 555 | 387 | 506 | 228 | 109 | 56 | 52 | 79 |
| 20 | 190 | 1350 | 722 | 389 | 527 | 381 | 486 | 222 | 97 | 53 | 48 | 68 |
| 21 | 180 | 1180 | 675 | 393 | 504 | 368 | 486 | 217 | 94 | 52 | 47 | 77 |
| 22 | 170 | 825 | 636 | 395 | 483 | 363 | 516 | 215 | 88 | 50 | 47 | 84 |
| 23 | 160 | 640 | 610 | 390 | 469 | 358 | 459 | 208 | 84 | 49 | 50 | 102 |
| 24 | 140 | 4090 | 588 | 386 | 458 | 359 | 415 | 215 | 79 | 56 | 53 | 99 |
| 25 | 145 | 2420 | 572 | 380 | 449 | 369 | 391 | 211 | 75 | 48 | 52 | 102 |
| 26 | 130 | 1400 | 561 | 377 | 439 | 409 | 378 | 209 | 72 | 49 | 49 | 104 |
| 27 | 125 | 3160 | 544 | 371 | 427 | 528 | 372 | 203 | 77 | 55 | 49 | 111 |
| 28 | 120 | 5440 | 521 | 368 | 413 | 614 | 346 | 220 | 73 | 61 | 48 | 88 |
| 29 | 135 | 3030 | 499 | 366 | --- | 783 | 343 | 238 | 69 | 55 | 41 | 76 |
| 30 | 155 | 1940 | 482 | 356 | --- | 703 | 335 | 229 | 72 | 54 | 43 | 76 |
| 31 | 165 | --- | 470 | 345 | --- | 715 | --- | 214 | --- | 55 | 42 | --- |
| TOTAL | 4468 | 54855 | 33770 | 13035 | 17083 | 13912 | 18902 | 7682 | 4221 | 1794 | 1563 | 2493 |
| MEAN | 144 | 1828 | 1089 | 420 | 610 | 449 | 630 | 248 | 141 | 57.9 | 50.4 | 83.1 |
| MAX | 250 | 5650 | 2470 | 655 | 2410 | 783 | 1110 | 324 | 297 | 82 | 63 | 152 |
| MIN | 103 | 155 | 470 | 345 | 325 | 358 | 335 | 203 | 69 | 48 | 41 | 45 |
| AC-FT | 8860 | 108800 | 66980 | 25850 | 33880 | 27590 | 37490 | 15240 | 8370 | 3560 | 3100 | 4940 |
| CAL YR 1984 | TOTAL | 226293 | MEAN | 618 | MAX | 5650 | MIN | 47 | AC-FT | 448900 | | |
| WTR YR 1985 | TOTAL | 173778 | MEAN | 476 | MAX | 5650 | MIN | 41 | AC-FT | 344700 | | |

SACRAMENTO RIVER BASIN

11376000 COTTONWOOD CREEK NEAR COTTONWOOD, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957-67, 1977 to September 1985 (discontinued).

CHEMICAL ANALYSES: Water years 1982 to September 1985 (discontinued).

WATER TEMPERATURES: Water years 1963-67, 1977 to September 1985 (discontinued).

SEDIMENT RECORDS: Water years 1957-67, 1977 to May 1985 (discontinued).

TURBIDITY: Water years 1977-81.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1962 to September 1967, December 1976 to September 1985 (discontinued).

SEDIMENT RECORDS: October 1962 to September 1967, November 1977 to May 1980 (storm season only for water years 1978-80).

INSTRUMENTATION.--Temperature recorder June 1965 to June 1967, and December 1976 to September 1985.

REMARKS.--Interruptions in record were due to vandalism, Oct. 14 to Nov. 9 and malfunction of recording instrument, Mar. 5.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 32.5°C, June 16, 1980; minimum recorded, 2.5°C, Nov. 23, 1977, Dec. 24, 1983.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 30.5°C, June 18, Aug. 9; minimum recorded, 4.0°C, Dec. 20.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | TIME | STREAM- FLOW, INSTAN- TANEOUS (CFS) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | OXYGEN, DIS- SOLVED (MG/L) | HARD- NESS (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | |
|--------------|-------|---|--|---|---|--|---|--|---|--|--|
| OCT 02... | 1505 | 140 | 178 | 7.6 | 21.0 | 12.1 | 80 | 17 | 9.0 | 7.4 | |
| DATE | | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) |
| OCT 02... | 1.3 | 84 | 6.1 | 4.6 | 0.1 | 22 | 114 | 120 | <0.01 | <0.10 | |
| DATE | | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) | PHOS- PHORUS, TOTAL (MG/L AS P) | PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P) | PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) | BORON, DIS- SOLVED (UG/L AS B) | IRON, DIS- SOLVED (UG/L AS FE) | CARBON, ORGANIC TOTAL (MG/L AS C) |
| OCT 02... | <0.10 | 0.04 | <0.01 | <0.2 | 0.02 | 0.02 | 0.01 | 30 | 20 | 1.2 | |

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

11376000 COTTONWOOD CREEK NEAR COTTONWOOD, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DAY | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
|-------|---------|------|----------|------|----------|------|---------|------|----------|------|-----------|------|
| | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 21.5 | 17.5 | --- | --- | 9.0 | 7.5 | 8.0 | 4.5 | 7.5 | 5.0 | 13.0 | 10.0 |
| 2 | 21.5 | 17.0 | --- | --- | 8.5 | 7.5 | 7.0 | 4.5 | 8.0 | 4.5 | 11.5 | 8.5 |
| 3 | 21.5 | 17.5 | --- | --- | 8.5 | 7.0 | 8.0 | 4.5 | 7.0 | 4.5 | 12.0 | 7.0 |
| 4 | 21.5 | 18.5 | --- | --- | 9.0 | 7.5 | 7.0 | 4.5 | 7.5 | 4.5 | 12.5 | 8.0 |
| 5 | 20.0 | 17.5 | --- | --- | 9.5 | 8.0 | 7.0 | 5.5 | 8.0 | 4.5 | --- | --- |
| 6 | 21.0 | 17.0 | --- | --- | 9.5 | 7.5 | 7.5 | 6.5 | 7.5 | 4.5 | 13.0 | 7.5 |
| 7 | 22.0 | 18.0 | --- | --- | 9.0 | 7.0 | 8.0 | 7.5 | 7.5 | 7.0 | 8.0 | 6.5 |
| 8 | 21.0 | 18.0 | --- | --- | 9.0 | 7.5 | 8.5 | 6.5 | 7.5 | 6.0 | 11.0 | 5.5 |
| 9 | 20.5 | 16.5 | --- | --- | 11.0 | 9.0 | 8.0 | 6.5 | 7.5 | 5.5 | 13.0 | 7.5 |
| 10 | 18.5 | 16.0 | 12.0 | 11.0 | 11.0 | 8.0 | 8.0 | 5.5 | 8.0 | 5.0 | 11.5 | 10.0 |
| 11 | 18.5 | 15.5 | 11.5 | 10.0 | 9.5 | 8.5 | 8.0 | 5.0 | 8.0 | 6.5 | 14.0 | 10.0 |
| 12 | 18.0 | 16.0 | 11.0 | 10.5 | 10.5 | 8.5 | 8.0 | 5.5 | 11.5 | 7.5 | 16.0 | 11.0 |
| 13 | 20.0 | 17.0 | 12.0 | 11.0 | 8.5 | 6.5 | 6.5 | 5.0 | 11.5 | 8.0 | 15.0 | 10.5 |
| 14 | --- | --- | 12.0 | 9.5 | 8.0 | 6.5 | 7.0 | 4.0 | 11.0 | 8.0 | 15.5 | 10.0 |
| 15 | --- | --- | 10.5 | 9.5 | 8.0 | 7.0 | 8.5 | 6.0 | 12.0 | 8.0 | 16.0 | 10.5 |
| 16 | --- | --- | 10.5 | 9.5 | 7.0 | 6.0 | 9.5 | 6.5 | 15.0 | 8.5 | 16.0 | 11.5 |
| 17 | --- | --- | 11.0 | 9.0 | 8.0 | 6.0 | 9.0 | 7.0 | 13.5 | 9.0 | 15.0 | 12.5 |
| 18 | --- | --- | 12.0 | 10.0 | 7.0 | 5.5 | 9.0 | 7.0 | 12.5 | 9.0 | 17.0 | 11.0 |
| 19 | --- | --- | 12.0 | 9.5 | 6.5 | 4.5 | 8.5 | 5.0 | 12.5 | 9.0 | 18.0 | 12.5 |
| 20 | --- | --- | 11.0 | 10.5 | 6.0 | 4.0 | 8.5 | 7.0 | 13.0 | 8.0 | 17.5 | 13.5 |
| 21 | --- | --- | 11.0 | 9.5 | 7.5 | 5.5 | 9.5 | 7.0 | 13.0 | 8.0 | 16.0 | 10.5 |
| 22 | --- | --- | 11.0 | 8.5 | 7.0 | 4.5 | 9.5 | 7.5 | 14.0 | 9.5 | 16.0 | 10.5 |
| 23 | --- | --- | 11.0 | 9.5 | 7.0 | 4.5 | 9.0 | 7.0 | 14.5 | 10.0 | 17.0 | 12.0 |
| 24 | --- | --- | 10.0 | 9.0 | 7.5 | 5.0 | 7.0 | 6.0 | 14.5 | 10.0 | 14.5 | 11.5 |
| 25 | --- | --- | 10.0 | 7.0 | 6.0 | 6.0 | 7.5 | 5.5 | 13.5 | 10.0 | 15.5 | 9.5 |
| 26 | --- | --- | 8.5 | 6.5 | 7.5 | 5.5 | 10.0 | 7.0 | 13.5 | 9.5 | 12.0 | 5.0 |
| 27 | --- | --- | 8.0 | 7.5 | 7.5 | 5.0 | 8.5 | 6.0 | 14.0 | 9.5 | 8.5 | 5.5 |
| 28 | --- | --- | 9.0 | 8.0 | 7.5 | 6.0 | 9.5 | 7.5 | 14.5 | 9.5 | 11.5 | 6.5 |
| 29 | --- | --- | 9.0 | 7.0 | 6.5 | 5.5 | 9.5 | 7.0 | --- | --- | 13.0 | 8.0 |
| 30 | --- | --- | 9.0 | 8.0 | 7.5 | 6.0 | 8.5 | 5.5 | --- | --- | 15.5 | 10.0 |
| 31 | --- | --- | --- | --- | 8.0 | 5.5 | 8.5 | 5.0 | --- | --- | 17.0 | 10.0 |
| MONTH | --- | --- | --- | --- | 11.0 | 4.0 | 10.0 | 4.0 | 15.0 | 4.5 | 18.0 | 5.0 |
| DAY | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 18.0 | 13.0 | 24.0 | 17.5 | 21.0 | 17.0 | 26.0 | 18.5 | 26.5 | 20.5 | 22.5 | 19.5 |
| 2 | 18.0 | 13.5 | 23.5 | 18.5 | 23.0 | 16.5 | 28.0 | 20.0 | 26.0 | 20.0 | 24.5 | 19.5 |
| 3 | 17.5 | 14.0 | 22.5 | 17.5 | 24.5 | 17.5 | 27.5 | 21.5 | 27.5 | 20.5 | 24.5 | 18.5 |
| 4 | 18.0 | 14.0 | 21.5 | 15.0 | 23.5 | 18.5 | 28.0 | 21.5 | 28.0 | 22.0 | 24.5 | 18.0 |
| 5 | 19.0 | 14.0 | 23.0 | 16.0 | 23.5 | 19.0 | 28.5 | 21.5 | 27.5 | 22.0 | 25.0 | 17.5 |
| 6 | 20.0 | 15.0 | 22.5 | 17.0 | 25.0 | 18.5 | 27.0 | 22.0 | 28.0 | 21.0 | 22.0 | 18.5 |
| 7 | 20.5 | 16.0 | 24.5 | 16.0 | 25.0 | 20.5 | 28.0 | 21.0 | 29.0 | 22.0 | 20.5 | 18.5 |
| 8 | 21.0 | 15.5 | 23.5 | 15.0 | 27.0 | 19.0 | 28.5 | 22.0 | 25.5 | 20.5 | 20.0 | 17.5 |
| 9 | 21.0 | 16.0 | 25.0 | 17.0 | 27.5 | 19.5 | 28.5 | 22.0 | 30.5 | 19.0 | 19.5 | 17.5 |
| 10 | 20.0 | 16.0 | 21.0 | 16.0 | 26.5 | 20.0 | 28.5 | 21.5 | 30.0 | 20.5 | 23.0 | 17.5 |
| 11 | 21.0 | 15.5 | 22.0 | 15.5 | 27.5 | 20.0 | 30.0 | 21.5 | 25.5 | 20.0 | 21.5 | 17.5 |
| 12 | 21.5 | 15.0 | 23.5 | 16.0 | 29.0 | 19.5 | 30.0 | 22.5 | 27.0 | 20.5 | 22.5 | 17.5 |
| 13 | 23.0 | 16.0 | 24.5 | 17.0 | 29.0 | 22.0 | 29.5 | 22.0 | 27.0 | 21.0 | 20.5 | 18.5 |
| 14 | 23.5 | 17.0 | 23.0 | 17.5 | 28.5 | 19.0 | 29.5 | 22.0 | 27.0 | 21.5 | 23.5 | 18.0 |
| 15 | 22.0 | 18.0 | 22.5 | 14.5 | 28.0 | 22.0 | 29.5 | 23.0 | 26.5 | 21.5 | 23.0 | 17.5 |
| 16 | 20.0 | 16.5 | 21.5 | 17.0 | 28.5 | 18.0 | 28.5 | 22.5 | 26.5 | 21.0 | 23.5 | 17.5 |
| 17 | 20.5 | 16.0 | 24.0 | 16.5 | 30.0 | 23.0 | 27.5 | 21.5 | 25.5 | 20.5 | 23.0 | 18.0 |
| 18 | 18.5 | 15.0 | 25.0 | 17.5 | 30.5 | 23.5 | 29.0 | 21.5 | 25.5 | 21.0 | 22.5 | 18.0 |
| 19 | 17.5 | 13.0 | 26.0 | 18.5 | 29.5 | 24.0 | 28.5 | 21.5 | 29.0 | 20.5 | 22.0 | 17.0 |
| 20 | 16.5 | 13.0 | 25.0 | 18.5 | 29.0 | 23.0 | 26.5 | 21.5 | 26.0 | 20.5 | 23.0 | 18.0 |
| 21 | 13.5 | 11.0 | 25.5 | 19.0 | 28.5 | 22.5 | 23.0 | 21.0 | 26.5 | 20.5 | 23.5 | 17.5 |
| 22 | 18.0 | 11.0 | 27.0 | 19.5 | 28.5 | 22.0 | 28.0 | 18.5 | 28.5 | 20.0 | 22.5 | 18.0 |
| 23 | 20.0 | 13.5 | 27.0 | 17.0 | 28.0 | 22.0 | 28.5 | 22.5 | 27.5 | 20.0 | 22.5 | 17.0 |
| 24 | 19.5 | 14.0 | 27.5 | 19.5 | 25.0 | 19.5 | 29.0 | 22.5 | 28.5 | 20.5 | 22.5 | 17.5 |
| 25 | 18.5 | 13.5 | 26.5 | 17.5 | 25.5 | 18.0 | 29.0 | 22.0 | 29.5 | 21.5 | 23.0 | 17.5 |
| 26 | 20.0 | 13.0 | 25.5 | 17.5 | 27.0 | 19.0 | 29.5 | 23.0 | 28.0 | 21.5 | 22.5 | 18.0 |
| 27 | 22.5 | 15.5 | 25.0 | 19.0 | 27.5 | 18.5 | 29.5 | 22.0 | 28.0 | 21.0 | 22.0 | 18.5 |
| 28 | 22.0 | 16.5 | 20.0 | 17.0 | 27.0 | 17.0 | 28.5 | 22.5 | 25.5 | 20.0 | 22.5 | 18.5 |
| 29 | 23.5 | 17.5 | 23.0 | 15.0 | 28.5 | 18.0 | 29.0 | 21.0 | 25.0 | 19.5 | 22.5 | 18.0 |
| 30 | 24.0 | 17.5 | 24.0 | 17.5 | 27.0 | 19.5 | 26.5 | 21.0 | 24.5 | 19.0 | 23.0 | 18.5 |
| 31 | --- | --- | 22.5 | 17.5 | --- | --- | 25.0 | 20.5 | 25.0 | 18.5 | --- | --- |
| MONTH | 24.0 | 11.0 | 27.5 | 14.5 | 30.5 | 16.5 | 30.0 | 18.5 | 30.5 | 18.5 | 25.0 | 17.0 |

SACRAMENTO RIVER BASIN

11376000 COTTONWOOD CREEK NEAR COTTONWOOD, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | TIME | STREAM- FLOW, INSTAN- TANEOUS (CFS) | TEMPER- ATURE (DEG C) | SEDI- MENT, SUS- PENDE (MG/L) | SEDI- MENT, DIS- CHARGE, SUS- PENDE (T/DAY) | SED. SUSP. FALL DIAM. % FINER THAN .002 MM | SED. SUSP. FALL DIAM. % FINER THAN .004 MM | SED. SUSP. FALL DIAM. % FINER THAN .008 MM |
|-------|------|---|-----------------------------|---|---|--|--|--|
| NOV | | | | | | | | |
| 07... | 1350 | 350 | 13.0 | 7 | 6.6 | -- | -- | -- |
| 16... | 1145 | 1830 | 10.0 | 76 | 376 | -- | -- | -- |
| 28... | 1100 | 5700 | 8.0 | 815 | 12500 | 22 | 29 | 37 |
| DEC | | | | | | | | |
| 05... | 1545 | 2020 | 9.5 | 104 | 567 | -- | -- | -- |
| JAN | | | | | | | | |
| 17... | 1215 | 476 | 8.0 | 20 | 26 | -- | -- | -- |
| FEB | | | | | | | | |
| 08... | 1215 | 3250 | 6.5 | 1360 | 11900 | 37 | 47 | 60 |
| 14... | 1330 | 710 | 10.5 | 6 | 12 | -- | -- | -- |
| MAR | | | | | | | | |
| 13... | 1330 | 513 | 14.0 | 10 | 14 | -- | -- | -- |
| APR | | | | | | | | |
| 09... | 1315 | 815 | 20.0 | 17 | 37 | -- | -- | -- |
| MAY | | | | | | | | |
| 07... | 1330 | 336 | 20.0 | 7 | 6.4 | -- | -- | -- |

| DATE | SED. SUSP. FALL DIAM. % FINER THAN .016 MM | SED. SUSP. FALL DIAM. % FINER THAN .031 MM | SED. SUSP. SIEVE DIAM. % FINER THAN .062 MM | SED. SUSP. SIEVE DIAM. % FINER THAN .125 MM | SED. SUSP. SIEVE DIAM. % FINER THAN .250 MM | SED. SUSP. SIEVE DIAM. % FINER THAN .500 MM | SED. SUSP. SIEVE DIAM. % FINER THAN 1.00 MM | SED. SUSP. SIEVE DIAM. % FINER THAN 2.00 MM |
|-------|--|--|---|---|---|---|---|---|
| NOV | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- |
| 16... | -- | -- | 56 | 62 | 81 | 97 | 100 | -- |
| 28... | 44 | 51 | 59 | 65 | 75 | 90 | 97 | 99 |
| DEC | | | | | | | | |
| 05... | -- | -- | -- | -- | -- | -- | -- | -- |
| JAN | | | | | | | | |
| 17... | -- | -- | -- | -- | -- | -- | -- | -- |
| FEB | | | | | | | | |
| 08... | 72 | 81 | 88 | 91 | 96 | 100 | -- | -- |
| 14... | -- | -- | -- | -- | -- | -- | -- | -- |
| MAR | | | | | | | | |
| 13... | -- | -- | -- | -- | -- | -- | -- | -- |
| APR | | | | | | | | |
| 09... | -- | -- | -- | -- | -- | -- | -- | -- |
| MAY | | | | | | | | |
| 07... | -- | -- | -- | -- | -- | -- | -- | -- |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | STREAM- FLOW, INSTAN- TANEOUS (CFS) | BED MAT. SIEVE DIAM. % FINER THAN .125 MM | BED MAT. SIEVE DIAM. % FINER THAN .250 MM | BED MAT. SIEVE DIAM. % FINER THAN .500 MM |
|-------|------|-----------------------------|---|---|---|---|---|
| NOV | | | | | | | |
| 16... | 1200 | 10.0 | 1 | 1860 | -- | 27 | 62 |
| 16... | 1205 | 10.0 | 1 | 1860 | -- | 1 | 53 |
| 16... | 1210 | 10.0 | 1 | 1860 | -- | -- | 24 |
| 16... | 1215 | 10.0 | 1 | 1860 | -- | 1 | 5 |
| 28... | 1115 | 8.0 | 1 | 5590 | -- | 1 | 1 |
| 28... | 1120 | 8.0 | 1 | 5590 | -- | 1 | 23 |
| 28... | 1125 | 8.0 | 1 | 5590 | 1 | 1 | 4 |
| 28... | 1130 | 8.0 | 1 | 5590 | -- | 1 | 4 |
| FEB | | | | | | | |
| 08... | 1245 | 6.5 | 1 | 3250 | -- | 2 | 7 |
| 08... | 1250 | 6.5 | 1 | 3250 | -- | 1 | 20 |
| 08... | 1255 | 6.5 | 1 | 3250 | -- | -- | 6 |
| 08... | 1300 | 6.5 | 1 | 3250 | -- | -- | 2 |
| 08... | 1305 | 6.5 | 1 | 3250 | -- | -- | -- |
| APR | | | | | | | |
| 09... | 1330 | 20.0 | 1 | 815 | -- | 2 | 20 |
| 09... | 1335 | 20.0 | 1 | 815 | -- | -- | 28 |
| 09... | 1340 | 20.0 | 1 | 815 | -- | -- | 19 |
| 09... | 1345 | 20.0 | 1 | 815 | -- | 1 | 4 |

11376000 COTTONWOOD CREEK NEAR COTTONWOOD, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM | BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM | BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM |
|-------|---|---|---|---|---|---|---|
| NOV | | | | | | | |
| 16... | 76 | 91 | 95 | 96 | 100 | -- | -- |
| 16... | 84 | 91 | 97 | 99 | 100 | -- | -- |
| 16... | 59 | 77 | 89 | 96 | 100 | -- | -- |
| 16... | 12 | 39 | 74 | 92 | 100 | -- | -- |
| 28... | 1 | 1 | 1 | 1 | 1 | 1 | 100 |
| 28... | 62 | 75 | 81 | 87 | 97 | 100 | -- |
| 28... | 13 | 21 | 29 | 48 | 67 | 100 | -- |
| 28... | 19 | 58 | 83 | 94 | 100 | -- | -- |
| FEB | | | | | | | |
| 08... | 21 | 44 | 61 | 74 | 79 | 100 | -- |
| 08... | 35 | 43 | 54 | 65 | 88 | 100 | -- |
| 08... | 19 | 37 | 58 | 74 | 83 | 100 | -- |
| 08... | 8 | 21 | 34 | 48 | 66 | 100 | -- |
| 08... | 1 | 3 | 20 | 58 | 85 | 100 | -- |
| APR | | | | | | | |
| 09... | 36 | 46 | 57 | 65 | 75 | 100 | -- |
| 09... | 71 | 94 | 99 | 100 | -- | -- | -- |
| 09... | 49 | 70 | 83 | 88 | 100 | -- | -- |
| 09... | 5 | 20 | 56 | 90 | 100 | -- | -- |

SACRAMENTO RIVER BASIN

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

LOCATION.--Lat 40°23'54", long 122°08'43", in SW 1/4 NE 1/4 sec.1, T.29 N., R.3 W., Shasta County, Hydrologic Unit 18020101, U.S. Fish and Wildlife Service land, on right bank 3.7 mi downstream from Spring Branch, 5.7 mi upstream from mouth, and 7.0 mi east of Cottonwood.

DRAINAGE AREA.--357 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 415 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records excellent. Some regulation at low flows by five small powerplants, several small reservoirs, and Coleman Fish Hatchery. Coleman Fish Hatchery diverts from 50 ft³/s to 90 ft³/s which is returned above the station. At times, 10 ft³/s diverted above station for irrigation.

AVERAGE DISCHARGE.--24 years, 528 ft³/s, 382,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 24,300 ft³/s, Jan. 24, 1970, gage height, 14.75 ft, from rating curve extended above 4,200 ft³/s on basis of slope-area measurement of peak flow; minimum since 1961, 52 ft³/s, Aug. 8, 1962.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 15.8 ft, Dec. 11, 1937, from floodmarks at former site and datum, discharge, 35,000 ft³/s by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,100 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|--|------|-----------------------------------|---------------------|------|------|-----------------------------------|---------------------|
| Dec. 11 | 0015 | *4,700 | *6.50 | | | | |
| Minimum daily, 235 ft ³ /s, Aug. 3, 28. | | | | | | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|
| 1 | 360 | 342 | 491 | 405 | 373 | 371 | 464 | 457 | 389 | 284 | 255 | 243 |
| 2 | 346 | 356 | 517 | 402 | 371 | 375 | 478 | 464 | 384 | 280 | 251 | 251 |
| 3 | 336 | 510 | 674 | 399 | 372 | 361 | 503 | 468 | 386 | 277 | 235 | 257 |
| 4 | 333 | 414 | 494 | 404 | 369 | 364 | 506 | 473 | 374 | 276 | 246 | 252 |
| 5 | 336 | 375 | 476 | 408 | 365 | 371 | 528 | 463 | 371 | 276 | 255 | 249 |
| 6 | 342 | 388 | 471 | 409 | 367 | 389 | 536 | 456 | 372 | 272 | 262 | 250 |
| 7 | 340 | 472 | 433 | 464 | 382 | 518 | 548 | 460 | 379 | 271 | 267 | 262 |
| 8 | 337 | 575 | 419 | 467 | 633 | 480 | 543 | 454 | 384 | 269 | 263 | 368 |
| 9 | 335 | 456 | 412 | 447 | 480 | 408 | 550 | 444 | 376 | 271 | 273 | 455 |
| 10 | 352 | 489 | 927 | 432 | 417 | 473 | 557 | 437 | 368 | 268 | 265 | 348 |
| 11 | 556 | 1040 | 1690 | 406 | 400 | 450 | 545 | 434 | 356 | 264 | 262 | 289 |
| 12 | 420 | 834 | 710 | 399 | 394 | 418 | 537 | 423 | 351 | 262 | 258 | 272 |
| 13 | 384 | 1180 | 585 | 394 | 389 | 388 | 533 | 416 | 356 | 275 | 264 | 270 |
| 14 | 378 | 776 | 520 | 389 | 383 | 379 | 555 | 416 | 349 | 269 | 257 | 271 |
| 15 | 360 | 525 | 567 | 392 | 380 | 373 | 582 | 417 | 341 | 265 | 254 | 272 |
| 16 | 365 | 651 | 673 | 386 | 381 | 382 | 583 | 412 | 343 | 266 | 258 | 272 |
| 17 | 390 | 500 | 528 | 387 | 379 | 387 | 546 | 409 | 338 | 268 | 254 | 270 |
| 18 | 372 | 555 | 493 | 382 | 376 | 392 | 530 | 410 | 339 | 273 | 255 | 281 |
| 19 | 369 | 486 | 475 | 398 | 373 | 397 | 542 | 410 | 335 | 272 | 256 | 279 |
| 20 | 380 | 631 | 462 | 388 | 372 | 401 | 501 | 408 | 340 | 266 | 253 | 280 |
| 21 | 382 | 578 | 453 | 391 | 369 | 404 | 494 | 406 | 328 | 258 | 250 | 278 |
| 22 | 364 | 463 | 443 | 385 | 371 | 398 | 478 | 404 | 321 | 262 | 247 | 277 |
| 23 | 357 | 430 | 432 | 382 | 376 | 399 | 439 | 405 | 306 | 259 | 248 | 262 |
| 24 | 344 | 1050 | 427 | 378 | 377 | 427 | 433 | 407 | 300 | 260 | 245 | 265 |
| 25 | 344 | 609 | 423 | 380 | 377 | 442 | 429 | 409 | 295 | 244 | 248 | 256 |
| 26 | 349 | 481 | 421 | 389 | 376 | 437 | 422 | 405 | 290 | 241 | 245 | 254 |
| 27 | 360 | 809 | 417 | 380 | 372 | 458 | 426 | 401 | 287 | 255 | 239 | 260 |
| 28 | 357 | 826 | 411 | 382 | 369 | 455 | 441 | 408 | 285 | 256 | 235 | 267 |
| 29 | 363 | 584 | 405 | 388 | --- | 430 | 449 | 414 | 287 | 254 | 245 | 265 |
| 30 | 353 | 517 | 410 | 378 | --- | 431 | 454 | 420 | 286 | 256 | 248 | 280 |
| 31 | 350 | --- | 407 | 377 | --- | 434 | --- | 399 | --- | 256 | 243 | --- |
| TOTAL | 11314 | 17902 | 16666 | 12368 | 10943 | 12792 | 15132 | 13209 | 10216 | 8225 | 7836 | 8355 |
| MEAN | 365 | 597 | 538 | 399 | 391 | 413 | 504 | 426 | 341 | 265 | 253 | 278 |
| MAX | 556 | 1180 | 1690 | 467 | 633 | 518 | 583 | 473 | 389 | 284 | 273 | 455 |
| MIN | 333 | 342 | 405 | 377 | 365 | 361 | 422 | 399 | 285 | 241 | 235 | 243 |
| AC-FT | 22440 | 35510 | 33060 | 24530 | 21710 | 25370 | 30010 | 26200 | 20260 | 16310 | 15540 | 16570 |
| CAL YR 1984 | TOTAL | 199704 | MEAN | 546 | MAX | 1690 | MIN | 289 | AC-FT | 396100 | | |
| WTR YR 1985 | TOTAL | 144958 | MEAN | 397 | MAX | 1690 | MIN | 235 | AC-FT | 287500 | | |

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

LOCATION.--Lat 40°17'19", long 122°11'08", in NW 1/4 NE 1/4 sec.15, T.28 N., R.3 W., Tehama County, Hydrologic Unit 18020103, on left bank 2.7 mi upstream from Bend Bridge, and 8.1 mi northeast of Red Bluff.

DRAINAGE AREA.--8,900 mi², excluding Goose Lake basin.

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

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 285.77 ft above National Geodetic Vertical Datum of 1929. See WSP 2131 for history of changes prior to September 1968.

REMARKS.--No estimated daily discharges. Records excellent. Flow regulated by Shasta Lake (station 11370000) since Dec. 30, 1943. Diversions, in addition to those on tributaries, for irrigation of 22,000 acres between stations at Keswick and above Bend Bridge. Transbasin diversions from Trinity River to Whiskeytown Lake via Judge Francis Carr powerplant (station 11525430) started in April 1963.

AVERAGE DISCHARGE.--71 years (water years 1892-1962), prior to transbasin diversion from Trinity River, 11,400 ft³/s, 8,259,000 acre-ft/yr; 23 years (water years 1963-85), 13,810 ft³/s, 10,010,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 291,000 ft³/s, Feb. 28, 1940, gage height, 38.9 ft site and datum then in use, from rating curve extended above 170,000 ft³/s on basis of velocity-area studies; minimum (water years 1892-1984), 2,000 ft³/s, Mar. 29, 1944. Maximum discharge since completion of Shasta Dam in 1944, 157,000 ft³/s, Jan. 24, 1970, gage height 36.60 ft, from rating curve extended above 131,000 ft³/s; minimum, 2,000 ft³/s, Mar. 29, 1944.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 45,600 ft³/s, Nov. 24, gage height, 17.12 ft; minimum daily, 4,990 ft³/s, Sept. 22, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|--------|---------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|
| 1 | 8520 | 7610 | 12400 | 8800 | 7240 | 6320 | 6530 | 10100 | 9060 | 14000 | 12100 | 8400 |
| 2 | 8480 | 7760 | 12200 | 7710 | 7200 | 6350 | 6580 | 10300 | 9010 | 14200 | 12100 | 8490 |
| 3 | 8420 | 8310 | 17600 | 7510 | 7190 | 6300 | 6640 | 10200 | 8850 | 14500 | 12100 | 8440 |
| 4 | 8500 | 8080 | 18700 | 7490 | 7200 | 6380 | 6460 | 10200 | 8790 | 14200 | 12100 | 8110 |
| 5 | 8600 | 7830 | 18500 | 7430 | 7180 | 6450 | 6350 | 10200 | 8240 | 14300 | 11900 | 7730 |
| 6 | 8550 | 7910 | 18500 | 7390 | 7210 | 6550 | 6320 | 10200 | 8940 | 14300 | 12000 | 7400 |
| 7 | 8230 | 8190 | 17900 | 7570 | 7560 | 7120 | 6300 | 10200 | 9230 | 14500 | 12000 | 7470 |
| 8 | 7840 | 9200 | 17500 | 7880 | 19200 | 7480 | 6190 | 10200 | 10500 | 14600 | 12100 | 8610 |
| 9 | 7410 | 8850 | 17600 | 7810 | 11000 | 6930 | 5900 | 10200 | 10500 | 14800 | 12000 | 8860 |
| 10 | 7150 | 9940 | 21000 | 8110 | 8980 | 7360 | 5920 | 10200 | 10600 | 14800 | 12100 | 7170 |
| 11 | 8410 | 15600 | 26500 | 7730 | 8380 | 7390 | 5880 | 9810 | 10500 | 14200 | 12000 | 6550 |
| 12 | 7650 | 17700 | 20000 | 7340 | 7780 | 6980 | 6270 | 9670 | 10400 | 14400 | 12000 | 6190 |
| 13 | 7400 | 22700 | 18200 | 7210 | 6610 | 6300 | 7060 | 9040 | 10400 | 14400 | 12100 | 5960 |
| 14 | 7340 | 20800 | 18300 | 7210 | 6150 | 5490 | 7420 | 13900 | 10900 | 14300 | 11900 | 5760 |
| 15 | 7260 | 18500 | 16000 | 7220 | 6030 | 5590 | 7460 | 14500 | 10800 | 14600 | 11900 | 5530 |
| 16 | 7370 | 21000 | 15800 | 7130 | 5970 | 5540 | 7520 | 14900 | 10800 | 15000 | 12100 | 5520 |
| 17 | 7570 | 19100 | 14700 | 7310 | 5910 | 5540 | 7450 | 10800 | 10800 | 14700 | 12200 | 5190 |
| 18 | 7450 | 20400 | 14500 | 7280 | 5830 | 5550 | 7410 | 9530 | 11500 | 15100 | 11200 | 5030 |
| 19 | 7370 | 18900 | 14100 | 7390 | 6400 | 5530 | 7210 | 9600 | 11500 | 15100 | 10200 | 5330 |
| 20 | 7380 | 19000 | 13000 | 7330 | 6530 | 5510 | 7630 | 9590 | 11500 | 15100 | 10200 | 5320 |
| 21 | 7270 | 19500 | 11900 | 7310 | 6500 | 5480 | 8130 | 9150 | 11700 | 15300 | 10100 | 5140 |
| 22 | 6670 | 18100 | 10800 | 7300 | 6450 | 5450 | 8230 | 8990 | 12200 | 14900 | 10000 | 4990 |
| 23 | 6350 | 17200 | 9630 | 7250 | 6450 | 5460 | 8110 | 8770 | 12300 | 14000 | 9580 | 4990 |
| 24 | 6200 | 32100 | 9590 | 7330 | 6390 | 5530 | 8060 | 9040 | 12300 | 13900 | 8570 | 5000 |
| 25 | 6120 | 21800 | 9470 | 7240 | 6400 | 5700 | 7910 | 9510 | 12300 | 12100 | 8240 | 5260 |
| 26 | 6630 | 17400 | 9480 | 7260 | 6450 | 5820 | 7820 | 9430 | 11100 | 12100 | 7990 | 5260 |
| 27 | 7080 | 17300 | 9550 | 7270 | 6360 | 6350 | 8280 | 9450 | 14000 | 12000 | 7900 | 5260 |
| 28 | 7110 | 25500 | 9330 | 7230 | 6340 | 7130 | 9000 | 9350 | 13900 | 12000 | 8490 | 5330 |
| 29 | 7240 | 15900 | 9250 | 7270 | --- | 7150 | 9200 | 9130 | 14000 | 12000 | 8680 | 5340 |
| 30 | 7270 | 14000 | 9240 | 7240 | --- | 6800 | 9600 | 8840 | 13900 | 12100 | 8420 | 5300 |
| 31 | 7480 | --- | 9260 | 7210 | --- | 6620 | --- | 8850 | --- | 12100 | 8440 | --- |
| TOTAL | 232320 | 476180 | 450500 | 230760 | 206890 | 194150 | 218840 | 313850 | 330520 | 433600 | 332710 | 188930 |
| MEAN | 7494 | 15870 | 14530 | 7444 | 7389 | 6263 | 7295 | 10120 | 11020 | 13990 | 10730 | 6298 |
| MAX | 8600 | 32100 | 26500 | 8800 | 19200 | 7480 | 9600 | 14900 | 14000 | 15300 | 12200 | 8860 |
| MIN | 6120 | 7610 | 9240 | 7130 | 5830 | 5450 | 5880 | 8770 | 8240 | 12000 | 7900 | 4990 |
| AC-FT | 460800 | 944500 | 893600 | 457700 | 410400 | 385100 | 434100 | 622500 | 655600 | 860000 | 659900 | 374700 |
| CAL YR 1984 | TOTAL | 4384120 | MEAN | 11980 | MAX | 32500 | MIN | 6020 | AC-FT | 8696000 | | |
| WTR YR 1985 | TOTAL | 3609250 | MEAN | 9888 | MAX | 32100 | MIN | 4990 | AC-FT | 7159000 | | |

SACRAMENTO RIVER BASIN

11379500 ELDER CREEK NEAR PASKENTA, CA

LOCATION.--Lat 40°01'29", long 122°30'31", in SE 1/4 NW 1/4 sec.14, T.25 N., R.6 W., Tehama County, Hydrologic Unit 18020103, on left bank 2.5 mi downstream from South Fork Elder Creek, 8.2 mi northwest of Flournoy, and 10 mi north of Paskenta.

DRAINAGE AREA.--92.4 mi².

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

REVISED RECORDS.--WSP 1515: 1956. WDR CA-70-2: 1967(P). WDR CA-75-4: 1966-67(P), 1969-71(P), 1973(P), WDR CA-78-4: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 718.1 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 13, 1965, water-stage recorder at site 300 ft downstream at elevation 5.13 ft lower.

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

AVERAGE DISCHARGE.--37 years, 105 ft³/s, 76,070 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,700 ft³/s, Feb. 28, 1983, gage height, 12.10 ft, present site and datum, from rating curve extended above 5,200 ft³/s, on basis of slope-area measurements at gage height 11.34 ft, and of peak flow; maximum gage height, 13.90 ft, Feb. 24, 1958, site and datum then in use; no flow at times some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|---------|------|--------------------------------|------------------|--------|------|--------------------------------|------------------|
| Nov. 13 | 0230 | *2,540 | *6.78 | Feb. 8 | 0315 | 1,800 | 6.02 |

Minimum daily, 0.46 ft³/s, Aug. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|----------|------|------|------|------|------|------|-------|-------|-------|--------|
| 1 | 2.4 | 7.2 | 124 | 34 | 27 | 43 | 117 | 38 | 17 | 3.9 | 2.5 | .61 |
| 2 | 2.5 | 39 | 165 | 32 | 27 | 43 | 146 | 37 | 25 | 3.6 | 2.4 | .75 |
| 3 | 2.5 | 38 | 196 | 32 | 27 | 41 | 153 | 36 | 20 | 3.1 | 1.9 | .78 |
| 4 | 2.6 | 18 | 133 | 31 | 26 | 41 | 139 | 34 | 16 | 2.8 | 1.3 | .82 |
| 5 | 3.0 | 13 | 172 | 31 | 25 | 41 | 142 | 32 | 15 | 2.7 | 1.0 | .89 |
| 6 | 3.3 | 27 | 135 | 32 | 25 | 44 | 147 | 31 | 14 | 2.4 | .94 | 1.0 |
| 7 | 3.5 | 26 | 113 | 41 | 35 | 58 | 142 | 30 | 13 | 2.1 | .81 | 1.4 |
| 8 | 3.5 | 37 | 102 | 37 | 659 | 50 | 131 | 29 | 12 | 2.1 | .72 | 5.2 |
| 9 | 3.4 | 29 | 104 | 36 | 164 | 43 | 127 | 27 | 11 | 1.8 | .60 | 4.7 |
| 10 | 3.8 | 111 | 211 | 34 | 104 | 68 | 123 | 27 | 10 | 1.4 | .56 | 26 |
| 11 | 5.9 | 179 | 156 | 32 | 83 | 78 | 109 | 28 | 9.3 | 1.3 | .51 | 10 |
| 12 | 6.3 | 510 | 126 | 31 | 76 | 66 | 94 | 26 | 8.7 | 1.4 | .46 | 6.5 |
| 13 | 5.3 | 850 | 105 | 31 | 72 | 58 | 89 | 24 | 8.0 | 1.3 | .48 | 5.5 |
| 14 | 4.7 | 171 | 93 | 30 | 66 | 53 | 92 | 22 | 7.4 | 1.1 | .57 | 5.1 |
| 15 | 4.4 | 143 | 87 | 30 | 63 | 51 | 94 | 21 | 7.0 | 1.0 | .56 | 4.9 |
| 16 | 8.2 | 228 | 78 | 29 | 63 | 50 | 84 | 21 | 6.6 | .89 | .60 | 4.8 |
| 17 | 12 | 170 | 72 | 32 | 62 | 49 | 78 | 20 | 6.4 | .92 | .62 | 4.5 |
| 18 | 8.0 | 234 | 66 | 34 | 58 | 51 | 72 | 20 | 6.3 | .85 | 1.2 | 16 |
| 19 | 8.1 | 132 | 60 | 35 | 55 | 50 | 65 | 19 | 6.1 | .91 | 1.8 | 6.2 |
| 20 | 8.3 | 111 | 56 | 35 | 52 | 49 | 60 | 18 | 6.1 | .90 | 1.9 | 5.0 |
| 21 | 8.2 | 85 | 52 | 35 | 50 | 49 | 60 | 18 | 5.6 | 1.0 | 1.6 | 4.2 |
| 22 | 7.5 | 69 | 49 | 34 | 48 | 48 | 55 | 17 | 5.2 | 1.9 | 1.5 | 3.6 |
| 23 | 6.8 | 72 | 47 | 34 | 48 | 46 | 50 | 17 | 5.3 | 2.2 | 1.2 | 3.3 |
| 24 | 6.5 | 422 | 45 | 33 | 49 | 48 | 45 | 16 | 5.2 | 1.4 | .96 | 3.0 |
| 25 | 6.4 | 177 | 44 | 32 | 49 | 45 | 42 | 16 | 4.5 | .99 | .73 | 2.8 |
| 26 | 6.3 | 120 | 45 | 31 | 48 | 60 | 41 | 16 | 4.3 | .79 | .69 | 2.8 |
| 27 | 6.2 | 546 | 42 | 30 | 46 | 96 | 40 | 16 | 4.2 | .77 | .66 | 2.9 |
| 28 | 6.5 | 477 | 40 | 30 | 44 | 98 | 39 | 18 | 4.0 | .73 | .57 | 3.2 |
| 29 | 7.8 | 225 | 38 | 29 | --- | 80 | 39 | 17 | 3.9 | .74 | .62 | 3.2 |
| 30 | 8.0 | 160 | 37 | 28 | --- | 76 | 39 | 16 | 3.8 | .97 | .50 | 3.4 |
| 31 | 7.5 | --- | 35 | 28 | --- | 92 | --- | 17 | --- | 1.4 | .65 | --- |
| TOTAL | 179.4 | 5426.2 | 2828 | 1003 | 2151 | 1765 | 2654 | 724 | 270.9 | 49.36 | 31.11 | 143.05 |
| MEAN | 5.79 | 181 | 91.2 | 32.4 | 76.8 | 56.9 | 88.5 | 23.4 | 9.03 | 1.59 | 1.00 | 4.77 |
| MAX | 12 | 850 | 211 | 41 | 659 | 98 | 153 | 38 | 25 | 3.9 | 2.5 | 26 |
| MIN | 2.4 | 7.2 | 35 | 28 | 25 | 41 | 39 | 16 | 3.8 | .73 | .46 | .61 |
| AC-FT | 356 | 10760 | 5610 | 1990 | 4270 | 3500 | 5260 | 1440 | 537 | 98 | 62 | 284 |
| CAL YR 1984 | TOTAL | 21887.3 | MEAN | 59.8 | MAX | 850 | MIN | 1.3 | AC-FT | 43410 | | |
| WTR YR 1985 | TOTAL | 17225.02 | MEAN | 47.2 | MAX | 850 | MIN | .46 | AC-FT | 34170 | | |

11381500 MILL CREEK NEAR LOS MOLINOS, CA

LOCATION.--Lat 40°03'17", long 122°01'23", in NE 1/4 NW 1/4 sec.6, T.25 N., R.1 W., Tehama County, Hydrologic Unit 18020103, on right bank 4.5 mi northeast of Los Molinos, and 5.5 mi upstream from mouth.

DRAINAGE AREA.--131 mi².

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

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

GAGE.--Water-stage recorder. Elevation of gage is 385 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to September 1913, nonrecording gage at site 0.3 mi downstream at different datum.

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

AVERAGE DISCHARGE.--57 years (water years 1929-85), 307 ft³/s, 222,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (water years 1929-85): Maximum discharge, 36,400 ft³/s, Dec. 11, 1937, gage height, 23.4 ft from floodmarks, from rating curve extended above 14,000 ft³/s on basis of step-backwater computation and slope-area measurement of peak flow; minimum, 49 ft³/s, Dec. 13, 1932.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,400 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|--------|------|-----------------------------------|---------------------|------|------|-----------------------------------|---------------------|
| Feb. 8 | 0830 | *1,910 | *6.23 | | | | |

Minimum daily, 97 ft³/s, Aug. 24-29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|------|-------|-------|-------|-------|-------|--------|------|------|
| 1 | 142 | 143 | 229 | 147 | 136 | 204 | 265 | 288 | 184 | 125 | 106 | 98 |
| 2 | 134 | 214 | 223 | 145 | 138 | 205 | 299 | 294 | 181 | 124 | 107 | 101 |
| 3 | 129 | 332 | 236 | 144 | 137 | 198 | 340 | 292 | 179 | 122 | 105 | 103 |
| 4 | 131 | 188 | 206 | 143 | 136 | 199 | 352 | 277 | 175 | 121 | 102 | 100 |
| 5 | 132 | 166 | 199 | 143 | 133 | 198 | 381 | 270 | 175 | 121 | 102 | 98 |
| 6 | 132 | 177 | 188 | 143 | 134 | 201 | 390 | 275 | 178 | 120 | 100 | 99 |
| 7 | 131 | 207 | 184 | 159 | 149 | 223 | 401 | 264 | 184 | 119 | 98 | 103 |
| 8 | 129 | 259 | 182 | 159 | 899 | 200 | 395 | 250 | 187 | 118 | 98 | 292 |
| 9 | 130 | 204 | 179 | 154 | 369 | 195 | 390 | 242 | 187 | 115 | 98 | 207 |
| 10 | 136 | 200 | 280 | 154 | 268 | 211 | 402 | 229 | 181 | 113 | 99 | 175 |
| 11 | 209 | 438 | 316 | 149 | 232 | 229 | 377 | 219 | 177 | 113 | 98 | 137 |
| 12 | 154 | 498 | 271 | 145 | 219 | 212 | 366 | 214 | 176 | 113 | 98 | 127 |
| 13 | 156 | 786 | 240 | 143 | 219 | 205 | 371 | 219 | 173 | 111 | 99 | 125 |
| 14 | 152 | 366 | 218 | 143 | 211 | 202 | 408 | 229 | 171 | 111 | 100 | 123 |
| 15 | 139 | 248 | 239 | 143 | 210 | 202 | 437 | 227 | 167 | 111 | 100 | 123 |
| 16 | 145 | 281 | 263 | 142 | 211 | 203 | 401 | 226 | 165 | 111 | 98 | 119 |
| 17 | 155 | 240 | 229 | 142 | 209 | 205 | 340 | 225 | 159 | 110 | 98 | 115 |
| 18 | 144 | 328 | 212 | 143 | 208 | 205 | 312 | 233 | 154 | 110 | 100 | 121 |
| 19 | 144 | 261 | 200 | 143 | 205 | 209 | 316 | 235 | 150 | 109 | 100 | 115 |
| 20 | 153 | 313 | 191 | 143 | 205 | 217 | 275 | 238 | 149 | 110 | 99 | 113 |
| 21 | 149 | 322 | 184 | 143 | 199 | 225 | 258 | 230 | 145 | 112 | 98 | 111 |
| 22 | 143 | 230 | 177 | 142 | 199 | 216 | 258 | 231 | 141 | 116 | 98 | 109 |
| 23 | 141 | 206 | 173 | 141 | 203 | 212 | 241 | 237 | 139 | 112 | 98 | 107 |
| 24 | 140 | 694 | 170 | 140 | 206 | 252 | 234 | 241 | 136 | 108 | 97 | 107 |
| 25 | 140 | 316 | 166 | 139 | 209 | 249 | 230 | 232 | 133 | 105 | 97 | 107 |
| 26 | 141 | 238 | 163 | 143 | 208 | 278 | 221 | 227 | 131 | 105 | 97 | 107 |
| 27 | 151 | 484 | 160 | 140 | 205 | 327 | 228 | 215 | 130 | 109 | 97 | 107 |
| 28 | 142 | 537 | 158 | 146 | 203 | 304 | 254 | 204 | 128 | 109 | 97 | 107 |
| 29 | 152 | 316 | 153 | 143 | --- | 260 | 269 | 207 | 127 | 107 | 97 | 105 |
| 30 | 150 | 253 | 151 | 139 | --- | 247 | 269 | 201 | 126 | 106 | 98 | 107 |
| 31 | 146 | --- | 149 | 138 | --- | 247 | --- | 190 | --- | 105 | 98 | --- |
| TOTAL | 4472 | 9445 | 6289 | 4481 | 6260 | 6940 | 9680 | 7361 | 4788 | 3501 | 3077 | 3668 |
| MEAN | 144 | 315 | 203 | 145 | 224 | 224 | 323 | 237 | 160 | 113 | 99.3 | 122 |
| MAX | 209 | 786 | 316 | 159 | 899 | 327 | 437 | 294 | 187 | 125 | 107 | 292 |
| MIN | 129 | 143 | 149 | 138 | 133 | 195 | 221 | 190 | 126 | 105 | 97 | 98 |
| AC-FT | 8870 | 18730 | 12470 | 8890 | 12420 | 13770 | 19200 | 14600 | 9500 | 6940 | 6100 | 7280 |
| CAL YR 1984 | TOTAL | 101938 | MEAN | 279 | MAX | 877 | MIN | 125 | AC-FT | 202200 | | |
| WTR YR 1985 | TOTAL | 69962 | MEAN | 192 | MAX | 899 | MIN | 97 | AC-FT | 138800 | | |

SACRAMENTO RIVER BASIN

11382000 THOMES CREEK AT PASKENTA, CA

LOCATION.--Lat 39°53'16", long 122°31'41", in SE 1/4 SW 1/4 sec.34, T.24 N., R.6 W., Tehama County, Hydrologic Unit 18020103, on left bank 1.2 mi downstream from Digger Creek, and 1.0 mi downstream from highway bridge at Paskenta.

DRAINAGE AREA.--203 mi².

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

REVISED RECORDS.--WSP 1345: 1923, 1924-28(M), 1938, 1940(M). WDR CA-78-4: Drainage area. WDR CA-79-4(M). WDR CA-81-4(M).

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 720 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 20, 1942, nonrecording gage and water-stage recorder at several sites about 1.5 mi upstream at different datums, June 21, 1942, to Sept. 30, 1959, water-stage recorder at site 1.4 mi upstream at datum 732.85 ft and Oct. 1, 1959, to Oct. 9, 1974, at datum 731.10 ft above National Geodetic Vertical Datum of 1929.

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

AVERAGE DISCHARGE.--65 years, 297 ft³/s, 215,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 37,800 ft³/s, Dec. 22, 1964, gage height, 13.3 ft, from floodmarks, present site and datum, from rating curve extended above 6,000 ft³/s on basis of slope-area measurements at gage height, 10.10 ft and of peak flow; no flow at times some years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,300 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage-height (ft) |
|---------|------|--------------------------------|------------------|---------|------|--------------------------------|------------------|
| Nov. 13 | 0200 | *4,020 | *6.46 | Nov. 27 | 2330 | 3,100 | 6.01 |
| Nov. 24 | 0600 | 2,680 | 5.78 | | | | |

Minimum daily, 1.3 ft³/s, Aug. 28 to Sept. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|-------|------|-------|-------|-------|------|-------|--------|------|-------|
| 1 | 3.6 | 23 | 568 | 139 | 118 | 229 | 489 | 206 | 63 | 15 | 3.6 | 1.3 |
| 2 | 3.8 | 504 | 551 | 135 | 115 | 227 | 838 | 211 | 62 | 14 | 3.6 | 1.3 |
| 3 | 3.9 | 403 | 525 | 132 | 109 | 211 | 933 | 195 | 57 | 13 | 3.4 | 1.3 |
| 4 | 3.9 | 147 | 415 | 135 | 105 | 202 | 778 | 174 | 53 | 11 | 3.1 | 1.3 |
| 5 | 3.9 | 96 | 458 | 137 | 100 | 192 | 743 | 156 | 52 | 11 | 2.9 | 1.6 |
| 6 | 3.9 | 159 | 377 | 147 | 100 | 188 | 771 | 150 | 52 | 9.7 | 2.4 | 1.7 |
| 7 | 3.9 | 174 | 354 | 169 | 116 | 191 | 725 | 144 | 50 | 9.8 | 2.4 | 1.8 |
| 8 | 3.9 | 204 | 343 | 162 | 1170 | 168 | 646 | 136 | 50 | 8.7 | 2.6 | 4.6 |
| 9 | 3.9 | 160 | 344 | 158 | 400 | 155 | 630 | 131 | 48 | 7.4 | 2.2 | 5.1 |
| 10 | 4.2 | 592 | 534 | 147 | 275 | 207 | 616 | 125 | 44 | 6.3 | 1.7 | 15 |
| 11 | 5.2 | 1360 | 641 | 139 | 230 | 261 | 529 | 122 | 41 | 6.0 | 1.7 | 11 |
| 12 | 17 | 2000 | 532 | 133 | 271 | 234 | 460 | 113 | 38 | 6.0 | 2.2 | 10 |
| 13 | 16 | 2110 | 425 | 128 | 330 | 203 | 433 | 106 | 37 | 6.0 | 2.3 | 9.9 |
| 14 | 19 | 849 | 365 | 126 | 308 | 194 | 465 | 105 | 35 | 5.6 | 1.9 | 9.9 |
| 15 | 17 | 534 | 347 | 126 | 310 | 188 | 469 | 102 | 33 | 4.5 | 1.9 | 9.4 |
| 16 | 16 | 497 | 333 | 152 | 346 | 199 | 412 | 100 | 31 | 4.6 | 1.9 | 7.8 |
| 17 | 20 | 459 | 295 | 225 | 326 | 200 | 368 | 98 | 30 | 4.5 | 1.9 | 7.8 |
| 18 | 20 | 789 | 264 | 230 | 292 | 199 | 328 | 95 | 29 | 3.9 | 2.1 | 11 |
| 19 | 19 | 516 | 241 | 220 | 276 | 198 | 290 | 94 | 28 | 3.5 | 2.2 | 8.4 |
| 20 | 37 | 411 | 219 | 219 | 261 | 192 | 260 | 94 | 27 | 3.4 | 2.5 | 7.4 |
| 21 | 35 | 335 | 203 | 215 | 240 | 199 | 254 | 91 | 25 | 3.4 | 2.7 | 6.5 |
| 22 | 27 | 264 | 185 | 199 | 231 | 189 | 242 | 86 | 24 | 3.4 | 2.6 | 6.4 |
| 23 | 23 | 232 | 177 | 189 | 253 | 178 | 220 | 85 | 23 | 3.4 | 2.2 | 5.8 |
| 24 | 22 | 1500 | 184 | 181 | 263 | 197 | 201 | 82 | 21 | 3.4 | 2.2 | 4.8 |
| 25 | 20 | 774 | 180 | 178 | 253 | 199 | 186 | 82 | 19 | 3.3 | 2.2 | 4.4 |
| 26 | 18 | 527 | 187 | 167 | 241 | 206 | 180 | 79 | 18 | 2.8 | 1.9 | 4.2 |
| 27 | 17 | 1330 | 193 | 161 | 226 | 235 | 181 | 75 | 17 | 2.8 | 1.4 | 4.1 |
| 28 | 16 | 1650 | 175 | 150 | 220 | 236 | 189 | 72 | 16 | 2.8 | 1.3 | 3.9 |
| 29 | 25 | 816 | 163 | 138 | --- | 211 | 197 | 71 | 16 | 2.8 | 1.3 | 3.9 |
| 30 | 36 | 619 | 149 | 131 | --- | 225 | 198 | 69 | 16 | 2.8 | 1.3 | 3.9 |
| 31 | 28 | --- | 148 | 123 | --- | 316 | --- | 64 | --- | 3.1 | 1.3 | --- |
| TOTAL | 492.1 | 20034 | 10075 | 4991 | 7485 | 6429 | 13231 | 3513 | 1055 | 187.9 | 68.9 | 175.5 |
| MEAN | 15.9 | 668 | 325 | 161 | 267 | 207 | 441 | 113 | 35.2 | 6.06 | 2.22 | 5.85 |
| MAX | 37 | 2110 | 641 | 230 | 1170 | 316 | 933 | 211 | 63 | 15 | 3.6 | 15 |
| MIN | 3.6 | 23 | 148 | 123 | 100 | 155 | 180 | 64 | 16 | 2.8 | 1.3 | 1.3 |
| AC-FT | 976 | 39740 | 19980 | 9900 | 14850 | 12750 | 26240 | 6970 | 2090 | 373 | 137 | 348 |
| CAL YR 1984 | TOTAL | 85787.4 | MEAN | 234 | MAX | 2110 | MIN | 2.0 | AC-FT | 170200 | | |
| WTR YR 1985 | TOTAL | 67737.4 | MEAN | 186 | MAX | 2110 | MIN | 1.3 | AC-FT | 134400 | | |

11383500 DEER CREEK NEAR VINA, CA

LOCATION.--Lat 40°00'51", long 121°56'50", in NW 1/4 NE 1/4 sec.23, T.25 N., R.1 W., Tehama County, Hydrologic Unit 18020103, on left bank 0.5 mi upstream from diversion dam, and 7.9 mi northeast of Vina.

DRAINAGE AREA.--208 mi².

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

REVISED RECORDS.--WSP 1315-A: 1940-42(M). WSP 1931: Drainage area. WDR CA-82-4: Datum.

GAGE.--Water-stage recorder. Datum of gage is 479.2 ft above National Geodetic Vertical Datum of 1929 from river-profile survey. Prior to Oct. 9, 1928, nonrecording gage at site 0.8 mi downstream at different datum. Oct. 9, 1928, to Jan. 19, 1939, water-stage recorder at present site at datum 2.64 ft higher.

REMARKS.--No estimated daily discharges. Records excellent. No storage or large diversions above station.

AVERAGE DISCHARGE.--67 years (water years 1912-15, 1921-37, 1940-85), 323 ft³/s, 234,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 23,800 ft³/s, Dec. 10, 1937, gage height, 19.2 ft present datum, from floodmarks, from rating curve extended above 9,200 ft³/s on basis of velocity-area studies; minimum, 43 ft³/s, Dec. 13, 1932.

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

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|--------|------|--------------------------------|------------------|------|------|--------------------------------|------------------|
| Feb. 8 | 0745 | *2,020 | *6.55 | | | | |

Minimum daily, 78 ft³/s, Aug. 28, 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|------|-------|-------|-------|------|-------|--------|------|------|
| 1 | 144 | 132 | 288 | 158 | 133 | 179 | 321 | 204 | 128 | 92 | 90 | 80 |
| 2 | 126 | 197 | 268 | 155 | 135 | 182 | 350 | 203 | 129 | 92 | 90 | 83 |
| 3 | 121 | 436 | 271 | 153 | 136 | 167 | 362 | 200 | 134 | 91 | 88 | 86 |
| 4 | 121 | 211 | 238 | 152 | 135 | 172 | 363 | 192 | 127 | 90 | 86 | 85 |
| 5 | 121 | 170 | 225 | 151 | 128 | 170 | 390 | 187 | 125 | 90 | 84 | 83 |
| 6 | 121 | 180 | 206 | 152 | 132 | 171 | 397 | 186 | 123 | 88 | 83 | 85 |
| 7 | 119 | 253 | 195 | 174 | 163 | 199 | 398 | 180 | 119 | 88 | 83 | 88 |
| 8 | 119 | 307 | 187 | 174 | 1100 | 169 | 391 | 174 | 116 | 88 | 82 | 194 |
| 9 | 118 | 255 | 181 | 167 | 451 | 167 | 382 | 170 | 113 | 88 | 82 | 209 |
| 10 | 129 | 227 | 253 | 165 | 303 | 199 | 379 | 168 | 109 | 87 | 81 | 182 |
| 11 | 250 | 366 | 306 | 157 | 252 | 236 | 357 | 168 | 106 | 87 | 81 | 124 |
| 12 | 173 | 558 | 282 | 151 | 229 | 220 | 338 | 162 | 105 | 88 | 81 | 112 |
| 13 | 143 | 1030 | 258 | 149 | 226 | 214 | 331 | 158 | 102 | 88 | 81 | 105 |
| 14 | 138 | 489 | 230 | 148 | 218 | 205 | 338 | 152 | 103 | 87 | 81 | 101 |
| 15 | 129 | 331 | 256 | 147 | 212 | 200 | 345 | 147 | 102 | 88 | 82 | 98 |
| 16 | 140 | 356 | 259 | 145 | 211 | 196 | 334 | 145 | 102 | 87 | 82 | 97 |
| 17 | 162 | 308 | 230 | 143 | 207 | 196 | 307 | 147 | 100 | 85 | 81 | 95 |
| 18 | 145 | 342 | 211 | 144 | 205 | 197 | 287 | 146 | 100 | 86 | 85 | 104 |
| 19 | 145 | 312 | 202 | 144 | 202 | 203 | 320 | 144 | 98 | 87 | 85 | 102 |
| 20 | 166 | 314 | 194 | 143 | 201 | 208 | 275 | 140 | 97 | 87 | 83 | 95 |
| 21 | 159 | 347 | 189 | 142 | 189 | 217 | 263 | 138 | 97 | 89 | 82 | 95 |
| 22 | 144 | 280 | 182 | 139 | 188 | 206 | 281 | 134 | 95 | 97 | 81 | 94 |
| 23 | 136 | 251 | 179 | 137 | 197 | 201 | 246 | 131 | 95 | 93 | 81 | 92 |
| 24 | 133 | 773 | 176 | 136 | 195 | 234 | 231 | 131 | 94 | 87 | 80 | 91 |
| 25 | 132 | 415 | 174 | 135 | 195 | 241 | 224 | 129 | 92 | 85 | 80 | 90 |
| 26 | 132 | 308 | 173 | 142 | 190 | 272 | 215 | 127 | 92 | 84 | 80 | 90 |
| 27 | 141 | 715 | 171 | 137 | 185 | 283 | 209 | 126 | 92 | 91 | 79 | 90 |
| 28 | 133 | 785 | 170 | 146 | 180 | 269 | 211 | 128 | 91 | 90 | 78 | 92 |
| 29 | 145 | 432 | 166 | 145 | --- | 250 | 209 | 137 | 92 | 87 | 78 | 91 |
| 30 | 146 | 329 | 164 | 136 | --- | 260 | 206 | 141 | 92 | 91 | 79 | 90 |
| 31 | 137 | --- | 164 | 133 | --- | 282 | --- | 130 | --- | 92 | 80 | --- |
| TOTAL | 4368 | 11409 | 6648 | 4600 | 6498 | 6565 | 9260 | 4825 | 3170 | 2750 | 2549 | 3123 |
| MEAN | 141 | 380 | 214 | 148 | 232 | 212 | 309 | 156 | 106 | 88.7 | 82.2 | 104 |
| MAX | 250 | 1030 | 306 | 174 | 1100 | 283 | 398 | 204 | 134 | 97 | 90 | 209 |
| MIN | 118 | 132 | 164 | 133 | 128 | 167 | 206 | 126 | 91 | 84 | 78 | 80 |
| AC-FT | 8660 | 22630 | 13190 | 9120 | 12890 | 13020 | 18370 | 9570 | 6290 | 5450 | 5060 | 6190 |
| CAL YR 1984 | TOTAL | 108703 | MEAN | 297 | MAX | 1320 | MIN | 113 | AC-FT | 215600 | | |
| WTR YR 1985 | TOTAL | 65765 | MEAN | 180 | MAX | 1100 | MIN | 78 | AC-FT | 130400 | | |

SACRAMENTO RIVER BASIN

11384000 BIG CHICO CREEK NEAR CHICO, CA

LOCATION.--Lat 39°46'35", long 121°45'10", in Arroyo Chico Grant, Butte County, Hydrologic Unit 18020119, on right bank 1.8 mi upstream from golf clubhouse in Bidwell Park, 2.6 mi upstream from Lindo Channel, and 7 mi northeast of Chico.

DRAINAGE AREA.--72.4 mi².

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

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 300 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1955, at site 0.6 mi downstream at different datum.

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

AVERAGE DISCHARGE.--55 years, 148 ft³/s, 107,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,580 ft³/s, Jan. 5, 1965, gage height, 15.36 ft; minimum daily, 10 ft³/s, Dec. 11, 1932, Aug. 15, 1939, Sept. 18, 1947.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,600 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|--------|------|-----------------------------------|---------------------|------|------|-----------------------------------|---------------------|
| Feb. 8 | 0815 | *2,400 | *6.41 | | | | |

Minimum daily, 19 ft³/s, several days during July and August.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|-------|------|------|------|------|------|------|-------|-------|------|------|
| 1 | 35 | 32 | 126 | 49 | 42 | 52 | 201 | 40 | 28 | 21 | 22 | 21 |
| 2 | 31 | 44 | 104 | 48 | 42 | 52 | 196 | 39 | 28 | 21 | 21 | 21 |
| 3 | 29 | 88 | 106 | 47 | 42 | 51 | 166 | 38 | 29 | 21 | 21 | 22 |
| 4 | 29 | 44 | 89 | 46 | 43 | 51 | 144 | 37 | 29 | 21 | 21 | 22 |
| 5 | 29 | 38 | 81 | 46 | 40 | 54 | 126 | 36 | 27 | 21 | 20 | 21 |
| 6 | 29 | 40 | 72 | 46 | 40 | 59 | 110 | 36 | 25 | 20 | 20 | 21 |
| 7 | 29 | 51 | 65 | 57 | 64 | 82 | 98 | 36 | 25 | 21 | 20 | 22 |
| 8 | 29 | 87 | 61 | 62 | 1160 | 66 | 88 | 35 | 24 | 22 | 20 | 60 |
| 9 | 29 | 80 | 57 | 58 | 411 | 63 | 81 | 33 | 24 | 21 | 20 | 69 |
| 10 | 35 | 59 | 83 | 56 | 246 | 79 | 76 | 33 | 23 | 20 | 19 | 52 |
| 11 | 61 | 145 | 114 | 53 | 182 | 95 | 71 | 33 | 24 | 20 | 19 | 33 |
| 12 | 36 | 179 | 117 | 51 | 151 | 103 | 66 | 33 | 24 | 21 | 20 | 28 |
| 13 | 32 | 374 | 103 | 50 | 133 | 105 | 62 | 33 | 23 | 21 | 20 | 25 |
| 14 | 31 | 199 | 89 | 49 | 120 | 104 | 60 | 32 | 23 | 21 | 20 | 25 |
| 15 | 31 | 112 | 116 | 48 | 110 | 101 | 57 | 31 | 23 | 20 | 20 | 24 |
| 16 | 35 | 120 | 112 | 47 | 104 | 95 | 56 | 30 | 23 | 20 | 20 | 24 |
| 17 | 40 | 114 | 92 | 46 | 97 | 89 | 55 | 30 | 23 | 19 | 19 | 24 |
| 18 | 34 | 115 | 84 | 45 | 90 | 89 | 53 | 30 | 22 | 20 | 21 | 24 |
| 19 | 34 | 97 | 78 | 44 | 84 | 84 | 54 | 29 | 21 | 20 | 21 | 24 |
| 20 | 34 | 100 | 74 | 43 | 80 | 79 | 51 | 29 | 22 | 20 | 21 | 24 |
| 21 | 34 | 122 | 69 | 43 | 75 | 75 | 50 | 28 | 22 | 20 | 21 | 24 |
| 22 | 33 | 95 | 65 | 43 | 70 | 71 | 50 | 27 | 22 | 22 | 21 | 24 |
| 23 | 32 | 77 | 63 | 42 | 66 | 66 | 49 | 27 | 22 | 22 | 21 | 24 |
| 24 | 31 | 297 | 61 | 42 | 63 | 79 | 46 | 27 | 22 | 21 | 21 | 24 |
| 25 | 31 | 214 | 60 | 42 | 61 | 87 | 44 | 27 | 22 | 20 | 21 | 24 |
| 26 | 31 | 139 | 60 | 42 | 59 | 127 | 44 | 24 | 22 | 20 | 21 | 24 |
| 27 | 33 | 246 | 58 | 43 | 57 | 141 | 43 | 24 | 22 | 20 | 21 | 24 |
| 28 | 32 | 426 | 56 | 45 | 53 | 153 | 43 | 26 | 22 | 20 | 20 | 25 |
| 29 | 34 | 237 | 54 | 47 | --- | 138 | 42 | 28 | 22 | 20 | 19 | 25 |
| 30 | 34 | 166 | 52 | 44 | --- | 142 | 41 | 29 | 21 | 20 | 19 | 24 |
| 31 | 33 | --- | 51 | 43 | --- | 169 | --- | 28 | --- | 21 | 20 | --- |
| TOTAL | 1030 | 4137 | 2472 | 1467 | 3785 | 2801 | 2323 | 968 | 709 | 637 | 630 | 828 |
| MEAN | 33.2 | 138 | 79.7 | 47.3 | 135 | 90.4 | 77.4 | 31.2 | 23.6 | 20.5 | 20.3 | 27.6 |
| MAX | 61 | 426 | 126 | 62 | 1160 | 169 | 201 | 40 | 29 | 22 | 22 | 69 |
| MIN | 29 | 32 | 51 | 42 | 40 | 51 | 41 | 24 | 21 | 19 | 19 | 21 |
| AC-FT | 2040 | 8210 | 4900 | 2910 | 7510 | 5560 | 4610 | 1920 | 1410 | 1260 | 1250 | 1640 |
| CAL YR 1984 | TOTAL | 34358 | MEAN | 93.9 | MAX | 657 | MIN | 27 | AC-FT | 68150 | | |
| WTR YR 1985 | TOTAL | 21787 | MEAN | 59.7 | MAX | 1160 | MIN | 19 | AC-FT | 43210 | | |

RESERVOIRS IN STONY CREEK BASIN, CA

11385100 EAST PARK RESERVOIR NEAR STONYFORD.--Lat 39°21'24", long 122°30'53", in SW 1/4 NE 1/4 sec.3, T.17 N., R.6 W., Colusa County, Hydrologic Unit 18020115, near south side of spillway section on East Park Dam on Little Stony Creek, 1.9 mi southeast of Stonyford. DRAINAGE AREA, 98.2 mi². PERIOD OF RECORD, October 1969 to current year. GAGE, nonrecording gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

Reservoir is formed by a concrete arch-type dam. Storage began in 1910. Capacity, 48,211 acre-ft between elevations 1,131.68 ft, invert of sluice pipe, and 1,198.18 ft, crest of spillway. Capacity increased to 50,889 acre-ft with the addition of flashboards to an elevation of 1,199.68 ft. Dead storage, 279 acre-ft. Records of contents provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 53,500 acre-ft, Mar. 30, 1974, elevation, 1,201.10 ft; minimum, 280 acre-ft, Aug. 8 to Oct. 31, 1972, Apr. 30 to Nov. 1, 1977, elevation, 1,131.68 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 51,220 acre-ft, Apr. 22, elevation, 1,199.86 ft; minimum, 10,670 acre-ft, Sept. 30, elevation, 1,166.50 ft.

11386100 STONY GORGE RESERVOIR NEAR ELK CREEK.--Lat 39°35'09", long 122°31'54", in NE 1/4 SE 1/4 sec.16, T.20 N., R.6 W., Glenn County, Hydrologic Unit 18020115, on south end of Stony Gorge Dam on Stony Creek, 1.3 mi southeast of Elk Creek. DRAINAGE AREA, 301 mi². PERIOD OF RECORD, October 1969 to current year. GAGE, nonrecording gage read once daily. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

Reservoir is formed by slab and buttress-type dam. Storage began in 1928. Capacity, 50,383 acre-ft between elevations 728.0 ft top of low intake, and 841.0 ft crest of spillway. No dead storage. Records of contents provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 54,630 acre-ft, Mar. 26, 1971, elevation, 844.20 ft; minimum, 3,810 acre-ft, Nov. 6, 1971, elevation, 779.20 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 51,900 acre-ft, Apr. 9, elevation, 842.16 ft; minimum, 8,820 acre-ft, Oct. 16, elevation, 793.10 ft.

MONTHEND ELEVATION NGVD AND CONTENTS, AT 0800, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| Date | Elevation (Feet) | Contents (acre-feet) | Change in Contents (acre-feet) | Elevation (feet) | Contents (acre-feet) | Change in Contents (acre-feet) |
|------------------------------|---------------------|-------------------------|--------------------------------------|--------------------------------|-------------------------|--------------------------------------|
| 11385100 EAST PARK RESERVOIR | | | | 11386100 Stony Gorge Reservoir | | |
| Sept. 30..... | 1,179.93 | 22,290 | -770 | 796.64 | 10,540 | -13,930 |
| Oct. 31..... | 1,179.28 | 21,590 | -700 | 796.50 | 10,460 | -80 |
| Nov. 30..... | 1,182.68 | 25,420 | +3,830 | 825.00 | 31,940 | +21,480 |
| Dec. 31..... | 1,188.82 | 33,390 | +7,970 | 824.22 | 31,160 | -780 |
| CAL YR 1984 | -- | -- | -15,740 | -- | -- | -7,150 |
| Jan. 31..... | 1,193.20 | 40,080 | +6,690 | 824.96 | 31,900 | +740 |
| Feb. 2 | 1,198.26 | 48,360 | +8,280 | 831.92 | 39,230 | +7,330 |
| Mar. 31..... | 1,199.85 | 51,200 | +2,840 | 839.36 | 48,280 | +9,050 |
| Apr. 30..... | 1,199.84 | 51,180 | -20 | 841.58 | 51,140 | +2,860 |
| May 31..... | 1,199.60 | 50,750 | -430 | 821.42 | 28,460 | -22,680 |
| June 30..... | 1,197.56 | 47,130 | -3,620 | 810.16 | 19,000 | -9,460 |
| July 31..... | 1,187.70 | 31,830 | -15,300 | 809.34 | 18,400 | -600 |
| Aug. 31..... | 1,169.60 | 12,860 | -18,970 | 806.02 | 16,090 | -2,310 |
| Sept. 30..... | 1,166.50 | 10,670 | -2,190 | 798.22 | 11,370 | -4,720 |
| WTR YR 1985 | -- | -- | -11,620 | -- | -- | +830 |

SACRAMENTO RIVER BASIN

11387990 SOUTH DIVERSION CANAL NEAR ORLAND, CA

LOCATION.--Lat 39°48'36", long 122°19'45", in SW 1/4 NE 1/4 sec.32, T.23 N., R.4 W., Tehama County, Hydrologic Unit 18020103, on left bank canal 0.4 mi downstream from Black Butte Dam, and 8.2 mi northwest of Orland.

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

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 372.64 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 23, 1956, at site 0.5 mi upstream at different datum. Oct. 23, 1956, to Sept. 30, 1960, at present site and datum. Oct. 1, 1960, to Sept. 30, 1961, at datum 1.00 ft lower.

REMARKS.--No estimated daily discharges. Records good. Canal diverts from Black Butte Lake at right end of Black Butte Dam; water is used for irrigation. A pump with a capacity of 6 ft³/s diverted water at times above station and was included in the canal record prior to Mar. 1, 1970. Total diverted during the current year was 875 acre-ft.

AVERAGE DISCHARGE.--30 years, 99.5 ft³/s, 72,090 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 320 ft³/s, May 8, 1969; no flow at times most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|---------|----------|-------|------|--------|--------|--------|-------|-------|-------|-------|---------|
| 1 | 120 | 2.1 | .80 | 1.4 | 1.5 | 83 | 2.0 | 192 | 160 | 218 | 215 | 128 |
| 2 | 139 | 2.1 | 1.0 | 1.1 | 1.5 | 71 | 1.8 | 197 | 161 | 211 | 233 | 155 |
| 3 | 148 | 2.2 | 1.4 | 1.1 | 1.5 | 69 | 1.8 | 182 | 197 | 187 | 243 | 165 |
| 4 | 113 | 1.4 | 1.5 | 1.1 | 1.4 | 65 | 1.9 | 179 | 212 | 162 | 184 | 139 |
| 5 | 67 | .90 | 1.4 | 1.1 | 1.4 | 50 | 21 | 144 | 218 | 180 | 152 | 118 |
| 6 | 53 | .80 | 1.4 | 1.1 | 1.4 | 1.2 | 35 | 153 | 222 | 209 | 164 | 117 |
| 7 | 50 | 3.7 | 1.5 | 1.4 | 1.3 | 3.4 | 44 | 176 | 222 | 191 | 175 | 124 |
| 8 | 54 | 4.8 | 1.5 | 1.1 | 1.4 | 2.3 | 103 | 182 | 229 | 188 | 175 | 44 |
| 9 | 106 | 3.7 | 1.9 | 1.1 | 1.4 | 2.2 | 185 | 191 | 207 | 208 | 192 | .60 |
| 10 | 119 | 3.2 | 2.8 | 1.1 | 1.4 | 2.2 | 239 | 186 | 175 | 231 | 174 | 2.0 |
| 11 | 49 | 3.3 | 1.9 | 1.4 | 1.2 | 2.1 | 216 | 205 | 191 | 246 | 151 | 2.1 |
| 12 | 11 | 3.4 | 1.9 | 1.4 | 1.1 | 2.1 | 217 | 187 | 212 | 225 | 169 | 2.1 |
| 13 | 2.5 | 3.3 | 1.7 | 1.4 | 1.2 | 2.1 | 208 | 175 | 247 | 223 | 189 | 2.1 |
| 14 | 2.8 | 1.7 | 1.7 | 1.4 | 1.3 | 2.1 | 198 | 191 | 263 | 224 | 211 | 2.1 |
| 15 | 12 | 1.8 | 1.7 | 1.4 | 1.3 | 1.9 | 194 | 174 | 273 | 191 | 188 | 14 |
| 16 | 5.9 | 2.3 | 1.5 | 1.4 | 1.3 | .80 | 180 | 159 | 264 | 165 | 186 | 58 |
| 17 | 2.3 | 2.0 | 1.7 | 1.4 | 1.3 | .20 | 160 | 162 | 262 | 181 | 191 | 75 |
| 18 | 2.3 | 2.1 | 1.7 | 1.4 | 1.2 | .10 | 102 | 150 | 237 | 200 | 175 | 83 |
| 19 | 2.1 | 2.0 | 1.7 | 1.4 | 4.1 | .20 | 78 | 145 | 205 | 226 | 135 | 124 |
| 20 | 2.1 | 2.1 | 1.7 | 1.4 | 4.9 | 1.4 | 69 | 186 | 213 | 253 | 153 | 149 |
| 21 | 2.0 | 2.2 | 1.7 | 1.4 | .80 | 2.1 | 57 | 209 | 230 | 228 | 175 | 183 |
| 22 | 2.1 | 2.5 | 1.7 | 1.4 | .70 | 2.1 | 104 | 213 | 229 | 208 | 166 | 210 |
| 23 | 2.1 | 2.2 | 1.7 | 1.5 | 1.9 | 2.1 | 147 | 219 | 216 | 194 | 160 | 203 |
| 24 | 2.0 | 1.9 | 1.7 | 1.5 | .10 | 2.1 | 168 | 207 | 196 | 190 | 155 | 166 |
| 25 | 2.1 | 1.5 | 2.1 | 1.5 | .10 | 2.1 | 179 | 201 | 189 | 199 | 147 | 150 |
| 26 | 2.1 | 1.4 | 2.5 | 1.5 | 0 | 2.2 | 183 | 178 | 198 | 222 | 171 | 123 |
| 27 | 1.9 | 2.0 | 3.3 | 1.5 | 67 | 2.3 | 184 | 157 | 242 | 196 | 183 | 68 |
| 28 | 5.0 | 1.6 | 2.1 | 1.5 | 88 | 2.3 | 196 | 159 | 248 | 172 | 185 | 3.2 |
| 29 | 2.5 | 1.4 | 1.4 | 1.5 | --- | 2.1 | 197 | 130 | 250 | 206 | 166 | 3.2 |
| 30 | .30 | 1.1 | 1.4 | 1.5 | --- | 2.1 | 178 | 117 | 241 | 218 | 160 | 84 |
| 31 | 1.5 | --- | 1.4 | 1.5 | --- | 2.1 | --- | 146 | --- | 215 | 137 | --- |
| TOTAL | 1084.60 | 66.70 | 53.40 | 41.9 | 191.70 | 385.90 | 3849.5 | 5452 | 6609 | 6367 | 5460 | 2697.40 |
| MEAN | 35.0 | 2.22 | 1.72 | 1.35 | 6.85 | 12.4 | 128 | 176 | 220 | 205 | 176 | 89.9 |
| MAX | 148 | 4.8 | 3.3 | 1.5 | 88 | 83 | 239 | 219 | 273 | 253 | 243 | 210 |
| MIN | .30 | .80 | .80 | 1.1 | 0 | .10 | 1.8 | 117 | 160 | 162 | 135 | .60 |
| AC-FT | 2150 | 132 | 106 | 83 | 380 | 765 | 7640 | 10810 | 13110 | 12630 | 10830 | 5350 |
| CAL YR 1984 | TOTAL | 34947.50 | MEAN | 95.5 | MAX | 251 | MIN | .10 | AC-FT | 69320 | | |
| WTR YR 1985 | TOTAL | 32259.10 | MEAN | 88.4 | MAX | 273 | MIN | 0 | AC-FT | 63990 | | |

11387995 BLACK BUTTE LAKE NEAR ORLAND, CA

LOCATION.--Lat 39°48'50", long 122°20'12", in SE 1/4 SW 1/4 sec.29, T.23 N., R.4 W., Tehama County, Hydrologic Unit 18020115, in control tower in right abutment of main dam on Stony Creek, 8 mi northwest of Orland.

DRAINAGE AREA.--738 mi².

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

REVISED RECORDS.--WDR CA-77-4: Drainage area.

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

REMARKS.--Lake is formed by seven earthfill dams. Storage began Oct. 28, 1963. Usable capacity, 143,676 acre-ft, between elevations 375.0 ft, invert of control tower, and 473.5 ft, spillway crest. Normal operating pool is from elevation 414.6 ft, capacity, 6,640 acre-ft, to 473.5 ft, capacity, 143,676 acre-ft. South Diversion Canal (station 11387990) diverts at right end of dam. Lake is used for irrigation, recreation and flood control. Water is released down Stony Creek (station 11388000) for irrigation. Figures given herein represent total contents at 2400 hours.

COOPERATION.--Records were provided by Corps of Engineers.

EXTREMES (at 2400) FOR PERIOD OF RECORD.--Maximum contents, 156,220 acre-ft, Mar. 3, 1983, elevation, 476.25 ft; minimum since first filling, 1,006 acre-ft, Nov. 6, 1977, elevation, 397.20 ft.

EXTREMES (at 2400) FOR CURRENT YEAR.--Maximum contents, 77,900 acre-ft, Apr. 23, elevation, 456.10 ft; minimum, 24,043 acre-ft, Nov. 9, elevation, 432.30 ft.

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

| | | | |
|-----|-------|-----|---------|
| 375 | 0 | 409 | 3,948 |
| 382 | 20 | 412 | 5,260 |
| 385 | 74 | 415 | 6,874 |
| 388 | 178 | 420 | 10,340 |
| 391 | 346 | 430 | 20,845 |
| 394 | 597 | 440 | 37,172 |
| 397 | 950 | 450 | 60,258 |
| 400 | 1,432 | 460 | 90,634 |
| 403 | 2,070 | 470 | 128,571 |
| 406 | 2,897 | 480 | 174,303 |

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 30486 | 25994 | 46957 | 44010 | 47598 | 57162 | 65655 | 73547 | 75245 | 62415 | 50218 | 50218 |
| 2 | 30042 | 25947 | 45223 | 44163 | 47644 | 57007 | 66700 | 73305 | 75551 | 62062 | 49815 | 51152 |
| 3 | 29552 | 26318 | 43922 | 44317 | 47713 | 56930 | 67813 | 73006 | 75582 | 61790 | 49437 | 51513 |
| 4 | 29151 | 26040 | 42646 | 44427 | 47736 | 56904 | 69024 | 72258 | 75093 | 61574 | 49178 | 51127 |
| 5 | 28802 | 25473 | 43076 | 44558 | 47783 | 57007 | 70307 | 71544 | 74515 | 61223 | 48967 | 50791 |
| 6 | 28539 | 25006 | 43944 | 44713 | 47806 | 57368 | 71752 | 70865 | 73848 | 60820 | 48687 | 50504 |
| 7 | 28310 | 24662 | 44492 | 45000 | 47990 | 57576 | 72826 | 70131 | 73155 | 60579 | 48361 | 50147 |
| 8 | 28049 | 24307 | 44890 | 45156 | 51079 | 57757 | 73396 | 69547 | 72496 | 60258 | 47921 | 50099 |
| 9 | 27694 | 24043 | 45156 | 45357 | 52364 | 57887 | 73878 | 69285 | 71811 | 59939 | 47506 | 50194 |
| 10 | 27421 | 24058 | 46367 | 45513 | 53076 | 58383 | 74393 | 69227 | 71101 | 59488 | 47186 | 50194 |
| 11 | 27262 | 24647 | 47300 | 45580 | 53594 | 58881 | 75001 | 69140 | 70512 | 58986 | 46866 | 50099 |
| 12 | 27230 | 25458 | 47898 | 45736 | 54092 | 59276 | 75245 | 69169 | 70424 | 58592 | 46729 | 50147 |
| 13 | 27198 | 28572 | 47851 | 45871 | 54617 | 59567 | 75337 | 69111 | 70277 | 58148 | 46571 | 50242 |
| 14 | 27151 | 29788 | 47163 | 45961 | 55070 | 59859 | 75428 | 69140 | 70189 | 57679 | 46299 | 50337 |
| 15 | 27087 | 30572 | 46389 | 46029 | 55474 | 60098 | 75490 | 69489 | 70101 | 57317 | 46119 | 50361 |
| 16 | 27182 | 31845 | 45513 | 46141 | 55880 | 60365 | 75735 | 69926 | 70072 | 56981 | 45984 | 50194 |
| 17 | 27087 | 32773 | 45000 | 46254 | 56212 | 60605 | 76011 | 70365 | 70072 | 56596 | 45894 | 49933 |
| 18 | 27024 | 34088 | 44801 | 46367 | 56544 | 60820 | 76442 | 70865 | 70072 | 56135 | 45871 | 49555 |
| 19 | 26945 | 34889 | 44602 | 46480 | 56801 | 61061 | 76813 | 71397 | 69926 | 55703 | 48571 | 49108 |
| 20 | 26850 | 35570 | 44536 | 46616 | 57058 | 61250 | 77184 | 71811 | 69285 | 55221 | 45692 | 48523 |
| 21 | 26772 | 35952 | 44427 | 46729 | 57394 | 61439 | 77557 | 72228 | 68504 | 54893 | 45134 | 47898 |
| 22 | 26646 | 36375 | 44229 | 46820 | 57576 | 61627 | 77806 | 72556 | 67756 | 54491 | 44558 | 47163 |
| 23 | 26521 | 36820 | 44010 | 46934 | 57628 | 61763 | 77900 | 72826 | 66984 | 54117 | 44229 | 46480 |
| 24 | 26396 | 38120 | 43922 | 47026 | 57705 | 61953 | 77775 | 73006 | 65992 | 53545 | 44207 | 45826 |
| 25 | 26334 | 39043 | 43900 | 47094 | 57705 | 62170 | 77588 | 73185 | 65346 | 53125 | 44405 | 45201 |
| 26 | 26210 | 39653 | 43966 | 47186 | 57731 | 62688 | 77246 | 73396 | 64647 | 52706 | 44647 | 44669 |
| 27 | 26102 | 42475 | 43966 | 47277 | 57628 | 63154 | 76751 | 73697 | 63953 | 52340 | 45045 | 44273 |
| 28 | 26040 | 47483 | 43944 | 47368 | 57420 | 63622 | 76011 | 73938 | 63539 | 51974 | 45984 | 44163 |
| 29 | 26071 | 50147 | 43879 | 47437 | --- | 64008 | 75123 | 74302 | 63126 | 51513 | 47026 | 44097 |
| 30 | 26086 | 49014 | 43813 | 47506 | --- | 64369 | 74211 | 74666 | 62743 | 51055 | 48036 | 43748 |
| 31 | 26071 | --- | 43857 | 47552 | --- | 64870 | --- | 74940 | --- | 50576 | 49131 | --- |
| MAX | 30486 | 50147 | 47898 | 47552 | 57731 | 64870 | 77900 | 74940 | 75582 | 62415 | 50218 | 51513 |
| MIN | 26040 | 24043 | 42646 | 44010 | 47598 | 56904 | 65655 | 69111 | 62743 | 50576 | 44207 | 43748 |
| a | 433.65 | 445.51 | 443.23 | 444.88 | 448.92 | 451.69 | 454.90 | 455.14 | 450.92 | 446.17 | 445.56 | 443.18 |
| b | -4881 | +22943 | -5157 | +3695 | +9868 | +7450 | +9341 | +729 | -12197 | -12167 | -1445 | -5383 |
| c | 702 | 287 | 309 | 285 | 701 | 671 | 1343 | 1930 | 2758 | 2570 | 2028 | 1402 |

CAL YR 1984 MAX 113251 MIN 24043 b + 12469
WTR YR 1985 MAX 77900 MIN 24043 b + 12796

a Elevation, in feet NGVD, at end month.
b Change in contents, in acre-feet.
c Evaporation, in acre-feet.

SACRAMENTO RIVER BASIN

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

LOCATION.--Lat 39°49'07", long 122°19'26", in NW 1/4 SW 1/4 sec.28, T.23 N., R.4 W., Tehama County, Hydrologic Unit 18020103, on left bank 200 ft downstream from road bridge, 0.6 mi downstream from Black Butte Dam, 8.1 mi northwest of Orland.

DRAINAGE AREA.--738 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR CA-77-4: Drainage area.

GAGE.--Water-stage recorder and grouted rock control. Datum of gage is 366.02 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers). Prior to Dec. 12, 1960, water-stage recorder at site 0.6 mi upstream at different datum. Dec. 12, 1960, to Nov. 30, 1963, nonrecording gage at bridge 200 ft upstream at datum 4.04 ft higher.

REMARKS.--No estimated daily discharges. Records good. Many diversions above station for irrigation. Flow completely regulated by Black Butte Lake (station 11387995), East Park Reservoir (station 11385100), and Stony Gorge Reservoir (station 11386100). Prior to October 1956, figures of daily discharge included water diverted to South Diversion Canal, which diverts 0.6 mi above station.

AVERAGE DISCHARGE.--30 years, 676 ft³/s, 489,800 acre-ft/yr, adjusted for diversions to South Diversion Canal since 1956, Wackerman Ranch since 1979, and for change in contents in and evaporation from Black Butte Lake since 1964; unadjusted for same period, 561 ft³/s, 406,400 acre-ft.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 36,300 ft³/s, Feb. 24, 1958, gage height, 11.82 ft, site and datum then in use, from rating curve extended above 7,500 ft³/s on basis of slope-area measurement of peak flow; no flow many days in 1956, 1957, 1962. Maximum discharge since completion of Black Butte Dam in 1964, 19,400 ft³/s, Dec. 25, 1964, gage height, 10.41 ft; no flow at times most years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,380 ft³/s, Nov. 30, gage height, 6.37 ft; minimum daily, 0.02 ft³/s, Oct. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|---------|------|-------|------|---------|------|------|-------|------|------|------|------|
| 1 | 145 | 32 | 2250 | 50 | 52 | 135 | 31 | 451 | 124 | 166 | 132 | 127 |
| 2 | 134 | 32 | 2040 | 53 | 52 | 118 | 28 | 431 | 125 | 174 | 113 | 126 |
| 3 | 134 | 32 | 2020 | 51 | 51 | 86 | 27 | 399 | 123 | 171 | 111 | 133 |
| 4 | 143 | 172 | 1580 | 51 | 52 | 55 | 27 | 454 | 123 | 165 | 116 | 141 |
| 5 | 139 | 264 | 992 | 51 | 53 | 49 | 27 | 484 | 134 | 174 | 125 | 152 |
| 6 | 124 | 261 | 481 | 51 | 52 | 48 | 63 | 478 | 148 | 182 | 131 | 120 |
| 7 | 105 | 243 | 503 | 52 | 53 | 48 | 80 | 472 | 159 | 162 | 142 | 84 |
| 8 | 105 | 241 | 503 | 51 | 52 | 47 | 84 | 446 | 165 | 155 | 162 | 54 |
| 9 | 111 | 243 | 503 | 51 | 53 | 47 | 98 | 372 | 164 | 155 | 167 | 33 |
| 10 | 93 | 248 | 522 | 51 | 53 | 49 | 116 | 377 | 154 | 161 | 155 | 31 |
| 11 | 71 | 251 | 512 | 51 | 53 | 49 | 118 | 342 | 150 | 167 | 157 | 31 |
| 12 | 54 | 251 | 512 | 51 | 53 | 49 | 125 | 301 | 158 | 165 | 102 | 31 |
| 13 | 45 | 196 | 701 | 51 | 54 | 40 | 119 | 324 | 174 | 162 | 79 | 32 |
| 14 | 48 | 48 | 1020 | 52 | 52 | 36 | 122 | 262 | 168 | 161 | 101 | 29 |
| 15 | 52 | 38 | 1010 | 52 | 50 | 33 | 120 | 155 | 146 | 155 | 101 | 25 |
| 16 | 53 | 36 | 997 | 52 | 50 | 29 | 108 | 125 | 131 | 159 | 108 | 26 |
| 17 | 51 | 31 | 771 | 52 | 50 | 29 | 99 | 111 | 136 | 174 | 115 | 56 |
| 18 | 51 | 30 | 490 | 52 | 50 | 34 | 86 | 113 | 158 | 169 | 124 | 76 |
| 19 | 51 | 30 | 503 | 52 | 45 | 30 | 66 | 105 | 163 | 163 | 142 | 94 |
| 20 | 51 | 31 | 411 | 52 | 31 | 30 | 59 | 95 | 159 | 139 | 152 | 126 |
| 21 | 51 | 33 | 253 | 51 | .50 | 28 | 67 | 94 | 164 | 119 | 156 | 133 |
| 22 | 61 | 32 | 251 | 52 | 45 | 25 | 74 | 95 | 169 | 145 | 149 | 125 |
| 23 | 50 | 33 | 251 | 52 | 123 | 26 | 64 | 119 | 178 | 181 | 137 | 135 |
| 24 | 50 | 33 | 207 | 52 | 105 | 27 | 68 | 160 | 182 | 172 | 129 | 144 |
| 25 | 50 | 30 | 154 | 52 | 99 | 25 | 108 | 168 | 164 | 161 | 103 | 145 |
| 26 | 51 | 30 | 152 | 52 | 98 | 24 | 164 | 163 | 148 | 149 | 82 | 139 |
| 27 | 53 | 33 | 152 | 52 | 136 | 26 | 243 | 149 | 146 | 150 | 76 | 130 |
| 28 | 37 | 35 | 152 | 52 | 149 | 27 | 332 | 151 | 144 | 146 | 91 | 61 |
| 29 | .40 | 261 | 152 | 52 | --- | 28 | 446 | 145 | 142 | 153 | 105 | 32 |
| 30 | 0 | 1690 | 152 | 52 | --- | 29 | 446 | 130 | 149 | 165 | 109 | 75 |
| 31 | 9.8 | --- | 111 | 52 | --- | 31 | --- | 123 | --- | 162 | 121 | --- |
| TOTAL | 2173.20 | 4920 | 20308 | 1600 | 1766.50 | 1337 | 3615 | 7794 | 4548 | 4982 | 3793 | 2646 |
| MEAN | 70.1 | 164 | 655 | 51.6 | 63.1 | 43.1 | 120 | 251 | 152 | 161 | 122 | 88.2 |
| MAX | 145 | 1690 | 2250 | 53 | 149 | 135 | 446 | 484 | 182 | 182 | 167 | 152 |
| MIN | 0 | 30 | 111 | 50 | .50 | 24 | 27 | 94 | 123 | 119 | 76 | 25 |
| AC-FT | 4310 | 9760 | 40280 | 3170 | 3500 | 2650 | 7170 | 15460 | 9020 | 9880 | 7520 | 5250 |

CAL YR 1984 TOTAL 111834.20 MEAN 306 MAX 5730 MIN 0 AC-FT 221800 MEAN a 443 AC-FT a 321900
WTR YR 1985 TOTAL 59482.70 MEAN 163 MAX 2250 MIN 0 AC-FT 118000 MEAN a 291 AC-FT a 210600

a Adjusted for diversions to South Diversion Canal near Orland, Wackerman Ranch, and for change in contents and evaporation from Black Butte Lake.

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1958 to current year.

CHEMICAL ANALYSES: Water years 1958-79, published as "at damsite" in 1959-64.

WATER TEMPERATURES: Water years 1969 to current year.

SEDIMENT RECORDS: Water years 1958-59, 1961-62.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: June 1969 to current year.

INSTRUMENTATION.--Temperature recorder since June 1969.

REMARKS.--Interruptions in record were due to clock stoppage Oct. 12 to Nov. 9 and no flow Feb. 22.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 31.5°C, Aug. 15, 1977; minimum recorded, 3.5°C, Jan. 3, 4, Feb. 2, Dec. 9, 1972, Jan. 10, 1974, Dec. 21, 1978.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 27.0°C, Aug. 12; minimum recorded, 6.0°C, several days during January and February.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
|-------|---------|------|----------|------|----------|-----|---------|-----|----------|------|-------|------|
| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 20.0 | 19.0 | --- | --- | 9.5 | 9.0 | 8.5 | 6.5 | 8.5 | 6.5 | 11.5 | 10.0 |
| 2 | 20.5 | 19.0 | --- | --- | 9.0 | 9.0 | 9.0 | 6.0 | 9.0 | 6.5 | 11.0 | 9.5 |
| 3 | 20.5 | 19.0 | --- | --- | 9.0 | 9.0 | 9.0 | 7.0 | 8.0 | 6.5 | 11.5 | 9.0 |
| 4 | 20.0 | 19.0 | --- | --- | 9.0 | 9.0 | 8.5 | 6.5 | 8.5 | 6.0 | 13.0 | 9.5 |
| 5 | 20.0 | 19.0 | --- | --- | 9.0 | 9.0 | 7.5 | 7.0 | 9.0 | 6.5 | 10.0 | 9.0 |
| 6 | 20.5 | 19.0 | --- | --- | 9.0 | 9.0 | 8.0 | 7.0 | 7.5 | 6.0 | 11.0 | 9.5 |
| 7 | 20.5 | 19.0 | --- | --- | 9.5 | 9.0 | 8.0 | 7.0 | 7.5 | 6.0 | 11.5 | 9.5 |
| 8 | 20.5 | 18.5 | --- | --- | 9.0 | 9.0 | 9.0 | 6.5 | 9.5 | 7.0 | 12.0 | 9.0 |
| 9 | 20.0 | 18.5 | --- | --- | 9.5 | 9.0 | 8.0 | 7.0 | 9.0 | 6.5 | 13.0 | 9.0 |
| 10 | 19.5 | 18.5 | 12.5 | 12.0 | 9.5 | 9.0 | 8.5 | 6.5 | 9.5 | 6.5 | 10.5 | 9.5 |
| 11 | 20.0 | 18.0 | 12.0 | 12.0 | 9.5 | 9.0 | 9.0 | 6.5 | 9.0 | 7.0 | 13.0 | 9.5 |
| 12 | --- | --- | 12.0 | 11.5 | 9.5 | 9.0 | 8.5 | 6.5 | 9.5 | 7.5 | 12.5 | 9.5 |
| 13 | --- | --- | 12.5 | 11.0 | 9.5 | 9.0 | 8.0 | 6.5 | 10.0 | 7.0 | 13.0 | 9.0 |
| 14 | --- | --- | 11.5 | 10.5 | 9.0 | 9.0 | 8.5 | 6.0 | 9.5 | 7.0 | 12.5 | 9.0 |
| 15 | --- | --- | 11.0 | 10.5 | 9.0 | 9.0 | 8.5 | 7.0 | 10.0 | 7.0 | 13.0 | 9.0 |
| 16 | --- | --- | 11.5 | 10.5 | 9.0 | 9.0 | 9.0 | 7.0 | 10.0 | 7.5 | 13.0 | 9.5 |
| 17 | --- | --- | 12.5 | 10.0 | 9.0 | 8.5 | 8.5 | 7.0 | 10.5 | 6.0 | 12.0 | 9.5 |
| 18 | --- | --- | 12.5 | 10.5 | 8.5 | 8.5 | 8.5 | 7.0 | 10.5 | 7.5 | 13.5 | 9.5 |
| 19 | --- | --- | 13.0 | 10.0 | 8.5 | 8.5 | 8.5 | 7.0 | 11.0 | 7.5 | 13.5 | 9.5 |
| 20 | --- | --- | 11.0 | 10.0 | 8.5 | 7.5 | 8.0 | 7.5 | 10.5 | 7.0 | 13.0 | 9.5 |
| 21 | --- | --- | 11.5 | 9.0 | 8.5 | 8.0 | 9.0 | 7.0 | 12.0 | 7.5 | 13.5 | 8.0 |
| 22 | --- | --- | 12.0 | 9.0 | 8.5 | 8.0 | 9.0 | 7.0 | --- | --- | 13.5 | 8.5 |
| 23 | --- | --- | 10.5 | 10.0 | 8.0 | 7.5 | 8.5 | 7.0 | 11.0 | 9.0 | 15.0 | 9.0 |
| 24 | --- | --- | 11.0 | 9.5 | 8.0 | 7.5 | 7.5 | 6.0 | 11.5 | 9.5 | 12.5 | 9.5 |
| 25 | --- | --- | 11.0 | 9.0 | 7.5 | 7.5 | 8.5 | 7.0 | 11.5 | 9.0 | 14.0 | 8.5 |
| 26 | --- | --- | 10.5 | 9.0 | 8.0 | 7.5 | 9.0 | 7.0 | 11.5 | 9.5 | 9.5 | 8.0 |
| 27 | --- | --- | 9.5 | 9.0 | 8.0 | 7.5 | 8.5 | 7.0 | 11.0 | 9.5 | 12.5 | 8.5 |
| 28 | --- | --- | 11.0 | 9.0 | 8.0 | 7.5 | 8.5 | 7.0 | 11.5 | 10.0 | 15.0 | 9.0 |
| 29 | --- | --- | 9.5 | 8.5 | 7.5 | 7.5 | 9.0 | 7.0 | --- | --- | 14.5 | 9.5 |
| 30 | --- | --- | 9.5 | 9.0 | 8.0 | 7.5 | 8.5 | 6.5 | --- | --- | 14.5 | 10.5 |
| 31 | --- | --- | --- | --- | 8.0 | 7.0 | 9.0 | 6.5 | --- | --- | 16.0 | 10.5 |
| MONTH | --- | --- | --- | --- | 9.5 | 7.0 | 9.0 | 6.0 | 12.0 | 6.0 | 16.0 | 8.0 |

SACRAMENTO RIVER BASIN

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

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

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

11389000 SACRAMENTO RIVER AT BUTTE CITY, CA

LOCATION.--Lat 39°27'28", long 121°59'35", in SE 1/4 NE 1/4 sec.32, T.19 N., R.1 W., Glenn County, Hydrologic Unit 18020104, on left bank 100 ft upstream from highway bridge, 0.5 mi south of Butte City, and at mile 115.8 upstream from Sacramento.

DRAINAGE AREA.--12,075 mi².

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

REVISED RECORDS.--WDR CA-77-4: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 2.92 ft below National Geodetic Vertical Datum of 1929. Prior to December 1930, at site 0.5 mi upstream at same datum.

REMARKS.--No estimated daily discharge. Records good. Natural flow affected by storage reservoirs, power developments, diversions for irrigation and return flow from irrigated areas. During floods, overbank flow into Butte basin occurs upstream from left (east) bank levee. The combined overbank flow and tributary runoff then flows south on the east bank floodplain into the Butte Sink and Sutter Bypass. Records tabulated below do not include overbank flow into the Butte basin.

AVERAGE DISCHARGE.--47 years (water years 1939-85), 13,640 ft³/s, 9,882,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge (water years 1940-85), 170,000 ft³/s, Feb. 7, 1942, gage height, 96.87 ft, from rating curve extended above 101,000 ft³/s; minimum recorded, 1,050 ft³/s, July 15, 25, 26, 1931, gage height, 67.49 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 43,000 ft³/s, Nov. 25, gage height, 81.92 ft; minimum daily, 3,990 ft³/s, Sept. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|--------|---------|---------|--------|--------|--------|--------|--------|--------|---------|--------|--------|
| 1 | 7780 | 7430 | 19400 | 11000 | 8320 | 7190 | 7900 | 6340 | 5930 | 8790 | 7410 | 5320 |
| 2 | 7830 | 7530 | 17800 | 10600 | 8380 | 7150 | 7930 | 6650 | 6070 | 8970 | 7450 | 5360 |
| 3 | 7740 | 8160 | 20300 | 9560 | 8320 | 7160 | 8160 | 6690 | 6130 | 9140 | 7530 | 5460 |
| 4 | 7640 | 8890 | 23800 | 9260 | 8360 | 7150 | 8290 | 6620 | 5920 | 9270 | 7620 | 5510 |
| 5 | 7780 | 8490 | 22700 | 9110 | 8280 | 7290 | 7980 | 6740 | 5710 | 9110 | 7690 | 5330 |
| 6 | 7840 | 8400 | 22200 | 9000 | 8240 | 7570 | 7690 | 6630 | 5250 | 9210 | 7500 | 5090 |
| 7 | 7880 | 8560 | 21300 | 9010 | 8280 | 7900 | 7580 | 6640 | 5520 | 9230 | 7470 | 4920 |
| 8 | 7560 | 9050 | 20600 | 9350 | 10800 | 9060 | 7440 | 6660 | 5690 | 9510 | 7410 | 5390 |
| 9 | 7160 | 9930 | 20100 | 9570 | 21700 | 8980 | 7090 | 6710 | 6520 | 9620 | 7450 | 6580 |
| 10 | 6740 | 9730 | 21000 | 9490 | 13800 | 8440 | 6610 | 6790 | 6690 | 9760 | 7480 | 7130 |
| 11 | 6770 | 11100 | 27900 | 9650 | 11400 | 9590 | 6570 | 6780 | 6580 | 9630 | 7500 | 6200 |
| 12 | 7890 | 19200 | 27300 | 9260 | 10500 | 9490 | 6190 | 6510 | 6360 | 9250 | 7520 | 5640 |
| 13 | 7340 | 23900 | 22900 | 8860 | 9750 | 8760 | 6250 | 6460 | 6180 | 9280 | 7500 | 5390 |
| 14 | 7020 | 27700 | 21500 | 8710 | 8680 | 7950 | 6710 | 6150 | 6110 | 9370 | 7630 | 5250 |
| 15 | 6900 | 22700 | 21400 | 8670 | 8020 | 7130 | 7080 | 9370 | 6380 | 9370 | 7500 | 5040 |
| 16 | 6820 | 20600 | 20300 | 8650 | 7770 | 7050 | 7010 | 10300 | 6240 | 9670 | 7540 | 4840 |
| 17 | 7150 | 24600 | 19600 | 8520 | 7640 | 6950 | 7090 | 10700 | 6320 | 9870 | 7710 | 4890 |
| 18 | 7280 | 22000 | 18200 | 8680 | 7480 | 6860 | 6930 | 7720 | 6300 | 9570 | 7900 | 4620 |
| 19 | 7150 | 23300 | 17500 | 8650 | 7350 | 6870 | 6780 | 6450 | 6760 | 9850 | 7430 | 4270 |
| 20 | 7080 | 20800 | 16900 | 8770 | 7750 | 6800 | 6530 | 6480 | 6710 | 9880 | 6630 | 4610 |
| 21 | 7090 | 22600 | 15700 | 8710 | 7840 | 6700 | 6700 | 6470 | 6740 | 9980 | 6600 | 4680 |
| 22 | 6930 | 21600 | 14700 | 8620 | 7770 | 6500 | 7070 | 6230 | 6750 | 10300 | 6400 | 4460 |
| 23 | 6420 | 19700 | 13100 | 8590 | 7660 | 6290 | 7070 | 6080 | 7120 | 10000 | 6400 | 4100 |
| 24 | 6200 | 24500 | 12300 | 8560 | 7630 | 6210 | 6740 | 5880 | 7310 | 9360 | 6160 | 4080 |
| 25 | 6140 | 37800 | 12000 | 8590 | 7530 | 6380 | 6320 | 5960 | 7240 | 9030 | 5520 | 3990 |
| 26 | 6060 | 25200 | 11700 | 8470 | 7430 | 6610 | 5970 | 6410 | 7450 | 7770 | 5230 | 4390 |
| 27 | 6400 | 20500 | 11600 | 8530 | 7390 | 7850 | 5780 | 6420 | 6710 | 7510 | 5040 | 4480 |
| 28 | 6870 | 30300 | 11600 | 8510 | 7230 | 8340 | 5860 | 6420 | 8320 | 7310 | 4850 | 4480 |
| 29 | 6990 | 29200 | 11300 | 8450 | --- | 8650 | 6250 | 6380 | 8550 | 7270 | 5120 | 4580 |
| 30 | 7210 | 20600 | 11200 | 8460 | --- | 8450 | 6270 | 6190 | 8690 | 7330 | 5430 | 4660 |
| 31 | 7280 | --- | 11000 | 8420 | --- | 8060 | --- | 5820 | --- | 7400 | 5290 | --- |
| TOTAL | 220940 | 554070 | 558900 | 278280 | 251300 | 235380 | 207840 | 211650 | 198250 | 281610 | 211910 | 150740 |
| MEAN | 7127 | 18470 | 18030 | 8977 | 8975 | 7593 | 6928 | 6827 | 6608 | 9084 | 6836 | 5025 |
| MAX | 7890 | 37800 | 27900 | 11000 | 21700 | 9590 | 8290 | 10700 | 8690 | 10300 | 7900 | 7130 |
| MIN | 6060 | 7430 | 11000 | 8420 | 7230 | 6210 | 5780 | 5820 | 5250 | 7270 | 4850 | 3990 |
| AC-FT | 438200 | 1099000 | 1109000 | 552000 | 498500 | 466900 | 412300 | 419800 | 393200 | 558600 | 420300 | 299000 |
| CAL YR 1984 | TOTAL | 4504980 | MEAN | 12310 | MAX | 54000 | MIN | 6060 | AC-FT | 8936000 | | |
| WTR YR 1985 | TOTAL | 3360870 | MEAN | 9208 | MAX | 37800 | MIN | 3990 | AC-FT | 6666000 | | |

SACRAMENTO RIVER BASIN

11389500 SACRAMENTO RIVER AT COLUSA, CA

LOCATION.--Lat 39°12'51", long 121°59'57", at north end of Jimeno Grant, Colusa County, Hydrologic Unit 18020104, on right bank 60 ft downstream from highway bridge at Colusa, and at mile 89.4 upstream from Sacramento.

DRAINAGE AREA.--12,090 mi².

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

REVISED RECORDS.--WSP 1345: 1952. WDR CA-77-4: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 2.95 ft below National Geodetic Vertical Datum of 1929. Prior to December 1930, water-stage recorder in center fender pier 50 ft upstream from bridge at same datum.

REMARKS.--Estimated daily discharges: June 4-7. Records good. Natural flow of stream affected by storage reservoirs, power development, bypassing for flood control, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--45 years (water years 1941-85), 11,790 ft³/s, 8,542,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge (water years 1941-85), 51,800 ft³/s, Mar. 4, 1983, gage height, 68.50 ft, from rating curve extended above 47,000 ft³/s; maximum gage height, 69.20 ft, Feb. 18, 1942; minimum recorded, 820 ft³/s, July 25, 26, 1931, gage height, 34.79 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 34,200 ft³/s, Nov. 25, gage height, 61.66 ft; minimum daily, 4,290 ft³/s, Sept. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|--------|---------|---------|--------|--------|--------|--------|--------|--------|---------|--------|--------|
| 1 | 8130 | 7570 | 20000 | 11400 | 9000 | 7820 | 8570 | 6390 | 6320 | 8670 | 7620 | 5550 |
| 2 | 8230 | 7830 | 18400 | 11200 | 8970 | 7830 | 8540 | 6590 | 6440 | 8760 | 7680 | 5620 |
| 3 | 8280 | 8090 | 17900 | 10400 | 8980 | 7740 | 8670 | 6730 | 6440 | 8950 | 7720 | 5730 |
| 4 | 8210 | 9010 | 22100 | 9980 | 8970 | 7740 | 8910 | 6730 | 6280 | 9150 | 7830 | 5790 |
| 5 | 8300 | 8920 | 22800 | 9850 | 8910 | 7780 | 8710 | 6750 | 5880 | 9070 | 7950 | 5640 |
| 6 | 8370 | 8710 | 22200 | 9740 | 8880 | 8050 | 8440 | 6730 | 5740 | 9050 | 7850 | 5400 |
| 7 | 8380 | 8770 | 21600 | 9730 | 8870 | 8300 | 8320 | 6730 | 5040 | 9140 | 7660 | 5130 |
| 8 | 8270 | 9180 | 20700 | 9840 | 9300 | 9050 | 8190 | 6680 | 5660 | 9260 | 7740 | 5500 |
| 9 | 7750 | 9730 | 20100 | 10200 | 18100 | 9650 | 7900 | 6720 | 6330 | 9390 | 7680 | 6420 |
| 10 | 7270 | 10200 | 19900 | 10000 | 16400 | 9090 | 7400 | 6850 | 6690 | 9520 | 7640 | 7250 |
| 11 | 6990 | 10200 | 23500 | 10300 | 12800 | 9430 | 7200 | 6860 | 6630 | 9640 | 7760 | 6980 |
| 12 | 7770 | 14900 | 28400 | 9990 | 11500 | 10200 | 6910 | 6760 | 6510 | 9200 | 7760 | 6020 |
| 13 | 7920 | 19800 | 24700 | 9790 | 10700 | 9580 | 6660 | 6600 | 6270 | 9290 | 7760 | 5770 |
| 14 | 7430 | 25700 | 22100 | 9570 | 9820 | 9020 | 7010 | 6540 | 6170 | 9400 | 7790 | 5470 |
| 15 | 7190 | 23800 | 21400 | 9500 | 9050 | 8030 | 7510 | 7800 | 6290 | 9440 | 7780 | 5350 |
| 16 | 7110 | 21100 | 20700 | 9500 | 8680 | 7720 | 7510 | 10100 | 6330 | 9710 | 7700 | 5120 |
| 17 | 7220 | 22300 | 20000 | 9390 | 8510 | 7620 | 7490 | 10400 | 6260 | 9870 | 7900 | 5070 |
| 18 | 7480 | 22500 | 18600 | 9450 | 8340 | 7570 | 7390 | 9440 | 6250 | 9810 | 8090 | 5020 |
| 19 | 7430 | 22500 | 17700 | 9410 | 8190 | 7530 | 7260 | 6680 | 6530 | 9850 | 8060 | 4580 |
| 20 | 7300 | 21700 | 17000 | 9510 | 8340 | 7480 | 6980 | 6760 | 6680 | 10000 | 7080 | 4720 |
| 21 | 7320 | 21000 | 16300 | 9500 | 8530 | 7400 | 6830 | 6770 | 6630 | 10100 | 6840 | 4880 |
| 22 | 7230 | 22200 | 15100 | 9420 | 8490 | 7210 | 7290 | 6630 | 6630 | 10300 | 6720 | 4800 |
| 23 | 6760 | 20200 | 14100 | 9360 | 8410 | 6990 | 7380 | 6380 | 6850 | 10100 | 6630 | 4460 |
| 24 | 6430 | 20100 | 12800 | 9310 | 8330 | 6830 | 7180 | 6280 | 7160 | 9840 | 6550 | 4370 |
| 25 | 6380 | 31900 | 12500 | 9310 | 8270 | 6850 | 6730 | 6200 | 7260 | 9450 | 5960 | 4290 |
| 26 | 6290 | 28800 | 12200 | 9210 | 8140 | 7210 | 6420 | 6590 | 7350 | 8540 | 5630 | 4420 |
| 27 | 6360 | 23100 | 12000 | 9210 | 8050 | 7710 | 6180 | 6730 | 7030 | 8100 | 5370 | 4580 |
| 28 | 7010 | 23300 | 12000 | 9200 | 7940 | 8950 | 6170 | 6740 | 7540 | 7750 | 5160 | 4610 |
| 29 | 7170 | 31000 | 11700 | 9160 | --- | 9180 | 6350 | 6680 | 8430 | 7610 | 5180 | 4660 |
| 30 | 7350 | 24000 | 11500 | 9130 | --- | 9060 | 6470 | 6710 | 8570 | 7580 | 5630 | 4690 |
| 31 | 7500 | --- | 11400 | 9110 | --- | 8750 | --- | 6330 | --- | 7650 | 5570 | --- |
| TOTAL | 230830 | 538110 | 561400 | 300670 | 268470 | 253370 | 222570 | 216880 | 198190 | 284190 | 220290 | 157890 |
| MEAN | 7446 | 17940 | 18110 | 9699 | 9588 | 8173 | 7419 | 6996 | 6606 | 9167 | 7106 | 5263 |
| MAX | 8380 | 31900 | 28400 | 11400 | 18100 | 10200 | 8910 | 10400 | 8570 | 10300 | 8090 | 7250 |
| MIN | 6290 | 7570 | 11400 | 9110 | 7940 | 6830 | 6170 | 6200 | 5040 | 7580 | 5160 | 4290 |
| AC-FT | 457900 | 1067000 | 1114000 | 596400 | 532500 | 502600 | 441500 | 430200 | 393100 | 563700 | 436900 | 313200 |
| CAL YR 1984 | TOTAL | 4435780 | MEAN | 12120 | MAX | 39000 | MIN | 6040 | AC-FT | 8798000 | | |
| WTR YR 1985 | TOTAL | 3452860 | MEAN | 9460 | MAX | 31900 | MIN | 4290 | AC-FT | 6849000 | | |

11389950 LITTLE BUTTE CREEK AT MAGALIA, CA

LOCATION.--Lat 39°48'38", long 121°35'00", in NW 1/4 NE 1/4 sec.36, T.23 N., R.3 E., Butte County, Hydrologic Unit 18020120, on left bank 1,000 ft downstream from Magalia Dam, and 0.4 mi northwest of Magalia.

DRAINAGE AREA.--11.4 mi².

PERIOD OF RECORD.--October 1968 to September 30, 1985 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 2,160 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated by Paradise Reservoir, usable capacity, 11,500 acre-ft, and Magalia Reservoir, usable capacity, 2,640 acre-ft. Diversion occurs above Magalia Reservoir through a pipeline into Pacific Gas and Electric Co.'s Toadtown Canal when Paradise and Magalia Reservoirs are spilling. Diversion is made from Magalia Reservoir for the municipal supply of Paradise.

AVERAGE DISCHARGE (unadjusted).--17 years, 17.5 ft³/s, 12,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,180 ft³/s, Jan. 24, 1970, gage height, 6.37 ft (revised); minimum daily, 0.01 ft³/s, Sept. 25, 1974, and many days in 1976-77.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 23 ft³/s, Feb. 8, gage height, 2.61 ft; minimum daily, 0.23 ft³/s, Aug. 12.

REVISIONS.--The maximum gage heights reported for water years 1969 and 1970 have been revised to 6.18 ft and 6.37 ft, respectively, superseding figures published in WSP 2131 and the reports for 1969 and 1970. The maximum discharge for water year 1974 has been revised to 1,130 ft³/s, Mar. 29, 1974, gage-height, 6.36 ft, superseding figure published in the report for 1974.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|-------|
| 1 | .40 | .74 | .70 | .65 | .45 | .50 | .57 | .25 | .71 | .88 | .31 | .25 |
| 2 | .41 | 1.7 | .88 | .65 | .45 | .51 | .53 | .25 | .70 | .88 | .28 | .28 |
| 3 | .43 | .71 | .70 | .62 | .45 | .49 | .51 | .25 | .67 | .75 | .28 | .28 |
| 4 | .45 | .65 | .70 | .61 | .45 | .57 | .49 | .25 | .65 | .49 | .28 | .28 |
| 5 | .45 | .65 | .72 | .61 | .45 | .52 | .49 | .25 | .65 | .49 | .27 | .28 |
| 6 | .44 | 1.1 | .70 | .59 | .45 | .63 | .49 | .26 | .65 | .49 | .25 | .28 |
| 7 | .42 | .95 | .70 | .91 | 5.2 | .68 | .47 | .29 | .52 | .49 | .25 | .32 |
| 8 | .42 | 1.6 | .70 | .62 | 6.3 | .78 | .46 | .31 | .51 | .48 | .25 | 1.2 |
| 9 | .45 | .76 | .70 | .61 | 1.1 | .79 | .44 | .31 | .53 | .49 | .25 | 1.2 |
| 10 | .96 | 1.1 | 1.5 | .60 | .80 | 1.1 | .40 | .31 | .52 | .49 | .25 | .75 |
| 11 | .61 | 3.1 | 1.1 | .56 | .71 | .78 | .38 | .33 | .49 | .51 | .24 | .61 |
| 12 | .56 | 2.2 | .94 | .56 | .66 | .66 | .38 | .34 | .48 | .49 | .23 | .58 |
| 13 | .56 | 3.0 | .88 | .56 | .64 | .59 | .38 | .31 | .48 | .48 | .24 | .56 |
| 14 | .57 | .82 | .84 | .56 | .61 | .56 | .38 | .34 | .51 | .47 | .25 | .54 |
| 15 | .63 | .82 | .90 | .56 | .61 | .53 | .37 | .34 | .50 | .44 | .25 | .50 |
| 16 | .94 | 1.6 | .97 | .56 | .59 | .52 | .34 | .38 | .48 | .42 | .25 | .46 |
| 17 | .68 | 1.9 | .98 | .56 | .56 | .49 | .38 | .38 | .49 | .42 | .25 | .45 |
| 18 | .62 | 1.5 | .97 | .56 | .56 | .58 | .36 | .42 | .51 | .43 | .25 | .43 |
| 19 | .66 | .82 | .96 | .56 | .55 | .49 | .34 | .42 | .51 | .40 | .26 | .42 |
| 20 | .69 | 1.4 | .95 | .56 | .53 | .49 | .34 | .45 | .49 | .40 | .27 | .39 |
| 21 | .69 | 1.0 | .83 | .56 | .53 | .49 | .37 | .45 | .50 | .42 | .27 | .38 |
| 22 | .65 | .82 | .66 | .56 | .53 | .49 | .35 | .46 | .52 | .41 | .26 | .35 |
| 23 | .69 | .82 | .65 | .56 | .53 | .49 | .32 | .48 | .53 | .38 | .25 | .34 |
| 24 | .77 | 3.6 | .65 | .56 | .53 | .82 | .31 | .49 | .53 | .36 | .25 | .31 |
| 25 | .77 | 1.0 | .65 | .56 | .53 | .53 | .31 | .50 | .53 | .35 | .25 | .31 |
| 26 | .65 | .82 | .65 | .60 | .53 | .81 | .29 | .51 | .53 | .32 | .25 | .28 |
| 27 | .70 | 4.7 | .70 | .56 | .51 | 1.8 | .28 | .52 | .53 | .31 | .25 | .28 |
| 28 | .78 | 1.4 | .70 | .65 | .49 | 1.2 | .28 | .54 | .53 | .31 | .25 | .28 |
| 29 | .81 | .88 | .70 | .49 | --- | .99 | .27 | .56 | .69 | .32 | .25 | .31 |
| 30 | .70 | .70 | .65 | .48 | --- | .74 | .26 | .60 | .87 | .31 | .25 | .31 |
| 31 | .70 | --- | .65 | .45 | --- | .62 | --- | .61 | --- | .31 | .25 | --- |
| TOTAL | 19.26 | 42.86 | 24.98 | 18.10 | 26.30 | 21.24 | 11.54 | 12.16 | 16.81 | 14.19 | 7.94 | 13.21 |
| MEAN | .62 | 1.43 | .81 | .58 | .94 | .69 | .38 | .39 | .56 | .46 | .26 | .44 |
| MAX | .96 | 4.7 | 1.5 | .91 | 6.3 | 1.8 | .57 | .61 | .87 | .88 | .31 | 1.2 |
| MIN | .40 | .65 | .65 | .45 | .45 | .49 | .26 | .25 | .48 | .31 | .23 | .25 |
| AC-FT | 38 | 85 | 50 | 36 | 52 | 42 | 23 | 24 | 33 | 28 | 16 | 26 |
| a | 466 | 286 | 269 | 278 | 288 | 291 | 594 | 939 | 1158 | 1488 | 1193 | 693 |

CAL YR 1984 TOTAL 3887.35 MEAN 10.6 MAX 118 MIN .24 AC-FT 7710
WTR YR 1985 TOTAL 228.59 MEAN .63 MAX 6.3 MIN .23 AC-FT 453

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

SACRAMENTO RIVER BASIN

11390000 BUTTE CREEK NEAR CHICO, CA

LOCATION.--Lat 39°43'34", long 121°42'28", in NW 1/4 NW 1/4 sec.36, T.22 N., R.2 E., Butte County, Hydrologic Unit 18020105, on right bank 0.7 mi downstream from Little Butte Creek, and 7.5 mi east of Chico.

DRAINAGE AREA.--147 mi².

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

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 320 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Aug. 13, 1944, water-stage recorder at site 0.4 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Records excellent. Flow slightly regulated by storage in Magalia Reservoir, usable capacity, 2,640 acre-ft and since 1957 by Paradise Reservoir, usable capacity, 11,500 acre-ft. Diversions above station for irrigation and domestic use of about 7,000 acre-ft annually. Butte Creek receives water above station from West Branch Feather River by way of Toadtown Canal.

AVERAGE DISCHARGE (unadjusted).--55 years, 415 ft³/s, 300,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,100 ft³/s (revised), Dec. 22, 1964, gage height, 14.12 ft; minimum discharge, 10 ft³/s, Nov. 29, 1952.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,700 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|--------|------|--------------------------------|------------------|------|------|--------------------------------|------------------|
| Feb. 8 | 0400 | *3,090 | *4.97 | | | | |

Minimum daily, 79 ft³/s, Sept. 16, 21.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| 1 | 137 | 140 | 355 | 186 | 161 | 260 | 466 | 352 | 229 | 125 | 148 | 114 |
| 2 | 121 | 228 | 314 | 180 | 166 | 260 | 519 | 351 | 212 | 129 | 145 | 116 |
| 3 | 118 | 369 | 317 | 184 | 166 | 255 | 522 | 349 | 212 | 122 | 143 | 125 |
| 4 | 119 | 211 | 278 | 180 | 164 | 255 | 496 | 336 | 177 | 143 | 143 | 98 |
| 5 | 117 | 173 | 280 | 181 | 163 | 251 | 499 | 326 | 194 | 154 | 137 | 90 |
| 6 | 119 | 200 | 262 | 179 | 161 | 265 | 495 | 324 | 201 | 145 | 137 | 91 |
| 7 | 120 | 285 | 245 | 222 | 535 | 317 | 485 | 318 | 198 | 145 | 139 | 88 |
| 8 | 119 | 329 | 236 | 224 | 1780 | 276 | 475 | 311 | 190 | 143 | 133 | 188 |
| 9 | 118 | 291 | 237 | 219 | 736 | 270 | 468 | 306 | 190 | 143 | 137 | 198 |
| 10 | 124 | 230 | 314 | 217 | 470 | 293 | 468 | 303 | 181 | 140 | 134 | 158 |
| 11 | 238 | 432 | 477 | 210 | 369 | 308 | 446 | 292 | 174 | 139 | 133 | 111 |
| 12 | 156 | 501 | 433 | 206 | 329 | 310 | 444 | 289 | 170 | 140 | 131 | 98 |
| 13 | 136 | 922 | 370 | 202 | 314 | 311 | 451 | 284 | 165 | 137 | 133 | 92 |
| 14 | 132 | 567 | 332 | 199 | 309 | 318 | 464 | 284 | 163 | 135 | 130 | 92 |
| 15 | 128 | 375 | 388 | 197 | 300 | 319 | 471 | 279 | 158 | 135 | 128 | 83 |
| 16 | 143 | 364 | 376 | 180 | 300 | 319 | 467 | 275 | 154 | 144 | 127 | 79 |
| 17 | 165 | 373 | 307 | 177 | 295 | 316 | 441 | 272 | 148 | 148 | 126 | 89 |
| 18 | 140 | 386 | 281 | 176 | 286 | 338 | 412 | 266 | 143 | 144 | 124 | 85 |
| 19 | 142 | 349 | 259 | 172 | 286 | 339 | 432 | 267 | 142 | 144 | 122 | 83 |
| 20 | 156 | 339 | 248 | 175 | 282 | 332 | 400 | 264 | 143 | 144 | 123 | 82 |
| 21 | 149 | 359 | 235 | 174 | 273 | 337 | 387 | 260 | 141 | 146 | 123 | 79 |
| 22 | 138 | 315 | 226 | 171 | 268 | 321 | 384 | 256 | 138 | 155 | 118 | 92 |
| 23 | 137 | 280 | 221 | 170 | 268 | 309 | 367 | 255 | 137 | 151 | 123 | 97 |
| 24 | 135 | 716 | 217 | 168 | 268 | 360 | 361 | 251 | 136 | 148 | 122 | 95 |
| 25 | 135 | 484 | 212 | 168 | 268 | 378 | 355 | 247 | 133 | 143 | 120 | 94 |
| 26 | 132 | 361 | 211 | 178 | 264 | 441 | 347 | 243 | 133 | 140 | 117 | 91 |
| 27 | 136 | 601 | 207 | 171 | 264 | 490 | 346 | 239 | 131 | 145 | 113 | 97 |
| 28 | 133 | 919 | 205 | 189 | 264 | 483 | 351 | 238 | 129 | 140 | 113 | 98 |
| 29 | 147 | 539 | 199 | 175 | --- | 412 | 353 | 246 | 127 | 134 | 118 | 96 |
| 30 | 141 | 416 | 194 | 168 | --- | 393 | 350 | 251 | 128 | 132 | 113 | 96 |
| 31 | 139 | --- | 192 | 161 | --- | 408 | --- | 237 | --- | 134 | 116 | --- |
| TOTAL | 4270 | 12054 | 8628 | 5759 | 9709 | 10244 | 12922 | 8771 | 4877 | 4367 | 3969 | 3095 |
| MEAN | 138 | 402 | 278 | 186 | 347 | 330 | 431 | 283 | 163 | 141 | 128 | 103 |
| MAX | 238 | 922 | 477 | 224 | 1780 | 490 | 522 | 352 | 229 | 155 | 148 | 198 |
| MIN | 117 | 140 | 192 | 161 | 161 | 251 | 346 | 237 | 127 | 122 | 113 | 79 |
| AC-FT | 8470 | 23910 | 17110 | 11420 | 19260 | 20320 | 25630 | 17400 | 9670 | 8660 | 7870 | 6140 |
| a | 2150 | 5750 | 4720 | 3470 | 4120 | 5710 | 6840 | 7090 | 3870 | 4000 | 3450 | 836 |

| CAL YR 1984 | TOTAL | 132640 | MEAN | 362 | MAX | 1470 | MIN | 85 | AC-FT | 263100 |
|-------------|-------|--------|------|-----|-----|------|-----|----|-------|--------|
| WTR YR 1985 | TOTAL | 88665 | MEAN | 243 | MAX | 1780 | MIN | 79 | AC-FT | 175900 |

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

11390500 SACRAMENTO RIVER BELOW WILKINS SLOUGH, NEAR GRIMES, CA

LOCATION.--Lat 39°00'36", long 121°49'25", in NW 1/4 NE 1/4 sec.2, T.13 N., R.1 E., Colusa County, Hydrologic Unit 18020104, on right bank 1,200 ft downstream from Wilkins Slough, 5.8 mi southeast of Grimes, and at mile 62.9 upstream from Sacramento.

DRAINAGE AREA.--12,926 mi².

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 3.00 ft below National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Oct. 30 to Nov. 6. Records good. Natural flow of stream affected by storage reservoirs, power development, bypassing for flood control, diversions for irrigation, and return flow from irrigated areas.

AVERAGE DISCHARGE.--47 years (water years 1939-85), 10,370 ft³/s, 7,513,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge (water years 1939-85), 32,300 ft³/s, Mar. 4, 1983, gage height, 52.16 ft from rating curve extended above 30,000 ft³/s; maximum gage height, 52.75 ft, Mar. 1, 1940; minimum discharge, 100 ft³/s, Aug. 1, 1931, gage height, 14.20 ft.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 25,900 ft³/s, Nov. 25, gage height, 45.15 ft; minimum daily, 3,810 ft³/s, Aug. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|--------|---------|---------|--------|--------|--------|--------|--------|--------|---------|--------|--------|
| 1 | 7810 | 7000 | 21100 | 11100 | 8600 | 7410 | 8460 | 4460 | 5270 | 7110 | 6050 | 4440 |
| 2 | 7880 | 7400 | 19100 | 11100 | 8500 | 7400 | 8320 | 4500 | 5430 | 7150 | 6080 | 4500 |
| 3 | 7990 | 8000 | 17900 | 10600 | 8500 | 7330 | 8340 | 4710 | 5470 | 7360 | 6180 | 4640 |
| 4 | 7970 | 8500 | 20300 | 9900 | 8470 | 7300 | 8360 | 4830 | 5330 | 7610 | 6250 | 4790 |
| 5 | 7980 | 8400 | 22600 | 9650 | 8450 | 7290 | 8210 | 4890 | 4910 | 7690 | 6400 | 4850 |
| 6 | 8080 | 8300 | 22300 | 9510 | 8410 | 7470 | 7960 | 4920 | 4520 | 7590 | 6390 | 4680 |
| 7 | 8110 | 8620 | 21700 | 9490 | 8380 | 7760 | 7890 | 4840 | 3910 | 7650 | 6170 | 4450 |
| 8 | 8100 | 8930 | 20900 | 9560 | 8580 | 8300 | 7760 | 4790 | 4040 | 7740 | 6190 | 4590 |
| 9 | 7660 | 9390 | 20200 | 9890 | 13400 | 9220 | 7420 | 4820 | 4490 | 7860 | 6160 | 5270 |
| 10 | 7170 | 10100 | 19800 | 9970 | 17400 | 8970 | 6910 | 4950 | 5090 | 7970 | 6190 | 6590 |
| 11 | 6830 | 10100 | 21500 | 10000 | 14000 | 8820 | 6550 | 5020 | 5150 | 8140 | 6310 | 6930 |
| 12 | 7060 | 12900 | 24600 | 9950 | 12100 | 9750 | 6340 | 5040 | 4990 | 7850 | 6340 | 6100 |
| 13 | 7750 | 17900 | 23900 | 9710 | 11000 | 9640 | 5900 | 4880 | 4660 | 7750 | 6320 | 5650 |
| 14 | 7290 | 22700 | 22600 | 9440 | 10100 | 9060 | 5850 | 5010 | 4450 | 7890 | 6280 | 5310 |
| 15 | 6970 | 23200 | 21500 | 9310 | 9210 | 8080 | 6300 | 5170 | 4370 | 7950 | 6350 | 5170 |
| 16 | 6850 | 21300 | 20900 | 9370 | 8610 | 7380 | 6480 | 8120 | 4510 | 8060 | 6280 | 4960 |
| 17 | 6850 | 21000 | 20000 | 9320 | 8330 | 7230 | 6390 | 8820 | 4400 | 8260 | 6380 | 4810 |
| 18 | 7090 | 22300 | 18900 | 9280 | 8140 | 7190 | 6480 | 8830 | 4340 | 8380 | 6630 | 4840 |
| 19 | 7170 | 21800 | 17900 | 9270 | 7950 | 7100 | 6300 | 6250 | 4380 | 8230 | 6820 | 4510 |
| 20 | 7050 | 21600 | 17200 | 9300 | 7890 | 7090 | 6030 | 5360 | 4780 | 8410 | 6130 | 4320 |
| 21 | 7000 | 20500 | 16600 | 9310 | 8140 | 6990 | 5740 | 5320 | 4740 | 8560 | 5530 | 4570 |
| 22 | 6990 | 21600 | 15500 | 9210 | 8140 | 6800 | 6020 | 5280 | 4750 | 8730 | 5440 | 4590 |
| 23 | 6710 | 20500 | 14600 | 9130 | 8060 | 6610 | 6190 | 5070 | 4820 | 8760 | 5330 | 4320 |
| 24 | 6250 | 19500 | 13200 | 9080 | 7970 | 6410 | 6040 | 5030 | 5260 | 8640 | 5350 | 4060 |
| 25 | 6090 | 24500 | 12500 | 8950 | 7920 | 6230 | 5620 | 4900 | 5520 | 8100 | 4970 | 4030 |
| 26 | 6000 | 25100 | 12200 | 8850 | 7800 | 6600 | 5240 | 5030 | 5600 | 7530 | 4460 | 3980 |
| 27 | 6060 | 23400 | 11900 | 8780 | 7650 | 7050 | 4660 | 5410 | 5680 | 6720 | 4120 | 4300 |
| 28 | 6540 | 22000 | 11900 | 8780 | 7560 | 8380 | 4250 | 5580 | 5280 | 6420 | 3910 | 4380 |
| 29 | 6880 | 25300 | 11700 | 8740 | --- | 8930 | 4350 | 5580 | 6560 | 6200 | 3810 | 4410 |
| 30 | 7000 | 24000 | 11400 | 8700 | --- | 9010 | 4560 | 5640 | 6890 | 6070 | 4210 | 4460 |
| 31 | 7100 | --- | 11200 | 8670 | --- | 8730 | --- | 5420 | --- | 6040 | 4490 | --- |
| TOTAL | 222280 | 505840 | 557600 | 293920 | 259260 | 241530 | 194920 | 168470 | 149590 | 238420 | 177520 | 144500 |
| MEAN | 7170 | 16860 | 17990 | 9481 | 9259 | 7791 | 6497 | 5435 | 4986 | 7691 | 5726 | 4817 |
| MAX | 8110 | 25300 | 24600 | 11100 | 17400 | 9750 | 8460 | 8830 | 6890 | 8760 | 6820 | 6930 |
| MIN | 6000 | 7000 | 11200 | 8670 | 7560 | 6230 | 4250 | 4460 | 3910 | 6040 | 3810 | 3980 |
| AC-FT | 440900 | 1003000 | 1106000 | 583000 | 514200 | 479100 | 386600 | 334200 | 296700 | 472900 | 352100 | 286600 |
| CAL YR 1984 | TOTAL | 4169890 | MEAN | 11390 | MAX | 28000 | MIN | 4930 | AC-FT | 8271000 | | |
| WTR YR 1985 | TOTAL | 3153850 | MEAN | 8641 | MAX | 25300 | MIN | 3810 | AC-FT | 6256000 | | |

SACRAMENTO RIVER BASIN

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

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

WATER TEMPERATURES: October 1966 to current year.

INSTRUMENTATION.--Temperature recorder since October 1966.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 25.5°C, Sept. 6-8, 1977; minimum recorded, 4.0°C, Dec. 26, 1969.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 22.0°C June 16-21; minimum recorded, 8.5°C, many days.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
|-------|---------|------|----------|------|----------|------|---------|-----|----------|------|-------|------|
| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 17.5 | 17.5 | 13.5 | 13.0 | 9.5 | 9.5 | 8.5 | 8.5 | 9.0 | 9.0 | 13.0 | 13.0 |
| 2 | 17.5 | 17.5 | 13.0 | 13.0 | 9.5 | 9.5 | 8.5 | 8.5 | 9.0 | 9.0 | 13.0 | 12.0 |
| 3 | 17.5 | 17.5 | 13.0 | 13.0 | 9.5 | 9.5 | 8.5 | 8.5 | 9.0 | 8.5 | 12.0 | 11.0 |
| 4 | 17.5 | 17.5 | 13.0 | 13.0 | 9.5 | 9.5 | 8.5 | 8.5 | 8.5 | 8.5 | 11.0 | 10.5 |
| 5 | 17.5 | 17.5 | 13.0 | 13.0 | 9.5 | 9.5 | 8.5 | 8.5 | 8.5 | 8.5 | 11.0 | 10.5 |
| 6 | 17.5 | 17.5 | 13.0 | 13.0 | 9.5 | 9.5 | 8.5 | 8.5 | 8.5 | 8.5 | 10.5 | 10.0 |
| 7 | 17.5 | 17.5 | 13.0 | 13.0 | 10.0 | 10.0 | 8.5 | 8.5 | 8.5 | 8.5 | 10.0 | 9.5 |
| 8 | 17.5 | 17.5 | 13.0 | 12.5 | 10.0 | 10.0 | 9.0 | 8.5 | 8.5 | 8.5 | 10.0 | 9.5 |
| 9 | 17.5 | 17.5 | 12.5 | 12.5 | 10.0 | 10.0 | 9.0 | 9.0 | 9.0 | 8.5 | 10.5 | 10.0 |
| 10 | 17.5 | 17.5 | 12.5 | 12.5 | 10.5 | 10.0 | 9.0 | 9.0 | 9.0 | 9.0 | 10.5 | 10.5 |
| 11 | 17.5 | 17.5 | 12.5 | 12.5 | 11.0 | 10.5 | 9.0 | 9.0 | 9.0 | 9.0 | 11.0 | 10.5 |
| 12 | 17.5 | 17.0 | 12.5 | 12.5 | 11.0 | 11.0 | 9.0 | 9.0 | 9.5 | 9.0 | 11.5 | 11.0 |
| 13 | 17.0 | 17.0 | 12.5 | 12.0 | 11.0 | 10.5 | 9.0 | 8.5 | 10.0 | 9.5 | 13.0 | 11.5 |
| 14 | 17.0 | 16.0 | 12.0 | 12.0 | 10.0 | 9.5 | 9.0 | 8.5 | 11.0 | 10.0 | 13.5 | 13.0 |
| 15 | 16.0 | 14.5 | 12.0 | 11.5 | 9.5 | 9.5 | 8.5 | 8.5 | 11.5 | 11.0 | 14.0 | 13.5 |
| 16 | 14.5 | 13.5 | 11.5 | 11.5 | 9.5 | 9.0 | 8.5 | 8.5 | 12.0 | 11.5 | 14.0 | 14.0 |
| 17 | 13.5 | 13.0 | 11.5 | 11.5 | 9.0 | 9.0 | 8.5 | 8.5 | 12.5 | 12.0 | 14.0 | 14.0 |
| 18 | 13.0 | 13.0 | 11.5 | 11.5 | 9.0 | 9.0 | 8.5 | 8.5 | 12.5 | 12.5 | 14.0 | 14.0 |
| 19 | 13.0 | 12.5 | 11.5 | 11.5 | 9.0 | 8.5 | 8.5 | 8.5 | 12.5 | 12.5 | 14.0 | 14.0 |
| 20 | 12.5 | 12.5 | 11.5 | 11.5 | 8.5 | 8.5 | 8.5 | 8.5 | 12.5 | 12.5 | 15.0 | 14.0 |
| 21 | 13.0 | 12.5 | 11.5 | 11.5 | 8.5 | 8.5 | 8.5 | 8.5 | 12.0 | 12.0 | 15.0 | 15.0 |
| 22 | 13.0 | 13.0 | 11.5 | 11.5 | 8.5 | 8.5 | 8.5 | 8.5 | 12.0 | 12.0 | 15.0 | 14.5 |
| 23 | 13.5 | 13.0 | 11.5 | 11.0 | 8.5 | 8.5 | 8.5 | 8.5 | 12.5 | 12.0 | 14.5 | 14.5 |
| 24 | 14.0 | 13.0 | 11.0 | 11.0 | 8.5 | 8.5 | 8.5 | 8.5 | 13.0 | 12.5 | 14.5 | 14.5 |
| 25 | 14.5 | 14.0 | 11.0 | 11.0 | 8.5 | 8.5 | 8.5 | 8.5 | 13.0 | 13.0 | 14.5 | 14.0 |
| 26 | 15.0 | 14.5 | 11.0 | 10.5 | 8.5 | 8.5 | 8.5 | 8.5 | 13.0 | 13.0 | 14.0 | 12.5 |
| 27 | 15.0 | 15.0 | 10.5 | 10.0 | 8.5 | 8.5 | 8.5 | 8.5 | 13.0 | 13.0 | 12.5 | 11.5 |
| 28 | 15.0 | 14.5 | 10.0 | 10.0 | 8.5 | 8.5 | 8.5 | 8.5 | 13.0 | 13.0 | 11.5 | 11.0 |
| 29 | 14.5 | 14.0 | 10.0 | 9.5 | 8.5 | 8.5 | 9.0 | 8.5 | --- | --- | 11.5 | 10.5 |
| 30 | 14.0 | 13.5 | 9.5 | 9.5 | 8.5 | 8.5 | 9.0 | 9.0 | --- | --- | 12.0 | 11.5 |
| 31 | 13.5 | 13.5 | --- | --- | 8.5 | 8.5 | 9.0 | 9.0 | --- | --- | 13.0 | 12.0 |
| MONTH | 17.5 | 12.5 | 13.5 | 9.5 | 11.0 | 8.5 | 9.0 | 8.5 | 13.0 | 8.5 | 15.0 | 9.5 |

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

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

[illegible]

SACRAMENTO RIVER BASIN

11390672 STONE CORRAL CREEK NEAR SITES, CA

LOCATION.--Lat 39°17'18", long 122°18'00", in NW 1/4 NW 1/4 sec.34, T.17 N., R.4 W., Colusa County, Hydrologic Unit 18020104, on left bank at road bridge, 2.4 mi southeast of Sites.

DRAINAGE AREA.--38.2 mi².

PERIOD OF RECORD.--March 1958 to September 1964, October 1965 to September 1985 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 180 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No known diversion or regulation above station.

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

AVERAGE DISCHARGE.--26 years (water years 1959-64, 1966-85), 9.02 ft³/s, 6,530 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,700 ft³/s, Jan. 26, 1983, gage height, 16.64 ft, from rating curve extended above 1,200 ft³/s on basis of slope-conveyance study at gage height 13.0 ft and a slope-area measurement at 16.45 ft; no flow for several months in each year.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 13.0 ft from floodmarks, discharge, 1,940 ft³/s from slope-conveyance study.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 38 ft³/s, Mar. 26, gage height, 5.02 ft; no flow many days during the year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|-------|------|-------|-------|------|------|-------|------|-----|-----|
| 1 | | 0 | .36 | .25 | .25 | .25 | .48 | .14 | 0 | | | |
| 2 | | 0 | 1.8 | .25 | .25 | .25 | .44 | .12 | .01 | | | |
| 3 | | 0 | 13 | .25 | .25 | .25 | .40 | .12 | 0 | | | |
| 4 | | 0 | 4.1 | .25 | .25 | .25 | .36 | .12 | 0 | | | |
| 5 | | 0 | 2.5 | .25 | .22 | .25 | .32 | .12 | 0 | | | |
| 6 | | 0 | 1.3 | .25 | .22 | .44 | .28 | .12 | 0 | | | |
| 7 | | 0 | .85 | .46 | .28 | .48 | .28 | .14 | 0 | | | |
| 8 | | 0 | .68 | .53 | 7.7 | .40 | .25 | .14 | 0 | | | |
| 9 | | 0 | .53 | .36 | 3.6 | .32 | .25 | .14 | 0 | | | |
| 10 | | 0 | 11 | .36 | 1.3 | 1.3 | .25 | .14 | 0 | | | |
| 11 | | 0 | 4.1 | .32 | .80 | 4.2 | .25 | .14 | 0 | | | |
| 12 | | 0 | 2.0 | .28 | .68 | 1.8 | .19 | .12 | 0 | | | |
| 13 | | 0 | 1.2 | .28 | .48 | .91 | .19 | .11 | 0 | | | |
| 14 | | 0 | .80 | .28 | .48 | .63 | .19 | .08 | 0 | | | |
| 15 | | 0 | .80 | .28 | .48 | .48 | .19 | .06 | 0 | | | |
| 16 | | 0 | .63 | .28 | .48 | .36 | .19 | .08 | 0 | | | |
| 17 | | 0 | .53 | .28 | .40 | .32 | .19 | .08 | 0 | | | |
| 18 | | 0 | .53 | .28 | .36 | .32 | .22 | .06 | 0 | | | |
| 19 | | 0 | .44 | .28 | .36 | .28 | .25 | .08 | 0 | | | |
| 20 | | 0 | .40 | .28 | .32 | .25 | .22 | .06 | 0 | | | |
| 21 | | 0 | .36 | .28 | .32 | .25 | .22 | .04 | 0 | | | |
| 22 | | 0 | .36 | .28 | .28 | .25 | .22 | .04 | 0 | | | |
| 23 | | 0 | .36 | .28 | .25 | .25 | .19 | .04 | 0 | | | |
| 24 | | 0 | .36 | .25 | .25 | .25 | .19 | .03 | 0 | | | |
| 25 | | 0 | .36 | .25 | .25 | .25 | .19 | .04 | 0 | | | |
| 26 | | 0 | .36 | .25 | .25 | 4.3 | .16 | .04 | 0 | | | |
| 27 | | 1.3 | .44 | .25 | .25 | 11 | .16 | .04 | 0 | | | |
| 28 | | 10 | .36 | .25 | .25 | 2.0 | .14 | .04 | 0 | | | |
| 29 | | 1.9 | .32 | .25 | --- | .97 | .14 | .03 | 0 | | | |
| 30 | | .74 | .25 | .25 | --- | .80 | .14 | .02 | 0 | | | |
| 31 | | --- | .25 | .25 | --- | .58 | --- | .03 | --- | | | |
| TOTAL | 0 | 13.94 | 51.33 | 8.89 | 21.26 | 34.64 | 7.14 | 2.56 | 0.01 | 0 | 0 | 0 |
| MEAN | 0 | .46 | 1.66 | .29 | .76 | 1.12 | .24 | .083 | .000 | 0 | 0 | 0 |
| MAX | 0 | 10 | 13 | .53 | 7.7 | 11 | .48 | .14 | .01 | 0 | 0 | 0 |
| MIN | 0 | 0 | .25 | .25 | .22 | .25 | .14 | .02 | 0 | 0 | 0 | 0 |
| AC-FT | 0 | 28 | 102 | 18 | 42 | 69 | 14 | 5.1 | .02 | 0 | 0 | 0 |
| CAL YR 1984 | TOTAL | 1308.58 | MEAN | 3.58 | MAX | 99 | MIN | 0 | AC-FT | 2600 | | |
| WTR YR 1985 | TOTAL | 139.77 | MEAN | .38 | MAX | 13 | MIN | 0 | AC-FT | 277 | | |

11394500 MIDDLE FORK FEATHER RIVER NEAR MERRIMAC, CA

LOCATION.--Lat 39°42'30", long 121°16'10", in NW 1/4 NE 1/4 sec.2, T.21 N., R.6 E., Butte County, Hydrologic Unit 18020123, Plumas National Forest, on left bank 400 ft downstream from bridge on Milsap Bar Road, 500 ft downstream from Little North Fork, 4.5 mi southeast of Merrimac, and 20 mi northeast of Oroville.

DRAINAGE AREA.--1,062 mi².

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

REVISED RECORDS.--WSP 1931: 1960, drainage area. WDR CA-68-2: 1956(M), 1963(M).

GAGE.--Water-stage recorder. Elevation of gage is 1,560 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Jan. 21, 1965, on right bank at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Diversions above station for irrigation of about 1,000 acres between stations near Clio and near Merrimac. Flow partly regulated by Antelope Lake beginning in 1963, Lake Davis beginning in 1966, and Frenchman Lake beginning in 1961.

AVERAGE DISCHARGE.--34 years, 1,464 ft³/s, 1,061,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 86,200 ft³/s, Dec. 22, 1964, gage height, 26.5 ft, from floodmarks, present site, from rating curve extended above 19,000 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 51 ft³/s, Sept. 14, 15, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 10, 1937, reached a stage of 19.4 ft, from floodmarks, discharge, 46,100 ft³/s.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 7,000 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|---|------|-----------------------------------|---------------------|------|------|-----------------------------------|---------------------|
| Apr. 15 | 0400 | *3,640 | *8.51 | | | | |
| Minimum daily, 143 ft ³ /s, Aug. 29, 30. | | | | | | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|-------|-------|-------|--------|-------|-------|--------|------|-------|
| 1 | 285 | 334 | 1380 | 494 | 434 | 1180 | 1700 | 1930 | 731 | 270 | 181 | 150 |
| 2 | 299 | 800 | 1180 | 502 | 447 | 1230 | 2280 | 2060 | 709 | 269 | 181 | 149 |
| 3 | 280 | 995 | 1030 | 501 | 435 | 1090 | 2960 | 2080 | 700 | 262 | 179 | 154 |
| 4 | 303 | 608 | 918 | 486 | 430 | 1030 | 3260 | 1900 | 665 | 255 | 175 | 156 |
| 5 | 295 | 474 | 842 | 489 | 405 | 1010 | 3390 | 1800 | 656 | 250 | 172 | 156 |
| 6 | 283 | 560 | 784 | 489 | 426 | 970 | 3410 | 1780 | 646 | 239 | 169 | 158 |
| 7 | 280 | 677 | 730 | 552 | 616 | 946 | 3330 | 1710 | 631 | 232 | 168 | 162 |
| 8 | 275 | 736 | 711 | 533 | 2160 | 857 | 3170 | 1600 | 638 | 229 | 164 | 372 |
| 9 | 270 | 662 | 692 | 524 | 1430 | 849 | 3120 | 1510 | 593 | 225 | 165 | 409 |
| 10 | 273 | 595 | 809 | 524 | 967 | 900 | 3180 | 1400 | 566 | 218 | 161 | 337 |
| 11 | 512 | 1150 | 1030 | 517 | 804 | 924 | 3060 | 1290 | 540 | 214 | 162 | 251 |
| 12 | 511 | 1250 | 934 | 504 | 741 | 953 | 2890 | 1250 | 540 | 216 | 161 | 226 |
| 13 | 386 | 1740 | 839 | 494 | 743 | 1020 | 2980 | 1260 | 494 | 218 | 160 | 213 |
| 14 | 366 | 1360 | 767 | 479 | 744 | 1050 | 3280 | 1320 | 467 | 210 | 162 | 207 |
| 15 | 343 | 972 | 746 | 484 | 760 | 1090 | 3440 | 1340 | 448 | 203 | 162 | 198 |
| 16 | 359 | 933 | 745 | 475 | 795 | 1130 | 3260 | 1290 | 435 | 194 | 160 | 194 |
| 17 | 389 | 873 | 673 | 466 | 815 | 1180 | 2810 | 1270 | 430 | 192 | 157 | 193 |
| 18 | 364 | 1010 | 605 | 470 | 829 | 1330 | 2490 | 1270 | 418 | 191 | 158 | 193 |
| 19 | 357 | 893 | 622 | 477 | 851 | 1530 | 2440 | 1250 | 389 | 191 | 160 | 193 |
| 20 | 391 | 818 | 600 | 484 | 902 | 1580 | 2150 | 1240 | 365 | 192 | 161 | 192 |
| 21 | 393 | 802 | 604 | 496 | 895 | 1590 | 1960 | 1200 | 352 | 205 | 159 | 190 |
| 22 | 368 | 734 | 562 | 497 | 919 | 1480 | 1940 | 1170 | 339 | 217 | 157 | 189 |
| 23 | 356 | 681 | 553 | 495 | 939 | 1430 | 1820 | 1160 | 329 | 222 | 156 | 186 |
| 24 | 347 | 1170 | 552 | 491 | 956 | 1580 | 1800 | 1140 | 320 | 208 | 156 | 185 |
| 25 | 343 | 1110 | 545 | 487 | 1010 | 1620 | 1720 | 1080 | 310 | 196 | 152 | 184 |
| 26 | 347 | 862 | 544 | 505 | 1050 | 1520 | 1600 | 1010 | 300 | 189 | 150 | 181 |
| 27 | 354 | 1160 | 535 | 475 | 1080 | 1490 | 1590 | 937 | 290 | 199 | 147 | 182 |
| 28 | 342 | 2760 | 526 | 497 | 1130 | 1330 | 1720 | 883 | 285 | 205 | 144 | 181 |
| 29 | 369 | 1700 | 511 | 486 | --- | 1210 | 1810 | 898 | 284 | 187 | 143 | 176 |
| 30 | 362 | 1410 | 520 | 461 | --- | 1220 | 1810 | 840 | 273 | 181 | 143 | 176 |
| 31 | 344 | --- | 505 | 448 | --- | 1370 | --- | 767 | --- | 181 | 147 | --- |
| TOTAL | 10746 | 29829 | 22594 | 15282 | 23713 | 37689 | 76370 | 41635 | 14143 | 6660 | 4972 | 6093 |
| MEAN | 347 | 994 | 729 | 493 | 847 | 1216 | 2546 | 1343 | 471 | 215 | 160 | 203 |
| MAX | 512 | 2760 | 1380 | 552 | 2160 | 1620 | 3440 | 2080 | 731 | 270 | 181 | 409 |
| MIN | 270 | 334 | 505 | 448 | 405 | 849 | 1590 | 767 | 273 | 181 | 143 | 149 |
| AC-FT | 21310 | 59170 | 44820 | 30310 | 47030 | 74760 | 151500 | 82580 | 28050 | 13210 | 9860 | 12090 |
| CAL YR 1984 | TOTAL | 466332 | MEAN | 1274 | MAX | 7680 | MIN | 224 | AC-FT | 925000 | | |
| WTR YR 1985 | TOTAL | 289726 | MEAN | 794 | MAX | 3440 | MIN | 143 | AC-FT | 574700 | | |

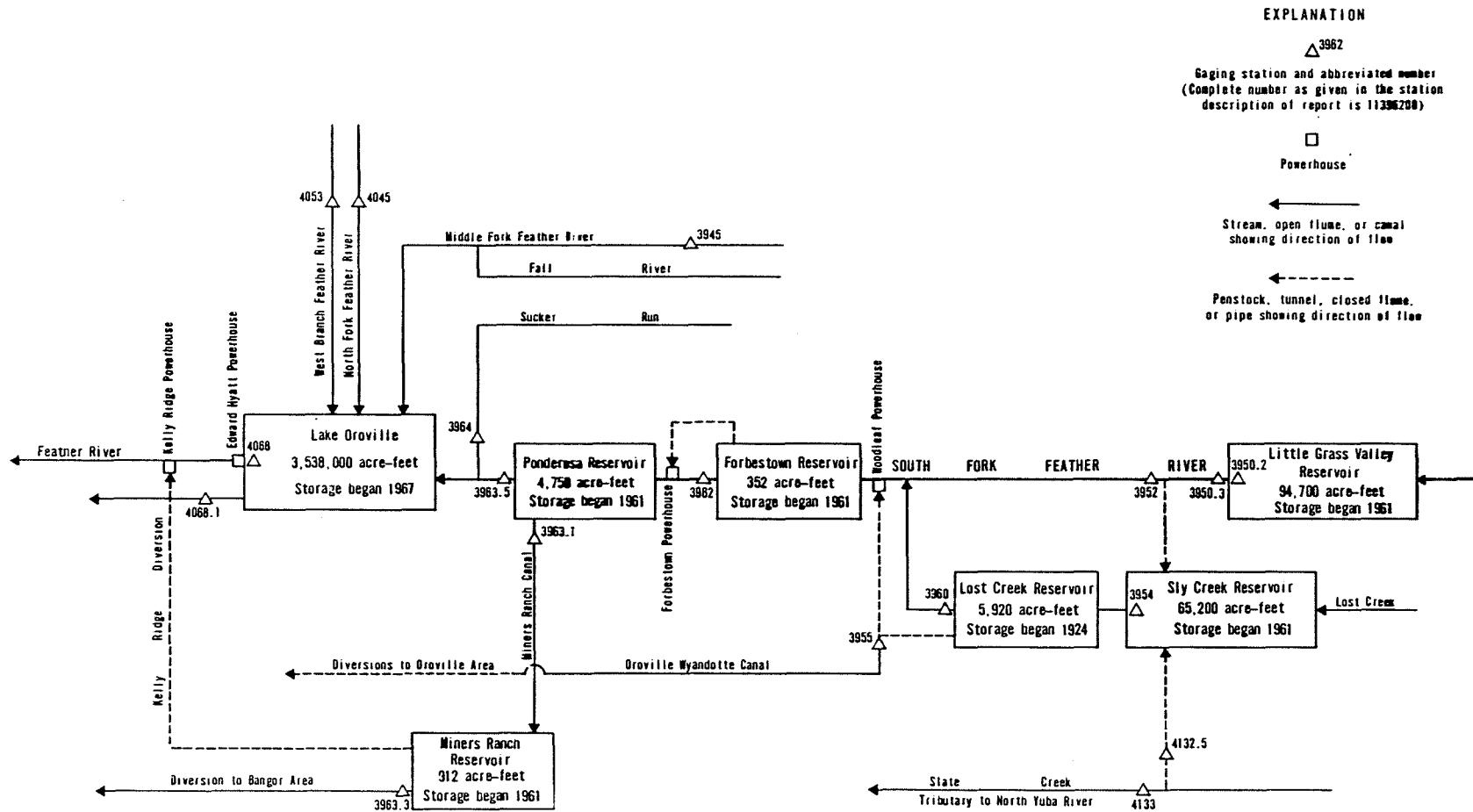


FIGURE 25. — Schematic diagram showing diversions and storage in South Fork Feather River basin.

11395020 LITTLE GRASS VALLEY RESERVOIR NEAR LA PORTE, CA

LOCATION.--Lat 39°43'25", long 121°01'10", in SE 1/4 NW 1/4 sec.31, T.22 N., R.9 E., Plumas County, Hydrologic Unit 18020123, Plumas National Forest, on right bank 300 ft upstream from dam on South Fork Feather River, 3.3 mi northwest of La Porte.

DRAINAGE AREA.--25.8 mi².

PERIOD OF RECORD.--October 1961 to current year. Monthend elevation and contents only October 1961 to October 1962.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Oroville-Wyandotte Irrigation District). Prior to Nov. 1, 1962, in valve chamber in dam at same datum.

REMARKS.--Reservoir is formed by rockfill dam. Storage began in October 1961. Total capacity, 93,000 acre-ft between elevations 4,876 ft invert of release valve, and 5,047 ft top of spillway gates, all of which is available for release. Water is released down South Fork Feather River for power development and irrigation downstream. Records, including extremes, represent contents at 2400 hours. See schematic diagram of South Fork Feather River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 96,100 acre-ft, Apr. 29, 1965, elevation, 5,047.9 ft; minimum since reservoir first filled, 30,300 acre-ft, on many days in 1977, elevation, 4,994.8 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 58,900 acre-ft, June 13, elevation, 5,022.3 ft; minimum, 30,500 acre-ft, Jan. 2, elevation, 4,995.1 ft.

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

| | |
|-------|--------|
| 4,990 | 26,300 |
| 5,000 | 34,600 |
| 5,010 | 44,400 |
| 5,020 | 55,900 |
| 5,030 | 68,900 |
| 5,040 | 83,500 |
| 5,048 | 96,300 |

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 36800 | 35400 | 39900 | 30800 | 31300 | 32400 | 36200 | 51500 | 58500 | 58200 | 57100 | 55700 |
| 2 | 36400 | 35900 | 40000 | 30500 | 31300 | 32600 | 36400 | 52000 | 58500 | 58200 | 57100 | 55700 |
| 3 | 36400 | 36000 | 40000 | 30600 | 31300 | 32700 | 36600 | 52400 | 58600 | 58200 | 57100 | 55400 |
| 4 | 36300 | 36000 | 40100 | 30600 | 31300 | 32800 | 36800 | 52900 | 58600 | 58200 | 56900 | 55000 |
| 5 | 36300 | 36000 | 40200 | 30600 | 31300 | 32800 | 37300 | 53400 | 58700 | 58200 | 56900 | 54500 |
| 6 | 36200 | 36200 | 40200 | 30600 | 31300 | 33000 | 37800 | 53700 | 58700 | 58100 | 56900 | 54000 |
| 7 | 36200 | 36300 | 40300 | 30700 | 31300 | 33100 | 38300 | 54000 | 58700 | 58100 | 56800 | 53700 |
| 8 | 36100 | 36400 | 40300 | 30800 | 31400 | 33200 | 38900 | 54400 | 58700 | 58100 | 56800 | 53500 |
| 9 | 36100 | 36400 | 40300 | 30800 | 31500 | 33200 | 39500 | 54700 | 58700 | 58100 | 56800 | 53100 |
| 10 | 36200 | 36500 | 40300 | 30800 | 31500 | 33300 | 40200 | 55000 | 58700 | 58000 | 56700 | 52800 |
| 11 | 36100 | 36800 | 40200 | 30800 | 31500 | 33400 | 40800 | 55200 | 58700 | 58000 | 56700 | 52300 |
| 12 | 36100 | 37000 | 39900 | 30800 | 31600 | 33500 | 41400 | 55400 | 58700 | 58000 | 56700 | 51900 |
| 13 | 36100 | 37400 | 39600 | 30800 | 31600 | 33600 | 42100 | 55700 | 58900 | 58000 | 56500 | 51400 |
| 14 | 36000 | 37600 | 39300 | 30800 | 31600 | 33700 | 42900 | 56000 | 58700 | 57800 | 56500 | 51100 |
| 15 | 36000 | 37700 | 39200 | 30800 | 31700 | 33700 | 43700 | 56300 | 58700 | 57800 | 56500 | 50600 |
| 16 | 36000 | 37800 | 38900 | 30800 | 31700 | 33700 | 44300 | 56400 | 58700 | 57700 | 56400 | 50200 |
| 17 | 35900 | 38000 | 38600 | 30800 | 31800 | 33800 | 45100 | 56700 | 58700 | 57700 | 56400 | 49700 |
| 18 | 35900 | 38100 | 38300 | 30900 | 31800 | 33900 | 45700 | 56900 | 58700 | 57700 | 56400 | 49200 |
| 19 | 35900 | 38200 | 37800 | 30900 | 31800 | 34000 | 46300 | 57100 | 58700 | 57700 | 56300 | 48900 |
| 20 | 35900 | 38400 | 37300 | 30900 | 31900 | 34100 | 46700 | 57300 | 58700 | 57600 | 56300 | 48400 |
| 21 | 35800 | 38500 | 36700 | 30900 | 31900 | 34200 | 47300 | 57400 | 58700 | 57600 | 56300 | 48000 |
| 22 | 35800 | 38500 | 36200 | 30900 | 32000 | 34300 | 47800 | 57600 | 58600 | 57600 | 56100 | 47500 |
| 23 | 35700 | 38800 | 35600 | 30900 | 32100 | 34400 | 48200 | 57800 | 58600 | 57600 | 56100 | 47100 |
| 24 | 35700 | 38900 | 35100 | 31000 | 32200 | 34700 | 48600 | 58000 | 58500 | 57400 | 56100 | 46600 |
| 25 | 35600 | 38900 | 34400 | 31000 | 32200 | 35000 | 49000 | 58100 | 58500 | 57400 | 56000 | 46200 |
| 26 | 35600 | 39200 | 34000 | 31100 | 32200 | 35300 | 49400 | 58100 | 58500 | 57400 | 56000 | 45700 |
| 27 | 35600 | 39600 | 33500 | 31100 | 32300 | 35600 | 49800 | 58200 | 58500 | 57400 | 55900 | 45500 |
| 28 | 35600 | 39700 | 33000 | 31200 | 32300 | 35800 | 50200 | 58200 | 58400 | 57300 | 55900 | 45500 |
| 29 | 35600 | 39800 | 32400 | 31200 | --- | 35900 | 50600 | 58400 | 58400 | 57300 | 55900 | 45500 |
| 30 | 35600 | 39800 | 31800 | 31200 | --- | 36000 | 51100 | 58500 | 58200 | 57200 | 55800 | 45400 |
| 31 | 35500 | --- | 31300 | 31300 | --- | 36100 | --- | 58500 | --- | 57100 | 55800 | --- |
| MAX | 36800 | 39800 | 40300 | 31300 | 32300 | 36100 | 51100 | 58500 | 58900 | 58200 | 57100 | 55700 |
| MIN | 35500 | 35400 | 31300 | 30500 | 31300 | 32400 | 36200 | 51500 | 58200 | 57100 | 55800 | 45400 |
| a | 5000.9 | 5005.3 | 4996.1 | 4996.0 | 4997.3 | 5001.5 | 5015.8 | 5022.0 | 5021.8 | 5020.9 | 5019.9 | 5010.8 |
| b | -2200 | +4300 | -8500 | 0 | +1000 | +3800 | +15000 | +7400 | -300 | -1100 | -1300 | -10400 |
| CAL YR 1984 | b | -45500 | | | | | | | | | | |
| WTR YR 1985 | b | +7700 | | | | | | | | | | |

a Elevation, in feet NGVD, at end of month.
b Change in contents, in acre-feet.

11395030 SOUTH FORK FEATHER RIVER BELOW LITTLE GRASS VALLEY DAM, CA

LOCATION.--Lat 39°43'26", long 121°01'16", in SW 1/4 NW 1/4 sec.31, T.22 N., R.9 E., Plumas County, Hydrologic Unit 18020123, Plumas National Forest, on left bank 0.1 mi downstream from Little Grass Valley Dam, and 3.5 mi northwest of La Porte.

DRAINAGE AREA.--25.9 mi².

PERIOD OF RECORD.--October 1927 to September 1933 (published as "near La Porte"), October 1960 to current year.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 4,809.0 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1960, at site 0.4 mi upstream at different datum. Oct. 1, 1960, to Oct. 30, 1962, at present site and datum. Nov. 1, 1962, to May 31, 1966, at site on outlet works at base of Little Grass Valley Dam 0.1 mi upstream at datum 4,850.00 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Little Grass Valley Reservoir (station 11395020) beginning in October 1961. No diversion above station. See schematic diagram of South Fork Feather River basin.

AVERAGE DISCHARGE (adjusted for change in contents in Little Grass Valley Reservoir).--31 years, 102 ft³/s, 73,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,250 ft³/s, Feb. 1, 1963; minimum, 0.2 ft³/s, Oct. 28-31, Nov. 2, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 488 ft³/s, Oct. 1, gage height, 10.07 ft; minimum daily, 8.8 ft³/s, many days in January and February.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | | |
|-------------|-------|---------|--------|-------|-------|-------|-------|------|-------|-------|------|--------|-------|---------|
| 1 | 484 | 21 | 9.7 | 271 | 8.8 | 9.2 | 9.9 | 16 | 13 | 13 | 13 | 13 | | |
| 2 | 230 | 18 | 9.7 | 140 | 8.8 | 9.3 | 10 | 16 | 13 | 13 | 13 | 13 | | |
| 3 | 21 | 9.8 | 9.7 | 9.1 | 8.8 | 9.1 | 11 | 16 | 13 | 13 | 13 | 122 | | |
| 4 | 21 | 9.4 | 9.7 | 8.9 | 8.8 | 9.2 | 12 | 16 | 13 | 13 | 13 | 209 | | |
| 5 | 21 | 9.4 | 9.7 | 8.8 | 8.8 | 9.2 | 12 | 16 | 13 | 13 | 13 | 209 | | |
| 6 | 21 | 9.6 | 9.4 | 8.8 | 8.8 | 9.3 | 12 | 16 | 13 | 13 | 13 | 208 | | |
| 7 | 21 | 9.7 | 9.4 | 8.8 | 8.8 | 9.2 | 12 | 15 | 13 | 13 | 13 | 207 | | |
| 8 | 21 | 9.6 | 9.4 | 8.8 | 8.9 | 9.1 | 12 | 15 | 13 | 13 | 13 | 207 | | |
| 9 | 21 | 9.4 | 9.4 | 8.8 | 8.8 | 9.2 | 13 | 15 | 13 | 13 | 13 | 207 | | |
| 10 | 22 | 9.4 | 9.7 | 8.8 | 8.8 | 9.3 | 12 | 15 | 13 | 13 | 13 | 206 | | |
| 11 | 22 | 12 | 172 | 8.8 | 8.9 | 9.2 | 12 | 15 | 13 | 13 | 13 | 206 | | |
| 12 | 21 | 10 | 172 | 8.8 | 8.9 | 9.3 | 12 | 15 | 13 | 13 | 13 | 206 | | |
| 13 | 22 | 12 | 170 | 8.8 | 9.1 | 9.4 | 13 | 15 | 13 | 13 | 13 | 206 | | |
| 14 | 22 | 11 | 168 | 8.8 | 9.1 | 9.4 | 14 | 15 | 13 | 13 | 13 | 206 | | |
| 15 | 22 | 10 | 168 | 8.8 | 9.1 | 9.4 | 14 | 15 | 13 | 13 | 13 | 206 | | |
| 16 | 21 | 10 | 168 | 8.8 | 9.1 | 9.4 | 13 | 15 | 13 | 13 | 13 | 206 | | |
| 17 | 21 | 10 | 168 | 8.8 | 9.1 | 9.4 | 12 | 15 | 13 | 13 | 13 | 206 | | |
| 18 | 21 | 10 | 168 | 8.8 | 9.1 | 9.4 | 12 | 15 | 13 | 13 | 13 | 205 | | |
| 19 | 21 | 9.9 | 224 | 8.8 | 9.1 | 9.4 | 12 | 15 | 13 | 13 | 13 | 204 | | |
| 20 | 21 | 9.7 | 279 | 8.8 | 9.1 | 9.4 | 11 | 14 | 13 | 13 | 13 | 204 | | |
| 21 | 21 | 9.7 | 279 | 8.8 | 9.2 | 9.5 | 11 | 14 | 13 | 13 | 13 | 204 | | |
| 22 | 21 | 9.7 | 278 | 8.8 | 9.3 | 9.4 | 12 | 14 | 13 | 13 | 13 | 204 | | |
| 23 | 22 | 9.7 | 277 | 8.8 | 9.2 | 9.5 | 12 | 14 | 13 | 13 | 13 | 203 | | |
| 24 | 21 | 9.9 | 277 | 8.8 | 9.1 | 9.8 | 12 | 14 | 13 | 13 | 13 | 202 | | |
| 25 | 21 | 9.7 | 276 | 8.8 | 9.2 | 9.7 | 11 | 14 | 13 | 13 | 13 | 202 | | |
| 26 | 21 | 9.6 | 275 | 9.1 | 9.1 | 9.8 | 11 | 14 | 13 | 13 | 13 | 202 | | |
| 27 | 21 | 9.7 | 274 | 8.8 | 9.3 | 9.7 | 12 | 14 | 13 | 13 | 13 | 91 | | |
| 28 | 21 | 10 | 274 | 8.8 | 9.1 | 9.6 | 12 | 14 | 13 | 13 | 13 | 13 | | |
| 29 | 21 | 9.8 | 273 | 8.8 | --- | 9.6 | 12 | 14 | 13 | 13 | 13 | 13 | | |
| 30 | 21 | 9.7 | 272 | 8.8 | --- | 9.6 | 14 | 14 | 13 | 13 | 13 | 13 | | |
| 31 | 21 | --- | 271 | 8.8 | --- | 9.8 | --- | 13 | --- | 13 | 13 | --- | | |
| TOTAL | 1329 | 317.4 | 5066.1 | 666.9 | 252.2 | 291.8 | 359.9 | 458 | 390 | 403 | 403 | 5003 | | |
| MEAN | 42.9 | 10.6 | 163 | 21.5 | 9.01 | 9.41 | 12.0 | 14.8 | 13.0 | 13.0 | 13.0 | 167 | | |
| MAX | 484 | 21 | 279 | 271 | 9.3 | 9.8 | 14 | 16 | 13 | 13 | 13 | 209 | | |
| MIN | 21 | 9.4 | 9.4 | 8.8 | 8.8 | 9.1 | 9.9 | 13 | 13 | 13 | 13 | 13 | | |
| AC-FT | 2640 | 630 | 10050 | 1320 | 500 | 579 | 714 | 908 | 774 | 799 | 799 | 9920 | | |
| CAL YR 1984 | TOTAL | 49562.5 | MEAN | 135 | MAX | 509 | MIN | 6.8 | AC-FT | 98310 | MEAN | a 72.7 | AC-FT | a 52810 |
| WTR YR 1985 | TOTAL | 14940.3 | MEAN | 40.9 | MAX | 484 | MIN | 8.8 | AC-FT | 29630 | MEAN | a 51.6 | AC-FT | a 37330 |

a Adjusted for change in contents in Little Grass Valley Reservoir.

11395200 SOUTH FORK FEATHER RIVER BELOW DIVERSION DAM, NEAR STRAWBERRY VALLEY, CA

LOCATION.--Lat 39°38'51", long 121°07'04", in NE 1/4 SE 1/4 sec.30, T.21 N., R.8 E., Plumas County, Hydrologic Unit 18020123, Plumas National Forest, on right bank 0.1 mi downstream from diversion dam, 3.1 mi upstream from Rock Creek, and 5.8 mi north of Strawberry Valley.

DRAINAGE AREA.--37.7 mi².

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

REVISED RECORDS.--WDR CA-80-4: 1976(M).

GAGE.--Water-stage recorder and since July 23, 1982, 130° V notch weir. Datum of gage is 3,535.02 ft above National Geodetic Vertical Datum of 1929 (levels by Oroville-Wyandotte Irrigation District).

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Little Grass Valley Reservoir (station 11395020). South Fork diversion tunnel, maximum capacity, about 600 ft³/s 500 ft upstream, diverts to Sly Creek Reservoir (station 11395400); diversion began in November 1961. See schematic diagram of South Fork Feather River basin.

AVERAGE DISCHARGE (adjusted for diversion to South Fork tunnel).--25 years, 160 ft³/s, 115,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 6,330 ft³/s, Jan. 31, 1963, gage height, 13.21 ft, from rating curve extended above 700 ft³/s on basis of computation of peak flow over diversion dam; minimum daily, 0.3 ft³/s, Dec. 25, 1962, to Jan. 2, 1963, Mar. 1-3, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 13 ft³/s, Sept. 8, gage height, 5.05 ft; minimum daily, 5.5 ft³/s, many days in March and April.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | | |
|-------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|------|--------|-------|---------|--------|
| 1 | 11 | 8.5 | 6.4 | 6.8 | 6.1 | 5.6 | 5.7 | 8.2 | 10 | 10 | 10 | 10 | | |
| 2 | 11 | 6.5 | 6.4 | 6.7 | 6.0 | 5.5 | 5.7 | 11 | 10 | 10 | 10 | 10 | | |
| 3 | 10 | 6.3 | 6.4 | 6.3 | 6.1 | 5.5 | 5.7 | 11 | 10 | 10 | 10 | 11 | | |
| 4 | 11 | 6.3 | 6.4 | 6.2 | 6.0 | 5.5 | 5.7 | 11 | 10 | 10 | 10 | 11 | | |
| 5 | 11 | 6.3 | 6.4 | 6.1 | 6.1 | 5.5 | 5.7 | 11 | 10 | 10 | 10 | 11 | | |
| 6 | 11 | 6.3 | 6.4 | 6.1 | 6.1 | 5.5 | 5.8 | 11 | 10 | 10 | 10 | 11 | | |
| 7 | 11 | 6.3 | 6.3 | 6.1 | 6.1 | 5.6 | 5.8 | 11 | 10 | 10 | 10 | 12 | | |
| 8 | 11 | 6.4 | 6.3 | 6.1 | 6.5 | 5.6 | 5.7 | 11 | 10 | 10 | 10 | 12 | | |
| 9 | 11 | 6.3 | 6.3 | 6.1 | 6.3 | 5.5 | 5.7 | 11 | 10 | 10 | 10 | 12 | | |
| 10 | 11 | 6.3 | 6.4 | 6.1 | 6.3 | 5.6 | 5.7 | 11 | 10 | 10 | 10 | 12 | | |
| 11 | 11 | 6.5 | 6.6 | 6.1 | 6.3 | 5.5 | 5.7 | 11 | 10 | 10 | 10 | 12 | | |
| 12 | 11 | 6.5 | 6.6 | 6.1 | 6.3 | 5.5 | 5.7 | 11 | 10 | 10 | 10 | 12 | | |
| 13 | 11 | 6.7 | 6.6 | 6.1 | 6.2 | 5.5 | 5.7 | 11 | 10 | 10 | 10 | 12 | | |
| 14 | 11 | 6.5 | 6.6 | 6.1 | 6.3 | 5.5 | 5.7 | 11 | 10 | 10 | 10 | 12 | | |
| 15 | 11 | 6.4 | 6.6 | 6.1 | 6.3 | 5.5 | 5.7 | 11 | 10 | 10 | 10 | 12 | | |
| 16 | 11 | 6.4 | 6.6 | 6.1 | 6.3 | 5.5 | 5.7 | 11 | 10 | 10 | 10 | 12 | | |
| 17 | 11 | 6.4 | 6.6 | 6.1 | 6.3 | 5.5 | 5.7 | 11 | 10 | 10 | 10 | 12 | | |
| 18 | 11 | 6.5 | 6.6 | 6.1 | 6.3 | 5.7 | 5.7 | 11 | 10 | 10 | 10 | 12 | | |
| 19 | 11 | 6.4 | 6.7 | 6.1 | 6.3 | 5.7 | 5.6 | 11 | 10 | 10 | 10 | 12 | | |
| 20 | 11 | 6.4 | 6.8 | 6.1 | 6.3 | 5.6 | 5.5 | 11 | 10 | 10 | 10 | 11 | | |
| 21 | 11 | 6.4 | 6.8 | 6.1 | 6.3 | 5.6 | 5.6 | 11 | 10 | 10 | 10 | 11 | | |
| 22 | 11 | 6.4 | 6.8 | 6.1 | 6.3 | 5.5 | 5.6 | 11 | 10 | 10 | 10 | 11 | | |
| 23 | 11 | 6.4 | 6.8 | 6.1 | 6.3 | 5.5 | 5.5 | 11 | 10 | 10 | 10 | 11 | | |
| 24 | 11 | 6.6 | 6.8 | 6.1 | 6.3 | 5.7 | 5.5 | 11 | 10 | 10 | 10 | 12 | | |
| 25 | 11 | 6.4 | 6.8 | 6.1 | 6.3 | 5.7 | 5.5 | 11 | 10 | 10 | 10 | 12 | | |
| 26 | 11 | 6.4 | 6.8 | 6.1 | 6.3 | 5.7 | 5.5 | 11 | 10 | 10 | 10 | 12 | | |
| 27 | 11 | 6.7 | 6.8 | 6.1 | 6.3 | 5.7 | 5.5 | 11 | 10 | 10 | 10 | 11 | | |
| 28 | 11 | 6.7 | 6.8 | 6.1 | 5.9 | 5.7 | 5.5 | 11 | 10 | 10 | 10 | 11 | | |
| 29 | 11 | 6.6 | 6.8 | 6.1 | --- | 5.6 | 5.5 | 11 | 10 | 10 | 10 | 11 | | |
| 30 | 11 | 6.4 | 6.8 | 6.1 | --- | 5.6 | 5.6 | 11 | 10 | 10 | 10 | 11 | | |
| 31 | 11 | --- | 6.8 | 6.1 | --- | 5.6 | --- | 10 | --- | 10 | 10 | --- | | |
| TOTAL | 340 | 195.2 | 204.8 | 190.7 | 174.5 | 172.8 | 169.2 | 337.2 | 300 | 310 | 310 | 344 | | |
| MEAN | 11.0 | 6.51 | 6.61 | 6.15 | 6.23 | 5.57 | 5.64 | 10.9 | 10.0 | 10.0 | 10.0 | 11.5 | | |
| MAX | 11 | 8.5 | 6.8 | 6.8 | 6.5 | 5.7 | 5.8 | 11 | 10 | 10 | 10 | 12 | | |
| MIN | 10 | 6.3 | 6.3 | 6.1 | 5.9 | 5.5 | 5.5 | 8.2 | 10 | 10 | 10 | 10 | | |
| AC-FT | 674 | 387 | 406 | 378 | 346 | 343 | 336 | 669 | 595 | 615 | 615 | 682 | | |
| MEAN a | 50.3 | 46.4 | 203 | 38.7 | 34.0 | 49.1 | 95.3 | 36.1 | 19.8 | 16.8 | 15.9 | 188 | | |
| AC-FT a | 3090 | 2760 | 12490 | 2380 | 1890 | 3020 | 5670 | 2220 | 1180 | 1030 | 979 | 11200 | | |
| b | 2420 | 2370 | 12080 | 2000 | 1540 | 2680 | 5330 | 1550 | 590 | 417 | 364 | 10520 | | |
| CAL YR 1984 | TOTAL | 3315.8 | MEAN | 9.06 | MAX | 89 | MIN | 5.2 | AC-FT | 6580 | MEAN a | 175 | AC-FT a | 127300 |
| WTR YR 1985 | TOTAL | 3048.4 | MEAN | 8.35 | MAX | 12 | MIN | 5.5 | AC-FT | 6050 | MEAN a | 66.2 | AC-FT a | 47900 |

a Adjusted for diversion to South Fork tunnel.

b Diversion, in acre-feet, from South Fork Feather River to South Fork diversion tunnel.

SACRAMENTO RIVER BASIN

11395400 SLV CREEK RESERVOIR NEAR STRAWBERRY VALLEY, CA

LOCATION.--Lat 39°35'01", long 121°06'59", in NE 1/4 NE 1/4 sec.19, T.20 N., R.8 E., Butte County, Hydrologic Unit 18020123, Plumas National Forest, on right bank 100 ft upstream from dam on Lost Creek, 1.4 mi northwest of Strawberry Valley.

DRAINAGE AREA.--24.0 mi².

PERIOD OF RECORD.--November 1961 to current year (fragmentary prior to Mar. 14, 1962).

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Oroville-Wyandotte Irrigation District). Prior to Sept. 30, 1966, water-stage recorder in valve chamber inside dam at same datum. Oct. 1, 1966, to December 1974, nonrecording gage read once daily.

REMARKS.--Reservoir is formed by earthfill dam. Storage began in November 1961. Total capacity, 65,600 acre-ft between elevations 3,285 ft invert of outlet, and 3,531 ft top of spillway gate, all of which is available for release. Water is diverted into reservoir from South Fork Feather River through South Fork diversion tunnel and from North Yuba River basin through Slate Creek tunnel (station 11413250). Records, including extremes, show contents at 2400 hours. See schematic diagram of South Fork Feather River basin. Reservoir completely drained Sept. 12 to Oct. 17, 1981, for powerhouse construction.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 65,600 acre-ft, June 22, 1978, elevation, 3,530.9 ft; minimum observed under normal operating conditions since reservoir first filled, 860 acre-ft, Feb. 11, 1976, elevation, 3,320.0 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 50,300 acre-ft, Oct. 3, elevation, 3,504.0 ft; minimum, 10,300 acre-ft, Dec. 25, elevation, 3,394.4 ft.

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

| | | | |
|-------|-------|-------|--------|
| 3,310 | 450 | 3,400 | 11,500 |
| 3,315 | 655 | 3,420 | 16,600 |
| 3,320 | 860 | 3,450 | 26,300 |
| 3,340 | 2,150 | 3,480 | 38,500 |
| 3,360 | 4,300 | 3,510 | 53,400 |
| 3,380 | 7,360 | 3,531 | 65,600 |

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 49600 | 31600 | 21300 | 11700 | 17200 | 20900 | 28600 | 41800 | 44600 | 42300 | 33200 | 19000 |
| 2 | 50200 | 31100 | 20600 | 11900 | 17300 | 20900 | 29500 | 42000 | 44800 | 41900 | 32600 | 18400 |
| 3 | 50300 | 30400 | 20000 | 12100 | 17400 | 20500 | 30100 | 42100 | 45000 | 41300 | 32100 | 18000 |
| 4 | 50200 | 29400 | 19400 | 12300 | 17300 | 20600 | 30600 | 42000 | 45100 | 41000 | 31500 | 17900 |
| 5 | 49800 | 29200 | 18700 | 12500 | 17200 | 20800 | 31400 | 42200 | 45300 | 40700 | 31000 | 17900 |
| 6 | 48900 | 29500 | 17900 | 12600 | 17400 | 21100 | 32000 | 42300 | 45200 | 40800 | 30400 | 17900 |
| 7 | 48100 | 29800 | 16900 | 12900 | 17700 | 21100 | 32600 | 42600 | 45000 | 40800 | 30000 | 18100 |
| 8 | 47400 | 30100 | 16200 | 13000 | 18400 | 20900 | 33100 | 42700 | 45100 | 40500 | 29600 | 18200 |
| 9 | 46900 | 29800 | 15400 | 13200 | 18800 | 20900 | 33700 | 42700 | 45200 | 40000 | 29100 | 18700 |
| 10 | 46800 | 28700 | 15100 | 13400 | 19100 | 21000 | 34100 | 42600 | 45300 | 39600 | 28500 | 19100 |
| 11 | 46400 | 28400 | 15400 | 13600 | 19400 | 21100 | 34500 | 42800 | 45400 | 39200 | 28000 | 19600 |
| 12 | 45500 | 28300 | 15400 | 13800 | 19600 | 21200 | 34800 | 42800 | 45200 | 39000 | 27500 | 20000 |
| 13 | 44700 | 28800 | 15000 | 13900 | 19500 | 21300 | 35200 | 42900 | 44900 | 39000 | 27100 | 20400 |
| 14 | 44200 | 28500 | 14600 | 14100 | 19500 | 21600 | 35700 | 42800 | 44500 | 39000 | 26700 | 20300 |
| 15 | 43800 | 27900 | 14200 | 14300 | 19500 | 21700 | 36100 | 42600 | 44500 | 38500 | 26300 | 20200 |
| 16 | 43300 | 27200 | 13700 | 14400 | 19600 | 22200 | 36700 | 42600 | 44600 | 38200 | 25800 | 20600 |
| 17 | 42900 | 26600 | 13300 | 14600 | 19700 | 22600 | 37300 | 42900 | 44300 | 37900 | 25400 | 21000 |
| 18 | 42100 | 26000 | 12900 | 14800 | 19700 | 22900 | 37500 | 43300 | 44200 | 37700 | 25400 | 21400 |
| 19 | 41300 | 25500 | 12400 | 15000 | 19800 | 23300 | 37500 | 43600 | 44000 | 37300 | 25000 | 21900 |
| 20 | 40600 | 24800 | 11800 | 15100 | 19900 | 23700 | 37500 | 43900 | 44100 | 37300 | 24400 | 22300 |
| 21 | 40200 | 24000 | 11300 | 15300 | 20000 | 24400 | 37500 | 44000 | 43900 | 37300 | 23900 | 22700 |
| 22 | 39500 | 23200 | 10900 | 15500 | 20100 | 24700 | 37700 | 44000 | 43700 | 37000 | 23500 | 23100 |
| 23 | 38500 | 22400 | 10600 | 15700 | 20200 | 25000 | 38200 | 43800 | 43500 | 36700 | 22900 | 23500 |
| 24 | 37500 | 22900 | 10400 | 15800 | 20300 | 25600 | 38500 | 43700 | 43200 | 36400 | 22500 | 23500 |
| 25 | 36800 | 22300 | 10300 | 16000 | 20600 | 25600 | 39000 | 43900 | 43100 | 36100 | 22000 | 23300 |
| 26 | 36700 | 21600 | 10400 | 16200 | 20700 | 26100 | 39200 | 43800 | 43000 | 35800 | 21400 | 23700 |
| 27 | 36600 | 21700 | 11000 | 16400 | 21100 | 26300 | 40000 | 44000 | 42900 | 35500 | 21000 | 24000 |
| 28 | 36200 | 22700 | 11500 | 16500 | 21000 | 26900 | 40700 | 44200 | 42600 | 35000 | 20600 | 24000 |
| 29 | 35400 | 22400 | 11400 | 16700 | --- | 27500 | 41200 | 44100 | 42400 | 34400 | 20200 | 23600 |
| 30 | 34000 | 21900 | 11400 | 16900 | --- | 28000 | 41400 | 44300 | 42400 | 33900 | 19800 | 23200 |
| 31 | 32800 | --- | 11600 | 17000 | --- | 28500 | --- | 44500 | --- | 33600 | 19300 | --- |
| MAX | 50300 | 31600 | 21300 | 17000 | 21100 | 28500 | 41400 | 44500 | 45400 | 42300 | 33200 | 24000 |
| MIN | 32800 | 21600 | 10300 | 11700 | 17200 | 20500 | 28600 | 41800 | 42400 | 33600 | 19300 | 17900 |
| a | 3466.7 | 3437.4 | 3400.4 | 3421.4 | 3434.6 | 3455.8 | 3486.3 | 3492.6 | 3488.4 | 3468.8 | 3429.3 | 3441.3 |
| b | -15900 | -10900 | -10300 | +5400 | +4000 | +7500 | +12900 | +3100 | -2100 | -8800 | -14300 | +3900 |

CAL YR 1984 b -46400

WTR YR 1985 b -25500

a Elevation, in feet NGVD, at end of month.
b Change in contents, in acre-feet.

NOTE.--No elevation record Oct. 20 to Nov. 13, and Dec. 19 to Jan. 6.

11395500 OROVILLE-WYANDOTTE CANAL NEAR CLIPPER MILLS, CA

LOCATION.--Lat 39°33'15", long 121°11'31", in NW 1/4 NE 1/4 sec.33, T.20 N., R.7 E, Butte County, Hydrologic Unit 18020123, in concrete valve house at head of canal, and 2.5 mi north of Clipper Mills.

PERIOD OF RECORD.-- October 1927 to September 1941 (published as Forbestown ditch), October 1953 to current year. Monthly discharge only for October 1953 to September 1961, published with records for Lost Creek near Clipper Mills.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 3,166.0 ft above National Geodetic Vertical Datum of 1929 (levels by Oroville-Wyandotte Irrigation District). Prior to Sept. 30, 1941, nonrecording gages and Oct. 1, 1941, to Nov. 16, 1962, water-stage recorder at sites at different datums 4 mi upstream in abandoned portion of canal, 0.3 mi downstream from Lost Creek Dam.

REMARKS.--No estimated daily discharges. Records good. Water is discharged to canal through valve in Woodleaf penstock. Prior to Nov. 16, 1962, canal diverted from Lost Creek Dam. Water is used for irrigation and domestic supply. Demand for water reduced when a large lumber mill closed at Woodleaf in 1962. See schematic diagram of South Fork Feather River basin.

AVERAGE DISCHARGE.--23 years (water years 1928-41, 1954-62, prior to closure of lumber mill), 21.0 ft³/s, 15,200 ac-ft/yr; 23 years (water years 1963-85), 8.39 ft³/s, 6,080 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 43 ft³/s, Aug. 9 to Sept. 9, 1937, Aug. 13-15, 1977; no flow at times in many years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|------|------|-----|-----|------|-------|-------|------|------|-------|
| 1 | 18 | 7.9 | | | | | 0 | 2.7 | 14 | 19 | 21 | 21 |
| 2 | 18 | 6.8 | | | | | 0 | 2.7 | 14 | 19 | 21 | 21 |
| 3 | 18 | 6.0 | | | | | 0 | 2.7 | 14 | 19 | 20 | 20 |
| 4 | 18 | 6.0 | | | | | 0 | 4.3 | 14 | 21 | 20 | 19 |
| 5 | 17 | 6.1 | | | | | 0 | 6.0 | 14 | 21 | 21 | 12 |
| 6 | 16 | 6.1 | | | | | 0 | 6.1 | 14 | 21 | 22 | 8.4 |
| 7 | 16 | 6.1 | | | | | 0 | 4.9 | 14 | 21 | 22 | 19 |
| 8 | 17 | 5.4 | | | | | 0 | 2.9 | 14 | 21 | 22 | 19 |
| 9 | 17 | 4.9 | | | | | 0 | 2.9 | 14 | 21 | 22 | 16 |
| 10 | 16 | 4.9 | | | | | 0 | 5.7 | 14 | 21 | 22 | 14 |
| 11 | 16 | 4.9 | | | | | 0 | 8.2 | 15 | 21 | 22 | 14 |
| 12 | 16 | 4.9 | | | | | 0 | 8.2 | 16 | 21 | 22 | 14 |
| 13 | 16 | 1.8 | | | | | 0 | 8.2 | 17 | 21 | 22 | 13 |
| 14 | 16 | 0 | | | | | 0 | 8.2 | 17 | 21 | 21 | 13 |
| 15 | 11 | 0 | | | | | 0 | 8.2 | 18 | 21 | 21 | 13 |
| 16 | 7.9 | 0 | | | | | 0 | 8.2 | 17 | 21 | 21 | 13 |
| 17 | 7.9 | 0 | | | | | 0 | 8.2 | 17 | 21 | 21 | 13 |
| 18 | 7.9 | 0 | | | | | 0 | 8.3 | 17 | 21 | 21 | 14 |
| 19 | 6.7 | 0 | | | | | 0 | 8.1 | 18 | 21 | 21 | 15 |
| 20 | 5.9 | 0 | | | | | 0 | 8.2 | 18 | 21 | 21 | 15 |
| 21 | 5.8 | 0 | | | | | 0 | 8.2 | 18 | 21 | 21 | 15 |
| 22 | 5.8 | 0 | | | | | 0 | 8.2 | 18 | 21 | 21 | 15 |
| 23 | 5.8 | 0 | | | | | 0 | 9.4 | 18 | 21 | 21 | 15 |
| 24 | 5.8 | 0 | | | | | 0 | 12 | 18 | 21 | 21 | 15 |
| 25 | 6.9 | 0 | | | | | 0 | 14 | 18 | 21 | 21 | 10 |
| 26 | 7.9 | 0 | | | | | 0 | 14 | 18 | 21 | 21 | 0 |
| 27 | 7.8 | 0 | | | | | 0 | 14 | 18 | 21 | 21 | 0 |
| 28 | 7.9 | 0 | | | | | 0 | 14 | 18 | 21 | 21 | 8.6 |
| 29 | 7.9 | 0 | | | | | 0 | 14 | 19 | 21 | 21 | 15 |
| 30 | 7.9 | 0 | | | | | 1.1 | 14 | 19 | 21 | 21 | 15 |
| 31 | 7.9 | --- | | | | | --- | 14 | --- | 21 | 21 | --- |
| TOTAL | 359.7 | 71.8 | 0 | 0 | 0 | 0 | 1.1 | 258.7 | 492 | 645 | 657 | 415.0 |
| MEAN | 11.6 | 2.39 | 0 | 0 | 0 | 0 | .037 | 8.35 | 16.4 | 20.8 | 21.2 | 13.8 |
| MAX | 18 | 7.9 | 0 | 0 | 0 | 0 | 1.1 | 14 | 19 | 21 | 22 | 21 |
| MIN | 5.8 | 0 | 0 | 0 | 0 | 0 | 0 | 2.7 | 14 | 19 | 20 | 0 |
| AC-FT | 713 | 142 | 0 | 0 | 0 | 0 | 2.2 | 513 | 976 | 1280 | 1300 | 823 |
| CAL YR 1984 | TOTAL | 2497.22 | MEAN | 6.82 | MAX | 23 | MIN | 0 | AC-FT | 4950 | | |
| WTR YR 1985 | TOTAL | 2900.3 | MEAN | 7.95 | MAX | 22 | MIN | 0 | AC-FT | 5750 | | |

SACRAMENTO RIVER BASIN

11396000 LOST CREEK NEAR CLIPPER MILLS, CA

LOCATION.--Lat 39°34'25", long 121°08'26", in SE 1/4 SW 1/4 sec.24, T.20 N., R.7 E., Butte County, Hydrologic Unit 18020123, Plumas National Forest, on left bank 0.3 mi downstream from Lost Creek Reservoir, and 2.8 mi north of Clipper Mills.

DRAINAGE AREA.--30.0 mi².

PERIOD OF RECORD.--October 1927 to September 1941, October 1948 to current year. Records for Woodleaf powerplant from February 1963 to September 1966 in files of Geological Survey.

REVISED RECORDS.--WSP 1395: 1954. WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 3,170 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Records good. Flow regulated by Sly Creek Reservoir (station 11395400) 1.5 mi upstream and Lost Creek Reservoir 0.3 mi upstream, usable capacity, 5,920 acre-ft with flashboards. Water is diverted into Sly Creek Reservoir through South Fork diversion tunnel from South Fork Feather River and through Slate Creek tunnel from North Yuba River basin. Woodleaf tunnel diverts from Lost Creek Reservoir to Woodleaf powerhouse. Oroville-Wyandotte Canal (station 11395500) diverts from Woodleaf penstock for irrigation and domestic use. Records represent seepage, release, or spill from Lost Creek Dam to Lost Creek. See schematic diagram of South Fork Feather River basin.

AVERAGE DISCHARGE.--27 years (water years 1928-41, 1949-61, prior to regulation by Sly Creek Reservoir), 73.0 ft³/s, 52,850 acre-ft/yr; 24 years (water years 1962-85), 24.4 ft³/s, 17,680 acre-ft/yr, unadjusted.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,000 ft³/s, Dec. 22, 1955, gage height, 6.90 ft; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 24 ft³/s, Apr. 16, gage height, 1.37 ft; minimum daily, 0.65 ft³/s, Nov. 19, 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|-------|-------|-------|-------|-------|-------|-------|------|-------|------|
| 1 | .97 | .92 | 1.1 | 1.1 | .77 | .99 | 1.4 | .93 | 1.2 | 1.1 | 1.1 | 1.4 |
| 2 | .94 | 1.3 | 1.1 | 1.1 | .75 | .95 | 1.5 | .93 | 1.1 | 1.1 | 1.1 | 1.4 |
| 3 | .99 | 1.3 | 1.0 | 1.1 | .75 | .93 | 1.5 | .93 | 1.1 | 1.1 | 1.2 | 1.4 |
| 4 | .99 | 1.7 | .99 | 1.1 | .75 | .98 | 1.4 | .93 | 1.0 | 1.2 | 1.3 | 1.4 |
| 5 | .99 | 1.5 | 1.0 | 1.1 | .80 | .96 | 1.3 | 1.0 | .99 | 1.3 | 1.3 | 1.5 |
| 6 | 1.8 | .94 | .99 | .99 | .80 | 1.1 | 1.2 | 1.1 | .99 | 1.2 | 1.3 | 1.8 |
| 7 | 1.3 | .74 | .99 | 1.3 | 1.4 | 1.1 | 1.2 | 1.0 | 1.0 | 1.1 | 1.4 | 1.7 |
| 8 | 1.4 | .82 | .93 | 1.1 | 5.6 | 1.1 | 1.1 | 1.0 | 1.0 | 1.1 | 1.2 | 1.8 |
| 9 | 1.9 | .70 | .93 | .99 | 1.7 | 1.1 | 1.1 | 1.0 | 1.0 | 1.1 | 1.2 | 1.6 |
| 10 | 1.0 | .76 | 1.3 | .95 | 1.4 | 1.4 | 1.1 | 1.1 | .99 | 1.1 | 1.3 | 1.4 |
| 11 | .97 | .92 | 1.1 | .93 | 1.2 | 1.3 | 1.1 | 1.0 | .99 | 1.3 | 1.5 | 1.3 |
| 12 | .91 | .73 | 1.0 | .93 | 1.2 | 1.2 | 1.1 | 1.1 | .99 | 1.5 | 1.6 | 1.3 |
| 13 | .94 | 1.2 | .99 | .93 | 1.1 | 1.3 | 1.1 | 1.0 | 1.1 | 1.2 | 1.4 | 1.3 |
| 14 | 1.2 | .68 | .98 | .92 | 1.1 | 1.3 | 1.1 | .94 | 1.3 | 1.1 | 1.3 | 1.3 |
| 15 | .87 | .66 | 1.0 | .86 | 1.1 | 1.3 | 16 | .96 | 1.6 | 1.1 | 1.3 | 1.4 |
| 16 | 1.1 | .68 | 1.0 | .86 | 1.1 | 1.3 | 20 | 1.2 | 1.2 | 1.2 | 1.3 | 1.4 |
| 17 | .93 | .68 | .99 | .86 | 1.1 | 1.2 | 5.8 | 1.1 | 1.2 | 1.2 | 1.4 | 1.4 |
| 18 | .93 | .76 | .99 | .86 | 1.1 | 1.3 | .99 | .99 | 1.3 | 1.1 | 1.3 | 1.4 |
| 19 | .94 | .65 | .99 | .86 | .99 | 1.3 | 4.3 | .99 | 1.4 | 1.1 | 1.3 | 1.4 |
| 20 | 1.0 | .75 | .99 | .86 | .99 | 1.2 | 6.8 | .99 | 1.3 | 1.2 | 1.3 | 1.3 |
| 21 | 1.5 | .73 | .99 | .86 | .99 | 1.2 | 6.4 | .99 | 1.1 | 1.2 | 1.3 | 1.3 |
| 22 | .86 | .66 | .99 | .86 | .99 | 1.1 | 6.3 | .99 | 1.1 | 1.2 | 1.3 | 1.4 |
| 23 | .86 | .65 | .99 | .86 | .99 | 1.1 | 6.2 | 1.0 | 1.1 | 1.2 | 1.3 | 1.3 |
| 24 | .86 | 1.3 | .99 | .86 | .99 | 1.2 | 1.4 | 1.2 | 1.1 | 1.2 | 1.3 | 1.4 |
| 25 | .86 | .74 | 1.0 | .86 | .99 | 1.1 | 1.4 | 1.3 | 1.3 | 1.2 | 1.3 | 1.4 |
| 26 | .92 | .66 | 1.0 | .89 | .95 | 1.3 | 1.1 | 1.2 | 1.3 | 1.2 | 1.4 | 1.4 |
| 27 | .86 | 2.2 | 1.0 | .86 | .93 | 1.4 | 1.1 | 1.3 | 1.1 | 1.2 | 1.9 | 1.5 |
| 28 | .93 | 1.9 | .99 | .89 | .93 | 1.4 | .99 | 1.2 | 1.1 | 1.2 | 1.5 | 1.5 |
| 29 | .89 | 1.3 | .99 | .86 | --- | 1.5 | .93 | 1.1 | 1.1 | 1.1 | 1.5 | 1.5 |
| 30 | .86 | 1.2 | 1.0 | .82 | --- | 1.4 | .93 | 1.2 | 1.1 | 1.2 | 1.3 | 1.5 |
| 31 | .86 | --- | 1.1 | .75 | --- | 1.4 | --- | 1.2 | --- | 1.1 | 1.4 | --- |
| TOTAL | 32.33 | 29.73 | 31.40 | 29.07 | 33.46 | 37.41 | 97.84 | 32.87 | 34.15 | 36.4 | 41.6 | 43.1 |
| MEAN | 1.04 | .99 | 1.01 | .94 | 1.20 | 1.21 | 3.26 | 1.06 | 1.14 | 1.17 | 1.34 | 1.44 |
| MAX | 1.9 | 2.2 | 1.3 | 1.3 | 5.6 | 1.5 | 20 | 1.3 | 1.6 | 1.5 | 1.9 | 1.8 |
| MIN | .86 | .65 | .93 | .75 | .75 | .93 | .93 | .93 | .99 | 1.1 | 1.1 | 1.3 |
| AC-FT | 64 | 59 | 62 | 58 | 66 | 74 | 194 | 65 | 68 | 72 | 83 | 85 |
| a | 20850 | 28360 | 31250 | 2490 | 6260 | 10140 | 22650 | 9340 | 4840 | 9300 | 14350 | 7080 |
| CAL YR 1984 | TOTAL | 4451.52 | MEAN | 12.2 | MAX | 656 | MIN | .65 | AC-FT | 8830 | | |
| WTR YR 1985 | TOTAL | 479.36 | MEAN | 1.31 | MAX | 20 | MIN | .65 | AC-FT | 951 | | |

a Diversion, in acre-feet, to Woodleaf powerplant, provided by Oroville-Wayndotte Irrigation District.

11396200 SOUTH FORK FEATHER RIVER BELOW FORBESTOWN DAM, CA

LOCATION.--Lat 39°33'05", long 121°12'30", in SE 1/4 NE 1/4 sec.32, T.20 N., R.7 E., Butte County, Hydrologic Unit 18020123, Plumas National Forest, on right bank 500 ft downstream from Forbestown Dam, 0.4 mi upstream from Oroleve Creek, and 4.0 mi northeast of Forbestown.

DRAINAGE AREA.--87.5 mi².

PERIOD OF RECORD.--July 1962 to current year. Records for Forbestown powerplant from February 1963 to September 1966 in files of Geological Survey.

GAGE.--Water-stage recorder. Elevation of gage is 1,690 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: July 23 to Aug. 28. Records good. Flow regulated by Little Grass Valley Reservoir (station 11395020), Sly Creek Reservoir (station 11395400), and smaller reservoirs. Water from North Yuba River basin is imported through Slate Creek tunnel (station 11413250) to Sly Creek Reservoir. Oroville-Wyandotte Canal (station 11395500) diverts above station. Tunnel 600 ft above station diverts most flow through Forbestown powerplant except fishwater releases and uncontrolled spill over Forbestown Fork Feather River basin.

AVERAGE DISCHARGE.--23 years, 65.4 ft³/s, 47,380 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,510 ft³/s, Jan. 31, 1963, gage height, 13.85 ft, in gage well, 15.3 ft, from floodmarks; minimum daily, 0.6 ft³/s, Apr. 4, 1963.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 29 ft³/s, Oct. 5, gage height, 3.45 ft; minimum daily, 5.0 ft³/s, several days in November.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| 1 | 11 | 9.4 | 5.4 | 5.6 | 5.6 | 5.8 | 5.6 | 7.6 | 13 | 11 | 11 | 11 |
| 2 | 11 | 5.1 | 5.4 | 5.6 | 5.6 | 5.7 | 5.7 | 13 | 13 | 11 | 11 | 11 |
| 3 | 12 | 5.1 | 5.4 | 5.6 | 5.6 | 5.7 | 5.7 | 13 | 13 | 11 | 11 | 11 |
| 4 | 22 | 5.0 | 5.5 | 5.6 | 5.6 | 5.7 | 5.7 | 13 | 13 | 11 | 11 | 11 |
| 5 | 22 | 5.0 | 5.6 | 5.6 | 5.6 | 5.7 | 5.6 | 13 | 13 | 11 | 10 | 11 |
| 6 | 11 | 5.1 | 5.4 | 5.6 | 5.6 | 5.6 | 5.6 | 13 | 13 | 11 | 10 | 11 |
| 7 | 11 | 5.0 | 5.5 | 5.7 | 5.6 | 5.7 | 5.5 | 13 | 13 | 10 | 10 | 11 |
| 8 | 11 | 5.1 | 5.6 | 5.6 | 6.2 | 5.6 | 5.5 | 13 | 13 | 11 | 10 | 12 |
| 9 | 11 | 5.0 | 5.6 | 5.6 | 5.8 | 5.6 | 5.5 | 13 | 13 | 11 | 10 | 11 |
| 10 | 11 | 5.0 | 5.6 | 5.6 | 5.7 | 5.7 | 5.6 | 13 | 13 | 11 | 10 | 11 |
| 11 | 11 | 5.1 | 5.6 | 5.6 | 5.7 | 5.7 | 5.6 | 13 | 13 | 10 | 10 | 11 |
| 12 | 11 | 5.0 | 5.6 | 5.6 | 5.7 | 5.7 | 5.5 | 13 | 13 | 11 | 10 | 11 |
| 13 | 11 | 5.2 | 5.6 | 5.6 | 5.6 | 5.7 | 5.5 | 13 | 12 | 11 | 10 | 11 |
| 14 | 11 | 5.2 | 5.6 | 5.6 | 5.6 | 5.7 | 5.5 | 13 | 11 | 10 | 10 | 11 |
| 15 | 11 | 5.2 | 5.6 | 5.7 | 5.7 | 5.6 | 5.5 | 13 | 11 | 10 | 10 | 11 |
| 16 | 11 | 5.2 | 5.7 | 5.7 | 5.7 | 5.6 | 5.5 | 13 | 11 | 10 | 10 | 11 |
| 17 | 11 | 5.2 | 5.7 | 5.7 | 5.7 | 5.6 | 5.5 | 13 | 11 | 10 | 10 | 11 |
| 18 | 11 | 5.4 | 5.7 | 5.7 | 5.7 | 5.6 | 5.5 | 13 | 11 | 10 | 10 | 11 |
| 19 | 11 | 5.2 | 5.6 | 5.7 | 5.7 | 5.6 | 5.4 | 13 | 11 | 10 | 11 | 11 |
| 20 | 11 | 5.3 | 5.6 | 5.7 | 5.7 | 5.7 | 5.4 | 13 | 10 | 10 | 10 | 11 |
| 21 | 11 | 5.4 | 5.6 | 5.7 | 5.7 | 5.6 | 5.4 | 13 | 11 | 10 | 10 | 11 |
| 22 | 11 | 5.4 | 5.6 | 5.7 | 5.7 | 5.7 | 5.3 | 13 | 11 | 10 | 11 | 11 |
| 23 | 11 | 5.4 | 5.6 | 5.6 | 5.7 | 5.7 | 5.4 | 13 | 11 | 10 | 11 | 12 |
| 24 | 11 | 5.5 | 5.6 | 5.6 | 5.7 | 5.7 | 5.3 | 13 | 11 | 10 | 11 | 12 |
| 25 | 11 | 5.4 | 5.6 | 5.6 | 5.7 | 5.6 | 5.3 | 13 | 11 | 10 | 11 | 12 |
| 26 | 12 | 5.4 | 5.6 | 5.6 | 5.6 | 5.7 | 5.3 | 13 | 11 | 10 | 11 | 11 |
| 27 | 11 | 5.6 | 5.6 | 5.6 | 5.7 | 5.8 | 5.3 | 13 | 10 | 10 | 11 | 11 |
| 28 | 11 | 5.4 | 5.6 | 5.6 | 5.7 | 5.7 | 5.3 | 13 | 11 | 11 | 10 | 11 |
| 29 | 12 | 5.4 | 5.6 | 5.6 | --- | 5.7 | 5.3 | 13 | 11 | 11 | 11 | 11 |
| 30 | 12 | 5.4 | 5.6 | 5.6 | --- | 5.6 | 5.3 | 13 | 11 | 11 | 11 | 11 |
| 31 | 12 | --- | 5.6 | 5.6 | --- | 5.6 | --- | 13 | --- | 11 | 11 | --- |
| TOTAL | 368 | 161.1 | 172.9 | 174.5 | 159.2 | 175.7 | 164.1 | 397.6 | 353 | 325 | 324 | 334 |
| MEAN | 11.9 | 5.37 | 5.58 | 5.63 | 5.69 | 5.67 | 5.47 | 12.8 | 11.8 | 10.5 | 10.5 | 11.1 |
| MAX | 22 | 9.4 | 5.7 | 5.7 | 6.2 | 5.8 | 5.7 | 13 | 13 | 11 | 11 | 12 |
| MIN | 11 | 5.0 | 5.4 | 5.6 | 5.6 | 5.6 | 5.3 | 7.6 | 10 | 10 | 10 | 11 |
| AC-FT | 730 | 320 | 343 | 346 | 316 | 349 | 325 | 789 | 700 | 645 | 643 | 662 |
| a | 20560 | 30640 | 33470 | 2510 | 7060 | 11250 | 24990 | 9120 | 3900 | 8870 | 14000 | 6460 |
| CAL YR 1984 | TOTAL | 8665.6 | MEAN | 23.7 | MAX | 784 | MIN | 5.0 | AC-FT | 17190 | | |
| WTR YR 1985 | TOTAL | 3109.1 | MEAN | 8.52 | MAX | 22 | MIN | 5.0 | AC-FT | 6170 | | |

a Diversions, in acre-feet, to Forbestown powerplant, provided by Oroville-Wyandotte Irrigation District.

NOTE.--No stage-discharge relation July 23 to August 28.

SACRAMENTO RIVER BASIN

11396310 MINERS RANCH CANAL BELOW PONDEROSA DAM, NEAR FORBESTOWN, CA

LOCATION.--Lat 39°33'00", long 121°18'20", in SE 1/4 NW 1/4 sec.33, T.20 N., R.6 E., Butte County, Hydrologic Unit 18020123, on right bank 800 ft downstream from Ponderosa Dam, and 3 mi northwest of Forbestown.

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 975 ft, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 1 to Dec. 3. Records good except for period of estimated record, which is fair. Canal diverts from South Fork Feather River at Ponderosa Dam. Water is used for power development and irrigation. See schematic diagram of South Fork Feather River basin.

AVERAGE DISCHARGE.--23 years, 205 ft³/s, 148,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 314 ft³/s, May 13, 1984; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|-------|-------|------|-------|-------|-------|-------|------|-------|-------|------|
| 1 | 270 | 253 | 248 | 252 | 61 | 247 | 251 | 298 | 96 | 180 | 276 | 272 |
| 2 | 228 | 253 | 247 | 180 | 61 | 249 | 253 | 294 | 95 | 210 | 278 | 272 |
| 3 | 152 | 246 | 250 | 86 | 61 | 265 | 256 | 283 | 94 | 212 | 292 | 273 |
| 4 | 101 | 239 | 254 | 66 | 61 | 256 | 260 | 278 | 93 | 213 | 292 | 272 |
| 5 | 84 | 255 | 254 | 54 | 61 | 261 | 260 | 278 | 93 | 194 | 295 | 271 |
| 6 | 130 | 257 | 253 | 53 | 61 | 255 | 261 | 277 | 94 | 153 | 295 | 269 |
| 7 | 226 | 253 | 251 | 52 | 61 | 271 | 261 | 278 | 79 | 154 | 295 | 270 |
| 8 | 274 | 249 | 251 | 70 | 103 | 270 | 261 | 276 | 46 | 183 | 296 | 270 |
| 9 | 276 | 248 | 251 | 111 | 254 | 215 | 260 | 280 | 47 | 211 | 298 | 197 |
| 10 | 276 | 252 | 227 | 138 | 254 | 256 | 265 | 283 | 68 | 211 | 298 | 148 |
| 11 | 276 | 255 | 251 | 101 | 246 | 271 | 262 | 283 | 91 | 210 | 299 | 142 |
| 12 | 244 | 254 | 256 | 55 | 242 | 269 | 258 | 281 | 122 | 164 | 280 | 144 |
| 13 | 245 | 250 | 258 | 55 | 238 | 272 | 259 | 280 | 142 | 102 | 262 | 147 |
| 14 | 275 | 246 | 256 | 54 | 228 | 269 | 262 | 283 | 143 | 98 | 264 | 146 |
| 15 | 266 | 243 | 253 | 54 | 243 | 265 | 260 | 236 | 143 | 151 | 264 | 149 |
| 16 | 256 | 244 | 249 | 54 | 249 | 74 | 264 | 198 | 143 | 198 | 259 | 148 |
| 17 | 250 | 244 | 247 | 54 | 238 | 86 | 264 | 161 | 143 | 197 | 261 | 148 |
| 18 | 244 | 244 | 247 | 54 | 245 | 259 | 260 | 103 | 143 | 209 | 261 | 148 |
| 19 | 244 | 244 | 247 | 53 | 209 | 256 | 259 | 101 | 143 | 160 | 262 | 117 |
| 20 | 246 | 246 | 248 | 53 | 214 | 256 | 260 | 129 | 144 | 100 | 265 | 147 |
| 21 | 249 | 246 | 250 | 53 | 216 | 254 | 262 | 158 | 145 | 97 | 267 | 142 |
| 22 | 249 | 246 | 255 | 54 | 235 | 254 | 263 | 159 | 146 | 158 | 269 | 105 |
| 23 | 253 | 246 | 257 | 54 | 266 | 269 | 264 | 160 | 146 | 211 | 269 | 200 |
| 24 | 254 | 246 | 257 | 54 | 237 | 254 | 267 | 132 | 148 | 211 | 269 | 67 |
| 25 | 254 | 246 | 257 | 54 | 215 | 253 | 273 | 87 | 154 | 210 | 270 | 0 |
| 26 | 254 | 246 | 255 | 54 | 239 | 237 | 277 | 88 | 156 | 242 | 270 | 0 |
| 27 | 249 | 240 | 252 | 54 | 256 | 250 | 274 | 89 | 156 | 243 | 271 | 0 |
| 28 | 250 | 238 | 251 | 54 | 231 | 252 | 260 | 90 | 157 | 251 | 271 | 58 |
| 29 | 222 | 243 | 251 | 124 | --- | 248 | 272 | 92 | 155 | 281 | 271 | 198 |
| 30 | 221 | 243 | 252 | 174 | --- | 249 | 293 | 95 | 155 | 294 | 272 | 200 |
| 31 | 253 | --- | 252 | 108 | --- | 251 | --- | 96 | --- | 294 | 272 | --- |
| TOTAL | 7271 | 7415 | 7787 | 2486 | 5285 | 7593 | 7901 | 6126 | 3680 | 6002 | 8563 | 4920 |
| MEAN | 235 | 247 | 251 | 80.2 | 189 | 245 | 263 | 198 | 123 | 194 | 276 | 164 |
| MAX | 276 | 257 | 258 | 252 | 266 | 272 | 293 | 298 | 157 | 294 | 299 | 271 |
| MIN | 84 | 238 | 227 | 52 | 61 | 74 | 251 | 87 | 46 | 97 | 259 | 0 |
| AC-FT | 14420 | 14710 | 15450 | 4930 | 10480 | 15060 | 15670 | 12150 | 7300 | 11900 | 16980 | 9760 |
| a | 14850 | 14550 | 15100 | 4370 | 10030 | 14380 | 14930 | 9950 | 4330 | 8460 | 13750 | 6620 |

CAL YR 1984 TOTAL 90644.92 MEAN 248 MAX 314 MIN 0 AC-FT 179800
WTR YR 1985 TOTAL 75029 MEAN 206 MAX 299 MIN 0 AC-FT 148800

a Diversion, in acre-feet, to Kelly Ridge powerplant, provided by Oroville-Wyandotte Irrigation District.

11396330 BANGOR CANAL BELOW MINERS RANCH RESERVOIR, NEAR OROVILLE, CA

LOCATION.--Lat 39°30'15", long 121°27'16", in NE 1/4 SW 1/4 sec.18, T.19 N., R.5 E., Butte County, Hydrologic Unit 18020124, on left bank 400 ft downstream from outlet at Miners Ranch Dam, and 5 mi east of Oroville.

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

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 815 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Miners Ranch Reservoir, capacity, 912 acre-ft. Canal completed in November 1962. Water is used for irrigation. See schematic diagram of South Fork Feather River basin.

AVERAGE DISCHARGE.--22 years, 14.5 ft³/s, 10,510 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 65 ft³/s, Aug. 17-20, 1963; no flow for several days in 1965, 1969.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|------|-------|------|-------|-------|------|-------|------|------|------|
| 1 | 12 | 3.2 | 1.7 | 1.8 | 1.7 | 5.1 | 3.9 | 16 | 20 | 18 | 21 | 21 |
| 2 | 11 | 3.1 | 1.7 | 1.6 | 1.7 | 5.1 | 4.3 | 16 | 20 | 18 | 21 | 21 |
| 3 | 10 | 2.7 | 1.7 | 1.7 | 1.7 | 5.1 | 4.7 | 17 | 20 | 19 | 21 | 21 |
| 4 | 10 | 2.6 | 1.7 | 1.4 | 3.5 | 5.1 | 4.7 | 17 | 18 | 19 | 21 | 23 |
| 5 | 10 | 2.6 | 1.7 | .84 | 5.0 | 5.1 | 4.7 | 17 | 17 | 19 | 22 | 22 |
| 6 | 8.3 | 2.6 | 1.8 | .84 | 4.9 | 5.1 | 4.9 | 17 | 17 | 19 | 21 | 21 |
| 7 | 8.7 | 2.7 | 1.9 | .84 | 5.0 | 5.1 | 4.9 | 17 | 16 | 19 | 22 | 21 |
| 8 | 8.1 | 2.8 | 1.9 | .84 | 3.4 | 5.4 | 4.9 | 16 | 17 | 19 | 22 | 21 |
| 9 | 7.2 | 2.8 | 1.9 | .84 | 1.6 | 5.2 | 4.9 | 16 | 17 | 19 | 22 | 18 |
| 10 | 7.8 | 2.8 | 1.9 | .84 | 1.7 | 5.1 | 6.0 | 16 | 17 | 19 | 22 | 17 |
| 11 | 5.8 | 2.8 | 1.9 | 1.5 | 1.7 | 5.1 | 7.0 | 16 | 19 | 19 | 22 | 17 |
| 12 | 3.9 | 2.8 | 1.9 | 2.2 | 1.7 | 5.2 | 7.0 | 16 | 21 | 19 | 22 | 16 |
| 13 | 3.9 | 1.7 | 1.9 | 2.2 | 1.7 | 5.4 | 7.0 | 16 | 21 | 18 | 22 | 14 |
| 14 | 4.2 | 1.5 | 1.9 | 2.2 | 1.7 | 4.7 | 9.4 | 16 | 20 | 19 | 22 | 14 |
| 15 | 4.4 | 1.9 | 1.9 | 2.2 | 1.7 | 3.9 | 11 | 16 | 21 | 19 | 22 | 14 |
| 16 | 4.4 | 1.8 | 1.9 | 2.2 | 1.7 | 3.9 | 11 | 17 | 21 | 20 | 22 | 14 |
| 17 | 3.8 | 1.7 | 1.9 | 2.2 | 1.7 | 3.3 | 9.2 | 18 | 20 | 18 | 21 | 14 |
| 18 | 3.1 | 1.7 | 1.9 | 2.3 | 1.7 | 3.7 | 8.0 | 18 | 20 | 18 | 21 | 14 |
| 19 | 3.3 | 1.7 | 1.9 | 2.4 | 1.6 | 3.7 | 8.4 | 18 | 20 | 18 | 21 | 14 |
| 20 | 3.2 | 1.7 | 1.9 | 2.4 | 1.7 | 3.7 | 9.6 | 18 | 20 | 19 | 21 | 14 |
| 21 | 3.3 | 1.7 | 1.9 | 2.4 | 1.5 | 3.8 | 8.9 | 19 | 19 | 19 | 21 | 14 |
| 22 | 3.3 | 1.7 | 1.9 | 2.4 | 1.4 | 3.9 | 8.4 | 20 | 18 | 19 | 20 | 14 |
| 23 | 3.3 | 1.7 | 1.9 | 2.4 | 1.4 | 3.9 | 9.9 | 20 | 18 | 18 | 21 | 15 |
| 24 | 3.3 | 1.7 | 1.9 | 1.9 | 1.4 | 3.9 | 13 | 20 | 18 | 21 | 21 | 14 |
| 25 | 3.4 | 1.7 | 2.0 | 1.5 | 1.4 | 3.9 | 13 | 22 | 18 | 20 | 22 | 14 |
| 26 | 3.2 | 1.7 | 2.0 | 1.7 | 2.1 | 3.9 | 13 | 22 | 18 | 21 | 22 | 13 |
| 27 | 3.0 | 1.7 | 2.0 | 1.7 | 4.2 | 3.9 | 13 | 23 | 18 | 21 | 22 | 15 |
| 28 | 3.0 | 1.7 | 2.0 | 1.7 | 5.3 | 3.9 | 15 | 21 | 18 | 20 | 22 | 15 |
| 29 | 3.0 | 1.7 | 2.0 | 1.7 | --- | 3.9 | 16 | 20 | 18 | 20 | 21 | 17 |
| 30 | 3.0 | 1.7 | 2.0 | 1.7 | --- | 3.9 | 16 | 20 | 18 | 21 | 21 | 16 |
| 31 | 3.0 | --- | 2.0 | 1.7 | --- | 3.9 | --- | 20 | --- | 21 | 21 | --- |
| TOTAL | 167.9 | 64.2 | 58.5 | 54.14 | 65.8 | 136.8 | 261.7 | 561 | 563 | 596 | 665 | 498 |
| MEAN | 5.42 | 2.14 | 1.89 | 1.75 | 2.35 | 4.41 | 8.72 | 18.1 | 18.8 | 19.2 | 21.5 | 16.6 |
| MAX | 12 | 3.2 | 2.0 | 2.4 | 5.3 | 5.4 | 16 | 23 | 21 | 21 | 22 | 23 |
| MIN | 3.0 | 1.5 | 1.7 | .84 | 1.4 | 3.3 | 3.9 | 16 | 16 | 18 | 20 | 13 |
| AC-FT | 333 | 127 | 116 | 107 | 131 | 271 | 519 | 1110 | 1120 | 1180 | 1320 | 988 |
| CAL YR 1984 | TOTAL | 3373.2 | MEAN | 9.22 | MAX | 24 | MIN | .97 | AC-FT | 6690 | | |
| WTR YR 1985 | TOTAL | 3692.04 | MEAN | 10.1 | MAX | 23 | MIN | .84 | AC-FT | 7320 | | |

SACRAMENTO RIVER BASIN

11396350 SOUTH FORK FEATHER RIVER AT PONDEROSA DAM, CA

LOCATION.--Lat 39°32'52", long 121°18'11", in NW 1/4 SE 1/4 sec.33, T.20 N., R.6 E., Butte County, Hydrologic Unit 18020123, at entrance to Miners Ranch Canal on the left end of Ponderosa Dam, 2,800 ft upstream from Sucker Run, and 2.6 mi northwest of Forbestown.

DRAINAGE AREA.--108 mi².

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

GAGE.--Water-stage recorder, high level sluice gate, and concrete spillway of Ponderosa Dam. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Oroville-Wyandotte Irrigation District). Prior to Oct. 1, 1967, at site 1,800 ft downstream at different datum.

REMARKS.--No estimated daily discharges. Records good except those for April 2-22, which are poor, when releases were made under partially open spillway gates. Records are combined flow through sluice gate and flow over spillway. There was no flow through sluice gate during 1985 water year. Flow regulated by several reservoirs and diversions. Water is imported from North Yuba River basin through Slate Creek tunnel (station 11413250). Miners Ranch Canal (station 11396310) diverts at Ponderosa Dam for power development and irrigation; diversion began in October 1962. See schematic diagram of South Fork Feather River basin.

AVERAGE DISCHARGE (adjusted for diversion to Miners Ranch Canal).--23 years, 471 ft³/s, 341,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,000 ft³/s, Dec. 22, 1964, gage height, 11.52 ft, in gage well, 12.7 ft, outside from floodmarks, site and datum then in use; no flow for several months most years.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 739 ft³/s, Apr. 18; no flow many days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|----------|-------|-------|--------|-------|-------|-------|-------|--------|---------|--------|
| 1 | 0 | 330 | 371 | 4.7 | 0 | | 0 | | | | | |
| 2 | 0 | 354 | 371 | 21 | 0 | | 197 | | | | | |
| 3 | 0 | 362 | 376 | .69 | 0 | | 308 | | | | | |
| 4 | 0 | 249 | 382 | 0 | 0 | | 361 | | | | | |
| 5 | 0 | 0 | 388 | 0 | 0 | | 362 | | | | | |
| 6 | 0 | 0 | 393 | 0 | 0 | | 388 | | | | | |
| 7 | 62 | 0 | 393 | 0 | 0 | | 386 | | | | | |
| 8 | 117 | 0 | 393 | 0 | 323 | | 382 | | | | | |
| 9 | 117 | 109 | 325 | 0 | 132 | | 367 | | | | | |
| 10 | 104 | 300 | 400 | 0 | .47 | | 549 | | | | | |
| 11 | 128 | 344 | 311 | 0 | 0 | | 518 | | | | | |
| 12 | 127 | 339 | 363 | 0 | 0 | | 496 | | | | | |
| 13 | 124 | 405 | 388 | 0 | 0 | | 567 | | | | | |
| 14 | 110 | 382 | 393 | 0 | 0 | | 584 | | | | | |
| 15 | 117 | 329 | 410 | 0 | 0 | | 444 | | | | | |
| 16 | 135 | 314 | 415 | 0 | 0 | | 588 | | | | | |
| 17 | 183 | 305 | 410 | 0 | 0 | | 732 | | | | | |
| 18 | 150 | 319 | 410 | 0 | 0 | | 739 | | | | | |
| 19 | 151 | 339 | 206 | 0 | 0 | | 709 | | | | | |
| 20 | 90 | 355 | 382 | 0 | 0 | | 702 | | | | | |
| 21 | 97 | 360 | 405 | 0 | 0 | | 712 | | | | | |
| 22 | 167 | 360 | 399 | 0 | 0 | | 366 | | | | | |
| 23 | 325 | 355 | 392 | 0 | 0 | | 0 | | | | | |
| 24 | 327 | 405 | 392 | 0 | 0 | | 0 | | | | | |
| 25 | 330 | 388 | 206 | 0 | 0 | | 0 | | | | | |
| 26 | 249 | 350 | 288 | 0 | 0 | | 0 | | | | | |
| 27 | 10 | 405 | 124 | 0 | 0 | | 0 | | | | | |
| 28 | 0 | 344 | 196 | 0 | 0 | | 0 | | | | | |
| 29 | 161 | 412 | 100 | 0 | --- | | 0 | | | | | |
| 30 | 327 | 368 | 98 | 0 | --- | | 0 | | | | | |
| 31 | 330 | --- | 149 | 0 | --- | | --- | | | | | |
| TOTAL | 4038 | 8882 | 10229 | 26.39 | 455.47 | 0 | 10457 | 0 | 0 | 0 | 0 | 0 |
| MEAN | 130 | 296 | 330 | .85 | 16.3 | 0 | 349 | 0 | 0 | 0 | 0 | 0 |
| MAX | 330 | 412 | 415 | 21 | 323 | 0 | 739 | 0 | 0 | 0 | 0 | 0 |
| MIN | 0 | 0 | 98 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC-FT | 8010 | 17620 | 20290 | 52 | 903 | 0 | 20740 | 0 | 0 | 0 | 0 | 0 |
| MEAN a | 365 | 543 | 581 | 81.0 | 205 | 245 | 612 | 198 | 123 | 194 | 276 | 164 |
| AC-FT a | 22430 | 32330 | 35740 | 4980 | 11380 | 15060 | 36410 | 12150 | 7300 | 11900 | 16980 | 9760 |
| CAL YR 1984 | TOTAL | 88931 | MEAN | 243 | MAX | 1390 | MIN | 0 | AC-FT | 176400 | MEAN a | 491 |
| WTR YR 1985 | TOTAL | 34087.86 | MEAN | 93.4 | MAX | 739 | MIN | 0 | AC-FT | 67610 | MEAN a | 299 |
| | | | | | | | | | | | AC-FT a | 216400 |

a Adjusted for diversion to Miners Ranch Canal.

11396400 SUCKER RUN NEAR FORBESTOWN, CA

LOCATION.--Lat 39°33'12", long 121°18'04", in NW 1/4 NE 1/4 sec.33, T.20 N., R.6 E., Butte County, Hydrologic Unit 18020123, on left bank at upstream side of road bridge, 0.7 mi upstream from confluence with South Fork Feather River, and 2.8 mi northwest of Forbestown.

DRAINAGE AREA.--18.7 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 960 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. See schematic diagram of South Fork Feather River basin.

AVERAGE DISCHARGE.--20 years, 28.0 ft³/s, 20,290 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,600 ft³/s, Apr. 11, 1982, gage height, 9.90 ft, from floodmarks, from rating curve extended above 750 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 0.40 ft³/s, Oct. 7, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 7.4 ft from floodmarks, discharge, 2,190 ft³/s from rating curve extended above 600 ft³/s on basis of computation of peak flow over rock control.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 300 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|--|------|--------------------------------|------------------|------|------|--------------------------------|------------------|
| Feb. 8 | 0800 | *550 | *4.37 | | | | |
| Minimum daily, 2.0 ft ³ /s, Sept. 1, 2. | | | | | | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|------|------|------|------|------|-------|-------|-------|------|-------|
| 1 | 8.1 | 9.2 | 18 | 14 | 12 | 17 | 31 | 14 | 9.6 | 4.8 | 3.6 | 2.0 |
| 2 | 7.2 | 17 | 17 | 14 | 13 | 18 | 30 | 13 | 9.8 | 4.7 | 3.5 | 2.0 |
| 3 | 6.9 | 13 | 17 | 14 | 12 | 15 | 27 | 13 | 9.4 | 4.6 | 3.3 | 2.2 |
| 4 | 6.8 | 11 | 16 | 14 | 12 | 17 | 24 | 13 | 8.8 | 4.5 | 3.2 | 2.2 |
| 5 | 6.7 | 10 | 16 | 14 | 12 | 16 | 22 | 13 | 8.6 | 4.4 | 3.1 | 2.2 |
| 6 | 6.8 | 14 | 15 | 14 | 12 | 18 | 21 | 12 | 8.2 | 4.4 | 3.1 | 2.3 |
| 7 | 6.7 | 12 | 15 | 19 | 26 | 21 | 20 | 12 | 7.7 | 4.4 | 3.1 | 2.7 |
| 8 | 6.4 | 19 | 14 | 17 | 276 | 18 | 19 | 12 | 7.6 | 4.3 | 3.1 | 9.7 |
| 9 | 6.4 | 13 | 14 | 16 | 60 | 19 | 18 | 12 | 7.5 | 4.2 | 3.1 | 7.2 |
| 10 | 6.8 | 12 | 22 | 15 | 35 | 31 | 18 | 12 | 7.3 | 4.2 | 3.0 | 5.8 |
| 11 | 12 | 23 | 20 | 15 | 28 | 32 | 18 | 12 | 6.9 | 4.2 | 2.9 | 5.1 |
| 12 | 8.3 | 15 | 18 | 14 | 25 | 26 | 17 | 12 | 6.3 | 4.4 | 2.7 | 4.9 |
| 13 | 8.1 | 35 | 16 | 14 | 23 | 25 | 17 | 12 | 6.5 | 4.2 | 2.6 | 4.7 |
| 14 | 8.2 | 16 | 15 | 14 | 21 | 25 | 16 | 12 | 6.3 | 3.9 | 2.8 | 4.7 |
| 15 | 7.8 | 14 | 17 | 14 | 20 | 24 | 16 | 11 | 6.2 | 3.9 | 2.9 | 4.5 |
| 16 | 11 | 15 | 17 | 13 | 19 | 23 | 16 | 11 | 6.1 | 3.9 | 2.9 | 4.3 |
| 17 | 12 | 14 | 16 | 13 | 19 | 22 | 17 | 11 | 5.9 | 3.8 | 2.9 | 4.4 |
| 18 | 9.6 | 18 | 15 | 13 | 18 | 23 | 16 | 11 | 5.9 | 3.7 | 3.4 | 4.8 |
| 19 | 9.5 | 15 | 15 | 13 | 18 | 21 | 16 | 11 | 5.9 | 3.4 | 3.2 | 4.4 |
| 20 | 10 | 15 | 15 | 12 | 17 | 20 | 16 | 10 | 6.0 | 3.4 | 3.1 | 4.3 |
| 21 | 9.2 | 17 | 15 | 12 | 17 | 19 | 17 | 9.8 | 6.1 | 3.8 | 3.0 | 4.1 |
| 22 | 8.9 | 15 | 15 | 12 | 16 | 18 | 19 | 9.7 | 5.9 | 4.1 | 3.0 | 4.0 |
| 23 | 8.7 | 13 | 15 | 12 | 16 | 18 | 17 | 9.7 | 5.4 | 3.7 | 2.8 | 3.9 |
| 24 | 8.5 | 38 | 15 | 12 | 16 | 21 | 16 | 9.7 | 5.4 | 3.4 | 2.7 | 3.9 |
| 25 | 8.4 | 21 | 15 | 12 | 15 | 19 | 15 | 9.6 | 5.3 | 3.1 | 2.6 | 3.9 |
| 26 | 9.3 | 17 | 15 | 13 | 15 | 27 | 15 | 9.5 | 5.0 | 3.1 | 2.6 | 3.9 |
| 27 | 11 | 63 | 15 | 13 | 15 | 37 | 15 | 9.3 | 4.9 | 3.1 | 2.5 | 3.9 |
| 28 | 9.7 | 57 | 14 | 14 | 15 | 35 | 15 | 9.6 | 4.9 | 3.2 | 2.5 | 4.1 |
| 29 | 12 | 24 | 14 | 14 | --- | 30 | 14 | 10 | 4.9 | 3.3 | 2.5 | 4.1 |
| 30 | 9.8 | 19 | 14 | 13 | --- | 28 | 14 | 9.8 | 4.8 | 3.4 | 2.4 | 4.1 |
| 31 | 9.5 | --- | 14 | 13 | --- | 30 | --- | 9.5 | --- | 3.5 | 2.2 | --- |
| TOTAL | 270.3 | 594.2 | 489 | 426 | 803 | 713 | 552 | 345.2 | 199.1 | 121.0 | 90.3 | 124.3 |
| MEAN | 8.72 | 19.8 | 15.8 | 13.7 | 28.7 | 23.0 | 18.4 | 11.1 | 6.64 | 3.90 | 2.91 | 4.14 |
| MAX | 12 | 63 | 22 | 19 | 276 | 37 | 31 | 14 | 9.8 | 4.8 | 3.6 | 9.7 |
| MIN | 6.4 | 9.2 | 14 | 12 | 12 | 15 | 14 | 9.3 | 4.8 | 3.1 | 2.2 | 2.0 |
| AC-FT | 536 | 1180 | 970 | 845 | 1590 | 1410 | 1090 | 685 | 395 | 240 | 179 | 247 |
| CAL YR 1984 | TOTAL | 9060.8 | MEAN | 24.8 | MAX | 116 | MIN | 5.6 | AC-FT | 17970 | | |
| WTR YR 1985 | TOTAL | 4727.4 | MEAN | 13.0 | MAX | 276 | MIN | 2.0 | AC-FT | 9380 | | |

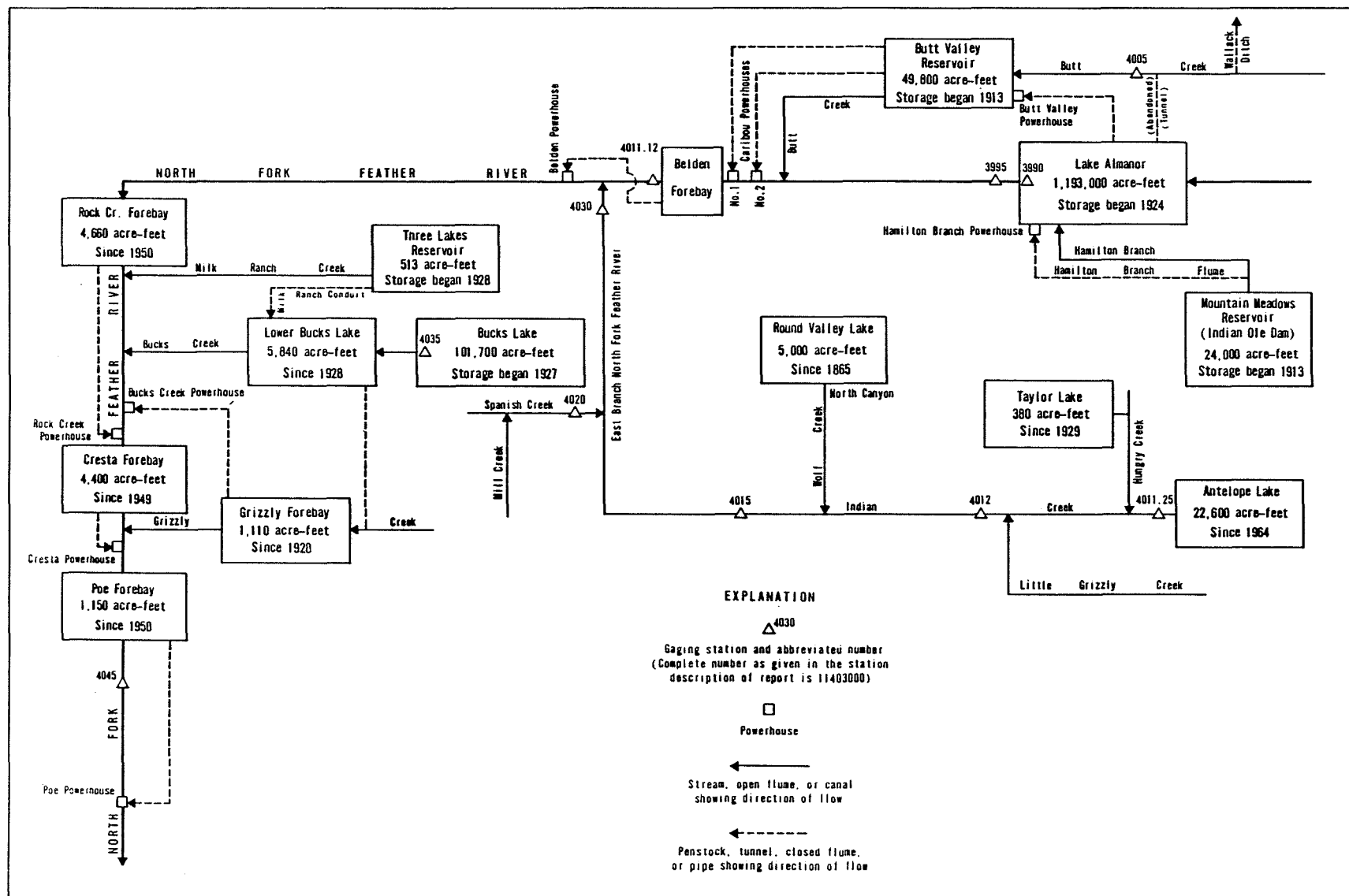


FIGURE 26. — Schematic diagram showing diversions and storage in North Fork Feather River basin.

11399000 LAKE ALMANOR AT PRATTVILLE, CA

LOCATION (REVISED).--Lat 40°12'46", long 121°09'43", in SW 1/4 NE 1/4 sec.11, T.27 N., R.7 E., Plumas County, Hydrologic Unit 18020121, Lassen National Forest, at intake tower to Butt Valley tunnel at Prattville, 4.7 mi northwest of Lake Almanor Dam, and 5.6 mi northwest of Canyon Dam.

DRAINAGE AREA.--491 mi².

PERIOD OF RECORD.--July 1913 to current year. Monthly contents only for some periods, published in WSP 1315-A. Published as "near Prattville" 1937-60. Prior to October 1964, records published as usable contents.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Nonrecording gage read once daily. Datum of gage is 10.23 ft below National Geodetic Vertical Datum of 1929 (levels by Pacific Gas and Electric Co.). Prior to June 1, 1965, nonrecording gage at site 4.7 mi southeast at same datum.

REMARKS.--Lake is formed by earthfill dam; storage began in July 1913; dam raised to gage height 4,455 ft in 1917 and 4,515 ft in 1927. Capacity, 1,183,835 acre-ft between gage heights 4,495.5 ft, upper storage limit and 4,422 ft, bottom of lowest outlet, of which 8,948 acre-ft is not available for release. Water is diverted by tunnel and penstock to Butt Valley powerplant and reservoir for use in Caribou powerplants; some water also released down North Fork Feather River (station 11399500). Figures given herein, including extremes, represent total contents at 2400 hours. See schematic diagram of North Fork Feather River basin.

COOPERATION.--Records were collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project. Contents not rounded to Geological Survey standards.

EXTREMES (at 2400) FOR PERIOD OF RECORD.--Maximum contents, 1,142,960 acre-ft, June 8, 1982, gage height, 4,494.00 ft; minimum, 5,230 acre-ft, Feb. 5, 1918, gage height, 4,416.1 ft.

EXTREMES (at 2400) FOR CURRENT YEAR.--Maximum contents, 921,439 acre-ft, Oct. 1, gage height, 4,485.52 ft; minimum, 635,700 acre-ft, Sept. 30, gage height, 4,473.32 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)

| | | | | | |
|-------|--------|-------|---------|---------|-----------|
| 4,422 | 8,948 | 4,434 | 49,510 | 4,460 | 376,686 |
| 4,424 | 10,067 | 4,437 | 74,189 | 4,470 | 565,519 |
| 4,426 | 11,260 | 4,440 | 101,869 | 4,480 | 787,304 |
| 4,428 | 13,480 | 4,445 | 156,414 | 4,490 | 1,036,269 |
| 4,430 | 21,200 | 4,450 | 220,848 | 4,495.5 | 1,183,835 |
| 4,432 | 34,173 | 4,455 | 294,531 | | |

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1 | 921439 | 898029 | 904481 | 862393 | 813900 | 762197 | 712934 | 765464 | 771311 | 747565 | 673551 | 649677 |
| 2 | 919938 | 899021 | 904729 | 860200 | 814138 | 760333 | 713616 | 765231 | 772952 | 745252 | 671103 | 650555 |
| 3 | 918188 | 899764 | 903487 | 858496 | 813661 | 758005 | 715209 | 765464 | 772952 | 743405 | 668659 | 651214 |
| 4 | 917438 | 900012 | 901749 | 856793 | 811036 | 756145 | 717031 | 765231 | 772248 | 741328 | 666219 | 652093 |
| 5 | 916689 | 897286 | 901501 | 854606 | 813183 | 755912 | 719082 | 765698 | 771780 | 739023 | 663782 | 651653 |
| 6 | 915939 | 899021 | 899764 | 852905 | 807223 | 753822 | 721136 | 765930 | 771545 | 736031 | 661128 | 650994 |
| 7 | 915190 | 897782 | 898277 | 851935 | 808176 | 752894 | 723191 | 766866 | 770609 | 733732 | 659361 | 651433 |
| 8 | 914192 | 897782 | 897039 | 851692 | 810559 | 752666 | 725478 | 767100 | 770843 | 731436 | 656934 | 655833 |
| 9 | 912696 | 896791 | 895306 | 853148 | 811513 | 749880 | 727996 | 767567 | 770140 | 729142 | 654292 | 657375 |
| 10 | 911948 | 899021 | 894563 | 852177 | 810797 | 748491 | 730059 | 767100 | 768502 | 726851 | 651433 | 658257 |
| 11 | 910951 | 901253 | 893821 | 850479 | 808414 | 746177 | 732583 | 768269 | 766866 | 724563 | 648800 | 658919 |
| 12 | 908958 | 904481 | 891844 | 848297 | 806271 | 743405 | 734881 | 769906 | 766398 | 722049 | 647047 | 659361 |
| 13 | 907216 | 907713 | 890362 | 846602 | 804129 | 740406 | 736951 | 770140 | 765464 | 719994 | 647923 | 660244 |
| 14 | 906967 | 908958 | 888881 | 844655 | 801990 | 737872 | 739253 | 770843 | 764764 | 717031 | 648361 | 660907 |
| 15 | 904481 | 910701 | 889621 | 842972 | 799853 | 734881 | 742251 | 770609 | 763830 | 714526 | 649019 | 660686 |
| 16 | 903984 | 912197 | 889375 | 841522 | 797480 | 732354 | 744790 | 770374 | 762430 | 712025 | 649458 | 658257 |
| 17 | 902494 | 910701 | 888881 | 839832 | 795346 | 730059 | 747333 | 770843 | 761265 | 709526 | 650116 | 656714 |
| 18 | 902742 | 909705 | 886908 | 837660 | 792978 | 728226 | 749880 | 771780 | 761032 | 706578 | 650775 | 655392 |
| 19 | 903984 | 908211 | 885183 | 836454 | 791085 | 726622 | 751966 | 771077 | 760100 | 704540 | 650336 | 652972 |
| 20 | 905226 | 907962 | 883706 | 834526 | 787304 | 725021 | 754054 | 769672 | 759634 | 701825 | 649897 | 650775 |
| 21 | 905972 | 906967 | 882475 | 833081 | 784001 | 724563 | 756377 | 769906 | 758238 | 699565 | 649458 | 649238 |
| 22 | 905972 | 905972 | 881000 | 831396 | 781409 | 722963 | 758238 | 769906 | 758703 | 697308 | 649677 | 647047 |
| 23 | 904481 | 903984 | 879034 | 829473 | 778586 | 721364 | 760100 | 769672 | 758703 | 695730 | 649458 | 646171 |
| 24 | 903239 | 904978 | 877069 | 827791 | 776002 | 722963 | 760566 | 769204 | 757540 | 693478 | 650116 | 644421 |
| 25 | 901253 | 903735 | 875107 | 826590 | 773186 | 723191 | 759634 | 770609 | 756377 | 690778 | 650555 | 643983 |
| 26 | 901253 | 901997 | 873881 | 824670 | 770374 | 725478 | 760799 | 772014 | 754751 | 688530 | 650336 | 642017 |
| 27 | 901253 | 903487 | 871677 | 822991 | 767567 | 724334 | 762663 | 771780 | 753358 | 686288 | 649897 | 640272 |
| 28 | 902742 | 904978 | 869964 | 821553 | 764530 | 722049 | 764063 | 771311 | 751734 | 683823 | 649238 | 639619 |
| 29 | 901997 | 905475 | 868007 | 820595 | --- | 719994 | 764297 | 771545 | 750112 | 680914 | 648800 | 637440 |
| 30 | 901005 | 905972 | 866297 | 817245 | --- | 717486 | 764764 | 770843 | 748491 | 678457 | 648581 | 635700 |
| 31 | 899269 | --- | 864100 | 815572 | --- | 714754 | --- | 770374 | --- | 675556 | 649019 | --- |
| MAX | 921439 | 912197 | 904729 | 862393 | 814138 | 762197 | 764764 | 772014 | 772952 | 747565 | 673551 | 660907 |
| MIN | 899269 | 896791 | 864100 | 815572 | 764530 | 714754 | 712934 | 748491 | 675556 | 647047 | 635700 | |
| a | 4484.63 | 4484.90 | 4483.20 | 4481.19 | 4479.03 | 4476.87 | 4479.04 | 4479.28 | 4478.34 | 4475.13 | 4473.93 | 4473.32 |
| b | -24171 | -6703 | -41872 | -48528 | -51042 | -49776 | +50010 | +5610 | -21883 | -72935 | -26537 | -13319 |

CAL YR 1984 b -104320
WTR YR 1985 b -287740

a Gage height, in feet, at end of month.
b Change in contents, in acre feet.

SACRAMENTO RIVER BASIN

11399500 NORTH FORK FEATHER RIVER NEAR PRATTVILLE, CA

LOCATION (REVISED).--Lat 40°10'06", long 121°05'31", in NE 1/4 SW 1/4 sec.28, T.27 N., R.8 E., Plumas County, Hydrologic Unit 18020121, Plumas National Forest, on left bank 0.4 mi downstream from Almanor Dam, 4.5 mi southeast of Prattville, and 9 mi upstream from Butt Creek.

DRAINAGE AREA.--493 mi².

PERIOD OF RECORD.--June 1905 to current year (daily discharges for July 1921 to September 1936 include water diverted through Almanor-Butt Creek tunnel). Records for water year 1911 incomplete, yearly estimate published in WSP 1315-A. Published as "below Prattville" prior to 1911. Supplemental records for Almanor-Butt Creek tunnel diversion computed November 1924 to Dec. 30, 1958, as difference of flow between Butt Creek above Almanor-Butt Creek tunnel (unpublished prior to 1936 and since 1964), and Butt Creek below Almanor-Butt Creek tunnel (station 11400500), (unpublished prior to 1936 and 1960-64).

REVISED RECORDS.--WSP 1245: 1951 (yearly summaries). WSP 1285: 1952 (yearly summaries).

GAGE.--Water-stage recorder and broad-crested weir. Datum of gage is 4,390.09 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1936, nonrecording gages or water-stage recorders at several sites within 0.5 mi of present site at various datums.

REMARKS.--No estimated daily discharges. Flow regulated by Lake Almanor (station 11399000) 0.5 mi upstream and Mountain Meadows Reservoir since 1924, capacity, 24,000 acre-ft. Water diverted for power from Lake Almanor through old Almanor-Butt Creek tunnel to Butt Creek until Dec. 30, 1958. Diversion through new tunnel to Butt Valley powerplant began Dec. 31, 1958. See schematic diagram of North Fork Feather River basin.

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

AVERAGE DISCHARGE (adjusted for change in contents in Lake Almanor, diversion to Butt Valley powerplant, and leakage from Almanor-Butt Creek tunnel at Outlet. Prior to 1984 adjusted for diversion to Butt Valley powerplant and leakage from Almanor-Butt tunnel at Outlet).--80 years, 914 ft³/s, 662,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 10,000 ft³/s, Mar. 19, 1907, before construction of dam, gage height, 16.2 ft, at former site, from rating curve extended above 3,700 ft³/s; no flow at times during 1914, 1919, 1923.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 39 ft³/s, Sept. 8, gage height, 2.50 ft; minimum daily, 14 ft³/s, Oct. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 36 | 36 | 35 | 36 | 35 | 35 | 34 | 38 | 36 | 36 | 35 | 37 |
| 2 | 36 | 36 | 35 | 36 | 35 | 35 | 34 | 37 | 36 | 36 | 35 | 37 |
| 3 | 36 | 36 | 35 | 37 | 35 | 35 | 34 | 35 | 36 | 36 | 34 | 37 |
| 4 | 36 | 36 | 35 | 36 | 35 | 35 | 34 | 36 | 36 | 35 | 34 | 37 |
| 5 | 36 | 36 | 35 | 36 | 35 | 34 | 35 | 36 | 36 | 36 | 34 | 37 |
| 6 | 36 | 36 | 35 | 36 | 35 | 34 | 36 | 36 | 36 | 36 | 34 | 37 |
| 7 | 36 | 36 | 35 | 36 | 35 | 34 | 36 | 36 | 36 | 36 | 34 | 37 |
| 8 | 36 | 36 | 35 | 36 | 36 | 34 | 36 | 36 | 36 | 35 | 35 | 38 |
| 9 | 36 | 35 | 35 | 36 | 35 | 34 | 36 | 36 | 36 | 35 | 35 | 38 |
| 10 | 36 | 35 | 35 | 36 | 35 | 34 | 37 | 36 | 36 | 34 | 35 | 38 |
| 11 | 36 | 35 | 35 | 36 | 35 | 34 | 37 | 36 | 35 | 35 | 34 | 38 |
| 12 | 36 | 36 | 35 | 36 | 35 | 34 | 37 | 36 | 35 | 36 | 34 | 38 |
| 13 | 36 | 36 | 35 | 36 | 35 | 34 | 37 | 36 | 36 | 36 | 35 | 38 |
| 14 | 36 | 36 | 36 | 36 | 35 | 34 | 37 | 36 | 37 | 36 | 37 | 38 |
| 15 | 36 | 36 | 37 | 36 | 35 | 34 | 37 | 36 | 37 | 35 | 37 | 38 |
| 16 | 36 | 36 | 37 | 36 | 35 | 34 | 37 | 36 | 37 | 35 | 37 | 38 |
| 17 | 36 | 36 | 37 | 35 | 35 | 34 | 37 | 36 | 36 | 35 | 37 | 38 |
| 18 | 35 | 36 | 37 | 35 | 35 | 34 | 37 | 36 | 36 | 35 | 37 | 38 |
| 19 | 35 | 36 | 37 | 35 | 35 | 33 | 37 | 36 | 36 | 35 | 37 | 37 |
| 20 | 36 | 36 | 37 | 35 | 35 | 34 | 37 | 36 | 36 | 36 | 37 | 37 |
| 21 | 35 | 36 | 37 | 35 | 35 | 35 | 37 | 36 | 36 | 36 | 37 | 37 |
| 22 | 35 | 36 | 37 | 35 | 35 | 35 | 37 | 36 | 36 | 36 | 37 | 37 |
| 23 | 35 | 36 | 37 | 35 | 35 | 35 | 37 | 36 | 36 | 36 | 37 | 36 |
| 24 | 35 | 36 | 37 | 35 | 34 | 34 | 37 | 36 | 36 | 35 | 38 | 36 |
| 25 | 35 | 36 | 37 | 35 | 34 | 34 | 37 | 36 | 36 | 35 | 38 | 36 |
| 26 | 36 | 36 | 36 | 35 | 34 | 34 | 38 | 36 | 36 | 35 | 38 | 36 |
| 27 | 36 | 35 | 36 | 35 | 35 | 34 | 38 | 36 | 36 | 35 | 37 | 36 |
| 28 | 35 | 36 | 36 | 35 | 36 | 34 | 37 | 36 | 36 | 35 | 37 | 36 |
| 29 | 36 | 36 | 36 | 35 | --- | 34 | 38 | 36 | 36 | 35 | 37 | 35 |
| 30 | 14 | 36 | 37 | 35 | --- | 34 | 38 | 36 | 36 | 36 | 37 | 35 |
| 31 | 33 | --- | 37 | 35 | --- | 34 | --- | 36 | --- | 35 | 37 | --- |
| TOTAL | 1083 | 1076 | 1116 | 1102 | 979 | 1060 | 1096 | 1118 | 1081 | 1098 | 1117 | 1112 |
| MEAN | 34.9 | 35.9 | 36.0 | 35.5 | 35.0 | 34.2 | 36.5 | 36.1 | 36.0 | 35.4 | 36.0 | 37.1 |
| MAX | 36 | 36 | 37 | 37 | 36 | 35 | 38 | 38 | 37 | 36 | 38 | 39 |
| MIN | 14 | 35 | 35 | 35 | 34 | 33 | 34 | 35 | 35 | 34 | 34 | 35 |
| AC-FIT | 2150 | 2130 | 2210 | 2190 | 1940 | 2100 | 2170 | 2220 | 2140 | 2180 | 2220 | 2210 |
| MEAN a | 658 | 1085 | 716 | 626 | 718 | 848 | 1107 | 900 | 423 | 331 | 305 | 474 |
| AC-FIT a | 40440 | 64550 | 44040 | 38470 | 39850 | 52120 | 65850 | 55330 | 25190 | 20350 | 18780 | 28200 |

CAL YR 1984 TOTAL 41073 MEAN 112 MAX 747 MIN 14 AC-FIT 81470 MEAN a 1006 AC-FIT a 730300
WTR YR 1985 TOTAL 13038 MEAN 35.7 MAX 39 MIN 14 AC-FIT 25860 MEAN a 681 AC-FIT a 493100

a Adjusted for change in contents in Lake Almanor, diversion through Butt Valley powerplant, and leakage from Almanor-Butt Creek tunnel at Outlet.

11400500 BUTT CREEK BELOW ALMANOR-BUTT CREEK TUNNEL, NEAR PRATTVILLE, CA

LOCATION (REVISED).--Lat 40°11'14", long 121°11'13", in NE 1/4 NW 1/4 sec.22, T.27 N., R.7 E., Plumas County, Hydrologic Unit 18020121, on right bank 500 ft downstream from outlet of old Almanor-Butt Creek tunnel, and 2.2 mi southwest of Prattville.

DRAINAGE AREA.--69.3 mi².

PERIOD OF RECORD.--October 1936 to September 1959, October 1964 to current year. Published as "below tunnel No. 1" 1938-40. Records for water years 1937-38 published in WSP 1515.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 4,300 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 5, 1937, at site 200 ft downstream at datum 4 ft lower.

REMARKS.--Estimated daily discharges: Oct. 1-7. No regulation upstream from station. Howell-Bunger valve in conduit from Lake Almanor to Butt Valley powerplant is opened for short periods several times a year causing sharp peaks. Wallack ditch, upstream from station, diverts several cubic feet per second during each irrigation season into Yellow Creek basin. Inflow from Almanor-Butt Creek tunnel at Outlet was 6,400 acre-ft during the current year. See schematic diagram of North Fork Feather River basin.

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

AVERAGE DISCHARGE (adjusted for inflow from Almanor-Butt Creek tunnel at Outlet since 1965).--49 years (records for station 11400000 Butt Creek above Almanor-Butt Creek tunnel near Prattville used for water years 1937-64), 84.5 ft³/s, 61,220 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,830 ft³/s, Dec. 23, 1964, gage height, 5.87 ft, from rating curve extended above 1,400 ft³/s; minimum daily, 26 ft³/s, several days during May and June 1976.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 203 ft³/s, Nov. 2, gage height, 1.35 ft; minimum daily, 34 ft³/s, several days during August and September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|-------|-----------|---------|--------|-------------|------|------|------|------|------|------|
| 1 | 54 | 60 | 78 | 64 | 62 | 79 | 102 | 97 | 58 | 41 | 36 | 34 |
| 2 | 54 | 105 | 75 | 65 | 69 | 76 | 109 | 97 | 59 | 41 | 36 | 34 |
| 3 | 54 | 81 | 74 | 64 | 67 | 71 | 119 | 95 | 58 | 40 | 36 | 35 |
| 4 | 54 | 63 | 73 | 64 | 66 | 72 | 128 | 90 | 57 | 40 | 35 | 34 |
| 5 | 55 | 59 | 73 | 64 | 73 | 70 | 138 | 89 | 57 | 39 | 35 | 34 |
| 6 | 55 | 82 | 70 | 63 | 73 | 69 | 146 | 85 | 56 | 39 | 35 | 34 |
| 7 | 55 | 72 | 69 | 64 | 67 | 67 | 149 | 83 | 55 | 39 | 36 | 34 |
| 8 | 55 | 74 | 69 | 64 | 93 | 70 | 147 | 80 | 54 | 39 | 36 | 68 |
| 9 | 55 | 66 | 69 | 63 | 78 | 69 | 149 | 79 | 53 | 39 | 36 | 53 |
| 10 | 56 | 65 | 76 | 63 | 71 | 71 | 146 | 79 | 53 | 39 | 36 | 48 |
| 11 | 87 | 90 | 77 | 62 | 67 | 72 | 138 | 77 | 51 | 39 | 35 | 43 |
| 12 | 63 | 111 | 74 | 62 | 67 | 73 | 135 | 75 | 50 | 39 | 35 | 44 |
| 13 | 64 | 146 | 70 | 62 | 68 | 73 | 139 | 74 | 49 | 37 | 36 | 44 |
| 14 | 61 | 97 | 68 | 63 | 68 | 73 | 150 | 74 | 49 | 37 | 36 | 44 |
| 15 | 60 | 85 | 70 | 64 | 67 | 75 | 153 | 74 | 49 | 37 | 35 | 42 |
| 16 | 63 | 85 | 69 | 62 | 69 | 76 | 142 | 73 | 49 | 37 | 35 | 44 |
| 17 | 64 | 79 | 68 | 62 | 69 | 77 | 128 | 71 | 48 | 37 | 35 | 42 |
| 18 | 63 | 87 | 67 | 62 | 70 | 81 | 123 | 69 | 46 | 37 | 36 | 45 |
| 19 | 66 | 77 | 76 | 62 | 70 | 84 | 137 | 69 | 44 | 36 | 36 | 43 |
| 20 | 68 | 78 | 77 | 62 | 71 | 89 | 116 | 68 | 44 | 36 | 36 | 42 |
| 21 | 64 | 78 | 72 | 62 | 69 | 87 | 110 | 63 | 42 | 37 | 35 | 42 |
| 22 | 62 | 75 | 67 | 62 | 72 | 81 | 106 | 62 | 42 | 37 | 35 | 42 |
| 23 | 62 | 73 | 69 | 62 | 75 | 83 | 102 | 61 | 42 | 37 | 35 | 41 |
| 24 | 61 | 91 | 68 | 62 | 77 | 94 | 99 | 61 | 42 | 38 | 35 | 41 |
| 25 | 60 | 76 | 69 | 62 | 78 | 85 | 95 | 61 | 43 | 36 | 34 | 41 |
| 26 | 63 | 71 | 69 | 63 | 77 | 76 | 91 | 60 | 44 | 37 | 34 | 41 |
| 27 | 62 | 87 | 68 | 62 | 77 | 75 | 94 | 60 | 42 | 38 | 34 | 41 |
| 28 | 62 | 115 | 67 | 63 | 76 | 76 | 98 | 60 | 42 | 37 | 34 | 41 |
| 29 | 64 | 83 | 65 | 62 | --- | 76 | 98 | 64 | 41 | 36 | 34 | 41 |
| 30 | 62 | 79 | 64 | 59 | --- | 77 | 97 | 61 | 42 | 37 | 34 | 41 |
| 31 | 61 | --- | 63 | 62 | --- | 88 | --- | 59 | --- | 36 | 34 | --- |
| TOTAL | 1889 | 2490 | 2183 | 1942 | 2006 | 2385 | 3684 | 2270 | 1461 | 1174 | 1090 | 1253 |
| MEAN | 60.9 | 83.0 | 70.4 | 62.6 | 71.6 | 76.9 | 123 | 73.2 | 48.7 | 37.9 | 35.2 | 41.8 |
| MAX | 87 | 146 | 78 | 65 | 93 | 94 | 153 | 97 | 59 | 41 | 36 | 68 |
| MIN | 54 | 59 | 63 | 59 | 62 | 67 | 91 | 59 | 41 | 36 | 34 | 34 |
| AC-FT | 3750 | 4940 | 4330 | 3850 | 3980 | 4730 | 7310 | 4500 | 2900 | 2330 | 2160 | 2490 |
| CAL YR 1984 | TOTAL | 35438 | MEAN 96.8 | MAX 372 | MIN 53 | AC-FT 70290 | | | | | | |
| WTR YR 1985 | TOTAL | 23827 | MEAN 65.3 | MAX 153 | MIN 34 | AC-FT 47260 | | | | | | |

SACRAMENTO RIVER BASIN

11401112 NORTH FORK FEATHER RIVER BELOW BELDEN DAM, CA

LOCATION (REVISED).--Lat 40°04'17", long 121°09'49", in NE 1/4 NW 1/4 sec.35, T.26 N., R.7 E., Plumas County, Hydrologic Unit 18020121, Plumas National Forest, on left bank 0.4 mi downstream from Belden Dam, 0.5 mi upstream from Deadwood Canyon, and 6.4 mi northeast of Belden.

DRAINAGE AREA.--612 mi².

PERIOD OF RECORD.--October 1969 to current year. July 1959 to September 1969 in files of Pacific Gas and Electric Co.

REVISED RECORDS.--WDR CA-78-4: 1977 (monthly and yearly summaries).

GAGE.--Water-stage recorder. Datum of gage is 2,811.00 ft above National Geodetic Vertical Datum of 1929 (levels by Pacific Gas and Electric Co.).

REMARKS.--No estimated daily discharges. Flow regulated by Belden Reservoir, Butt Valley Reservoir, Lake Almanor (station 11399000), and Mountain Meadows Reservoir, combined capacity, 1,267,000 acre-ft. Diversion to Belden powerplant began on Aug. 27, 1969. See schematic diagram of North Fork Feather River basin.

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

AVERAGE DISCHARGE (adjusted for diversion to Belden powerplant).--16 years, 1,192 ft³/s, 863,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,040 ft³/s, Nov. 18, 1974, gage height, 8.89 ft; minimum daily, 2.3 ft³/s, Oct. 25, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 457 ft³/s, July 10, gage height, 4.96 ft; minimum daily, 28 ft³/s, Oct. 31.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---------|-------|-------|-------|-------|--------|--------|-------|-------|-------|-------|-------|-------|
| 1 | 60 | 52 | 61 | 62 | 61 | 64 | 57 | 155 | 147 | 143 | 142 | 141 |
| 2 | 60 | 61 | 61 | 58 | 61 | 59 | 61 | 137 | 144 | 140 | 142 | 118 |
| 3 | 60 | 61 | 60 | 62 | 61 | 61 | 68 | 154 | 150 | 150 | 141 | 61 |
| 4 | 60 | 60 | 61 | 65 | 60 | 56 | 57 | 143 | 147 | 149 | 142 | 60 |
| 5 | 59 | 61 | 61 | 60 | 59 | 65 | 67 | 149 | 141 | 142 | 142 | 60 |
| 6 | 61 | 63 | 61 | 59 | 58 | 66 | 65 | 151 | 145 | 143 | 142 | 62 |
| 7 | 60 | 61 | 60 | 67 | 61 | 59 | 63 | 133 | 146 | 143 | 142 | 62 |
| 8 | 60 | 61 | 61 | 62 | 60 | 63 | 63 | 140 | 140 | 149 | 142 | 62 |
| 9 | 60 | 61 | 61 | 63 | 61 | 60 | 62 | 159 | 137 | 142 | 142 | 61 |
| 10 | 60 | 62 | 61 | 67 | 59 | 61 | 65 | 160 | 136 | 159 | 142 | 61 |
| 11 | 60 | 61 | 61 | 56 | 60 | 58 | 67 | 147 | 142 | 140 | 142 | 60 |
| 12 | 60 | 60 | 60 | 57 | 58 | 66 | 60 | 148 | 140 | 140 | 142 | 131 |
| 13 | 60 | 61 | 61 | 65 | 61 | 67 | 59 | 144 | 149 | 140 | 142 | 152 |
| 14 | 60 | 61 | 65 | 64 | 64 | 61 | 60 | 148 | 144 | 140 | 142 | 132 |
| 15 | 60 | 61 | 61 | 63 | 58 | 61 | 62 | 146 | 147 | 140 | 142 | 70 |
| 16 | 60 | 62 | 62 | 60 | 65 | 66 | 59 | 144 | 140 | 137 | 142 | 61 |
| 17 | 60 | 60 | 60 | 59 | 63 | 63 | 60 | 153 | 140 | 140 | 141 | 63 |
| 18 | 60 | 61 | 66 | 59 | 59 | 62 | 60 | 148 | 142 | 142 | 141 | 78 |
| 19 | 54 | 61 | 61 | 60 | 61 | 58 | 61 | 143 | 140 | 142 | 141 | 90 |
| 20 | 29 | 61 | 62 | 59 | 61 | 64 | 65 | 139 | 141 | 142 | 141 | 64 |
| 21 | 58 | 61 | 64 | 60 | 62 | 61 | 63 | 161 | 143 | 142 | 141 | 70 |
| 22 | 60 | 61 | 64 | 64 | 65 | 63 | 60 | 145 | 141 | 142 | 141 | 70 |
| 23 | 60 | 61 | 59 | 61 | 63 | 60 | 64 | 146 | 141 | 140 | 141 | 64 |
| 24 | 60 | 61 | 66 | 61 | 61 | 57 | 64 | 146 | 144 | 142 | 141 | 64 |
| 25 | 60 | 61 | 60 | 61 | 62 | 69 | 62 | 150 | 140 | 142 | 142 | 61 |
| 26 | 60 | 61 | 64 | 58 | 66 | 49 | 113 | 149 | 142 | 142 | 141 | 61 |
| 27 | 61 | 60 | 60 | 58 | 62 | 60 | 142 | 141 | 143 | 142 | 141 | 67 |
| 28 | 61 | 61 | 64 | 61 | 66 | 65 | 142 | 153 | 143 | 140 | 142 | 59 |
| 29 | 60 | 60 | 63 | 63 | --- | 64 | 139 | 142 | 141 | 140 | 141 | 59 |
| 30 | 60 | 61 | 64 | 61 | --- | 60 | 152 | 148 | 136 | 142 | 141 | 59 |
| 31 | 28 | --- | 64 | 61 | --- | 57 | --- | 138 | --- | 142 | 141 | --- |
| TOTAL | 1791 | 1820 | 1919 | 1896 | 1718 | 1905 | 2242 | 4560 | 4272 | 4419 | 4388 | 2283 |
| MEAN | 57.8 | 60.7 | 61.9 | 61.2 | 61.4 | 61.5 | 74.7 | 147 | 142 | 143 | 142 | 76.1 |
| MAX | 61 | 63 | 66 | 67 | 66 | 69 | 152 | 161 | 150 | 159 | 142 | 152 |
| MIN | 28 | 52 | 59 | 56 | 58 | 49 | 57 | 133 | 136 | 137 | 141 | 59 |
| AC-FT | 3550 | 3610 | 3810 | 3760 | 3410 | 3780 | 4450 | 9040 | 8470 | 8770 | 8700 | 4530 |
| MEAN a | 1241 | 1128 | 1487 | 1495 | 1834 | 1748 | 508 | 884 | 914 | 1588 | 818 | 778 |
| AC-FT a | 76280 | 67110 | 91410 | 91930 | 101900 | 107500 | 30200 | 54340 | 54380 | 97650 | 50270 | 46310 |

CAL YR 1984 TOTAL 34095 MEAN 93.2 MAX 329 MIN 28 AC-FT 67630 MEAN a 1282 AC-FT a 930700
WTR YR 1985 TOTAL 33213 MEAN 91.0 MAX 161 MIN 28 AC-FT 65880 MEAN a 1201 AC-FT a 869300

a Adjusted for diversion through Belden powerplant.

11401500 INDIAN CREEK NEAR CRESCENT MILLS, CA

LOCATION.--Lat 40°04'41", long 120°55'37", in SW 1/4 SW 1/4 sec.25, T.26 N., R.9 E., Plumas County, Hydrologic Unit 18020122, on left bank 0.7 mi upstream from Dixie Creek, and 1.5 mi southwest of Crescent Mills.

DRAINAGE AREA.--739 mi².

PERIOD OF RECORD.--January 1906 to December 1909, September 1911 to March 1918, October 1930 to current year.

REVISED RECORDS.--WSP 1445: 1906-9. WSP 1931: 1956, 1958(M).

GAGE.--Water-stage recorder. Elevation of gage is 3,500 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to March 1918, nonrecording gage at site 800 ft upstream at different datum.

REMARKS.--No estimated daily discharges. Records good. Natural flow affected by storage in Round Valley Reservoir since 1865, capacity 5,000 acre-ft, Taylor Lake since 1929, capacity, 380 acre-ft, and Antelope Lake since November 1963, capacity, 22,500 acre-ft. Diversions upstream from station for irrigation of about 11,800 acres of which 9,700 acres are in Indian and Genesee Valleys. See schematic diagram of North Fork Feather River basin.

AVERAGE DISCHARGE.--64 years (water years 1907-9, 1912-17, 1931-85), 560 ft³/s, 405,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge observed, 25,000 ft³/s, Mar. 19, 1907, gage height, 20.2 ft site and datum then in use; minimum daily, 0.90 ft³/s, July 28, 29, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|--------|------|-----------------------------------|---------------------|--------|------|-----------------------------------|---------------------|
| Feb. 8 | 1015 | 1,790 | 6.27 | Apr. 7 | 0530 | *2,640 | *7.24 |

Minimum daily, 22 ft³/s, Aug. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|------|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|
| 1 | 83 | 120 | 468 | 162 | 139 | 370 | 995 | 545 | 126 | 38 | 34 | 30 |
| 2 | 83 | 131 | 394 | 166 | 156 | 406 | 1510 | 566 | 129 | 35 | 33 | 31 |
| 3 | 78 | 192 | 352 | 167 | 155 | 340 | 1940 | 566 | 125 | 36 | 33 | 34 |
| 4 | 77 | 181 | 322 | 162 | 153 | 363 | 2080 | 559 | 122 | 38 | 31 | 33 |
| 5 | 83 | 156 | 294 | 163 | 133 | 352 | 2140 | 528 | 116 | 36 | 32 | 33 |
| 6 | 79 | 178 | 267 | 165 | 153 | 338 | 2260 | 490 | 104 | 35 | 35 | 35 |
| 7 | 76 | 200 | 250 | 175 | 188 | 334 | 2320 | 467 | 94 | 33 | 31 | 39 |
| 8 | 77 | 254 | 241 | 182 | 1320 | 302 | 2180 | 445 | 85 | 32 | 32 | 68 |
| 9 | 75 | 265 | 236 | 191 | 722 | 309 | 2000 | 414 | 81 | 29 | 28 | 92 |
| 10 | 74 | 215 | 262 | 196 | 446 | 331 | 1920 | 386 | 77 | 37 | 27 | 65 |
| 11 | 203 | 282 | 291 | 185 | 364 | 372 | 1730 | 373 | 72 | 43 | 25 | 55 |
| 12 | 224 | 351 | 274 | 169 | 327 | 373 | 1500 | 350 | 68 | 37 | 25 | 50 |
| 13 | 168 | 458 | 253 | 163 | 310 | 378 | 1430 | 330 | 64 | 35 | 29 | 49 |
| 14 | 142 | 487 | 216 | 167 | 300 | 399 | 1450 | 289 | 63 | 36 | 26 | 52 |
| 15 | 129 | 335 | 231 | 172 | 299 | 428 | 1460 | 270 | 60 | 34 | 30 | 51 |
| 16 | 129 | 283 | 227 | 169 | 307 | 468 | 1380 | 255 | 47 | 34 | 29 | 51 |
| 17 | 148 | 251 | 206 | 168 | 311 | 526 | 1240 | 232 | 54 | 33 | 30 | 48 |
| 18 | 142 | 264 | 188 | 170 | 314 | 660 | 1130 | 246 | 48 | 31 | 33 | 45 |
| 19 | 140 | 242 | 213 | 172 | 322 | 758 | 1080 | 243 | 48 | 32 | 33 | 46 |
| 20 | 150 | 242 | 206 | 173 | 334 | 805 | 976 | 220 | 50 | 35 | 33 | 43 |
| 21 | 148 | 282 | 212 | 173 | 320 | 898 | 916 | 206 | 52 | 31 | 34 | 43 |
| 22 | 138 | 243 | 192 | 169 | 316 | 779 | 849 | 207 | 47 | 39 | 33 | 42 |
| 23 | 130 | 219 | 190 | 164 | 321 | 763 | 778 | 200 | 43 | 42 | 29 | 39 |
| 24 | 135 | 406 | 190 | 167 | 330 | 1030 | 739 | 230 | 38 | 39 | 30 | 32 |
| 25 | 131 | 393 | 188 | 167 | 351 | 896 | 688 | 181 | 39 | 39 | 33 | 28 |
| 26 | 132 | 294 | 195 | 174 | 360 | 752 | 636 | 157 | 40 | 34 | 28 | 27 |
| 27 | 128 | 454 | 187 | 167 | 365 | 636 | 580 | 154 | 36 | 39 | 24 | 24 |
| 28 | 123 | 1210 | 184 | 181 | 348 | 606 | 571 | 145 | 36 | 38 | 22 | 26 |
| 29 | 123 | 782 | 177 | 175 | --- | 686 | 553 | 145 | 38 | 34 | 24 | 32 |
| 30 | 126 | 565 | 179 | 159 | --- | 728 | 533 | 151 | 37 | 33 | 32 | 41 |
| 31 | 123 | --- | 173 | 141 | --- | 776 | --- | 118 | --- | 35 | 32 | --- |
| TOTAL | 3797 | 9935 | 7458 | 5274 | 9464 | 17162 | 39564 | 9668 | 2039 | 1102 | 930 | 1284 |
| MEAN | 122 | 331 | 241 | 170 | 338 | 554 | 1319 | 312 | 68.0 | 35.5 | 30.0 | 42.8 |
| MAX | 224 | 1210 | 468 | 196 | 1320 | 1030 | 2320 | 566 | 129 | 43 | 35 | 92 |
| MIN | 74 | 120 | 173 | 141 | 133 | 302 | 533 | 118 | 36 | 29 | 22 | 24 |
| AC-FT | 7530 | 19710 | 14790 | 10460 | 18770 | 34040 | 78480 | 19180 | 4040 | 2190 | 1840 | 2550 |

| | | | | | | | | | | |
|-------------|-------|--------|------|-----|-----|------|-----|----|-------|--------|
| CAL YR 1984 | TOTAL | 198021 | MEAN | 541 | MAX | 3380 | MIN | 37 | AC-FT | 392800 |
| WTR YR 1985 | TOTAL | 107677 | MEAN | 295 | MAX | 2320 | MIN | 22 | AC-FT | 213600 |

SACRAMENTO RIVER BASIN

11402000 SPANISH CREEK ABOVE BLACKHAWK CREEK, AT KEDDIE, CA

LOCATION.--Lat 40°00'11", long 120°57'12", in SE 1/4 NE 1/4 sec.27, T.25 N., R.9 E., Plumas County, Hydrologic Unit 18020122, on right bank 200 ft upstream from Blackhawk Creek, and 0.9 mi southeast of Keddle.

DRAINAGE AREA.--184 mi².

PERIOD OF RECORD.--October 1933 to current year. Prior to October 1953 published as "at Keddle." Records for October 1911 to September 1933 at site 1.2 mi downstream not equivalent owing to inflow.

REVISED RECORDS.--WSP 1041: 1938(M).

GAGE.--Water-stage recorder. Datum of gage is 3,129.86 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--Estimated daily discharges: Dec. 23 to Jan. 29. Records excellent except for estimated daily discharges which are fair. Low flow regulated by five small reservoirs having a combined capacity of 800 acre-ft. Approximately 4,600 acres irrigated upstream from station (from information provided by U.S. Forest Service). City of Quincy diverts about 450 acre-ft annually for municipal supply. See schematic diagram of North Fork Feather River basin.

AVERAGE DISCHARGE.--52 years, 276 ft³/s, 200,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,400 ft³/s, Dec. 22, 1964, gage height, 13.53 ft, from rating curve extended above 5,200 ft³/s on basis of slope-area measurement at gage height 12.47 ft; minimum, 3.8 ft³/s, Aug. 12, 1934.

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

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|--|------|-----------------------------------|---------------------|------|------|-----------------------------------|---------------------|
| Feb. 8 | 1100 | *2,260 | *5.77 | | | | |
| Minimum daily, 17 ft ³ /s, Aug. 14. | | | | | | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|-------|------|------|-------|-------|-------|------|-------|--------|------|------|
| 1 | 54 | 61 | 212 | 95 | 75 | 167 | 434 | 221 | 78 | 37 | 31 | 20 |
| 2 | 52 | 89 | 181 | 92 | 85 | 179 | 545 | 228 | 79 | 35 | 30 | 22 |
| 3 | 49 | 154 | 169 | 92 | 81 | 160 | 630 | 213 | 74 | 40 | 28 | 21 |
| 4 | 49 | 93 | 153 | 92 | 79 | 160 | 615 | 212 | 68 | 34 | 23 | 26 |
| 5 | 48 | 84 | 141 | 90 | 75 | 151 | 607 | 201 | 65 | 33 | 23 | 24 |
| 6 | 49 | 103 | 132 | 92 | 79 | 155 | 621 | 195 | 60 | 31 | 24 | 25 |
| 7 | 49 | 116 | 126 | 96 | 99 | 163 | 616 | 193 | 54 | 34 | 22 | 29 |
| 8 | 47 | 133 | 121 | 100 | 1320 | 150 | 577 | 181 | 53 | 34 | 21 | 50 |
| 9 | 48 | 137 | 117 | 107 | 488 | 153 | 552 | 168 | 54 | 29 | 21 | 68 |
| 10 | 49 | 111 | 142 | 110 | 274 | 180 | 558 | 154 | 58 | 30 | 21 | 57 |
| 11 | 99 | 198 | 209 | 102 | 215 | 196 | 512 | 144 | 55 | 28 | 21 | 52 |
| 12 | 80 | 195 | 190 | 98 | 195 | 204 | 459 | 139 | 56 | 26 | 21 | 47 |
| 13 | 65 | 391 | 162 | 94 | 195 | 208 | 467 | 126 | 54 | 25 | 18 | 44 |
| 14 | 60 | 290 | 144 | 92 | 188 | 205 | 520 | 122 | 50 | 25 | 17 | 43 |
| 15 | 59 | 174 | 145 | 95 | 186 | 207 | 536 | 111 | 49 | 25 | 19 | 40 |
| 16 | 61 | 154 | 146 | 96 | 192 | 208 | 482 | 120 | 48 | 25 | 20 | 40 |
| 17 | 72 | 140 | 132 | 94 | 192 | 211 | 397 | 117 | 44 | 24 | 19 | 38 |
| 18 | 65 | 182 | 120 | 94 | 191 | 246 | 343 | 126 | 38 | 24 | 18 | 38 |
| 19 | 65 | 159 | 120 | 96 | 189 | 262 | 334 | 120 | 38 | 24 | 19 | 37 |
| 20 | 69 | 151 | 115 | 97 | 190 | 257 | 291 | 119 | 39 | 20 | 19 | 38 |
| 21 | 66 | 170 | 117 | 96 | 176 | 261 | 263 | 108 | 40 | 21 | 19 | 39 |
| 22 | 64 | 142 | 114 | 93 | 172 | 234 | 245 | 108 | 46 | 28 | 20 | 38 |
| 23 | 62 | 128 | 108 | 93 | 174 | 218 | 236 | 103 | 46 | 30 | 22 | 38 |
| 24 | 60 | 371 | 108 | 95 | 176 | 337 | 230 | 99 | 37 | 26 | 22 | 37 |
| 25 | 60 | 267 | 108 | 95 | 179 | 333 | 220 | 96 | 36 | 24 | 21 | 36 |
| 26 | 60 | 184 | 108 | 96 | 177 | 290 | 206 | 93 | 37 | 27 | 25 | 36 |
| 27 | 61 | 366 | 108 | 98 | 172 | 299 | 196 | 89 | 36 | 26 | 24 | 37 |
| 28 | 62 | 878 | 102 | 99 | 166 | 268 | 204 | 86 | 34 | 28 | 27 | 37 |
| 29 | 63 | 392 | 101 | 87 | --- | 262 | 223 | 90 | 35 | 24 | 24 | 35 |
| 30 | 62 | 260 | 99 | 83 | --- | 276 | 218 | 83 | 36 | 24 | 21 | 38 |
| 31 | 62 | --- | 99 | 79 | --- | 327 | --- | 77 | --- | 26 | 18 | --- |
| TOTAL | 1871 | 6273 | 4149 | 2938 | 5980 | 6927 | 12337 | 4242 | 1497 | 867 | 678 | 1130 |
| MEAN | 60.4 | 209 | 134 | 94.8 | 214 | 223 | 411 | 137 | 49.9 | 28.0 | 21.9 | 37.7 |
| MAX | 99 | 878 | 212 | 110 | 1320 | 337 | 630 | 228 | 79 | 40 | 31 | 68 |
| MIN | 47 | 61 | 99 | 79 | 75 | 150 | 196 | 77 | 34 | 20 | 17 | 20 |
| AC-FT | 3710 | 12440 | 8230 | 5830 | 11860 | 13740 | 24470 | 8410 | 2970 | 1720 | 1340 | 2240 |
| CAL YR 1984 | TOTAL | 81853 | MEAN | 224 | MAX | 1540 | MIN | 23 | AC-FT | 162400 | | |
| WTR YR 1985 | TOTAL | 48889 | MEAN | 134 | MAX | 1320 | MIN | 17 | AC-FT | 96970 | | |

11403500 BUCKS LAKE NEAR BUCKS LODGE, CA

LOCATION (REVISED).--Lat 39°53'45", long 121°12'08", in SE 1/4 NW 1/4 sec.33, T.24 N., R.7 E., Plumas County, Hydrologic Unit 18020121, Plumas National Forest, in outlet structure 100 ft upstream from dam on Bucks Creek, 2.0 mi northwest of Bucks Lodge, and 15 mi west of Quincy.

DRAINAGE AREA.--28.6 mi².

PERIOD OF RECORD.--1927-28 (year-end contents only, published in WSP 1315-A), October 1928 to current year. Prior to October 1954, published as Bucks Creek Reservoir near Bucks Ranch.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Feather River Power Co.).

REMARKS.--Reservoir is formed by concrete-faced, rockfill dam, completed in 1927; storage began in May 1927. Capacity, 101,400 acre-ft between elevations 5,064.75 ft, sill of outlet gate and 5,154.85 ft, spillway crest. Storage of 274 acre-ft is not available for release. Released water flows down Bucks Creek to Lower Bucks Lake, where it enters tunnel that discharges into Grizzly Creek, then to Bucks Creek powerplant. Figures given herein, including extremes, represent total contents at 2400 hours. See schematic diagram of North Fork Feather River basin.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 106,720 acre-ft, June 8-10, 1982, elevation, 5,157.6 ft; minimum, 12,330 acre-ft, Feb. 27, 1929, elevation, 5,090.7 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 67,003 acre-ft, July 1, elevation, 5,134.5 ft; minimum, 31,114 acre-ft, Dec. 8, 9, elevation, 5,111.3 ft.

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

| | | | |
|-------|--------|-------|---------|
| 5,090 | 11,742 | 5,130 | 59,997 |
| 5,095 | 16,183 | 5,140 | 75,894 |
| 5,100 | 21,180 | 5,150 | 92,950 |
| 5,110 | 32,519 | 5,160 | 111,220 |
| 5,120 | 45,472 | | |

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 53422 | 42751 | 36111 | 35609 | 37636 | 40494 | 44512 | 55335 | 64794 | 67003 | 60610 | 53276 |
| 2 | 52984 | 42886 | 35860 | 35734 | 37636 | 40494 | 44619 | 55781 | 64952 | 66844 | 60610 | 53276 |
| 3 | 52984 | 42751 | 35483 | 35985 | 37636 | 40626 | 44924 | 56228 | 65266 | 66527 | 60610 | 53422 |
| 4 | 52691 | 42351 | 35232 | 35985 | 38151 | 40758 | 45198 | 56824 | 65424 | 66210 | 60610 | 53130 |
| 5 | 51967 | 41950 | 34856 | 36111 | 38022 | 40889 | 45472 | 57124 | 65581 | 65738 | 60610 | 52837 |
| 6 | 51534 | 41950 | 34485 | 36111 | 38151 | 41285 | 45749 | 57575 | 65738 | 65266 | 60610 | 52256 |
| 7 | 51100 | 41684 | 34238 | 36236 | 38408 | 41285 | 46027 | 58027 | 65895 | 65266 | 60610 | 51967 |
| 8 | 50814 | 41417 | 34114 | 36363 | 38794 | 41417 | 46443 | 58328 | 65895 | 65266 | 60304 | 52401 |
| 9 | 50386 | 40889 | 34114 | 36363 | 38924 | 41550 | 46720 | 58782 | 66053 | 65109 | 59845 | 52545 |
| 10 | 49957 | 40758 | 34362 | 36490 | 39055 | 41550 | 47139 | 59086 | 66210 | 64637 | 59845 | 52112 |
| 11 | 49530 | 40758 | 34485 | 36490 | 39055 | 41684 | 47418 | 59389 | 66210 | 64325 | 59845 | 51678 |
| 12 | 49671 | 40626 | 34609 | 36490 | 39185 | 41817 | 47977 | 59693 | 66369 | 64325 | 59541 | 51245 |
| 13 | 49388 | 40889 | 34362 | 36617 | 39316 | 42084 | 49398 | 60150 | 66369 | 64325 | 59086 | 50957 |
| 14 | 48964 | 40626 | 34485 | 36872 | 39316 | 42084 | 48964 | 60457 | 66369 | 64325 | 58630 | 50814 |
| 15 | 48257 | 40362 | 34609 | 36872 | 39446 | 42084 | 49388 | 60764 | 66527 | 64325 | 58177 | 50957 |
| 16 | 47977 | 40098 | 34609 | 36872 | 39576 | 42084 | 49814 | 61070 | 66527 | 63857 | 57726 | 50814 |
| 17 | 47558 | 39837 | 34733 | 36872 | 39707 | 42217 | 50243 | 61223 | 66686 | 63389 | 57726 | 50386 |
| 18 | 47139 | 39576 | 34733 | 36872 | 39707 | 42351 | 50671 | 61839 | 66686 | 62922 | 57726 | 50528 |
| 19 | 46859 | 39316 | 34733 | 36872 | 39707 | 42484 | 51100 | 62149 | 66686 | 62458 | 57575 | 50100 |
| 20 | 46720 | 39055 | 34733 | 36999 | 39707 | 42618 | 51389 | 62458 | 66844 | 62458 | 57124 | 49671 |
| 21 | 46720 | 38794 | 34733 | 36999 | 39837 | 42751 | 51678 | 62768 | 66844 | 62458 | 56675 | 49671 |
| 22 | 46720 | 38408 | 34733 | 37126 | 39968 | 42886 | 52112 | 62768 | 66844 | 62304 | 56079 | 49671 |
| 23 | 46304 | 38151 | 34733 | 37126 | 40098 | 42886 | 52401 | 63389 | 66844 | 61994 | 55781 | 49530 |
| 24 | 45888 | 38022 | 34733 | 37126 | 40098 | 43021 | 52691 | 63233 | 66844 | 61530 | 55483 | 49388 |
| 25 | 45472 | 37636 | 34733 | 37253 | 40230 | 43291 | 52984 | 63389 | 66844 | 61223 | 55483 | 49105 |
| 26 | 45061 | 37380 | 34981 | 37380 | 40230 | 43561 | 53276 | 63545 | 66844 | 60764 | 55335 | 48823 |
| 27 | 44619 | 37126 | 35107 | 37380 | 40362 | 43831 | 53714 | 63857 | 66844 | 60610 | 54893 | 48540 |
| 28 | 44238 | 37126 | 35358 | 37507 | 40362 | 43966 | 54007 | 64013 | 66844 | 60610 | 54450 | 48540 |
| 29 | 43831 | 36744 | 35358 | 37636 | --- | 44101 | 54450 | 64325 | 66844 | 60610 | 54007 | 48540 |
| 30 | 43426 | 36363 | 35483 | 37636 | --- | 44238 | 54893 | 64481 | 66844 | 60610 | 53276 | 48398 |
| 31 | 43156 | --- | 35483 | 37636 | --- | 44375 | --- | 64794 | --- | 60610 | 53276 | --- |
| MAX | 53422 | 42886 | 36111 | 37636 | 40362 | 44375 | 54893 | 64794 | 66844 | 67003 | 60610 | 53422 |
| MIN | 43156 | 36363 | 34114 | 35609 | 37636 | 40494 | 44512 | 55335 | 64794 | 60610 | 53276 | 48398 |
| a | 5118.3 | 5113.1 | 5112.4 | 5114.1 | 5116.2 | 5119.2 | 5126.6 | 5133.1 | 5134.4 | 5130.4 | 5125.5 | 5122.1 |
| b | -10705 | -6793 | -880 | +2153 | +2726 | +4013 | +10518 | +9901 | +2050 | -6234 | -7334 | -4878 |

CAL YR 1984 b -47264

WTR YR 1985 b -5463

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.

SACRAMENTO RIVER BASIN

11404500 NORTH FORK FEATHER RIVER AT PULGA, CA

LOCATION (REVISED).--Lat 39°47'40", long 121°27'02", in SW 1/4 NE 1/4 sec.6, T.22 N., R.5 E., Butte County, Hydrologic Unit 18020121, Plumas National Forest, on left bank between railroad and highway bridges, 0.6 mi downstream from Flea Valley Creek and Pulga, and 1.6 mi downstream from Poe Dam.

DRAINAGE AREA.--1,953 mi².

PERIOD OF RECORD.--October 1910 to current year. Monthly discharge only for some periods and yearly estimates for water years 1911 and 1938, published in WSP 1315-A. Prior to October 1960, published as "at Big Bar."

REVISED RECORDS.--WSP 931: 1938(M), 1940. WSP 1515: 1935. WDR CA-77-4: 1976 (yearly summaries).

GAGE.--Water-stage recorder. Datum of gage is 1,305.62 ft above National Geodetic Vertical Datum of 1929. Prior to Oct. 1, 1937, at site 1.1 mi upstream at different datum. Oct. 1, 1937, to Sept. 30, 1958, at present site datum 5.00 ft higher.

REMARKS.--No estimated daily discharges. Flow regulated by Lake Almanor (station 11399000), Bucks Lake (station 11403500), Mountain Meadows Reservoir, Butt Valley Reservoir, and five forebays, combined capacity, 1,386,000 acre-ft. Diversion through Poe powerplant began on May 29, 1958. See schematic diagram of North Fork Feather River basin.

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

AVERAGE DISCHARGE (adjusted for diversion to Poe powerplant).--75 years, 3,015 ft³/s, 2,184,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (prior to diversion to Poe powerplant).--Maximum discharge, 72,400 ft³/s, Dec. 23, 1955, gage height, 35.60 ft present datum, from rating curve extended above 34,000 ft³/s; minimum daily, 235 ft³/s, Oct. 31, 1932.

1958 to current year: Maximum discharge, 73,000 ft³/s, Dec. 22, 1964, gage height, 35.80 ft, from rating curve extended above 34,000 ft³/s; minimum daily, 5.4 ft³/s, Sept. 18, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,630 ft³/s, Nov. 2, gage height, 9.74 ft; minimum daily, 54 ft³/s, Oct. 12, 20, 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|-------|-------|
| 1 | 56 | 56 | 68 | 57 | 57 | 60 | 73 | 58 | 59 | 61 | 61 | 61 |
| 2 | 57 | 522 | 67 | 56 | 57 | 60 | 78 | 58 | 58 | 60 | 61 | 61 |
| 3 | 58 | 69 | 67 | 56 | 56 | 59 | 75 | 58 | 58 | 62 | 64 | 61 |
| 4 | 56 | 57 | 64 | 58 | 56 | 62 | 73 | 59 | 59 | 60 | 63 | 61 |
| 5 | 59 | 58 | 63 | 58 | 56 | 61 | 593 | 58 | 58 | 64 | 61 | 62 |
| 6 | 57 | 159 | 66 | 56 | 57 | 67 | 666 | 58 | 59 | 61 | 61 | 61 |
| 7 | 56 | 70 | 60 | 67 | 100 | 72 | 609 | 60 | 58 | 61 | 62 | 62 |
| 8 | 57 | 66 | 58 | 61 | 1050 | 66 | 499 | 58 | 58 | 60 | 62 | 71 |
| 9 | 55 | 59 | 57 | 60 | 284 | 65 | 249 | 59 | 58 | 59 | 60 | 60 |
| 10 | 59 | 64 | 70 | 60 | 105 | 69 | 172 | 61 | 59 | 80 | 60 | 59 |
| 11 | 67 | 99 | 86 | 62 | 89 | 70 | 71 | 58 | 60 | 59 | 63 | 62 |
| 12 | 54 | 87 | 76 | 63 | 82 | 68 | 62 | 58 | 61 | 59 | 61 | 61 |
| 13 | 57 | 123 | 70 | 60 | 76 | 70 | 66 | 59 | 58 | 62 | 62 | 61 |
| 14 | 58 | 76 | 66 | 58 | 74 | 70 | 65 | 60 | 59 | 59 | 61 | 62 |
| 15 | 55 | 67 | 71 | 59 | 73 | 66 | 65 | 58 | 59 | 63 | 61 | 62 |
| 16 | 62 | 76 | 69 | 61 | 71 | 61 | 65 | 58 | 64 | 61 | 64 | 62 |
| 17 | 61 | 69 | 66 | 58 | 68 | 61 | 65 | 59 | 58 | 63 | 62 | 65 |
| 18 | 56 | 75 | 63 | 57 | 66 | 67 | 65 | 60 | 59 | 62 | 61 | 59 |
| 19 | 61 | 65 | 61 | 56 | 67 | 65 | 64 | 58 | 59 | 63 | 60 | 61 |
| 20 | 54 | 70 | 61 | 57 | 64 | 63 | 65 | 59 | 59 | 62 | 59 | 61 |
| 21 | 83 | 65 | 61 | 57 | 65 | 62 | 67 | 59 | 59 | 63 | 61 | 59 |
| 22 | 71 | 59 | 58 | 57 | 62 | 60 | 65 | 58 | 59 | 62 | 65 | 61 |
| 23 | 57 | 70 | 58 | 56 | 61 | 63 | 72 | 58 | 59 | 60 | 63 | 62 |
| 24 | 56 | 133 | 59 | 57 | 61 | 71 | 65 | 58 | 59 | 62 | 64 | 60 |
| 25 | 59 | 83 | 59 | 57 | 61 | 64 | 64 | 59 | 60 | 66 | 60 | 62 |
| 26 | 56 | 75 | 60 | 59 | 60 | 75 | 70 | 58 | 60 | 63 | 65 | 63 |
| 27 | 56 | 73 | 60 | 56 | 61 | 87 | 64 | 58 | 61 | 62 | 61 | 62 |
| 28 | 60 | 315 | 58 | 62 | 60 | 88 | 65 | 59 | 60 | 62 | 59 | 58 |
| 29 | 56 | 108 | 56 | 59 | --- | 78 | 64 | 58 | 61 | 60 | 63 | 61 |
| 30 | 54 | 75 | 56 | 58 | --- | 75 | 63 | 57 | 60 | 64 | 62 | 61 |
| 31 | 56 | --- | 56 | 58 | --- | 72 | --- | 59 | --- | 61 | 64 | --- |
| TOTAL | 1819 | 3043 | 1970 | 1816 | 3099 | 2097 | 4399 | 1815 | 1778 | 1926 | 1916 | 1844 |
| MEAN | 58.7 | 101 | 63.5 | 58.6 | 111 | 67.6 | 147 | 58.5 | 59.3 | 62.1 | 61.8 | 61.5 |
| MAX | 83 | 522 | 86 | 67 | 1050 | 88 | 666 | 61 | 64 | 80 | 65 | 71 |
| MIN | 54 | 56 | 56 | 56 | 56 | 59 | 62 | 57 | 58 | 59 | 59 | 58 |
| AC-FT | 3610 | 6040 | 3910 | 3600 | 6150 | 4160 | 8730 | 3600 | 3530 | 3820 | 3800 | 3660 |
| MEAN a | 1929 | 2684 | 2480 | 2155 | 2975 | 3077 | 3321 | 2226 | 1385 | 1942 | 1103 | 1307 |
| AC-FT a | 118600 | 159700 | 152500 | 132500 | 165200 | 189200 | 197600 | 136900 | 82400 | 119400 | 67800 | 77800 |

CAL YR 1984 TOTAL 103723 MEAN 283 MAX 6730 MIN 54 AC-FT 205700 MEAN a 2973 AC-FT a 2158000
WTR YR 1985 TOTAL 27522 MEAN 75.4 MAX 1050 MIN 54 AC-FT 54590 MEAN a 2210 AC-FT a 1600000

a Adjusted for diversion through Poe powerplant.

11405300 WEST BRANCH FEATHER RIVER NEAR PARADISE, CA

LOCATION.--Lat 39°47'12", long 121°33'42", in SE 1/4 SE 1/4 sec.6, T.22 N., R.4 E., Butte County, Hydrologic Unit 18020121, on right bank 0.6 mi upstream from Griffin Gulch, and 4.0 mi northeast of Paradise.

DRAINAGE AREA.--110 mi².

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

REVISED RECORDS.--WSP 2131: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,370 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 1, 1970, on left bank at same datum.

REMARKS.--No estimated daily discharges. Records good. Dewey, Miners, and Hendricks Canals divert from headwaters of West Branch Feather River into Butte Creek basin for power development at DeSabra and Centerville plants of Pacific Gas and Electric Co. Upper Miocene Canal diverts about 50 ft³/s to Lime Saddle powerplant. Flow regulated by Round Valley Reservoir, usable capacity, 5,000 acre-ft and Philbrook Reservoir, capacity, 5,010 acre-ft.

AVERAGE DISCHARGE.--28 years, 317 ft³/s, 229,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,300 ft³/s, Dec. 22, 1964, gage height, 26.2 ft, from floodmarks, from rating curve extended above 14,000 ft³/s; minimum daily, 0.29 ft³/s, Aug. 24, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,000 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|---|------|--------------------------------|------------------|------|------|--------------------------------|------------------|
| Feb. 8 | 0715 | *2,870 | *9.53 | | | | |
| Minimum daily, 1.2 ft ³ /s, July 25. | | | | | | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|------|------|------|------|-------|-------|-------|--------|------|-------|
| 1 | 2.0 | 2.8 | 163 | 46 | 32 | 88 | 268 | 315 | 54 | 2.8 | 1.5 | 1.6 |
| 2 | 1.9 | 278 | 137 | 45 | 33 | 91 | 378 | 320 | 50 | 2.7 | 1.6 | 1.6 |
| 3 | 1.7 | 210 | 133 | 44 | 31 | 77 | 418 | 320 | 46 | 2.6 | 1.6 | 1.6 |
| 4 | 1.7 | 51 | 114 | 43 | 27 | 86 | 409 | 279 | 75 | 2.4 | 1.6 | 1.6 |
| 5 | 1.7 | 19 | 110 | 42 | 34 | 80 | 489 | 255 | 41 | 2.3 | 1.6 | 1.6 |
| 6 | 1.7 | 81 | 100 | 42 | 41 | 85 | 503 | 269 | 36 | 2.9 | 1.6 | 1.6 |
| 7 | 1.9 | 118 | 93 | 77 | 238 | 95 | 485 | 266 | 29 | 2.3 | 1.6 | 2.3 |
| 8 | 1.9 | 160 | 90 | 67 | 1590 | 87 | 471 | 254 | 24 | 2.1 | 1.7 | 143 |
| 9 | 1.9 | 93 | 85 | 60 | 437 | 88 | 461 | 206 | 20 | 2.0 | 1.7 | 116 |
| 10 | 2.6 | 72 | 173 | 56 | 222 | 103 | 473 | 176 | 15 | 2.0 | 1.7 | 85 |
| 11 | 49 | 418 | 384 | 49 | 163 | 138 | 447 | 139 | 13 | 1.9 | 1.7 | 39 |
| 12 | 7.4 | 465 | 214 | 45 | 151 | 156 | 448 | 138 | 11 | 1.9 | 1.6 | 23 |
| 13 | 2.8 | 1050 | 143 | 42 | 132 | 154 | 493 | 152 | 9.5 | 1.9 | 1.4 | 15 |
| 14 | 2.5 | 488 | 117 | 42 | 123 | 152 | 563 | 169 | 7.7 | 1.9 | 1.4 | 14 |
| 15 | 2.1 | 204 | 122 | 40 | 119 | 157 | 560 | 163 | 6.6 | 1.9 | 1.5 | 12 |
| 16 | 3.5 | 247 | 112 | 38 | 115 | 159 | 521 | 150 | 5.5 | 1.9 | 1.5 | 10 |
| 17 | 11 | 192 | 97 | 37 | 108 | 160 | 417 | 151 | 4.4 | 1.9 | 1.5 | 8.8 |
| 18 | 2.9 | 276 | 89 | 38 | 105 | 194 | 323 | 156 | 3.7 | 1.8 | 1.5 | 8.8 |
| 19 | 2.6 | 200 | 84 | 38 | 105 | 188 | 380 | 158 | 4.3 | 1.8 | 1.5 | 9.1 |
| 20 | 2.8 | 176 | 79 | 38 | 102 | 184 | 291 | 166 | 3.9 | 1.7 | 1.5 | 7.7 |
| 21 | 3.1 | 178 | 75 | 38 | 91 | 187 | 242 | 148 | 3.2 | 1.7 | 1.5 | 2.4 |
| 22 | 2.7 | 139 | 71 | 37 | 88 | 165 | 248 | 142 | 3.2 | 1.7 | 1.5 | 2.9 |
| 23 | 2.4 | 120 | 68 | 35 | 98 | 157 | 225 | 153 | 3.2 | 1.7 | 1.5 | 2.9 |
| 24 | 2.4 | 463 | 67 | 33 | 98 | 216 | 232 | 138 | 3.1 | 1.5 | 1.5 | 2.9 |
| 25 | 2.4 | 235 | 66 | 33 | 98 | 199 | 218 | 115 | 6.5 | 1.2 | 1.6 | 3.1 |
| 26 | 2.4 | 150 | 64 | 38 | 95 | 206 | 188 | 97 | 4.4 | 1.4 | 1.7 | 3.1 |
| 27 | 2.4 | 516 | 62 | 34 | 91 | 268 | 219 | 82 | 3.5 | 1.5 | 1.6 | 3.2 |
| 28 | 2.4 | 740 | 59 | 53 | 87 | 262 | 306 | 73 | 3.2 | 1.5 | 1.6 | 3.2 |
| 29 | 3.4 | 362 | 53 | 68 | --- | 220 | 304 | 100 | 3.0 | 1.5 | 1.6 | 3.3 |
| 30 | 5.8 | 209 | 50 | 91 | --- | 209 | 288 | 77 | 2.9 | 1.5 | 1.6 | 3.3 |
| 31 | 3.2 | --- | 48 | 81 | --- | 223 | --- | 58 | --- | 1.5 | 1.6 | --- |
| TOTAL | 138.2 | 7912.8 | 3322 | 1470 | 4654 | 4834 | 11268 | 5385 | 495.8 | 59.4 | 48.6 | 533.6 |
| MEAN | 4.46 | 264 | 107 | 47.4 | 166 | 156 | 376 | 174 | 16.5 | 1.92 | 1.57 | 17.8 |
| MAX | 49 | 1050 | 384 | 91 | 1590 | 268 | 563 | 320 | 75 | 2.9 | 1.7 | 143 |
| MIN | 1.7 | 2.8 | 48 | 33 | 27 | 77 | 188 | 58 | 2.9 | 1.2 | 1.4 | 1.6 |
| AC-FT | 274 | 15700 | 6590 | 2920 | 9230 | 9590 | 22350 | 10680 | 983 | 118 | 96 | 1060 |
| CAL YR 1984 | TOTAL | 74092.9 | MEAN | 202 | MAX | 1700 | MIN | 1.2 | AC-FT | 147000 | | |
| WTR YR 1985 | TOTAL | 40121.4 | MEAN | 110 | MAX | 1590 | MIN | 1.2 | AC-FT | 79580 | | |

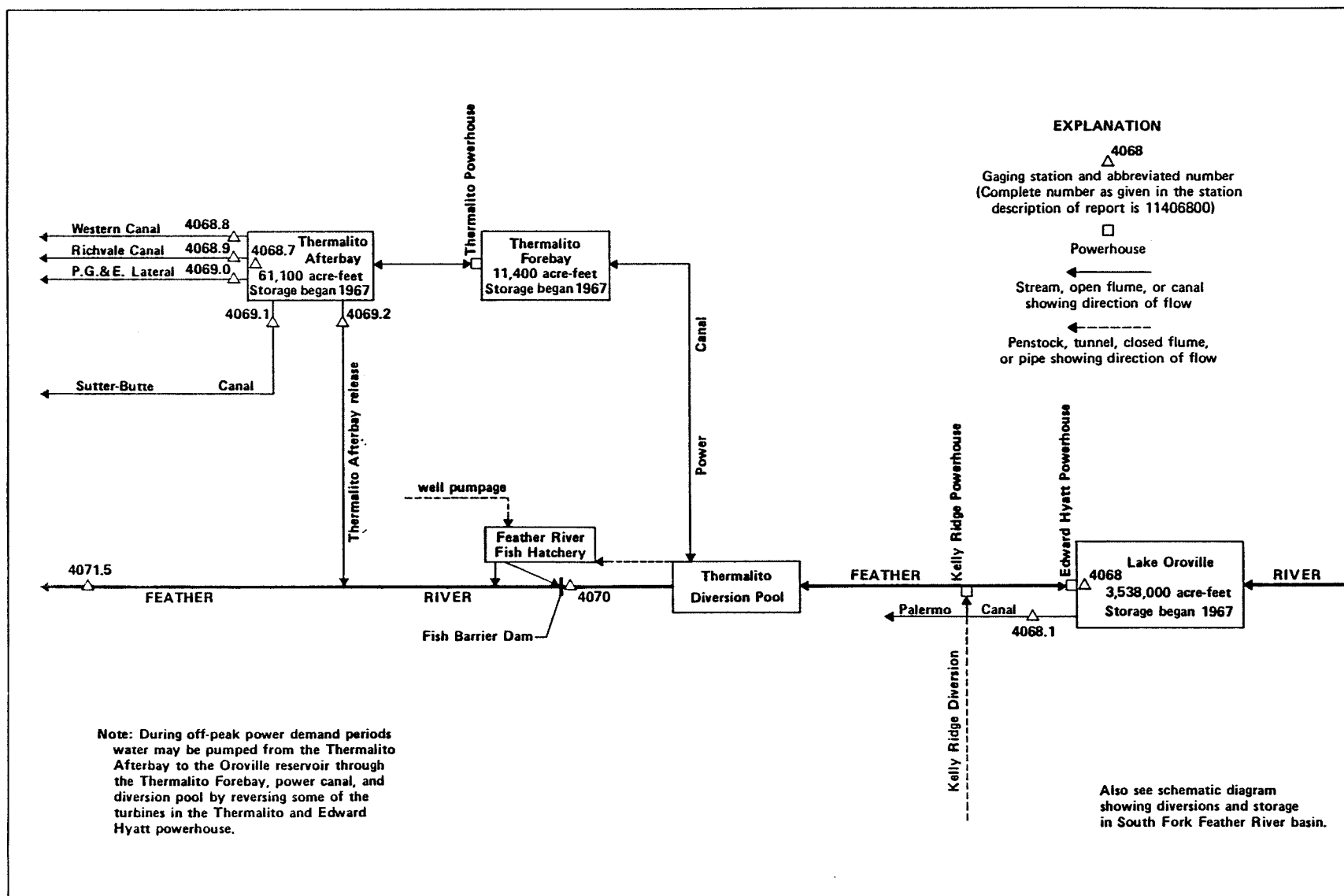


FIGURE 27. — Schematic diagram showing diversions and storage from Feather River at Lake Oroville.

11406800 LAKE OROVILLE NEAR OROVILLE, CA

LOCATION.--Lat 39°32'06", long 121°28'25", in NE 1/4 SW 1/4 sec.1, T.19 N., R.4 E., Butte County, Hydrologic Unit 18020123, near intake structure at left end of Oroville Dam on Feather River, 1.0 mi downstream from North Fork Feather River, and 4.2 mi east of Oroville.

DRAINAGE AREA.--3,607 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 0.47 ft above National Geodetic Vertical Datum of 1929

(levels by California Department of Water Resources).

REMARKS.--Reservoir is formed by an earthfill dam with concrete chute-type sidehill spillway completed May 13, 1968; storage began Nov. 14, 1967. Usable capacity, 2,685,385 acre-ft between elevations 640.0 ft, minimum power pool, and 900.0 ft, normal maximum pool. Dead storage, 852,192 acre-ft. Total capacity at normal maximum pool, 3,537,577 acre-ft; temporary detention storage occurred at times during construction; maximum was 155,200 acre-ft, Dec. 23, 1964. Water is released to Edward Hyatt powerhouse through penstock in left abutment of dam and to Palermo Canal (station 11406810) through concrete tunnel also in left abutment of dam. Three of the total of six turbines in the Edward Hyatt powerplant are reversible and during periods of low power demand water is pumped at times from the river back into Lake Oroville. Records, including extremes, represent total contents at 2400 hours. See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.--Records collected by California Department of Water Resources, under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project. Contents not rounded to Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 3,536,000 acre-ft, June 4, 1973, gage height, 899.88 ft; minimum since initial storage began, 882,395 acre-ft, Sept. 7, 1977, gage height, 645.11 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 3,274,767 acre-ft, Apr. 24, gage height, 882.91 ft; minimum, 2,131,642 acre-ft, Sept. 18, gage height 794.62 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)

| | | | | | |
|-----|-----------|-----|-----------|-----|-----------|
| 640 | 852,192 | 730 | 1,498,175 | 820 | 2,425,571 |
| 650 | 911,975 | 740 | 1,586,086 | 830 | 2,548,850 |
| 660 | 974,560 | 750 | 1,677,554 | 840 | 2,676,446 |
| 670 | 1,040,003 | 760 | 1,772,690 | 850 | 2,808,349 |
| 680 | 1,108,406 | 770 | 1,871,511 | 860 | 2,944,741 |
| 690 | 1,179,915 | 780 | 1,974,240 | 870 | 3,085,747 |
| 700 | 1,254,634 | 790 | 2,080,969 | 880 | 3,231,454 |
| 710 | 1,332,547 | 800 | 2,191,742 | 890 | 3,382,038 |
| 720 | 1,413,685 | 810 | 2,306,597 | 900 | 3,537,577 |

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1 | 2527341 | 2537954 | 2706261 | 2679042 | 2713063 | 2834049 | 3006915 | 3259240 | 3053614 | 2705999 | 2406017 | 2176101 |
| 2 | 2526343 | 2539330 | 2716731 | 2675797 | 2719091 | 2840804 | 3016778 | 3254474 | 3044233 | 2698036 | 2398802 | 2180257 |
| 3 | 2522357 | 2549226 | 2715682 | 2672813 | 2724733 | 2848249 | 3029352 | 3246440 | 3031899 | 2687226 | 2390403 | 2175877 |
| 4 | 2522855 | 2555252 | 2716207 | 2668667 | 2723551 | 2853263 | 3043665 | 3241835 | 3020589 | 2684496 | 2387648 | 2167359 |
| 5 | 2520863 | 2556006 | 2716075 | 2671258 | 2723946 | 2854213 | 3059309 | 3249499 | 3009449 | 2674240 | 2377246 | 2163556 |
| 6 | 2522357 | 2555504 | 2713718 | 2676836 | 2723289 | 2855163 | 3079301 | 3236939 | 2998901 | 2663490 | 2370925 | 2158753 |
| 7 | 2527091 | 2555881 | 2708745 | 2679301 | 2727886 | 2854213 | 3106148 | 3231454 | 2986978 | 2660387 | 2364853 | 2158083 |
| 8 | 2522108 | 2556509 | 2710184 | 2675407 | 2749103 | 2857470 | 3121872 | 3224945 | 2974947 | 2652641 | 2360930 | 2160539 |
| 9 | 2521361 | 2557012 | 2715290 | 2672425 | 2764329 | 2865217 | 3135768 | 3216228 | 2969360 | 2641566 | 2356774 | 2160651 |
| 10 | 2520614 | 2562421 | 2714111 | 2673073 | 2774822 | 2872569 | 3149708 | 3208854 | 2957663 | 2637068 | 2355587 | 2157079 |
| 11 | 2522357 | 2574527 | 2713718 | 2672554 | 2779746 | 2877615 | 3164276 | 3197227 | 2943636 | 2630907 | 2358792 | 2155964 |
| 12 | 2522855 | 2579583 | 2710707 | 2675278 | 2783743 | 2882666 | 3178159 | 3193260 | 2932282 | 2620279 | 2348240 | 2145278 |
| 13 | 2527839 | 2589716 | 2707699 | 2680340 | 2789079 | 2888955 | 3194876 | 3186510 | 2921925 | 2606367 | 2337604 | 2139284 |
| 14 | 2532581 | 2594284 | 2700384 | 2679691 | 2794824 | 2895391 | 3211802 | 3178305 | 2909531 | 2611211 | 2327824 | 2137732 |
| 15 | 2533330 | 2595081 | 2697514 | 2681248 | 2794155 | 2901700 | 3223171 | 3169824 | 2899367 | 2605858 | 2316197 | 2138840 |
| 16 | 2535079 | 2599621 | 2693474 | 2680989 | 2803790 | 2911869 | 3232047 | 3166465 | 2893610 | 2591364 | 2303208 | 2137732 |
| 17 | 2533081 | 2607004 | 2691130 | 2680730 | 2813313 | 2921649 | 3240648 | 3166757 | 2880481 | 2578319 | 2296324 | 2133634 |
| 18 | 2529835 | 2617595 | 2689568 | 2682418 | 2818151 | 2926341 | 3248670 | 3164568 | 2865489 | 2567587 | 2296790 | 2131642 |
| 19 | 2527715 | 2618745 | 2685926 | 2686316 | 2822187 | 2926065 | 3251199 | 3165151 | 2850688 | 2554624 | 2286200 | 2132416 |
| 20 | 2528837 | 2622070 | 2685666 | 2691781 | 2822456 | 2931591 | 3257154 | 3160629 | 2836344 | 2540456 | 2272750 | 2134076 |
| 21 | 2529835 | 2625782 | 2686056 | 2695559 | 2821514 | 2936432 | 3269536 | 3153928 | 2821245 | 2535580 | 2259586 | 2136845 |
| 22 | 2528338 | 2634885 | 2686446 | 2697645 | 2817345 | 2945716 | 3273422 | 3147963 | 2806202 | 2518374 | 2247278 | 2140838 |
| 23 | 2529835 | 2637709 | 2692953 | 2696993 | 2820706 | 2953908 | 3274169 | 3140410 | 2798167 | 2503109 | 2235246 | 2137178 |
| 24 | 2530958 | 2651352 | 2689829 | 2700645 | 2830136 | 2964623 | 3274767 | 3131711 | 2781878 | 2487909 | 2227593 | 2138619 |
| 25 | 2532331 | 2663103 | 2688137 | 2703778 | 2823938 | 2960445 | 3274618 | 3122306 | 2769240 | 2476582 | 2228506 | 2136180 |
| 26 | 2533455 | 2665301 | 2682028 | 2707961 | 2822860 | 2957801 | 3268789 | 3116239 | 2757039 | 2462107 | 2220526 | 2134630 |
| 27 | 2536454 | 2670092 | 2678912 | 2713326 | 2825957 | 2966575 | 3264460 | 3107876 | 2742897 | 2450862 | 2212681 | 2133505 |
| 28 | 2539454 | 2684366 | 2676836 | 2716469 | 2829731 | 2972852 | 3270881 | 3098378 | 2734463 | 2442575 | 2200101 | 2135292 |
| 29 | 2538580 | 2693865 | 2673851 | 2717648 | --- | 2978860 | 3269237 | 3087036 | 2728017 | 2430787 | 2186670 | 2136845 |
| 30 | 2538830 | 2699079 | 2679820 | 2718697 | --- | 2989775 | 3263266 | 3075723 | 2718041 | 2420855 | 2174306 | 2132416 |
| 31 | 2538329 | --- | 2672684 | 2718041 | --- | 3001992 | --- | 3064155 | --- | 2413848 | 2171279 | --- |
| MAX | 2539454 | 2699079 | 2716731 | 2718697 | 2830136 | 3001992 | 3274767 | 3259240 | 3053614 | 2705999 | 2406017 | 2180257 |
| MIN | 2520614 | 2537954 | 2672684 | 2668667 | 2713063 | 2834049 | 3006915 | 3064155 | 2718041 | 2413848 | 2171279 | 2131642 |
| a | 829.16 | 841.74 | 839.71 | 843.19 | 851.59 | 864.10 | 882.14 | 868.49 | 843.19 | 819.03 | 798.18 | 794.69 |
| b | +8993 | +160750 | -26395 | +45357 | +111690 | +172261 | +261274 | -199111 | -346114 | -304193 | -242569 | -38863 |
| c | 3346 | 894 | 957 | 724 | 2170 | 2225 | 5220 | 7120 | 9133 | 9584 | 7932 | 4696 |

CAL YR 1984 b -158126

WTR YR 1985 b -396920

a Gage height, in feet, at end of month.

b Change in contents, in acre-feet.

c Evaporation, in acre-feet.

SACRAMENTO RIVER BASIN

11406810 PALERMO CANAL NEAR OROVILLE, CA

LOCATION.--Lat 39°31'59", long 121°28'54", in SW 1/4 SW 1/4 sec.1, T.19 N., R.4 E., Butte County, Hydrologic Unit 18020106, on right bank 50 ft downstream from Oroville Dam, and 4.4 mi east of Oroville.

PERIOD OF RECORD.--April 1965 to current year. Daily discharge of diversion from Kelly Ridge penstock for period April 1965 to October 1968 when Kelly Ridge penstock supplied the entire flow of Palermo Canal are in files of California district office of Geological Survey.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 547.67 ft above National Geodetic Vertical Datum of 1929 (levels by California Department of Water Resources). April 1965 to October 1968, water-stage recorder and Parshall flume at site of diversion from Kelly Ridge penstock, 0.4 mi downstream at different datum.

REMARKS.--Canal diverts from left end of Oroville Dam. Water is used for irrigation near Oroville. During period of construction of Oroville Dam, water was released from Kelly Ridge penstock to meet irrigation requirements.

COOPERATION.--Records collected by California Department of Water Resources, under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--20 years, 11.2 ft³/s, 8,110 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 28 ft³/s, on several days during July to September 1967; no flow at times in some years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|------|------|------|------|-------|------|-------|------|------|-------|
| 1 | 18 | 3.1 | 2.3 | 2.3 | 2.0 | 4.3 | 2.3 | 18 | 16 | 20 | 20 | 20 |
| 2 | 18 | 2.5 | 2.3 | 2.3 | 2.0 | 4.3 | 2.3 | 18 | 16 | 20 | 20 | 20 |
| 3 | 17 | 2.3 | 2.3 | 2.3 | 2.0 | 4.3 | 2.3 | 18 | 16 | 20 | 20 | 20 |
| 4 | 16 | 2.3 | 2.3 | 2.3 | 2.0 | 3.5 | 2.3 | 18 | 16 | 20 | 20 | 20 |
| 5 | 16 | 2.3 | 2.3 | 2.3 | 2.0 | 3.2 | 2.3 | 18 | 16 | 20 | 20 | 20 |
| 6 | 16 | 2.3 | 2.3 | 2.3 | 2.0 | 3.2 | 2.4 | 18 | 16 | 20 | 20 | 20 |
| 7 | 16 | 2.3 | 2.3 | 2.3 | 2.0 | 3.2 | 2.4 | 18 | 16 | 20 | 20 | 20 |
| 8 | 15 | 2.3 | 2.3 | 2.3 | 2.0 | 3.2 | 3.0 | 18 | 16 | 20 | 20 | 18 |
| 9 | 13 | 2.3 | 2.3 | 2.3 | 2.2 | 3.2 | 3.3 | 18 | 16 | 20 | 20 | 11 |
| 10 | 13 | 2.3 | 2.3 | 2.3 | 2.0 | 2.1 | 3.3 | 18 | 16 | 20 | 20 | 5.4 |
| 11 | 9.4 | 2.3 | 2.3 | 2.3 | 2.1 | 1.1 | 4.7 | 18 | 16 | 20 | 20 | 5.5 |
| 12 | 8.2 | 2.3 | 2.3 | 2.3 | 2.0 | 1.1 | 5.4 | 18 | 16 | 20 | 20 | 5.5 |
| 13 | 7.6 | 2.3 | 2.3 | 2.3 | 2.0 | 1.1 | 5.4 | 18 | 16 | 20 | 20 | 7.8 |
| 14 | 6.5 | 2.3 | 2.3 | 2.3 | 2.0 | 1.1 | 5.4 | 18 | 16 | 20 | 20 | 10 |
| 15 | 6.5 | 2.3 | 2.3 | 2.3 | 2.0 | 1.1 | 6.5 | 17 | 16 | 20 | 20 | 10 |
| 16 | 4.2 | 2.3 | 2.3 | 2.3 | 2.0 | 1.1 | 8.7 | 16 | 16 | 20 | 20 | 10 |
| 17 | 2.5 | 2.3 | 2.2 | 2.3 | 2.0 | 1.1 | 11 | 16 | 16 | 20 | 20 | 10 |
| 18 | 2.0 | 2.3 | 2.3 | 2.3 | 2.0 | 1.1 | 11 | 16 | 16 | 20 | 20 | 10 |
| 19 | 2.1 | 2.3 | 2.3 | 2.3 | 2.0 | 1.1 | 12 | 16 | 17 | 20 | 20 | 10 |
| 20 | 2.0 | 2.3 | 2.3 | 2.3 | 2.0 | 1.1 | 12 | 16 | 18 | 20 | 20 | 10 |
| 21 | 2.0 | 2.3 | 2.3 | 2.2 | 2.0 | 1.1 | 13 | 16 | 18 | 20 | 20 | 10 |
| 22 | 2.0 | 2.3 | 2.3 | 2.0 | 2.0 | 1.1 | 13 | 16 | 18 | 20 | 20 | 10 |
| 23 | 2.5 | 2.3 | 2.3 | 2.0 | 2.0 | 1.1 | 14 | 16 | 18 | 20 | 20 | 13 |
| 24 | 3.3 | 2.3 | 2.3 | 2.0 | 2.1 | 1.1 | 15 | 16 | 18 | 20 | 20 | 17 |
| 25 | 3.3 | 2.3 | 2.3 | 2.0 | 2.1 | 1.5 | 14 | 16 | 18 | 20 | 20 | 17 |
| 26 | 3.3 | 2.3 | 2.3 | 2.0 | 2.1 | 2.3 | 14 | 16 | 20 | 20 | 20 | 17 |
| 27 | 3.3 | 2.3 | 2.3 | 2.0 | 2.1 | 2.3 | 15 | 16 | 20 | 20 | 20 | 17 |
| 28 | 3.3 | 2.3 | 2.3 | 2.0 | 3.4 | 2.3 | 18 | 16 | 20 | 20 | 20 | 17 |
| 29 | 3.3 | 2.3 | 2.3 | 2.0 | --- | 2.3 | 18 | 16 | 20 | 20 | 20 | 17 |
| 30 | 3.3 | 2.3 | 2.3 | 2.0 | --- | 2.3 | 18 | 16 | 20 | 20 | 20 | 17 |
| 31 | 3.2 | --- | 2.3 | 2.0 | --- | 2.3 | --- | 16 | --- | 20 | 20 | --- |
| TOTAL | 241.8 | 70.0 | 71.2 | 68.2 | 58.1 | 65.2 | 260.0 | 525 | 513 | 620 | 620 | 415.2 |
| MEAN | 7.80 | 2.33 | 2.30 | 2.20 | 2.08 | 2.10 | 8.67 | 16.9 | 17.1 | 20.0 | 20.0 | 13.8 |
| MAX | 18 | 3.1 | 2.3 | 2.3 | 3.4 | 4.3 | 18 | 18 | 20 | 20 | 20 | 20 |
| MIN | 2.0 | 2.3 | 2.2 | 2.0 | 2.0 | 1.1 | 2.3 | 16 | 16 | 20 | 20 | 5.4 |
| AC-FT | 480 | 139 | 141 | 135 | 115 | 129 | 516 | 1040 | 1020 | 1230 | 1230 | 824 |
| CAL YR 1984 | TOTAL | 3453.8 | MEAN | 9.44 | MAX | 21 | MIN | 1.1 | AC-FT | 6850 | | |
| WTR YR 1985 | TOTAL | 3527.7 | MEAN | 9.66 | MAX | 20 | MIN | 1.1 | AC-FT | 7000 | | |

11406870 THERMALITO AFTERBAY NEAR OROVILLE, CA

LOCATION.--Lat 39°27'30", long 121°38'17", in NE 1/4 SE 1/4 sec.33, T.19 N., R.3 E., Butte County, Hydrologic Unit 18020106, at dam 195 ft northeast of centerline of outlet structure, and 5.7 mi southwest of Oroville.

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

GAGE.--Water-stage recorder. Datum of gage is 100.47 ft above National Geodetic Vertical Datum of 1929 (levels by California Department of Water Resources). Auxiliary water-stage recorder 90 ft southwest of centerline of Western Canal outlet, and 7.2 mi west of Oroville.

REMARKS.--Reservoir is formed by an earthfill dam completed in 1967. Diversion from the reservoir began Oct. 12, 1967. Usable capacity, 61,144 acre-ft between gage heights 120.0 ft and 139.0 ft extreme operating levels. Normal operating range is 123 ft to 136.5 ft. Water is released to four canals (stations 11406880, 11406890, 11406900, and 11406910), and to the Feather River (station 11406920) from the reservoir. Total maximum release to the four canals is approximately 4,000 ft³/s. Water is pumped, at times, from Thermalito Afterbay back into Thermalito Forebay during off-peak periods to be re-released through Thermalito powerplant for power generation during peak demand periods. Records, including extremes, represent total contents at 2400 hours. See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.--Records collected by California Department of Water Resources, under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project. Contents not rounded to Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 57,300 acre-ft, May 24, 1969, gage height, 136.56 ft; minimum since initial operation began, 5,590 acre-ft, Mar. 1, 1968, gage height, 119.09 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 56,698 acre-ft, Mar. 29, gage height, 136.42 ft; minimum, 14,852 acre-ft, Feb. 24, gage height, 123.87 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)

| | | | |
|-----|--------|-----|--------|
| 120 | 7,054 | 128 | 25,832 |
| 122 | 10,792 | 130 | 32,150 |
| 124 | 15,157 | 134 | 46,719 |
| 126 | 20,171 | 139 | 68,198 |

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 18649 | 26707 | 31986 | 16910 | 26951 | 27596 | 55331 | 21443 | 22162 | 26737 | 55714 | 38829 |
| 2 | 18856 | 29673 | 24881 | 18010 | 22748 | 23259 | 56311 | 22751 | 20251 | 27043 | 54147 | 27813 |
| 3 | 21772 | 24558 | 26041 | 20386 | 18367 | 19404 | 56397 | 26677 | 21773 | 27751 | 52765 | 26404 |
| 4 | 21634 | 20924 | 25087 | 24005 | 18908 | 17556 | 56397 | 28468 | 22413 | 21967 | 47114 | 30024 |
| 5 | 23088 | 20199 | 23259 | 22861 | 18960 | 18778 | 55501 | 24530 | 23261 | 25148 | 50210 | 29193 |
| 6 | 21552 | 21827 | 24616 | 18443 | 19694 | 22608 | 50865 | 22807 | 23719 | 29289 | 48430 | 29639 |
| 7 | 17157 | 24005 | 27596 | 16984 | 21882 | 26524 | 39522 | 22162 | 25325 | 22751 | 47392 | 25414 |
| 8 | 21607 | 25562 | 23861 | 20386 | 28406 | 27534 | 37675 | 22807 | 26042 | 23261 | 43876 | 20951 |
| 9 | 22077 | 27411 | 16179 | 21196 | 24005 | 24412 | 37496 | 23863 | 20385 | 28845 | 40037 | 21498 |
| 10 | 24704 | 23630 | 17481 | 21634 | 19694 | 20119 | 37318 | 24530 | 21967 | 27165 | 33527 | 24472 |
| 11 | 24763 | 19694 | 18443 | 23458 | 20386 | 21196 | 36502 | 28972 | 24414 | 25832 | 23661 | 24472 |
| 12 | 25741 | 21689 | 21827 | 22411 | 21497 | 21827 | 36856 | 22948 | 26404 | 28845 | 26404 | 32919 |
| 13 | 22021 | 21966 | 24266 | 18546 | 21387 | 22608 | 32150 | 23719 | 25772 | 33867 | 27473 | 36502 |
| 14 | 18239 | 23544 | 29577 | 19588 | 22021 | 23060 | 25922 | 27380 | 27534 | 21580 | 28186 | 35520 |
| 15 | 18188 | 26828 | 31457 | 19641 | 27534 | 25921 | 24677 | 30379 | 27813 | 19273 | 31918 | 32283 |
| 16 | 17707 | 28374 | 33936 | 20627 | 24470 | 23116 | 23921 | 30153 | 21498 | 22666 | 36431 | 31687 |
| 17 | 20870 | 25592 | 33936 | 22077 | 20172 | 20386 | 23518 | 26253 | 23062 | 25355 | 33087 | 35381 |
| 18 | 25057 | 21305 | 33629 | 21882 | 19273 | 20493 | 22554 | 25000 | 24677 | 27596 | 23318 | 37496 |
| 19 | 27596 | 23430 | 33936 | 20870 | 18908 | 29513 | 26525 | 19958 | 24941 | 30379 | 24007 | 36998 |
| 20 | 24969 | 25264 | 31754 | 18495 | 19090 | 32285 | 26890 | 21142 | 25623 | 33222 | 29416 | 34827 |
| 21 | 21332 | 27165 | 29067 | 16812 | 20493 | 35451 | 19143 | 21884 | 27751 | 28249 | 36010 | 32751 |
| 22 | 23803 | 23088 | 26252 | 17207 | 25146 | 34966 | 19143 | 23204 | 28468 | 35625 | 39853 | 29512 |
| 23 | 23173 | 24383 | 16861 | 19959 | 22664 | 31820 | 19456 | 24677 | 22134 | 39926 | 44957 | 30769 |
| 24 | 22861 | 22692 | 16689 | 19773 | 14852 | 28406 | 21498 | 26677 | 24618 | 46482 | 44957 | 29067 |
| 25 | 22833 | 19351 | 15747 | 18908 | 21579 | 39266 | 20681 | 25772 | 24794 | 49722 | 35695 | 30024 |
| 26 | 23003 | 22049 | 18010 | 18495 | 22411 | 51437 | 26192 | 22162 | 27534 | 54907 | 35451 | 29928 |
| 27 | 21717 | 28751 | 20012 | 16299 | 22411 | 52016 | 30932 | 20198 | 31819 | 55416 | 35765 | 27319 |
| 28 | 18239 | 30187 | 21332 | 17381 | 24470 | 54230 | 20573 | 20492 | 30379 | 53475 | 40814 | 24677 |
| 29 | 20332 | 31754 | 23803 | 17909 | --- | 56698 | 18317 | 22469 | 25623 | 55628 | 47114 | 20627 |
| 30 | 21855 | 34106 | 17431 | 18856 | --- | 53557 | 21635 | 24326 | 25355 | 56097 | 54231 | 22357 |
| 31 | 24179 | --- | 23516 | 21442 | --- | 50290 | --- | 24735 | --- | 54907 | 50006 | --- |
| MAX | 27596 | 34106 | 33936 | 24005 | 28406 | 56698 | 56397 | 30379 | 31819 | 56097 | 55714 | 38829 |
| MIN | 17157 | 19351 | 15747 | 16299 | 14852 | 17556 | 18317 | 19958 | 20251 | 19273 | 23318 | 20627 |
| a | 127.44 | 130.58 | 127.21 | 126.47 | 127.54 | 134.89 | 126.54 | 127.63 | 127.84 | 136.00 | 134.82 | 126.80 |
| b | +6598 | +9927 | -10590 | -2074 | +3028 | +25820 | -28655 | +3100 | +620 | +29552 | -4901 | -27649 |
| c | 873 | 393 | 288 | 101 | 492 | 636 | 1432 | 1704 | 2058 | 2515 | 2487 | 1442 |

CAL YR 1984 b -15896

WTR YR 1985 b + 4776

a Gage height, in feet, at end of month.

b Change in contents, in acre-feet.

c Evaporation, in acre-feet.

SACRAMENTO RIVER BASIN

11406880 WESTERN CANAL AT INTAKE, NEAR OROVILLE, CA

LOCATION.--Lat 39°30'19", long 121°41'06", in SW 1/4 NW 1/4 sec.18, T.19 N., R.3 E., Butte County, Hydrologic Unit 18020105, on left bank 500 ft downstream from Thermalito Afterbay Dam, and 7.3 mi west of Oroville.

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

GAGE.--Water-stage recorder. Datum of gage is 100.47 ft above National Geodetic Vertical Datum of 1929 (levels by California Department of Water Resources).

REMARKS.--Water is diverted from Thermalito Afterbay and is used for irrigation. See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.--Records collected by California Department of Water Resources, under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--17 years, 313 ft³/s, 226,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,200 ft³/s, May 12, 1981, May 6,7, 1984; no flow for several months most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|------|------|-----|------|------|-------|-------|--------|-------|------|
| 1 | 250 | 354 | 0 | 274 | | | 0 | 1010 | 695 | 937 | 804 | 441 |
| 2 | 249 | 355 | 0 | 281 | | | 0 | 1020 | 694 | 896 | 791 | 433 |
| 3 | 245 | 353 | 0 | 280 | | | 0 | 1020 | 694 | 862 | 790 | 374 |
| 4 | 245 | 355 | 0 | 264 | | | 0 | 1040 | 695 | 848 | 791 | 300 |
| 5 | 244 | 355 | 0 | 253 | | | 0 | 1120 | 694 | 848 | 757 | 249 |
| 6 | 244 | 363 | 0 | 253 | | | 0 | 1140 | 725 | 851 | 767 | 212 |
| 7 | 242 | 325 | 0 | 254 | | | 0 | 1170 | 773 | 850 | 756 | 179 |
| 8 | 275 | 271 | 0 | 255 | | | 0 | 1170 | 848 | 842 | 767 | 169 |
| 9 | 298 | 247 | 0 | 256 | | | 0 | 1150 | 848 | 828 | 782 | 133 |
| 10 | 299 | 252 | 0 | 255 | | | 0 | 1110 | 848 | 856 | 798 | 79 |
| 11 | 298 | 252 | 0 | 255 | | | 0 | 1110 | 872 | 866 | 817 | 70 |
| 12 | 304 | 217 | 0 | 93 | | | 0 | 1090 | 899 | 866 | 807 | 53 |
| 13 | 322 | 207 | 0 | 0 | | | 0 | 1030 | 896 | 866 | 796 | 44 |
| 14 | 327 | 207 | 0 | 0 | | | 0 | 985 | 945 | 866 | 794 | 44 |
| 15 | 341 | 209 | 0 | 0 | | | 28 | 932 | 990 | 866 | 778 | 44 |
| 16 | 357 | 207 | 0 | 0 | | | 76 | 905 | 1020 | 873 | 768 | 43 |
| 17 | 356 | 206 | 0 | 0 | | | 130 | 921 | 1070 | 867 | 755 | 40 |
| 18 | 355 | 207 | 0 | 0 | | | 155 | 955 | 1100 | 866 | 743 | 40 |
| 19 | 356 | 208 | 0 | 0 | | | 152 | 931 | 1080 | 867 | 732 | 39 |
| 20 | 356 | 209 | 0 | 0 | | | 150 | 846 | 1030 | 866 | 711 | 38 |
| 21 | 355 | 209 | 0 | 0 | | | 149 | 782 | 978 | 867 | 694 | 38 |
| 22 | 351 | 207 | 0 | 0 | | | 151 | 749 | 949 | 851 | 678 | 37 |
| 23 | 347 | 209 | 0 | 0 | | | 185 | 744 | 950 | 842 | 667 | 37 |
| 24 | 350 | 78 | 0 | 0 | | | 236 | 743 | 949 | 842 | 656 | 39 |
| 25 | 355 | 0 | 0 | 0 | | | 287 | 746 | 936 | 839 | 648 | 38 |
| 26 | 354 | 0 | 0 | 0 | | | 339 | 745 | 910 | 839 | 623 | 39 |
| 27 | 354 | 0 | 24 | 0 | | | 424 | 745 | 900 | 841 | 569 | 39 |
| 28 | 352 | 0 | 99 | 0 | | | 684 | 747 | 929 | 841 | 539 | 36 |
| 29 | 355 | 0 | 123 | 0 | | | 865 | 746 | 951 | 841 | 513 | 32 |
| 30 | 355 | 0 | 121 | 0 | | | 984 | 728 | 951 | 825 | 473 | 85 |
| 31 | 355 | --- | 203 | 0 | | | --- | 694 | --- | 815 | 444 | --- |
| TOTAL | 9846 | 6062 | 570 | 2973 | 0 | 0 | 4995 | 28824 | 26819 | 26530 | 22008 | 3444 |
| MEAN | 318 | 202 | 18.4 | 95.9 | 0 | 0 | 166 | 930 | 894 | 856 | 710 | 115 |
| MAX | 357 | 363 | 203 | 281 | 0 | 0 | 984 | 1170 | 1100 | 937 | 817 | 441 |
| MIN | 242 | 0 | 0 | 0 | 0 | 0 | 0 | 694 | 694 | 815 | 444 | 32 |
| AC-FT | 19530 | 12020 | 1130 | 5900 | 0 | 0 | 9910 | 57170 | 53200 | 52620 | 43650 | 6830 |
| CAL YR 1984 | TOTAL | 128890 | MEAN | 352 | MAX | 1200 | MIN | 0 | AC-FT | 255700 | | |
| WTR YR 1985 | TOTAL | 132071 | MEAN | 362 | MAX | 1170 | MIN | 0 | AC-FT | 262000 | | |

11406890 RICHVALE CANAL AT INTAKE, NEAR OROVILLE, CA

LOCATION.--Lat 39°30'19", long 121°41'06", in SW 1/4 NW 1/4 sec.18, T.19 N., R.3 E., Butte County, Hydrologic Unit 18020105, on right bank 500 ft downstream from axis of Thermalito Afterbay Dam, and 7.3 mi west of Oroville.

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

GAGE.--Water-stage recorder. Datum of gage is 100.47 ft above National Geodetic Vertical Datum of 1929 (levels by California Department of Water Resources).

REMARKS.--Canal diverts from Thermalito Afterbay; water is used for irrigation. The canal is part of the Oroville project. See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.--Records collected by California Department of Water Resources, under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--17 years, 116 ft³/s, 84,040 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 511 ft³/s, May 16, 1974; no flow for several months in each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|-------|------|-----|-----|-----|------|-------|-------|-------|-------|------|
| 1 | | | | | | | 0 | 365 | 259 | 373 | 315 | 229 |
| 2 | | | | | | | 0 | 365 | 259 | 373 | 315 | 219 |
| 3 | | | | | | | 0 | 317 | 259 | 373 | 315 | 190 |
| 4 | | | | | | | 0 | 285 | 276 | 372 | 315 | 144 |
| 5 | | | | | | | 0 | 322 | 333 | 373 | 315 | 128 |
| 6 | | | | | | | 0 | 342 | 360 | 373 | 314 | 107 |
| 7 | | | | | | | 0 | 343 | 360 | 373 | 308 | 99 |
| 8 | | | | | | | 0 | 340 | 360 | 372 | 298 | 97 |
| 9 | | | | | | | 0 | 338 | 360 | 369 | 296 | 97 |
| 10 | | | | | | | 0 | 363 | 360 | 362 | 295 | 99 |
| 11 | | | | | | | 0 | 345 | 360 | 347 | 295 | 65 |
| 12 | | | | | | | 0 | 332 | 360 | 341 | 295 | 49 |
| 13 | | | | | | | 0 | 266 | 360 | 340 | 296 | 49 |
| 14 | | | | | | | 0 | 238 | 386 | 342 | 296 | 38 |
| 15 | | | | | | | 0 | 239 | 401 | 341 | 295 | 34 |
| 16 | | | | | | | 76 | 239 | 401 | 343 | 295 | 34 |
| 17 | | | | | | | 158 | 239 | 405 | 343 | 296 | 34 |
| 18 | | | | | | | 177 | 239 | 408 | 341 | 296 | 35 |
| 19 | | | | | | | 216 | 239 | 408 | 342 | 296 | 36 |
| 20 | | | | | | | 249 | 240 | 408 | 342 | 296 | 36 |
| 21 | | | | | | | 256 | 238 | 408 | 342 | 295 | 35 |
| 22 | | | | | | | 255 | 227 | 408 | 342 | 296 | 34 |
| 23 | | | | | | | 250 | 220 | 408 | 342 | 282 | 34 |
| 24 | | | | | | | 285 | 220 | 408 | 330 | 275 | 34 |
| 25 | | | | | | | 306 | 234 | 385 | 326 | 276 | 34 |
| 26 | | | | | | | 306 | 239 | 373 | 326 | 258 | 34 |
| 27 | | | | | | | 333 | 239 | 373 | 326 | 251 | 33 |
| 28 | | | | | | | 360 | 238 | 373 | 326 | 250 | 32 |
| 29 | | | | | | | 369 | 238 | 373 | 319 | 250 | 32 |
| 30 | | | | | | | 367 | 239 | 372 | 314 | 251 | 31 |
| 31 | | | | | | | --- | 252 | --- | 314 | 249 | --- |
| TOTAL | 0 | 0 | 0 | 0 | 0 | 0 | 3963 | 8580 | 10964 | 10742 | 8975 | 2152 |
| MEAN | 0 | 0 | 0 | 0 | 0 | 0 | 132 | 277 | 365 | 347 | 290 | 71.7 |
| MAX | 0 | 0 | 0 | 0 | 0 | 0 | 369 | 365 | 408 | 373 | 315 | 229 |
| MIN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 220 | 259 | 314 | 249 | 31 |
| AC-FT | 0 | 0 | 0 | 0 | 0 | 0 | 7860 | 17020 | 21750 | 21310 | 17800 | 4270 |
| CAL YR 1984 | TOTAL | 40357 | MEAN | 110 | MAX | 379 | MIN | 0 | AC-FT | 80050 | | |
| WTR YR 1985 | TOTAL | 45376 | MEAN | 124 | MAX | 408 | MIN | 0 | AC-FT | 90000 | | |

SACRAMENTO RIVER BASIN

11406900 PACIFIC GAS AND ELECTRIC CO. LATERAL AT INTAKE, NEAR OROVILLE, CA

LOCATION.--Lat 39°29'22", long 121°41'12", in SE 1/4 NW 1/4 sec.19, T.19 N., R.3 E., Butte County, Hydrologic Unit 18020106, on right bank 82 ft downstream from axis of Thermalito Afterbay Dam, and 7.2 mi west of Oroville.

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

GAGE.--Water-stage recorder. Datum of gage is 113.47 ft above National Geodetic Vertical Datum of 1929 (levels by California Department of Water Resources).

REMARKS.--Flow regulated at outlet works from Thermalito Afterbay; water is used for irrigation.

COOPERATION.--Records collected by California Department of Water Resources, under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--17 years, 4.85 ft³/s, 3,510 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 46 ft³/s, Apr. 24, 1977, May 16, 1978; no flow for several months in each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|------|------|-----|-----|-------|-------|-------|------|-------|------|
| 1 | | 0 | | | | | 0 | 33 | 9.0 | 15 | 13 | 1.0 |
| 2 | | 0 | | | | | 0 | 28 | 9.0 | 14 | 13 | 1.0 |
| 3 | | 0 | | | | | 0 | 23 | 9.0 | 14 | 13 | .98 |
| 4 | | 0 | | | | | 0 | 23 | 9.0 | 14 | 13 | 1.1 |
| 5 | | 7.6 | | | | | 0 | 17 | 9.0 | 14 | 13 | 1.1 |
| 6 | | 12 | | | | | 0 | 10 | 6.6 | 14 | 13 | .38 |
| 7 | | 12 | | | | | 0 | 10 | 5.1 | 14 | 13 | 1.2 |
| 8 | | 12 | | | | | 0 | 10 | 4.0 | 13 | 12 | .72 |
| 9 | | 12 | | | | | 0 | 10 | 8.8 | 13 | 12 | 0 |
| 10 | | 12 | | | | | 0 | 12 | 20 | 13 | 12 | 0 |
| 11 | | 12 | | | | | 0 | 14 | 26 | 13 | 12 | 0 |
| 12 | | 12 | | | | | 0 | 14 | 30 | 13 | 12 | 0 |
| 13 | | 8.4 | | | | | 0 | 9.7 | 30 | 14 | 12 | 0 |
| 14 | | 6.0 | | | | | 0 | 6.0 | 27 | 13 | 13 | 0 |
| 15 | | 6.0 | | | | | 0 | 6.0 | 20 | 13 | 13 | 0 |
| 16 | | 2.1 | | | | | 0 | 6.0 | 14 | 13 | 12 | 0 |
| 17 | | 0 | | | | | 0 | 6.0 | 12 | 13 | 12 | 0 |
| 18 | | 0 | | | | | 0 | 6.0 | 11 | 13 | 12 | 0 |
| 19 | | 0 | | | | | 0 | 5.9 | 11 | 13 | 12 | 0 |
| 20 | | 0 | | | | | 0 | 8.3 | 11 | 13 | 12 | 0 |
| 21 | | 0 | | | | | 0 | 9.9 | 11 | 13 | 11 | 0 |
| 22 | | 0 | | | | | 0 | 9.9 | 12 | 13 | 9.9 | 0 |
| 23 | | 0 | | | | | 0 | 9.9 | 13 | 13 | 10 | 0 |
| 24 | | 0 | | | | | 5.8 | 11 | 13 | 13 | 9.9 | 0 |
| 25 | | 0 | | | | | 12 | 12 | 13 | 13 | 10 | 0 |
| 26 | | 0 | | | | | 14 | 12 | 13 | 13 | 9.5 | 0 |
| 27 | | 0 | | | | | 14 | 12 | 13 | 14 | 9.1 | 0 |
| 28 | | 0 | | | | | 27 | 12 | 14 | 13 | 8.7 | 0 |
| 29 | | 0 | | | | | 33 | 12 | 15 | 13 | 3.8 | 0 |
| 30 | | 0 | | | | | 33 | 12 | 16 | 13 | 1.1 | 0 |
| 31 | | --- | | | | | --- | 11 | --- | 13 | 1.0 | --- |
| TOTAL | 0 | 114.1 | 0 | 0 | 0 | 0 | 138.8 | 381.6 | 414.5 | 413 | 333.0 | 7.48 |
| MEAN | 0 | 3.80 | 0 | 0 | 0 | 0 | 4.63 | 12.3 | 13.8 | 13.3 | 10.7 | .25 |
| MAX | 0 | 12 | 0 | 0 | 0 | 0 | 33 | 33 | 30 | 15 | 13 | 1.2 |
| MIN | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5.9 | 4.0 | 13 | 1.0 | 0 |
| AC-FT | 0 | 226 | 0 | 0 | 0 | 0 | 275 | 757 | 822 | 819 | 661 | 15 |
| CAL YR 1984 | TOTAL | 1727.7 | MEAN | 4.72 | MAX | 39 | MIN | 0 | AC-FT | 3430 | | |
| WTR YR 1985 | TOTAL | 1802.48 | MEAN | 4.94 | MAX | 33 | MIN | 0 | AC-FT | 3580 | | |

11406910 SUTTER-BUTTE CANAL AT INTAKE, NEAR OROVILLE, CA

LOCATION.--Lat 39°27'01", long 121°39'27", in NW corner of Boga Fernandez Grant, T.18 N., R.3 E., Butte County, Hydrologic Unit 18020105, on left bank 675 ft downstream from Thermalito Afterbay Dam, and 6.8 mi southwest of Oroville.

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

GAGE.--Water-stage recorder. Datum of gage is 109.97 ft above National Geodetic Vertical Datum of 1929 (levels by California Department of Water Resources). Prior to May 1, 1970, at datum 109.50 ft lower.

REMARKS.--Water is diverted from Thermalito Afterbay and is used for irrigation. See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.--Records collected by California Department of Water Resources, under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--17 years, 648 ft³/s, 469,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 2,110 ft³/s, Apr. 22-24, 1968; no flow for several months in each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|------|-----|-----|-------|-------|-------|-------|--------|-------|-------|
| 1 | 444 | | | | | 0 | 407 | 1610 | 1260 | 1520 | 1540 | 1210 |
| 2 | 433 | | | | | 0 | 389 | 1690 | 1260 | 1520 | 1530 | 1200 |
| 3 | 425 | | | | | 0 | 379 | 1700 | 1290 | 1520 | 1520 | 1170 |
| 4 | 425 | | | | | 69 | 411 | 1680 | 1310 | 1500 | 1500 | 1130 |
| 5 | 422 | | | | | 119 | 448 | 1700 | 1320 | 1520 | 1470 | 1090 |
| 6 | 422 | | | | | 288 | 497 | 1710 | 1380 | 1500 | 1490 | 1060 |
| 7 | 422 | | | | | 375 | 497 | 1710 | 1440 | 1490 | 1520 | 986 |
| 8 | 414 | | | | | 310 | 540 | 1770 | 1440 | 1500 | 1510 | 954 |
| 9 | 407 | | | | | 319 | 611 | 1800 | 1490 | 1460 | 1500 | 879 |
| 10 | 407 | | | | | 318 | 674 | 1800 | 1530 | 1490 | 1480 | 751 |
| 11 | 396 | | | | | 256 | 685 | 1730 | 1500 | 1550 | 1480 | 580 |
| 12 | 379 | | | | | 232 | 705 | 1660 | 1500 | 1570 | 1490 | 536 |
| 13 | 364 | | | | | 241 | 727 | 1630 | 1560 | 1570 | 1490 | 506 |
| 14 | 364 | | | | | 237 | 771 | 1600 | 1610 | 1560 | 1470 | 468 |
| 15 | 364 | | | | | 244 | 793 | 1580 | 1650 | 1560 | 1450 | 415 |
| 16 | 354 | | | | | 248 | 829 | 1550 | 1660 | 1560 | 1450 | 388 |
| 17 | 344 | | | | | 247 | 928 | 1520 | 1670 | 1570 | 1450 | 383 |
| 18 | 337 | | | | | 244 | 960 | 1500 | 1670 | 1590 | 1450 | 385 |
| 19 | 327 | | | | | 242 | 1010 | 1450 | 1670 | 1600 | 1430 | 386 |
| 20 | 323 | | | | | 313 | 992 | 1430 | 1670 | 1600 | 1400 | 394 |
| 21 | 323 | | | | | 345 | 1010 | 1410 | 1660 | 1590 | 1400 | 393 |
| 22 | 313 | | | | | 451 | 1020 | 1360 | 1650 | 1590 | 1400 | 395 |
| 23 | 307 | | | | | 497 | 1180 | 1360 | 1640 | 1590 | 1380 | 397 |
| 24 | 310 | | | | | 503 | 1350 | 1310 | 1620 | 1580 | 1370 | 406 |
| 25 | 310 | | | | | 549 | 1410 | 1260 | 1590 | 1580 | 1360 | 411 |
| 26 | 313 | | | | | 579 | 1410 | 1250 | 1570 | 1590 | 1370 | 447 |
| 27 | 310 | | | | | 462 | 1410 | 1230 | 1570 | 1590 | 1330 | 463 |
| 28 | 310 | | | | | 414 | 1440 | 1240 | 1570 | 1580 | 1300 | 464 |
| 29 | 310 | | | | | 431 | 1500 | 1260 | 1570 | 1590 | 1260 | 465 |
| 30 | 313 | | | | | 422 | 1560 | 1290 | 1530 | 1580 | 1220 | 458 |
| 31 | 141 | | | | | 407 | --- | 1270 | --- | 1570 | 1210 | --- |
| TOTAL | 11033 | 0 | 0 | 0 | 0 | 9362 | 26543 | 47060 | 45850 | 48180 | 44220 | 19170 |
| MEAN | 356 | 0 | 0 | 0 | 0 | 302 | 885 | 1518 | 1528 | 1554 | 1426 | 639 |
| MAX | 444 | 0 | 0 | 0 | 0 | 579 | 1560 | 1800 | 1670 | 1600 | 1540 | 1210 |
| MIN | 141 | 0 | 0 | 0 | 0 | 0 | 379 | 1230 | 1260 | 1460 | 1210 | 383 |
| AC-FT | 21880 | 0 | 0 | 0 | 0 | 18570 | 52650 | 93340 | 90940 | 95570 | 87710 | 38020 |
| CAL YR 1984 | TOTAL | 243800 | MEAN | 666 | MAX | 1880 | MIN | 0 | AC-FT | 483600 | | |
| WTR YR 1985 | TOTAL | 251418 | MEAN | 689 | MAX | 1800 | MIN | 0 | AC-FT | 498700 | | |

SACRAMENTO RIVER BASIN

11406920 THERMALITO AFTERBAY RELEASE TO FEATHER RIVER, NEAR OROVILLE, CA

LOCATION.--Lat 39°27'23", long 121°38'10", in NW 1/4 SE 1/4 sec.33, T.19 N., R.3 E., Butte County, Hydrologic Unit 18020106, on left bank of outlet channel 955 ft downstream from centerline of Thermalito Afterbay Dam, and 5.7 mi southwest of Oroville.

WATER-DISCHARGE RECORDS

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

GAGE.--Water-stage recorder. Datum of gage is 113.47 ft above National Geodetic Vertical Datum of 1929 (levels by California Department of Water Resources). Prior to May 1, 1970, at datum 13.00 ft lower.

REMARKS.--Flow regulated by gates of Thermalito Afterbay outlet 955 ft upstream. See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

COOPERATION.--Records collected by California Department of Water Resources, under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--17 years, 4,425 ft³/s, 3,206,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,600 ft³/s, Jan. 28, 1970, gage height, 23.30 ft previous datum; no flow for many days in 1968.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 5,160 ft³/s, May 29, minimum daily, 1,270 ft³/s, Oct. 13, 27, 28, Jan. 21, Sept. 22.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|--------|--------|--------|-------|--------|--------|--------|---------|--------|-------|
| 1 | 2090 | 1510 | 2730 | 3060 | 2290 | 2140 | 1310 | 3880 | 5090 | 3630 | 3570 | 1700 |
| 2 | 2100 | 1660 | 3540 | 3080 | 2270 | 2100 | 1330 | 4140 | 5110 | 3630 | 3580 | 1650 |
| 3 | 1980 | 1650 | 4100 | 3070 | 2270 | 2090 | 1340 | 4150 | 5130 | 3620 | 3130 | 1570 |
| 4 | 1770 | 1640 | 4560 | 2830 | 2290 | 2110 | 1330 | 4150 | 5120 | 3590 | 3090 | 1390 |
| 5 | 1700 | 1870 | 4560 | 2100 | 2290 | 2100 | 1330 | 4120 | 5110 | 3370 | 3110 | 1290 |
| 6 | 1700 | 1980 | 4540 | 2080 | 2290 | 2110 | 1310 | 4140 | 5120 | 3110 | 3090 | 1300 |
| 7 | 1680 | 1980 | 4540 | 2080 | 2290 | 2120 | 1300 | 4140 | 4870 | 3060 | 3090 | 1290 |
| 8 | 1700 | 1990 | 4510 | 2100 | 2300 | 2120 | 1330 | 4140 | 4590 | 2850 | 3080 | 1280 |
| 9 | 1590 | 1990 | 4500 | 2100 | 2270 | 2100 | 1330 | 4140 | 4570 | 2620 | 3060 | 1290 |
| 10 | 1380 | 1970 | 4540 | 2100 | 2280 | 2090 | 1320 | 4140 | 4590 | 2600 | 2580 | 1300 |
| 11 | 1290 | 1950 | 4540 | 2100 | 2280 | 2020 | 1330 | 4170 | 4600 | 2600 | 2570 | 1280 |
| 12 | 1290 | 1930 | 4550 | 2090 | 1900 | 1820 | 1330 | 4090 | 4150 | 2870 | 2600 | 1300 |
| 13 | 1270 | 1930 | 4540 | 2070 | 1710 | 1610 | 1950 | 3880 | 4120 | 3390 | 2600 | 1310 |
| 14 | 1280 | 1940 | 4540 | 2090 | 1500 | 1410 | 2100 | 3650 | 4110 | 3340 | 2590 | 1310 |
| 15 | 1280 | 1930 | 4530 | 2100 | 1300 | 1320 | 2360 | 3370 | 4090 | 3490 | 2600 | 1300 |
| 16 | 1280 | 1940 | 4540 | 2100 | 1750 | 1290 | 2610 | 2630 | 4110 | 3610 | 2610 | 1280 |
| 17 | 1280 | 1930 | 4540 | 1990 | 2270 | 1290 | 2610 | 2610 | 4400 | 3620 | 2580 | 1300 |
| 18 | 1280 | 1950 | 4530 | 1760 | 2280 | 1300 | 2610 | 2610 | 4630 | 4130 | 2560 | 1300 |
| 19 | 1290 | 1970 | 4530 | 1560 | 2540 | 1310 | 2620 | 3330 | 4620 | 4170 | 2580 | 1300 |
| 20 | 1280 | 1980 | 4520 | 1370 | 3310 | 1310 | 2620 | 3650 | 4620 | 4160 | 2170 | 1280 |
| 21 | 1280 | 1970 | 4530 | 1270 | 3790 | 1310 | 2590 | 3640 | 4620 | 4130 | 2120 | 1280 |
| 22 | 1290 | 1950 | 4530 | 1280 | 3810 | 1320 | 2610 | 3650 | 4600 | 3910 | 2120 | 1270 |
| 23 | 1290 | 1960 | 4500 | 1300 | 3780 | 1300 | 2130 | 3880 | 4550 | 3670 | 2120 | 1290 |
| 24 | 1290 | 1960 | 4550 | 1280 | 3760 | 1290 | 2130 | 4420 | 4100 | 3650 | 2130 | 1300 |
| 25 | 1290 | 1950 | 4530 | 1280 | 3820 | 1320 | 2120 | 4630 | 3590 | 3610 | 2100 | 1380 |
| 26 | 1280 | 1960 | 4420 | 1280 | 3810 | 1330 | 2120 | 4620 | 3600 | 3620 | 2090 | 1800 |
| 27 | 1270 | 1970 | 3660 | 1280 | 3070 | 1310 | 2600 | 4630 | 3610 | 3580 | 2100 | 2090 |
| 28 | 1270 | 1970 | 3080 | 1290 | 2320 | 1320 | 3090 | 4870 | 3590 | 3560 | 2090 | 2080 |
| 29 | 1290 | 1970 | 3090 | 1300 | --- | 1330 | 3390 | 5160 | 3560 | 3580 | 2090 | 2090 |
| 30 | 1280 | 1970 | 3060 | 1770 | --- | 1340 | 3610 | 5140 | 3590 | 3560 | 2080 | 2100 |
| 31 | 1280 | --- | 3110 | 1780 | --- | 1300 | --- | 5110 | --- | 3560 | 1910 | --- |
| TOTAL | 44620 | 57320 | 130540 | 58940 | 71840 | 50230 | 61760 | 124880 | 132160 | 107890 | 79790 | 43700 |
| MEAN | 1439 | 1911 | 4211 | 1901 | 2566 | 1620 | 2059 | 4028 | 4405 | 3480 | 2574 | 1457 |
| MAX | 2100 | 1990 | 4560 | 3080 | 3820 | 2140 | 3610 | 5160 | 5130 | 4170 | 3580 | 2100 |
| MIN | 1270 | 1510 | 2730 | 1270 | 1300 | 1290 | 1300 | 2610 | 3560 | 2600 | 1910 | 1270 |
| AC-FT | 88500 | 113700 | 258900 | 116900 | 142500 | 99630 | 122500 | 247700 | 262100 | 214000 | 158300 | 86680 |
| CAL YR 1984 | TOTAL | 1546630 | MEAN | 4226 | MAX | 17200 | MIN | 1270 | AC-FT | 3068000 | | |
| WTR YR 1985 | TOTAL | 963670 | MEAN | 2640 | MAX | 5160 | MIN | 1270 | AC-FT | 1911000 | | |

11406920 THERMALITO AFTERBAY RELEASE TO FEATHER RIVER NEAR OROVILLE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: May 1968 to current year.

INSTRUMENTATION.--Temperature recorder since May 1968.

REMARKS:--Temperature is listed only when water is released from Thermalito Afterbay. Because of the complete regulation of the Feather River below Oroville Dam, the temperature of the water released from Thermalito Afterbay affects the temperature of the Feather River downstream from the Oroville project.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 28.5°C, June 23, 1977; minimum recorded, 1.5°C, Dec. 13, 1972.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 23.5°C, Aug. 9; minimum recorded, 5.5°C, Feb. 5.

EXTREMES FOR 1984 WATER YEAR (NOT PREVIOUSLY PUBLISHED).--

WATER TEMPERATURES: Maximum recorded, 24.0°C, June 3; minimum recorded, 6.5°C, Jan. 14-18, Feb. 23.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
(NOT PREVIOUSLY PUBLISHED)

| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
|-------|---------|------|----------|------|----------|-----|---------|-----|----------|-----|-------|------|
| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 15.5 | 14.5 | 15.0 | 15.0 | 9.5 | 9.0 | 9.0 | 8.5 | 8.5 | 8.0 | 9.5 | 8.5 |
| 2 | 15.5 | 15.0 | 15.0 | 15.0 | 9.5 | 9.5 | 8.5 | 8.5 | 8.5 | 8.0 | 10.0 | 9.0 |
| 3 | 15.5 | 15.0 | 15.5 | 15.0 | 9.5 | 9.5 | 8.5 | 8.0 | 8.0 | 8.0 | 9.5 | 8.5 |
| 4 | 15.5 | 15.0 | 15.0 | 15.0 | 9.5 | 9.0 | 8.0 | 7.0 | 8.5 | 8.0 | 9.5 | 8.0 |
| 5 | 16.0 | 15.0 | 15.0 | 14.5 | 9.0 | 9.0 | 7.0 | 7.0 | 8.5 | 8.0 | 9.0 | 8.0 |
| 6 | 16.0 | 15.0 | 15.0 | 14.5 | 9.0 | 9.0 | 7.0 | 7.0 | 8.5 | 8.0 | 9.0 | 8.5 |
| 7 | 15.0 | 14.5 | 14.5 | 14.0 | 9.0 | 9.0 | 7.0 | 7.0 | 8.5 | 8.5 | 9.5 | 8.5 |
| 8 | 14.5 | 14.5 | 14.0 | 13.5 | 9.5 | 9.0 | 7.0 | 7.0 | 8.5 | 8.5 | 10.0 | 9.0 |
| 9 | 14.5 | 14.5 | 13.5 | 13.0 | 9.0 | 9.0 | 7.0 | 7.0 | 9.0 | 8.5 | 10.0 | 9.0 |
| 10 | 15.0 | 14.5 | 13.0 | 13.0 | 9.0 | 9.0 | 7.0 | 7.0 | 9.0 | 8.5 | 10.0 | 9.0 |
| 11 | 15.0 | 14.5 | 13.0 | 13.0 | 9.0 | 8.5 | 7.0 | 7.0 | 9.0 | 8.5 | 9.5 | 9.0 |
| 12 | 14.5 | 14.0 | 13.0 | 13.0 | 9.0 | 9.0 | 7.0 | 7.0 | 9.0 | 8.5 | 10.5 | 9.5 |
| 13 | 14.5 | 13.5 | 13.0 | 12.0 | 9.5 | 9.0 | 7.0 | 7.0 | 9.0 | 8.5 | 10.5 | 10.0 |
| 14 | 14.0 | 14.0 | 12.0 | 12.0 | 9.5 | 9.5 | 7.0 | 6.5 | 9.0 | 8.5 | 10.5 | 10.5 |
| 15 | 14.0 | 13.5 | 12.0 | 12.0 | 9.5 | 9.0 | 7.0 | 6.5 | 8.5 | 8.0 | 11.0 | 10.0 |
| 16 | 14.5 | 13.5 | 12.0 | 12.0 | 9.0 | 8.5 | 7.0 | 6.5 | 8.5 | 8.0 | 10.0 | 9.0 |
| 17 | 14.5 | 14.0 | 12.0 | 12.0 | 9.0 | 8.5 | 7.0 | 6.5 | 8.5 | 8.0 | 10.0 | 8.5 |
| 18 | 14.5 | 14.0 | 12.0 | 11.5 | 8.5 | 8.5 | 7.0 | 6.5 | 8.5 | 8.0 | 10.5 | 9.0 |
| 19 | 15.0 | 14.0 | 12.0 | 11.5 | 8.5 | 8.5 | 7.0 | 7.0 | 8.5 | 7.0 | 11.0 | 9.5 |
| 20 | 15.5 | 15.0 | 12.0 | 10.5 | 8.5 | 8.0 | 7.0 | 7.0 | 8.5 | 8.0 | 10.5 | 10.0 |
| 21 | 15.5 | 15.0 | 10.5 | 9.5 | 8.0 | 7.0 | 8.0 | 7.0 | 8.5 | 8.0 | 10.0 | 10.0 |
| 22 | 15.5 | 15.0 | 10.0 | 9.5 | 7.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 10.0 | 9.5 |
| 23 | 15.5 | 15.0 | 9.5 | 9.5 | 7.0 | 7.0 | 7.0 | 7.0 | 7.0 | 6.5 | 10.0 | 9.5 |
| 24 | 15.5 | 15.0 | 10.0 | 9.5 | 8.0 | 7.0 | 8.0 | 7.0 | 8.0 | 7.0 | 10.5 | 9.5 |
| 25 | 15.5 | 15.0 | 10.5 | 10.0 | 9.0 | 8.0 | 8.0 | 8.0 | 8.0 | 7.0 | 10.0 | 9.5 |
| 26 | 16.0 | 15.0 | 10.5 | 10.5 | 9.0 | 9.0 | 8.0 | 8.0 | 8.0 | 7.0 | 10.5 | 9.5 |
| 27 | 15.5 | 15.0 | 10.5 | 10.5 | 9.5 | 9.0 | 8.0 | 7.0 | 8.0 | 7.0 | 10.0 | 9.5 |
| 28 | 15.5 | 15.0 | 10.5 | 10.0 | 9.0 | 9.0 | 8.0 | 8.0 | 8.5 | 8.0 | 10.5 | 9.5 |
| 29 | 15.0 | 14.5 | 10.0 | 9.5 | 9.0 | 9.0 | 8.5 | 8.0 | 8.5 | 8.0 | 10.5 | 9.5 |
| 30 | 14.5 | 14.5 | 9.5 | 9.0 | 9.0 | 9.0 | 8.5 | 8.0 | --- | --- | 11.0 | 10.0 |
| 31 | 15.0 | 14.5 | --- | --- | 9.0 | 9.0 | 8.5 | 8.0 | --- | --- | 11.0 | 10.5 |
| MONTH | 16.0 | 13.5 | 15.5 | 9.0 | 9.5 | 7.0 | 9.0 | 6.5 | 9.0 | 6.5 | 11.0 | 8.0 |

SACRAMENTO RIVER BASIN

11406920 THERMALITO AFTERBAY RELEASE TO FEATHER RIVER NEAR OROVILLE, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
(NOT PREVIOUSLY PUBLISHED)

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

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
|-------|---------|------|----------|------|----------|-----|---------|-----|----------|------|-------|------|
| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 17.0 | 16.0 | 12.0 | 12.0 | 9.5 | 9.0 | 9.5 | 6.5 | 7.0 | 6.5 | 10.5 | 9.5 |
| 2 | 17.0 | 16.5 | 12.0 | 12.0 | 9.5 | 9.0 | 9.5 | 9.0 | 6.5 | 6.5 | 10.5 | 9.0 |
| 3 | 17.0 | 16.5 | 12.0 | 12.0 | 9.5 | 9.0 | 9.5 | 9.0 | 6.5 | 6.0 | 9.5 | 8.5 |
| 4 | 16.5 | 16.0 | 12.0 | 12.0 | 9.5 | 9.0 | 9.5 | 9.0 | 6.5 | 6.0 | 9.0 | 8.5 |
| 5 | 16.5 | 16.0 | 12.0 | 12.0 | 9.5 | 9.5 | 9.5 | 9.5 | 6.5 | 5.5 | 9.0 | 8.5 |
| 6 | 16.5 | 16.0 | 12.0 | 12.0 | 9.5 | 9.0 | 9.5 | 9.0 | 6.0 | 6.0 | 8.5 | 8.0 |
| 7 | 18.5 | 16.5 | 12.0 | 12.0 | 9.0 | 8.5 | 9.0 | 8.5 | 6.0 | 6.0 | 8.5 | 8.0 |
| 8 | 17.0 | 16.5 | 11.5 | 11.5 | 9.0 | 8.5 | 9.0 | 8.5 | 7.0 | 6.0 | 9.0 | 8.5 |
| 9 | 17.0 | 16.5 | 11.5 | 11.5 | 9.0 | 8.5 | 9.0 | 8.5 | 7.0 | 7.0 | 10.0 | 9.0 |
| 10 | 17.0 | 16.0 | 11.0 | 11.0 | 9.5 | 9.0 | 9.5 | 9.0 | 8.0 | 7.0 | 9.5 | 9.5 |
| 11 | 16.5 | 16.0 | 11.0 | 11.0 | 9.5 | 9.0 | 9.5 | 9.0 | 8.0 | 8.0 | 10.5 | 9.5 |
| 12 | 16.0 | 15.5 | 11.0 | 11.0 | 9.0 | 8.5 | 9.0 | 9.0 | 9.0 | 8.0 | 11.5 | 10.0 |
| 13 | 17.0 | 15.5 | 11.0 | 11.0 | 8.5 | 7.0 | 8.5 | 7.0 | 9.5 | 8.5 | 11.5 | 10.5 |
| 14 | 16.0 | 14.5 | 11.0 | 11.0 | 7.0 | 7.0 | 7.0 | 7.0 | 9.5 | 9.0 | 13.0 | 11.0 |
| 15 | 14.0 | 13.5 | 11.0 | 11.0 | 7.0 | 7.0 | 7.0 | 7.0 | 11.0 | 9.5 | 13.5 | 11.5 |
| 16 | 13.5 | 11.5 | 10.5 | 10.5 | 7.0 | 7.0 | 7.0 | 7.0 | 11.0 | 10.0 | 13.0 | 12.0 |
| 17 | 12.0 | 11.0 | 10.5 | 10.5 | 7.0 | 7.0 | 7.0 | 7.0 | 11.0 | 10.0 | 14.0 | 12.0 |
| 18 | 12.0 | 11.5 | 10.5 | 10.5 | 7.0 | 7.0 | 7.0 | 7.0 | 11.0 | 10.0 | 13.5 | 12.0 |
| 19 | 11.5 | 11.5 | 10.5 | 10.5 | 7.0 | 6.5 | 7.0 | 6.5 | 10.5 | 10.0 | 13.0 | 12.0 |
| 20 | 13.0 | 11.5 | 10.5 | 10.5 | 7.0 | 6.5 | 7.0 | 6.5 | 10.5 | 9.5 | 13.5 | 13.0 |
| 21 | 13.0 | 12.0 | 10.5 | 10.5 | 7.0 | 6.5 | 7.0 | 6.5 | 9.5 | 9.0 | 13.0 | 12.0 |
| 22 | 13.0 | 11.5 | 10.0 | 10.0 | 7.0 | 6.5 | 7.0 | 6.5 | 10.0 | 9.5 | 13.5 | 11.5 |
| 23 | 13.0 | 12.0 | 10.0 | 10.0 | 7.0 | 7.0 | 7.0 | 7.0 | 10.5 | 9.5 | 13.0 | 11.5 |
| 24 | 13.5 | 13.0 | 10.0 | 10.0 | 7.0 | 7.0 | 7.0 | 7.0 | 11.0 | 10.0 | 12.0 | 12.0 |
| 25 | 13.5 | 13.0 | 10.0 | 9.5 | 7.0 | 7.0 | 7.0 | 7.0 | 10.5 | 9.5 | 13.0 | 12.0 |
| 26 | 14.0 | 13.5 | 9.5 | 9.0 | 7.0 | 6.5 | 7.0 | 6.5 | 10.0 | 9.5 | 12.0 | 11.0 |
| 27 | 14.0 | 13.5 | 9.0 | 9.0 | 7.0 | 6.5 | 7.0 | 6.5 | 10.5 | 9.5 | 11.0 | 10.5 |
| 28 | 13.5 | 13.0 | 9.0 | 9.0 | 7.0 | 6.5 | 7.0 | 6.5 | 10.5 | 9.5 | 10.5 | 10.0 |
| 29 | 13.0 | 13.0 | 9.0 | 9.0 | 7.0 | 7.0 | 7.0 | 7.0 | --- | --- | 10.5 | 10.0 |
| 30 | 13.5 | 13.0 | 9.0 | 9.0 | 7.0 | 7.0 | 7.0 | 7.0 | --- | --- | 10.5 | 10.5 |
| 31 | 13.5 | 13.0 | --- | --- | 7.0 | 6.5 | 7.0 | 6.5 | --- | --- | 12.0 | 10.5 |
| MONTH | 18.5 | 11.0 | 12.0 | 9.0 | 9.5 | 6.5 | 9.5 | 6.5 | 11.0 | 5.5 | 14.0 | 8.0 |

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

[illegible]

SACRAMENTO RIVER BASIN

11407000 FEATHER RIVER AT OROVILLE, CA

LOCATION.--Lat 39°31'18", long 121°32'48", in Boga Fernandez Grant, T.19 N., R.4 E., Butte County, Hydrologic Unit 18020106, on right bank 300 ft upstream from fish barrier dam on Feather River, and 0.8 mi northeast of Oroville Post Office.

DRAINAGE AREA.--3,624 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1901 to current year. Monthly discharge only for some periods, published in WSP 1315-A. October 1934 to September 1961 published as "near Oroville." Records since October 1967 equivalent to earlier records if diversions out of Thermalito Afterbay are added to flow past station.

REVISED RECORDS.--WSP 843: 1907(M), 1909(M), 1914-15(M), 1919(M), 1927-28(M). WSP 881: 1913-28 (yearly summaries only). WSP 1515: 1906-8. WSP 1931: Drainage area. WDR CA-74-2: 1968-70, adjusted monthly discharge.

GAGE.--Water-stage recorder. Datum of gage is 148.97 ft above National Geodetic Vertical Datum of 1929 (levels by California Department of Water Resources). See WSP 1931 for history of changes prior to Oct. 1, 1964.

REMARKS.--Flow regulated by Lake Oroville (station 11406800) and other powerplants and reservoirs above station. Several diversions above station for power and irrigation. Feather River Fish Hatchery diverts up to 120 ft³/s at Thermalito diversion dam 0.4 mi upstream from gage. Diverted flow returns to Feather River approximately 0.3 mi downstream from gage. Daily figures shown are combined figures of river flow and diversion to fish hatchery. See REMARKS for upstream stations and schematic diagrams showing diversions from Feather River at Lake Oroville and for South Fork Feather River basin.

COOPERATION.--Records collected by California Department of Water Resources under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE (adjusted for diversions into and out of, change in contents in, and evaporation from Lake Oroville, Thermalito diversion pool, Thermalito Forebay, and Thermalito Afterbay)--84 years, 5,996 ft³/s, 4,344,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--River only: Maximum discharge observed, 230,000 ft³/s, Mar. 19, 1907, elevation, 167.5 ft above mean sea level; minimum daily, 89 ft³/s, Sept. 19, 1972.

Combined flow (since construction of Oroville Dam): Maximum discharge, 69,600 ft³/s, Jan. 15, 1980; minimum daily, 222 ft³/s, Sept. 19, 1972.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of February 1881 reached a stage of 25 ft, from floodmarks, site and datum in use from Dec. 16, 1912, to Sept. 30, 1934.

EXTREMES FOR CURRENT YEAR.--River only: Maximum daily discharge, 360 ft³/s, Mar. 5; minimum daily, 295 ft³/s, Mar. 17.

Combined flow: Maximum daily discharge, 463 ft³/s, Mar. 5; minimum daily, 391 ft³/s, Apr. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|--------|
| 1 | 420 | 409 | 415 | 412 | 417 | 446 | 435 | 416 | 415 | 414 | 412 | 394 |
| 2 | 419 | 408 | 414 | 410 | 417 | 437 | 432 | 422 | 422 | 417 | 401 | 403 |
| 3 | 418 | 406 | 416 | 416 | 409 | 432 | 435 | 426 | 417 | 418 | 407 | 400 |
| 4 | 418 | 404 | 419 | 410 | 411 | 444 | 436 | 418 | 417 | 412 | 416 | 415 |
| 5 | 414 | 403 | 419 | 406 | 418 | 463 | 424 | 406 | 417 | 422 | 421 | 421 |
| 6 | 410 | 412 | 421 | 404 | 415 | 453 | 418 | 420 | 420 | 422 | 412 | 423 |
| 7 | 403 | 421 | 417 | 405 | 420 | 446 | 416 | 409 | 420 | 413 | 410 | 422 |
| 8 | 410 | 420 | 415 | 411 | 434 | 444 | 424 | 413 | 416 | 422 | 405 | 427 |
| 9 | 414 | 420 | 414 | 416 | 425 | 437 | 420 | 443 | 411 | 428 | 402 | 420 |
| 10 | 415 | 417 | 418 | 416 | 421 | 435 | 417 | 449 | 415 | 422 | 415 | 419 |
| 11 | 415 | 417 | 421 | 415 | 419 | 433 | 408 | 451 | 415 | 427 | 412 | 417 |
| 12 | 415 | 416 | 418 | 414 | 416 | 435 | 414 | 445 | 416 | 425 | 416 | 421 |
| 13 | 416 | 418 | 414 | 409 | 412 | 434 | 428 | 447 | 417 | 419 | 414 | 405 |
| 14 | 412 | 418 | 411 | 412 | 411 | 427 | 434 | 433 | 421 | 401 | 417 | 392 |
| 15 | 412 | 414 | 414 | 417 | 413 | 416 | 427 | 416 | 414 | 406 | 421 | 395 |
| 16 | 416 | 412 | 415 | 416 | 410 | 402 | 420 | 416 | 410 | 429 | 426 | 418 |
| 17 | 417 | 414 | 414 | 417 | 408 | 395 | 406 | 426 | 420 | 441 | 431 | 441 |
| 18 | 418 | 413 | 415 | 417 | 409 | 413 | 399 | 431 | 415 | 430 | 421 | 438 |
| 19 | 417 | 413 | 415 | 416 | 410 | 427 | 426 | 425 | 406 | 422 | 425 | 427 |
| 20 | 416 | 415 | 415 | 413 | 414 | 412 | 433 | 430 | 410 | 416 | 429 | 414 |
| 21 | 413 | 415 | 415 | 411 | 418 | 410 | 428 | 425 | 414 | 411 | 429 | 412 |
| 22 | 409 | 414 | 415 | 417 | 418 | 403 | 431 | 432 | 416 | 412 | 422 | 399 |
| 23 | 405 | 414 | 415 | 416 | 412 | 417 | 418 | 425 | 408 | 407 | 419 | 405 |
| 24 | 404 | 423 | 416 | 417 | 412 | 425 | 415 | 442 | 414 | 417 | 411 | 416 |
| 25 | 404 | 416 | 416 | 418 | 413 | 405 | 407 | 426 | 412 | 411 | 413 | 411 |
| 26 | 405 | 416 | 415 | 419 | 416 | 408 | 417 | 414 | 411 | 412 | 420 | 415 |
| 27 | 406 | 426 | 414 | 417 | 433 | 421 | 410 | 414 | 409 | 410 | 421 | 411 |
| 28 | 402 | 424 | 414 | 414 | 435 | 431 | 391 | 419 | 408 | 410 | 423 | 411 |
| 29 | 403 | 421 | 417 | 415 | --- | 430 | 410 | 426 | 412 | 417 | 423 | 424 |
| 30 | 408 | 417 | 415 | 418 | --- | 429 | 419 | 441 | 418 | 413 | 419 | 422 |
| 31 | 411 | --- | 417 | 418 | --- | 430 | --- | 428 | --- | 413 | 397 | --- |
| TOTAL | 12765 | 12456 | 12889 | 12832 | 11666 | 13240 | 12598 | 13234 | 12436 | 12939 | 12910 | 12438 |
| MEAN | 412 | 415 | 416 | 414 | 417 | 427 | 420 | 427 | 415 | 417 | 416 | 415 |
| MAX | 420 | 426 | 421 | 419 | 435 | 463 | 436 | 451 | 422 | 441 | 431 | 441 |
| MIN | 402 | 403 | 411 | 404 | 408 | 395 | 391 | 406 | 406 | 401 | 397 | 392 |
| AC-FT | 25320 | 24710 | 25570 | 25450 | 23140 | 26260 | 24990 | 26250 | 24670 | 25660 | 25610 | 24670 |
| MEAN a | 2866 | 5421 | 4079 | 3139 | 5087 | 5648 | 7705 | 4189 | 2064 | 2457 | 1624 | 1733 |
| AC-FT a | 176200 | 322600 | 250800 | 193000 | 282500 | 347300 | 458500 | 257600 | 122800 | 151100 | 99860 | 103100 |

CAL YR 1984 TOTAL 165467 MEAN 452 MAX 11400 MIN 347 AC-FT 328200 MEAN a 5723 AC-FT a 4155000
WTR YR 1985 TOTAL 152403 MEAN 418 MAX 463 MIN 391 AC-FT 302300 MEAN a 3819 AC-FT a 2765000

a Adjusted for diversions in and out of, change in contents in, and evaporation from Lake Oroville, Thermalito diversion pool, Thermalito Forebay, and Thermalito Afterbay.

11407000 FEATHER RIVER AT OROVILLE, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1906-7, 1951 to current year.

CHEMICAL ANALYSES: Water years 1906-7, 1951-77.

SPECIFIC CONDUCTANCE: Water years 1972-78.

WATER TEMPERATURES: Water years 1954, 1957 to current year.

SEDIMENT RECORDS: Water years 1957-79.

PERIOD OF DAILY RECORD.--

CHEMICAL ANALYSES: January to December 1906.

SPECIFIC CONDUCTANCE: March 1972 to September 1978.

WATER TEMPERATURES: October 1953 to September 1954, November 1956 to current year.

SEDIMENT RECORDS: November 1956 to September 1979.

REVISED RECORDS.--WDR CA-74-2: 1966, sediment.

INSTRUMENTATION.--Temperature recorder October 1953 to September 1954, and since November 1956.

REMARKS.--Extremes affected by construction of Oroville Dam in 1967, and are given for two separate periods--water years 1954, 1957-67, and 1969 to current year.

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

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES (Water years 1954, 1957-67): Maximum, 27.0°C, Sept. 10, 12, 1959; minimum, 1.5°C, Dec. 27, 1959, Jan. 23-25, 1962.

WATER TEMPERATURES (Water years 1969-85): Maximum recorded, 20.0°C, several days in 1977; minimum recorded, 6.5°C, many days in 1971-73, 1974-75, 1979.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 17.0°C, July 24-29; minimum recorded, 7.0°C, several days during January and February.

EXTREMES FOR 1984 WATER YEAR (NOT PREVIOUSLY PUBLISHED).--

WATER TEMPERATURES: Maximum recorded, 17.0°C, July 17, 18, Aug. 9; minimum recorded, 7.0°C, several days during January to March.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
(NOT PREVIOUSLY PUBLISHED)

| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
|-------|---------|------|----------|------|----------|------|---------|-----|----------|-----|-------|------|
| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 11.5 | 11.5 | 12.0 | 11.5 | 10.0 | 10.0 | 9.5 | 9.0 | 8.0 | 8.0 | 8.0 | 7.0 |
| 2 | 12.0 | 11.0 | 12.0 | 11.5 | 10.0 | 9.5 | 9.0 | 8.5 | 8.0 | 8.0 | 8.0 | 7.0 |
| 3 | 12.0 | 11.5 | 12.0 | 12.0 | 10.0 | 9.5 | 8.5 | 8.5 | 8.0 | 8.0 | 8.0 | 7.0 |
| 4 | 11.5 | 11.5 | 12.0 | 12.0 | 10.0 | 9.5 | 8.5 | 8.5 | 8.0 | 8.0 | 8.0 | 7.0 |
| 5 | 12.0 | 11.5 | 12.0 | 11.5 | 10.0 | 10.0 | 8.5 | 8.5 | 8.0 | 8.0 | 8.0 | 8.0 |
| 6 | 12.0 | 11.5 | 12.0 | 12.0 | 10.0 | 9.5 | 8.5 | 8.5 | 8.0 | 7.0 | 8.0 | 7.0 |
| 7 | 12.0 | 11.5 | 12.0 | 12.0 | 10.0 | 9.5 | 8.5 | 8.0 | 8.0 | 8.0 | 8.0 | 7.0 |
| 8 | 11.5 | 11.5 | 12.0 | 11.5 | 9.5 | 9.5 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 |
| 9 | 11.5 | 11.0 | 12.0 | 12.0 | 9.5 | 9.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 |
| 10 | 11.5 | 11.0 | 12.0 | 12.0 | 10.0 | 9.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 7.0 |
| 11 | 11.0 | 11.0 | 12.0 | 12.0 | 10.5 | 9.5 | 8.5 | 8.0 | 8.0 | 8.0 | 7.0 | 7.0 |
| 12 | 11.0 | 11.0 | 12.0 | 12.0 | 10.0 | 9.5 | 8.5 | 8.5 | 8.0 | 8.0 | 8.0 | 7.0 |
| 13 | 11.5 | 11.0 | 12.0 | 12.0 | 10.0 | 10.0 | 8.5 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 |
| 14 | 11.5 | 11.5 | 12.0 | 12.0 | 10.0 | 9.0 | 8.5 | 8.0 | 8.0 | 7.0 | 8.0 | 7.0 |
| 15 | 12.0 | 11.5 | 12.0 | 11.5 | 9.0 | 9.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 7.0 |
| 16 | 12.0 | 11.5 | 11.5 | 11.5 | 9.0 | 9.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 |
| 17 | 12.0 | 11.0 | 11.5 | 11.5 | 9.0 | 8.5 | 8.5 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 |
| 18 | 11.5 | 11.0 | 13.5 | 11.5 | 9.0 | 9.0 | 8.5 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 |
| 19 | 11.5 | 11.0 | 13.0 | 10.5 | 9.0 | 9.0 | 8.5 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 |
| 20 | 11.5 | 11.5 | 10.5 | 10.5 | 9.0 | 9.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 7.0 |
| 21 | 12.0 | 11.5 | 10.5 | 10.5 | 9.0 | 9.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 7.0 |
| 22 | 12.0 | 11.5 | 10.5 | 10.5 | 9.0 | 8.5 | 8.0 | 8.0 | 8.0 | 7.0 | 8.0 | 7.5 |
| 23 | 12.0 | 11.5 | 10.5 | 10.0 | 9.5 | 9.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 |
| 24 | 13.0 | 11.5 | 11.5 | 10.5 | 9.5 | 9.5 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 |
| 25 | 12.0 | 11.5 | 12.0 | 11.5 | 9.5 | 9.5 | 8.0 | 8.0 | 8.0 | 7.0 | 8.0 | 8.0 |
| 26 | 12.0 | 11.5 | 12.0 | 11.0 | 10.0 | 9.5 | 8.0 | 8.0 | 8.0 | 7.0 | 8.0 | 8.0 |
| 27 | 12.0 | 11.5 | 11.0 | 10.5 | 10.0 | 10.0 | 8.5 | 8.0 | 8.0 | 7.0 | 9.5 | 8.0 |
| 28 | 12.0 | 11.5 | 10.5 | 10.0 | 10.0 | 10.0 | 8.5 | 8.5 | 8.0 | 8.0 | 10.5 | 9.5 |
| 29 | 12.0 | 11.5 | 10.0 | 10.0 | 10.0 | 9.5 | 8.5 | 8.0 | 8.0 | 8.0 | 10.5 | 10.0 |
| 30 | 12.0 | 11.5 | 10.0 | 10.0 | 9.5 | 9.5 | 8.0 | 8.0 | --- | --- | 11.0 | 10.5 |
| 31 | 11.5 | 11.5 | --- | --- | 9.5 | 9.5 | 8.0 | 7.0 | --- | --- | 10.5 | 10.0 |
| MONTH | 13.0 | 11.0 | 13.5 | 10.0 | 10.5 | 8.5 | 9.5 | 7.0 | 8.0 | 7.0 | 11.0 | 7.0 |

SACRAMENTO RIVER BASIN

11407000 FEATHER RIVER AT OROVILLE, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
(NOT PREVIOUSLY PUBLISHED)

| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
|-------|-------|------|------|------|------|------|------|------|--------|------|-----------|------|
| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 10.0 | 10.0 | 11.5 | 11.5 | 14.5 | 13.5 | 16.5 | 16.0 | 16.0 | 15.5 | 13.5 | 13.0 |
| 2 | 10.5 | 10.0 | 11.5 | 10.5 | 15.0 | 14.0 | 16.5 | 16.5 | 16.0 | 15.5 | 13.5 | 13.5 |
| 3 | 10.5 | 10.0 | 11.5 | 10.5 | 15.0 | 14.0 | 16.5 | 16.0 | 16.5 | 15.5 | 13.5 | 13.0 |
| 4 | 10.5 | 10.5 | 11.5 | 11.0 | 14.5 | 14.0 | 16.0 | 15.5 | 16.5 | 16.0 | 13.5 | 13.0 |
| 5 | 10.5 | 10.0 | 12.0 | 11.0 | 14.0 | 13.5 | 16.0 | 15.5 | 16.0 | 16.0 | 13.0 | 11.5 |
| 6 | 10.5 | 10.0 | 11.5 | 11.5 | 14.5 | 13.5 | 16.0 | 15.5 | 16.5 | 15.5 | 12.0 | 11.5 |
| 7 | 10.5 | 10.5 | 12.0 | 11.5 | 14.5 | 13.0 | 15.5 | 15.0 | 16.5 | 16.5 | 12.0 | 11.5 |
| 8 | 11.0 | 10.5 | 13.0 | 12.0 | 14.5 | 14.0 | 16.0 | 15.5 | 16.5 | 16.0 | 13.0 | 12.0 |
| 9 | 11.0 | 10.5 | 13.0 | 12.0 | 14.5 | 14.5 | 16.0 | 15.0 | 17.0 | 16.5 | 14.0 | 13.0 |
| 10 | 10.5 | 10.5 | 13.0 | 12.0 | 15.0 | 14.5 | 16.0 | 15.5 | 16.5 | 15.5 | 13.5 | 12.0 |
| 11 | 10.5 | 9.5 | 13.0 | 12.0 | 15.0 | 14.5 | 16.5 | 15.5 | 16.0 | 15.0 | 13.0 | 11.5 |
| 12 | 10.5 | 10.0 | 13.0 | 12.0 | 14.5 | 14.5 | 16.5 | 16.0 | 15.5 | 15.0 | 13.5 | 11.5 |
| 13 | 11.0 | 10.5 | 13.5 | 12.0 | 14.5 | 14.5 | 16.5 | 16.0 | 16.0 | 15.0 | 13.5 | 13.0 |
| 14 | 11.0 | 10.5 | 13.5 | 12.0 | 15.0 | 14.5 | 16.5 | 16.5 | 16.0 | 15.5 | 13.5 | 11.5 |
| 15 | 11.5 | 11.0 | 13.5 | 12.0 | 15.0 | 14.5 | 16.5 | 16.0 | 16.0 | 15.5 | 11.5 | 11.0 |
| 16 | 11.5 | 11.0 | 13.0 | 13.0 | 15.0 | 15.0 | 16.5 | 16.5 | 16.0 | 15.5 | 12.0 | 11.0 |
| 17 | 11.5 | 11.0 | 13.5 | 13.0 | 15.0 | 15.0 | 17.0 | 16.5 | 16.5 | 16.0 | 12.0 | 11.5 |
| 18 | 11.0 | 10.5 | 13.5 | 13.0 | 15.5 | 15.0 | 17.0 | 16.5 | 17.0 | 16.0 | 11.5 | 11.0 |
| 19 | 10.5 | 10.5 | 13.5 | 13.0 | 15.5 | 15.0 | 16.5 | 14.5 | 16.5 | 16.0 | 12.0 | 11.5 |
| 20 | 10.5 | 10.5 | 13.5 | 13.0 | 15.5 | 15.0 | 15.5 | 15.0 | 16.5 | 15.5 | 12.0 | 11.5 |
| 21 | 11.0 | 10.5 | 14.0 | 13.0 | 15.5 | 15.0 | 16.0 | 15.0 | 15.5 | 15.0 | 12.0 | 11.5 |
| 22 | 13.0 | 11.0 | 14.0 | 13.5 | 16.0 | 15.5 | 16.0 | 15.0 | 15.5 | 15.0 | 13.0 | 12.0 |
| 23 | 12.0 | 11.5 | 14.0 | 13.5 | 15.5 | 15.5 | 16.5 | 15.5 | 15.5 | 15.0 | 13.0 | 12.0 |
| 24 | 11.5 | 11.5 | 14.0 | 13.5 | 15.5 | 15.0 | 16.5 | 15.5 | 15.5 | 15.0 | 13.5 | 12.0 |
| 25 | 12.0 | 11.5 | 14.0 | 13.0 | 16.0 | 15.5 | 16.5 | 15.5 | 15.5 | 15.0 | 13.0 | 12.0 |
| 26 | 12.0 | 11.5 | 14.0 | 13.5 | 16.0 | 15.5 | 16.5 | 16.0 | 15.5 | 15.5 | 13.0 | 12.0 |
| 27 | 12.0 | 12.0 | 14.5 | 14.0 | 16.5 | 16.0 | 16.5 | 16.0 | 16.0 | 15.5 | 13.0 | 12.0 |
| 28 | 12.0 | 11.5 | 14.5 | 14.0 | 16.5 | 16.0 | 16.0 | 15.0 | 16.0 | 16.0 | 12.0 | 10.5 |
| 29 | 12.0 | 11.5 | 14.0 | 14.0 | 16.0 | 15.5 | 16.0 | 15.5 | 16.0 | 13.5 | 11.0 | 10.5 |
| 30 | 12.0 | 11.5 | 14.5 | 14.0 | 16.5 | 16.0 | 16.0 | 15.5 | 14.0 | 12.0 | 11.0 | 10.5 |
| 31 | --- | --- | 14.5 | 14.0 | --- | --- | 16.0 | 15.5 | 13.5 | 12.0 | --- | --- |
| MONTH | 13.0 | 9.5 | 14.5 | 10.5 | 16.5 | 13.0 | 17.0 | 14.5 | 17.0 | 12.0 | 14.0 | 10.5 |
| YEAR | 17.0 | 7.0 | | | | | | | | | | |

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
|-------|---------|------|----------|------|----------|-----|---------|-----|----------|-----|-------|-----|
| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 11.5 | 11.0 | 10.0 | 10.0 | 9.5 | 9.0 | 8.5 | 8.5 | 7.0 | 7.0 | 9.0 | 8.5 |
| 2 | 11.5 | 11.0 | 10.0 | 10.0 | 9.5 | 9.0 | 8.5 | 8.0 | 7.0 | 7.0 | 9.5 | 9.0 |
| 3 | 11.0 | 10.5 | 10.0 | 10.0 | 9.0 | 9.0 | 8.5 | 8.0 | 7.0 | 7.0 | 9.5 | 9.0 |
| 4 | 11.0 | 10.5 | 10.5 | 10.0 | 9.0 | 8.5 | 8.5 | 8.5 | 7.0 | 7.0 | 9.0 | 9.0 |
| 5 | 11.0 | 10.5 | 11.0 | 10.0 | 9.0 | 8.5 | 8.5 | 8.5 | 8.0 | 7.0 | 9.0 | 9.0 |
| 6 | 11.0 | 10.5 | 10.5 | 10.0 | 9.0 | 8.5 | 8.5 | 8.5 | 8.0 | 8.0 | 9.0 | 8.5 |
| 7 | 11.0 | 10.5 | 10.5 | 10.0 | 9.0 | 9.0 | 8.5 | 8.5 | 8.0 | 8.0 | 8.5 | 8.5 |
| 8 | 11.5 | 10.5 | 10.5 | 10.0 | 9.0 | 8.5 | 8.5 | 8.5 | 8.0 | 7.0 | 8.5 | 8.0 |
| 9 | 11.0 | 11.0 | 10.5 | 10.0 | 8.5 | 8.5 | 8.5 | 8.5 | 7.0 | 7.0 | 8.5 | 8.0 |
| 10 | 11.0 | 10.5 | 10.5 | 10.5 | 8.5 | 8.5 | 8.5 | 8.5 | 7.0 | 7.0 | 9.0 | 8.5 |
| 11 | 11.5 | 10.5 | 10.5 | 10.5 | 8.5 | 8.5 | 8.5 | 8.5 | 8.0 | 7.0 | 9.0 | 8.5 |
| 12 | 11.5 | 11.0 | 11.0 | 10.5 | 8.5 | 8.5 | 8.5 | 8.5 | 8.0 | 7.0 | 9.0 | 8.5 |
| 13 | 11.5 | 11.0 | 10.5 | 10.5 | 9.0 | 8.5 | 8.5 | 8.5 | 8.0 | 8.0 | 9.0 | 9.0 |
| 14 | 12.0 | 11.0 | 10.5 | 10.5 | 9.0 | 9.0 | 8.5 | 8.5 | 8.0 | 8.0 | 9.5 | 9.0 |
| 15 | 12.0 | 11.0 | 10.5 | 10.5 | 9.0 | 9.0 | 8.5 | 8.5 | 8.0 | 8.0 | 9.5 | 9.0 |
| 16 | 12.0 | 11.0 | 10.5 | 10.5 | 9.0 | 8.5 | 8.5 | 8.5 | 8.5 | 8.0 | 9.5 | 9.0 |
| 17 | 11.0 | 10.5 | 10.5 | 10.5 | 9.0 | 9.0 | 8.5 | 8.5 | 8.5 | 8.0 | 9.5 | 9.0 |
| 18 | 11.0 | 11.0 | 10.5 | 10.5 | 9.0 | 9.0 | 8.5 | 8.5 | 8.5 | 8.0 | 9.5 | 9.0 |
| 19 | 11.0 | 11.0 | 10.5 | 10.5 | 9.0 | 9.0 | 8.5 | 8.5 | 8.5 | 8.0 | 9.5 | 9.0 |
| 20 | 11.0 | 11.0 | 10.5 | 10.5 | 9.0 | 9.0 | 8.5 | 8.5 | 8.5 | 8.0 | 9.0 | 9.0 |
| 21 | 11.0 | 11.0 | 10.5 | 10.0 | 9.0 | 9.0 | 8.5 | 8.5 | 8.5 | 8.0 | 9.5 | 9.0 |
| 22 | 11.5 | 11.0 | 10.0 | 10.0 | 9.0 | 8.5 | 8.5 | 8.5 | 8.5 | 8.0 | 9.5 | 9.0 |
| 23 | 11.5 | 11.0 | 10.5 | 10.0 | 9.0 | 8.5 | 8.5 | 8.5 | 8.0 | 8.0 | 9.5 | 9.5 |
| 24 | 11.5 | 11.0 | 10.5 | 10.0 | 8.5 | 8.5 | 8.5 | 8.0 | 8.0 | 8.0 | 10.0 | 9.5 |
| 25 | 11.5 | 11.0 | 10.0 | 10.0 | 8.5 | 8.5 | 8.0 | 8.0 | 8.5 | 8.0 | 10.0 | 9.0 |
| 26 | 11.5 | 11.5 | 10.0 | 10.0 | 8.5 | 8.5 | 8.0 | 8.0 | 8.0 | 8.0 | 9.0 | 9.0 |
| 27 | 11.5 | 10.5 | 10.0 | 10.0 | 8.5 | 8.5 | 8.0 | 8.0 | 8.0 | 8.0 | 9.0 | 8.5 |
| 28 | 11.0 | 11.0 | 10.0 | 9.5 | 8.5 | 8.5 | 8.0 | 8.0 | 9.0 | 8.0 | 8.5 | 8.0 |
| 29 | 11.0 | 10.5 | 9.5 | 9.5 | 8.5 | 8.0 | 8.0 | 7.0 | --- | --- | 8.5 | 8.0 |
| 30 | 11.0 | 10.5 | 10.0 | 9.5 | 8.5 | 8.5 | 7.0 | 7.0 | --- | --- | 9.0 | 8.5 |
| 31 | 10.5 | 10.0 | --- | --- | 8.5 | 8.5 | 7.0 | 7.0 | --- | --- | 9.5 | 9.0 |
| MONTH | 12.0 | 10.0 | 11.0 | 9.5 | 9.5 | 8.0 | 8.5 | 7.0 | 9.0 | 7.0 | 10.0 | 8.0 |

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

[illegible]

SACRAMENTO RIVER BASIN

11407150 FEATHER RIVER NEAR GRIDLEY, CA

LOCATION.--Lat 39°22'00", long 121°38'46", in Boga Fernandez Grant, T.18 N., R.3 E., Butte County, Hydrologic Unit 18020106, on right bank 300 ft upstream from highway bridge, and 2.7 mi east of Gridley.

DRAINAGE AREA.--3,676 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1964 to current year. January 1944 to September 1964 are published in reports by California Department of Water Resources.

REVISED RECORDS.--WDR CA-66-2: 1965. WDR CA-80-4: 1967 (M), 1968 (M).

GAGE.--Water-stage recorder. Datum of gage is 2.91 ft below National Geodetic Vertical Datum of 1929. Prior to Mar. 13, 1966, water-stage recorder on left bank. Mar. 14, 1966, to Sept. 30, 1973, on right bank, at datum 47.09 ft National Geodetic Vertical Datum of 1929.

REMARKS.--Flow regulated by Lake Oroville since November 1967 (station 11406800) and Thermalito Afterbay release to the Feather River since December 1968 (station 11406920). See schematic diagram showing diversions and storage from Feather River at Lake Oroville.

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

AVERAGE DISCHARGE.--21 years, 5,351 ft³/s, 3,877,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 151,000 ft³/s, Dec. 23, 1964, gage height, 100.43 ft, present datum; minimum daily, 117 ft³/s, June 27, 1966. Maximum discharge since construction of Oroville Dam in 1967, 90,100 ft³/s, Jan. 15, 1980, gage height, 94.45 ft; minimum daily, 366 ft³/s, July 26, 1968.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a stage of 102.25 ft present datum, discharge unknown.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,620 ft³/s, May 30, gage height 77.20 ft; minimum daily, 1,430 ft³/s, Apr. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|--------|---------|--------|--------|--------|--------|--------|--------|--------|---------|--------|--------|
| 1 | 2350 | 1680 | 2950 | 3590 | 2530 | 2420 | 1460 | 4130 | 5460 | 3960 | 4030 | 2080 |
| 2 | 2370 | 1940 | 3980 | 3580 | 2580 | 2330 | 1500 | 4500 | 5460 | 3980 | 4040 | 2020 |
| 3 | 2290 | 1910 | 4610 | 3580 | 2560 | 2290 | 1510 | 4480 | 5510 | 3990 | 3670 | 1960 |
| 4 | 2080 | 1900 | 5410 | 3380 | 2560 | 2310 | 1470 | 4490 | 5520 | 3970 | 3580 | 1790 |
| 5 | 1940 | 2070 | 5480 | 2560 | 2580 | 2350 | 1470 | 4460 | 5520 | 3800 | 3580 | 1640 |
| 6 | 1940 | 2280 | 5500 | 2450 | 2570 | 2360 | 1470 | 4480 | 5530 | 3470 | 3580 | 1670 |
| 7 | 1920 | 2250 | 5500 | 2440 | 2640 | 2360 | 1450 | 4420 | 5320 | 3440 | 3590 | 1660 |
| 8 | 1910 | 2290 | 5410 | 2440 | 2730 | 2340 | 1450 | 4420 | 5000 | 3270 | 3560 | 1670 |
| 9 | 1840 | 2270 | 5380 | 2450 | 2620 | 2330 | 1450 | 4460 | 4990 | 2950 | 3520 | 1680 |
| 10 | 1660 | 2280 | 5420 | 2440 | 2570 | 2330 | 1430 | 4470 | 4990 | 2920 | 3060 | 1660 |
| 11 | 1540 | 2300 | 5380 | 2450 | 2580 | 2260 | 1450 | 4470 | 4980 | 2910 | 3010 | 1640 |
| 12 | 1510 | 2250 | 5370 | 2440 | 2240 | 2080 | 1440 | 4400 | 4590 | 3160 | 3050 | 1650 |
| 13 | 1500 | 2300 | 5270 | 2420 | 2010 | 1850 | 1940 | 4210 | 4530 | 3710 | 3040 | 1670 |
| 14 | 1470 | 2250 | 5280 | 2420 | 1780 | 1650 | 2240 | 3870 | 4520 | 3760 | 3030 | 1650 |
| 15 | 1460 | 2230 | 5320 | 2440 | 1570 | 1530 | 2480 | 3580 | 4500 | 3830 | 3050 | 1640 |
| 16 | 1510 | 2250 | 5280 | 2440 | 1880 | 1480 | 2790 | 2830 | 4540 | 4040 | 3070 | 1620 |
| 17 | 1500 | 2260 | 5280 | 2360 | 2410 | 1460 | 2760 | 2730 | 4780 | 4060 | 3090 | 1670 |
| 18 | 1490 | 2290 | 5280 | 2130 | 2500 | 1450 | 2750 | 2740 | 5090 | 4520 | 3030 | 1690 |
| 19 | 1500 | 2280 | 5280 | 1920 | 2740 | 1480 | 2760 | 3380 | 5070 | 4650 | 3060 | 1670 |
| 20 | 1490 | 2310 | 5290 | 1710 | 3930 | 1480 | 2800 | 3790 | 5070 | 4640 | 2620 | 1650 |
| 21 | 1480 | 2300 | 5310 | 1580 | 4610 | 1460 | 2780 | 3800 | 5090 | 4640 | 2550 | 1620 |
| 22 | 1490 | 2300 | 5320 | 1580 | 4630 | 1460 | 2790 | 3830 | 5050 | 4490 | 2550 | 1610 |
| 23 | 1500 | 2290 | 5280 | 1580 | 4550 | 1460 | 2340 | 4040 | 4990 | 4160 | 2550 | 1620 |
| 24 | 1500 | 2350 | 5350 | 1580 | 4510 | 1470 | 2230 | 4630 | 4540 | 4150 | 2550 | 1670 |
| 25 | 1500 | 2300 | 5380 | 1580 | 4500 | 1450 | 2190 | 4890 | 3990 | 4130 | 2530 | 1710 |
| 26 | 1520 | 2290 | 5320 | 1600 | 4450 | 1520 | 2210 | 4890 | 3960 | 4110 | 2510 | 2130 |
| 27 | 1490 | 2370 | 4470 | 1580 | 3660 | 1490 | 2650 | 4890 | 3950 | 4100 | 2520 | 2470 |
| 28 | 1500 | 2380 | 3700 | 1580 | 2700 | 1480 | 3170 | 5130 | 3960 | 4040 | 2500 | 2510 |
| 29 | 1510 | 2310 | 3620 | 1580 | --- | 1480 | 3500 | 5480 | 3930 | 4080 | 2520 | 2530 |
| 30 | 1510 | 2320 | 3600 | 1970 | --- | 1500 | 3870 | 5510 | 3950 | 4060 | 2490 | 2530 |
| 31 | 1500 | --- | 3590 | 2060 | --- | 1490 | --- | 5530 | --- | 4040 | 2280 | --- |
| TOTAL | 51770 | 66800 | 153610 | 69910 | 83190 | 56400 | 65800 | 132930 | 144380 | 121030 | 93810 | 54780 |
| MEAN | 1670 | 2227 | 4955 | 2255 | 2971 | 1819 | 2193 | 4288 | 4813 | 3904 | 3026 | 1826 |
| MAX | 2370 | 2380 | 5500 | 3590 | 4630 | 2420 | 3870 | 5530 | 5530 | 4650 | 4040 | 2530 |
| MIN | 1460 | 1680 | 2950 | 1580 | 1570 | 1450 | 1430 | 2730 | 3930 | 2910 | 2280 | 1610 |
| AC-FT | 102700 | 132500 | 304700 | 138700 | 165000 | 111900 | 130500 | 263700 | 286400 | 240100 | 186100 | 108700 |
| CAL YR 1984 | TOTAL | 1748340 | MEAN | 4777 | MAX | 33700 | MIN | 1460 | AC-FT | 3468000 | | |
| WTR YR 1985 | TOTAL | 1094410 | MEAN | 2998 | MAX | 5530 | MIN | 1430 | AC-FT | 2171000 | | |

11407150 FEATHER RIVER NEAR GRIDLEY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--

CHEMICAL ANALYSES: Water years 1980-81.

WATER TEMPERATURES: Water years 1965-81.

SEDIMENT RECORDS: Water years 1965 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1964 to June 1978.

SEDIMENT RECORDS: October 1964 to current year.

REVISED RECORDS.--WDR CA-73-2, 1966, sediment. WDR CA-74-2: 1965, 1970, 1971, 1973, sediment.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES (water years 1965-69, 1971-78): Maximum recorded, 29.5°C, June 25, 1977; minimum recorded, 4.0°C, several days in December and January of most years.

SEDIMENT CONCENTRATIONS: Maximum daily mean, 1,340 mg/L, Dec. 25; minimum daily mean, 1 mg/L, Dec. 12, 1968, 1968, Dec. 4; 1969, Sept. 1, 1970, Dec. 14, 1971, several days in 1982 and 1984.

SEDIMENT LOAD: Maximum, 527,000 tons, Dec. 23, 1964; minimum daily, 1.4 tons, Oct. 27, 1966.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 20 mg/L, Apr. 16; minimum daily mean, 1 mg/L, several days during October and November.

SEDIMENT LOAD: Maximum daily, 222 tons, May 29; minimum daily, 3.9 tons, Oct. 15.

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DAY | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) |
|-------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | 2 | 13 | 2 | 9.1 | 6 | 48 | 4 | 39 | 6 | 41 | 8 | 52 |
| 2 | 2 | 13 | 1 | 5.2 | 6 | 64 | 5 | 48 | 7 | 49 | 8 | 50 |
| 3 | 2 | 12 | 1 | 5.2 | 4 | 50 | 4 | 39 | 6 | 41 | 7 | 43 |
| 4 | 2 | 11 | 1 | 5.1 | 2 | 29 | 6 | 55 | 5 | 35 | 7 | 44 |
| 5 | 2 | 10 | 2 | 11 | 4 | 59 | 5 | 35 | 6 | 42 | 6 | 38 |
| 6 | 2 | 10 | 5 | 31 | 6 | 89 | 3 | 20 | 4 | 28 | 6 | 38 |
| 7 | 1 | 5.2 | 4 | 24 | 6 | 89 | 6 | 40 | 4 | 29 | 6 | 38 |
| 8 | 1 | 5.2 | 3 | 19 | 6 | 88 | 3 | 20 | 4 | 29 | 5 | 32 |
| 9 | 1 | 5.0 | 3 | 18 | 7 | 102 | 6 | 40 | 5 | 35 | 7 | 44 |
| 10 | 1 | 4.5 | 1 | 6.2 | 7 | 102 | 6 | 40 | 9 | 62 | 7 | 44 |
| 11 | 1 | 4.2 | 3 | 19 | 5 | 73 | 2 | 13 | 14 | 98 | 8 | 49 |
| 12 | 1 | 4.1 | 6 | 36 | 6 | 87 | 7 | 46 | 9 | 54 | 8 | 45 |
| 13 | 1 | 4.1 | 4 | 25 | 7 | 100 | 4 | 26 | 6 | 33 | 9 | 45 |
| 14 | 1 | 4.0 | 4 | 24 | 6 | 86 | 4 | 26 | 8 | 38 | 8 | 36 |
| 15 | 1 | 3.9 | 4 | 24 | 5 | 72 | 5 | 33 | 7 | 30 | 7 | 29 |
| 16 | 1 | 4.1 | 6 | 36 | 3 | 43 | 4 | 26 | 10 | 51 | 8 | 32 |
| 17 | 2 | 8.1 | 5 | 31 | 5 | 71 | 2 | 13 | 10 | 65 | 9 | 35 |
| 18 | 2 | 8.0 | 4 | 25 | 8 | 114 | 3 | 17 | 10 | 68 | 10 | 39 |
| 19 | 2 | 8.1 | 6 | 37 | 4 | 57 | 4 | 21 | 12 | 89 | 11 | 44 |
| 20 | 3 | 12 | 7 | 44 | 4 | 57 | 4 | 18 | 15 | 159 | 9 | 36 |
| 21 | 2 | 8.0 | 7 | 43 | 3 | 43 | 2 | 8.5 | 12 | 149 | 9 | 35 |
| 22 | 2 | 8.0 | 8 | 50 | 5 | 72 | 2 | 8.5 | 10 | 125 | 9 | 35 |
| 23 | 2 | 8.1 | 9 | 56 | 3 | 43 | 2 | 8.5 | 10 | 123 | 10 | 39 |
| 24 | 2 | 8.1 | 6 | 38 | 7 | 101 | 4 | 17 | 11 | 134 | 10 | 40 |
| 25 | 2 | 8.1 | 6 | 37 | 6 | 87 | 4 | 17 | 11 | 134 | 11 | 43 |
| 26 | 1 | 4.1 | 5 | 31 | 6 | 86 | 4 | 17 | 10 | 120 | 10 | 41 |
| 27 | 1 | 4.0 | 5 | 32 | 5 | 60 | 3 | 13 | 9 | 89 | 10 | 40 |
| 28 | 2 | 8.1 | 4 | 26 | 5 | 50 | 4 | 17 | 9 | 66 | 12 | 48 |
| 29 | 2 | 8.2 | 4 | 25 | 5 | 49 | 4 | 17 | --- | --- | 10 | 40 |
| 30 | 3 | 12 | 6 | 38 | 4 | 39 | 5 | 27 | --- | --- | 8 | 32 |
| 31 | 4 | 16 | --- | --- | 4 | 39 | 6 | 33 | --- | --- | 7 | 28 |
| TOTAL | --- | 242.2 | --- | 810.8 | --- | 2149 | --- | 798.5 | --- | 2016 | --- | 1234 |

SACRAMENTO RIVER BASIN

11407150 FEATHER RIVER NEAR GRIDLEY, CA--Continued

SEDIMENT DISCHARGE, SUSPENDED (TONS/DAY), OCTOBER 1984 TO SEPTEMBER 1985

| DAY | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) |
|-------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|
| APRIL | | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 7 | 28 | 13 | 145 | 14 | 206 | 10 | 107 | 5 | 54 | 4 | 22 |
| 2 | 7 | 28 | 12 | 146 | 13 | 192 | 11 | 118 | 5 | 55 | 4 | 22 |
| 3 | 7 | 29 | 11 | 133 | 13 | 193 | 13 | 140 | 5 | 50 | 4 | 21 |
| 4 | 7 | 28 | 17 | 206 | 13 | 194 | 15 | 161 | 5 | 48 | 3 | 14 |
| 5 | 7 | 28 | 16 | 193 | 10 | 149 | 12 | 123 | 5 | 48 | 3 | 13 |
| 6 | 8 | 32 | 15 | 181 | 8 | 119 | 9 | 84 | 5 | 48 | 3 | 14 |
| 7 | 9 | 35 | 14 | 167 | 9 | 129 | 7 | 65 | 5 | 48 | 4 | 18 |
| 8 | 10 | 39 | 14 | 167 | 10 | 135 | 8 | 71 | 6 | 58 | 4 | 18 |
| 9 | 10 | 39 | 13 | 157 | 9 | 121 | 10 | 80 | 6 | 57 | 5 | 23 |
| 10 | 11 | 42 | 13 | 157 | 9 | 121 | 11 | 87 | 6 | 50 | 5 | 22 |
| 11 | 7 | 27 | 11 | 133 | 8 | 108 | 13 | 102 | 5 | 41 | 6 | 27 |
| 12 | 4 | 16 | 10 | 119 | 8 | 99 | 11 | 94 | 5 | 41 | 6 | 27 |
| 13 | 8 | 42 | 10 | 114 | 10 | 122 | 10 | 100 | 5 | 41 | 6 | 27 |
| 14 | 10 | 60 | 11 | 115 | 12 | 146 | 7 | 71 | 6 | 49 | 6 | 27 |
| 15 | 13 | 87 | 11 | 106 | 8 | 97 | 5 | 52 | 7 | 58 | 6 | 27 |
| 16 | 20 | 151 | 10 | 76 | 4 | 49 | 2 | 22 | 9 | 75 | 6 | 26 |
| 17 | 18 | 134 | 10 | 74 | 7 | 90 | 3 | 33 | 7 | 58 | 6 | 27 |
| 18 | 16 | 119 | 11 | 81 | 10 | 137 | 4 | 49 | 6 | 49 | 7 | 32 |
| 19 | 13 | 97 | 12 | 110 | 8 | 110 | 5 | 63 | 5 | 41 | 5 | 23 |
| 20 | 11 | 83 | 12 | 123 | 6 | 82 | 6 | 75 | 5 | 35 | 4 | 18 |
| 21 | 10 | 75 | 12 | 123 | 9 | 124 | 7 | 88 | 5 | 34 | 4 | 17 |
| 22 | 10 | 75 | 12 | 124 | 13 | 177 | 9 | 109 | 4 | 28 | 5 | 22 |
| 23 | 11 | 69 | 12 | 131 | 11 | 148 | 7 | 79 | 6 | 41 | 5 | 22 |
| 24 | 10 | 60 | 13 | 163 | 10 | 123 | 6 | 67 | 8 | 55 | 7 | 32 |
| 25 | 9 | 53 | 13 | 172 | 9 | 97 | 4 | 45 | 8 | 55 | 9 | 42 |
| 26 | 9 | 54 | 14 | 185 | 9 | 96 | 3 | 33 | 9 | 61 | 9 | 52 |
| 27 | 10 | 72 | 14 | 185 | 10 | 107 | 2 | 22 | 7 | 48 | 8 | 53 |
| 28 | 11 | 94 | 15 | 208 | 7 | 75 | 3 | 33 | 5 | 34 | 8 | 54 |
| 29 | 13 | 123 | 15 | 222 | 5 | 53 | 4 | 44 | 6 | 41 | 7 | 48 |
| 30 | 15 | 157 | 14 | 208 | 7 | 75 | 5 | 55 | 5 | 34 | 6 | 41 |
| 31 | --- | --- | 14 | 209 | --- | --- | 6 | 65 | 4 | 25 | --- | --- |
| TOTAL | --- | 1976 | --- | 4633 | --- | 3674 | --- | 2337 | --- | 1460 | --- | 831 |

TOTAL LOAD FOR YEAR: 22161.5

11407500 SOUTH HONCUT CREEK NEAR BANGOR, CA

LOCATION.--Lat 39°22'04", long 121°22'16", in SE 1/4 SE 1/4 sec.35, T.18 N., R.5 E., Butte County, Hydrologic Unit 18020124, on right bank 2.3 mi southeast of Bangor, 3.3 mi upstream from Tennessee Creek, and 16.3 mi southeast of Oroville.

DRAINAGE AREA.--30.6 mi².

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

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 620 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: May 27 to June 23, June 26, 28-30, July 15-20, 24-27. Records good except for periods of estimated record, which are poor. Some small diversions upstream for irrigation.

AVERAGE DISCHARGE.--35 years, 37.5 ft³/s, 27,170 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 17,600 ft³/s, Dec. 26, 1964, gage height, 19.25 ft, from rating curve extended above 2,200 ft³/s on basis of slope-area measurements at gage heights 11.15 ft and 19.25 ft; no flow at times in most years.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,400 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|-----------------|------|-----------------------------------|---------------------|------|------|-----------------------------------|---------------------|
| Feb. 8 | 0900 | *2,660 | *8.38 | | | | |
| No flow July 9. | | | | | | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|-------|-------|--------|--------|-------|-------|-------|-------|------|-------|
| 1 | 3.0 | 2.9 | 14 | 7.3 | 6.9 | 9.9 | 24 | 3.1 | .90 | .04 | .21 | .33 |
| 2 | 3.0 | 3.3 | 12 | 7.1 | 8.0 | 17 | 21 | 3.0 | .86 | .03 | .14 | .40 |
| 3 | 2.8 | 6.9 | 15 | 6.6 | 7.3 | 8.5 | 19 | 2.9 | .82 | .02 | .12 | .49 |
| 4 | 2.6 | 3.5 | 12 | 6.5 | 6.8 | 9.7 | 18 | 2.8 | .78 | .02 | .15 | .48 |
| 5 | 2.5 | 2.3 | 12 | 6.4 | 6.3 | 11 | 17 | 2.7 | .75 | .02 | .18 | .47 |
| 6 | 2.5 | 4.7 | 10 | 6.2 | 6.7 | 18 | 17 | 2.7 | .72 | .02 | .25 | .53 |
| 7 | 2.3 | 5.8 | 8.6 | 14 | 80 | 97 | 16 | 2.8 | .68 | .01 | .22 | .30 |
| 8 | 2.4 | 20 | 7.9 | 17 | 941 | 63 | 13 | 2.8 | .64 | .01 | .18 | 3.5 |
| 9 | 2.3 | 8.0 | 7.6 | 12 | 115 | 50 | 12 | 2.6 | .60 | 0 | .18 | 4.2 |
| 10 | 2.6 | 5.5 | 30 | 10 | 56 | 138 | 11 | 2.8 | .56 | .01 | .06 | 3.8 |
| 11 | 11 | 34 | 28 | 9.0 | 37 | 98 | 9.9 | 2.9 | .52 | .01 | .04 | 2.1 |
| 12 | 5.6 | 14 | 19 | 8.0 | 28 | 53 | 8.3 | 3.1 | .47 | .03 | .11 | 1.4 |
| 13 | 4.0 | 70 | 15 | 7.7 | 23 | 39 | 8.0 | 2.1 | .40 | .03 | .17 | 1.1 |
| 14 | 4.0 | 15 | 12 | 7.5 | 20 | 31 | 7.7 | 1.8 | .36 | .03 | .16 | 1.0 |
| 15 | 3.6 | 7.5 | 31 | 7.1 | 19 | 25 | 7.1 | 1.5 | .33 | .06 | .14 | .89 |
| 16 | 7.8 | 9.0 | 56 | 6.8 | 17 | 22 | 7.0 | 1.3 | .28 | .06 | .15 | .78 |
| 17 | 12 | 8.7 | 40 | 6.6 | 15 | 20 | 7.3 | 1.5 | .22 | .06 | .18 | .72 |
| 18 | 4.3 | 24 | 28 | 6.7 | 14 | 19 | 9.0 | 1.4 | .15 | .08 | .27 | .60 |
| 19 | 3.5 | 12 | 22 | 6.7 | 13 | 17 | 8.5 | 1.4 | .19 | .10 | .24 | .56 |
| 20 | 2.9 | 9.7 | 21 | 6.2 | 11 | 16 | 7.8 | 1.3 | .17 | .11 | .24 | .61 |
| 21 | 2.3 | 27 | 17 | 5.8 | 10 | 14 | 8.9 | 1.2 | .15 | .19 | .27 | .68 |
| 22 | 2.0 | 12 | 15 | 5.6 | 9.4 | 13 | 9.0 | 1.1 | .13 | .18 | .27 | .72 |
| 23 | 1.6 | 8.2 | 14 | 5.5 | 8.1 | 11 | 8.2 | 1.0 | .11 | .16 | .37 | .65 |
| 24 | 1.5 | 234 | 13 | 5.5 | 7.7 | 20 | 9.0 | .99 | .08 | .12 | .49 | .60 |
| 25 | 1.7 | 44 | 12 | 5.1 | 7.5 | 21 | 8.1 | .99 | .08 | .17 | .46 | .49 |
| 26 | 1.6 | 19 | 11 | 6.8 | 7.2 | 107 | 7.9 | 1.1 | .11 | .25 | .41 | .44 |
| 27 | 2.4 | 108 | 10 | 6.2 | 6.8 | 157 | 6.8 | 1.1 | .10 | .22 | .36 | .37 |
| 28 | 2.6 | 108 | 9.3 | 11 | 6.0 | 102 | 3.8 | 1.0 | .08 | .21 | .31 | .31 |
| 29 | 3.7 | 28 | 8.5 | 11 | --- | 50 | 3.9 | 1.0 | .08 | .13 | .27 | .34 |
| 30 | 4.0 | 18 | 8.2 | 8.7 | --- | 36 | 3.7 | .97 | .04 | .26 | .31 | .29 |
| 31 | 3.1 | --- | 7.8 | 7.3 | --- | 31 | --- | .94 | .28 | .34 | --- | --- |
| TOTAL | 111.2 | 873.0 | 526.9 | 243.9 | 1493.7 | 1324.1 | 317.9 | 57.89 | 11.36 | 2.92 | 7.25 | 29.15 |
| MEAN | 3.59 | 29.1 | 17.0 | 7.87 | 53.3 | 42.7 | 10.6 | 1.87 | .38 | .094 | .23 | .97 |
| MAX | 12 | 234 | 56 | 17 | 941 | 157 | 24 | 3.1 | .90 | .28 | .49 | 4.2 |
| MIN | 1.5 | 2.3 | 7.6 | 5.1 | 6.0 | 8.5 | 3.7 | .94 | .04 | 0 | .04 | .29 |
| AC-FT | 221 | 1730 | 1050 | 484 | 2960 | 2630 | 631 | 115 | 23 | 5.8 | 14 | 58 |
| CAL YR 1984 | TOTAL | 8016.3 | MEAN | 21.9 | MAX | 504 | MIN | .45 | AC-FT | 15900 | | |
| WTR YR 1985 | TOTAL | 4999.27 | MEAN | 13.7 | MAX | 941 | MIN | 0 | AC-FT | 9920 | | |

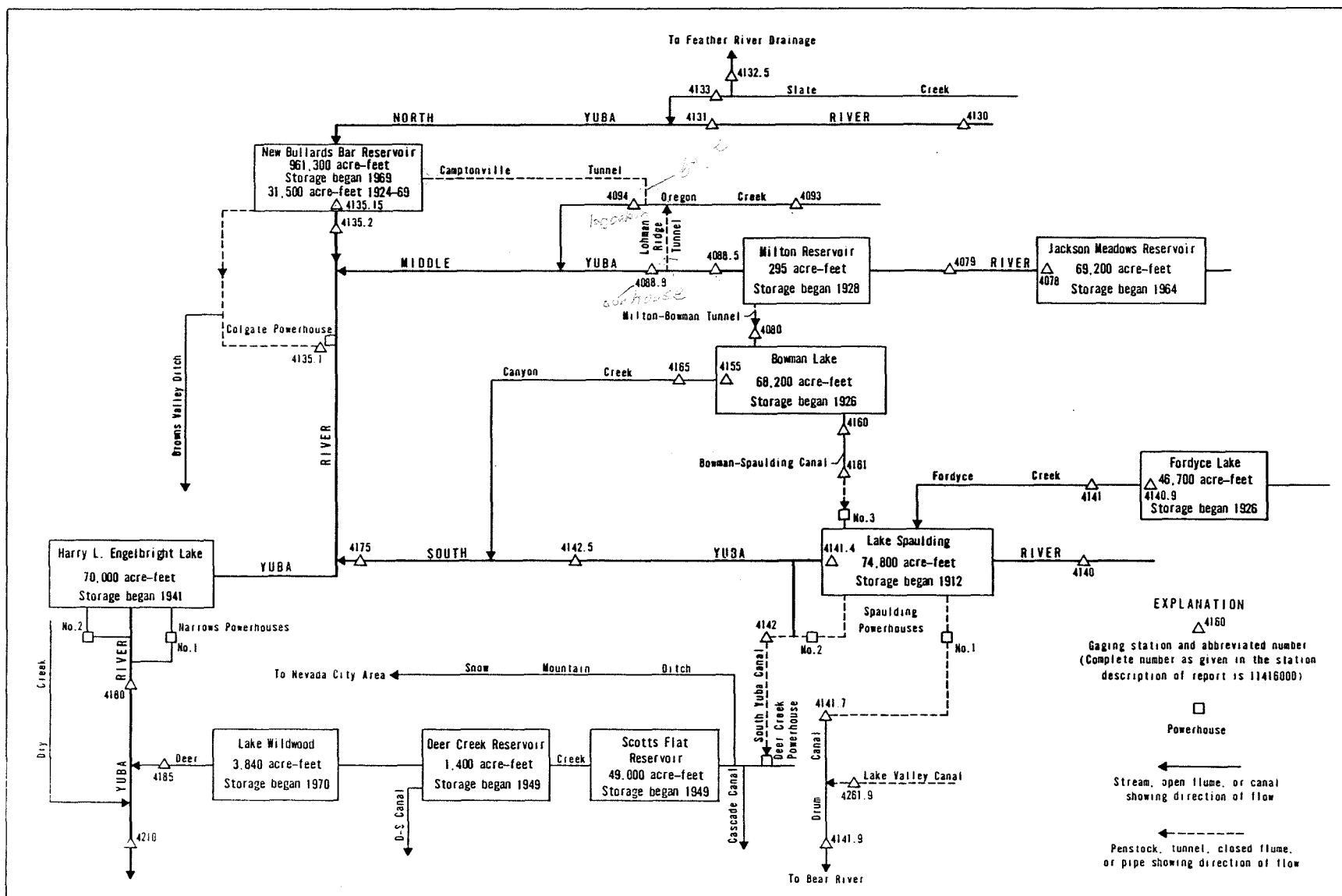


FIGURE 28. — Schematic diagram showing diversions and storage in Yuba River basin.

11407800 JACKSON MEADOWS RESERVOIR NEAR SIERRA CITY, CA

LOCATION (REVISED).--Lat 39°30'33", Long 120°33'08", in NW 1/4 SE 1/4 sec.18, T.19 N., R.13 E., Sierra County, Hydrologic Unit 18020125, Tahoe National Forest, on right bank at Jackson Meadows Dam on Middle Yuba River, 0.7 mi downstream from Pass Creek, and 5.7 mi southeast of Sierra City.

DRAINAGE AREA.--37.6 mi².

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

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Nevada Irrigation District).

REMARKS.--Reservoir is formed by an earthfill dam. Storage began Nov. 9, 1964. Usable capacity, 66,700 acre-ft between elevations 5,933.0 ft, bottom of intake tower, and 6,036.0 ft, top of radial spillway gates. Dead contents, 2,500 acre-ft. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Yuba River basin.

COOPERATION.--Capacity table provided by Nevada Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 71,000 acre-ft, on several days in 1969-71, elevation, 6,037.7 ft; minimum since reservoir first filled, 2,500 acre-ft, Sept. 27-29, 1976, elevation, 5,933.1 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 52,600 acre-ft, Oct. 1, elevation, 6,019.4 ft; minimum, 10,200 acre-ft, Mar. 8, 9, elevation, 5,959.0 ft.

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

| | | | |
|-------|--------|-------|--------|
| 5,930 | 2,000 | 5,990 | 27,600 |
| 5,940 | 3,920 | 6,000 | 35,300 |
| 5,950 | 6,760 | 6,010 | 43,900 |
| 5,960 | 10,600 | 6,020 | 53,200 |
| 5,970 | 15,400 | 6,030 | 63,000 |
| 5,980 | 21,000 | 6,040 | 73,500 |

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 52600 | 34800 | 33800 | 34400 | 21100 | 12000 | 12200 | 30400 | 47200 | 49000 | 40500 | 31700 |
| 2 | 52000 | 34500 | 33800 | 34300 | 20800 | 11700 | 12400 | 31400 | 47500 | 48800 | 40200 | 31200 |
| 3 | 51500 | 34100 | 33900 | 33800 | 20400 | 11400 | 12600 | 32300 | 47700 | 48500 | 40000 | 30800 |
| 4 | 50800 | 33600 | 33900 | 33300 | 20000 | 11100 | 13000 | 33100 | 47900 | 48300 | 39700 | 30400 |
| 5 | 50300 | 33100 | 33900 | 32800 | 19600 | 10800 | 13400 | 33900 | 48100 | 48000 | 39600 | 29900 |
| 6 | 49600 | 32700 | 33900 | 32300 | 19200 | 10500 | 14000 | 34700 | 48400 | 47800 | 39600 | 29500 |
| 7 | 49000 | 32200 | 33900 | 31800 | 19000 | 10300 | 14500 | 35300 | 48600 | 47500 | 39500 | 29000 |
| 8 | 48500 | 32000 | 33900 | 31300 | 18700 | 10200 | 15100 | 36000 | 48800 | 47200 | 39500 | 28700 |
| 9 | 47800 | 32000 | 33900 | 30800 | 18300 | 10200 | 15800 | 36600 | 49000 | 46900 | 39400 | 28300 |
| 10 | 47300 | 32000 | 34000 | 30300 | 17900 | 10300 | 16500 | 37000 | 49200 | 46700 | 39400 | 27900 |
| 11 | 46700 | 32300 | 34000 | 29800 | 17600 | 10300 | 17200 | 37500 | 49300 | 46400 | 39400 | 27500 |
| 12 | 46200 | 32400 | 34000 | 29300 | 17300 | 10400 | 17900 | 37900 | 49400 | 46100 | 39400 | 27200 |
| 13 | 45600 | 32700 | 34000 | 28800 | 16900 | 10400 | 18700 | 38400 | 49600 | 45800 | 39300 | 27200 |
| 14 | 45000 | 32800 | 34000 | 28400 | 16600 | 10500 | 19800 | 39000 | 49700 | 45600 | 39300 | 27200 |
| 15 | 44400 | 32800 | 34100 | 27900 | 16300 | 10500 | 21000 | 39600 | 49800 | 45300 | 39100 | 27100 |
| 16 | 43900 | 32800 | 34200 | 27500 | 15900 | 10600 | 21900 | 40200 | 49900 | 45000 | 38700 | 27100 |
| 17 | 43400 | 32800 | 34300 | 27100 | 15600 | 10600 | 22600 | 40800 | 50000 | 44800 | 38300 | 27100 |
| 18 | 42800 | 32900 | 34400 | 26700 | 15300 | 10700 | 23300 | 41400 | 50100 | 44500 | 37900 | 27100 |
| 19 | 42200 | 33000 | 34400 | 26300 | 14900 | 10800 | 24000 | 42000 | 50100 | 44100 | 37400 | 27000 |
| 20 | 41600 | 33000 | 34400 | 25900 | 14600 | 10900 | 24400 | 42500 | 50200 | 43900 | 37000 | 27000 |
| 21 | 41000 | 33100 | 34400 | 25500 | 14300 | 11000 | 24800 | 43100 | 50200 | 43600 | 36600 | 27000 |
| 22 | 40400 | 33100 | 34400 | 25100 | 14000 | 11100 | 25200 | 43600 | 50200 | 43300 | 36200 | 27000 |
| 23 | 39900 | 33200 | 34400 | 24700 | 13700 | 11200 | 25700 | 44100 | 50200 | 43100 | 35800 | 27000 |
| 24 | 39500 | 33300 | 34400 | 24300 | 13500 | 11300 | 26100 | 44700 | 50200 | 42800 | 35300 | 27000 |
| 25 | 38900 | 33300 | 34400 | 23900 | 13200 | 11400 | 26600 | 45100 | 50200 | 42500 | 34800 | 27000 |
| 26 | 38300 | 33300 | 34400 | 23500 | 12900 | 11500 | 27000 | 45500 | 50200 | 42300 | 34400 | 27000 |
| 27 | 37700 | 33600 | 34400 | 23100 | 12600 | 11700 | 27500 | 45900 | 50100 | 42000 | 33900 | 27000 |
| 28 | 37100 | 33700 | 34400 | 22700 | 12300 | 11800 | 28200 | 46200 | 49800 | 41600 | 33500 | 27000 |
| 29 | 36500 | 33800 | 34400 | 22300 | --- | 11800 | 28800 | 46600 | 49500 | 41400 | 33000 | 26900 |
| 30 | 36000 | 33800 | 34400 | 21900 | --- | 11900 | 29500 | 46800 | 49200 | 41000 | 32600 | 26900 |
| 31 | 35400 | --- | 34400 | 21500 | --- | 12000 | --- | 47000 | --- | 40800 | 32100 | --- |
| MAX | 52600 | 34800 | 34400 | 34400 | 21100 | 12000 | 29500 | 47000 | 50200 | 49000 | 40500 | 31700 |
| MIN | 35400 | 32000 | 33800 | 21500 | 12300 | 10200 | 12200 | 30400 | 47200 | 40800 | 32100 | 26900 |
| a | 6000.1 | 5998.1 | 5998.9 | 5980.8 | 5963.6 | 5963.1 | 5992.6 | 6013.4 | 6015.8 | 6006.4 | 5996.0 | 5989.0 |
| b | -17900 | -1600 | +600 | -12900 | -9200 | -300 | +17500 | +17500 | +2200 | -8400 | -8700 | -5200 |

CAL YR 1984 b -21300

WTR YR 1985 b -26400

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

SACRAMENTO RIVER BASIN

11407900 MIDDLE YUBA RIVER BELOW JACKSON MEADOWS DAM, NEAR SIERRA CITY, CA

LOCATION.--Lat 39°30'58", long 120°33'37" (revised), in SE 1/4 NW 1/4 sec.18, T.19 N., R.13 E., Sierra County, Hydrologic Unit 18020125, Tahoe National Forest, on right bank 0.6 mi downstream from Jackson Meadows Dam, and 5.2 mi southeast of Sierra City.

DRAINAGE AREA.--38.3 mi².

PERIOD OF RECORD.--October 1964 to current year. If record for Milton-Bowman tunnel outlet near Graniteville is added to record published as Middle Yuba River at Milton, a record equivalent to this site can be obtained for the period 1928-64.

GAGE.--Water-stage recorder and crest stage gage. Datum of gage is 5,717.20 ft above National Geodetic Vertical Datum of 1929 (levels by Nevada Irrigation District). Prior to Aug. 12, 1982, at site 160 ft downstream at same datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Jackson Meadows Reservoir (station 11407800) since November 1964. See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE (adjusted for change in contents in Jackson Meadows Reservoir).--21 years, 118 ft³/s, 85,490 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,660 ft³/s, Dec. 20, 1981, gage height, 9.61 ft, from rating curve extended above 400 ft³/s on basis of computation of flow over Milton Dam, adjusted for diversion and inflow, maximum gage height, 14.88 ft Dec. 26, 1983; no flow on many days in 1976-77.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge known since at least 1925, 10,000 ft³/s, Jan. 31, 1963, gage height, 10.57 ft from floodmarks, by computation of flow over Milton Dam, adjusted for diversion and inflow.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 309 ft³/s, Oct. 4-11, 13, 14, gage height, 12.79 ft; minimum daily, 6.3 ft³/s, Mar. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|--------|-------|--------|-------|--------|-------|-------|-------|------|--------|--------|
| 1 | 292 | 286 | 9.0 | 7.1 | 191 | 173 | 8.2 | 13 | 9.0 | 129 | 137 | 223 |
| 2 | 298 | 288 | 8.4 | 94 | 191 | 172 | 9.5 | 13 | 9.1 | 129 | 137 | 223 |
| 3 | 303 | 285 | 8.3 | 225 | 193 | 171 | 12 | 14 | 9.3 | 129 | 137 | 223 |
| 4 | 307 | 284 | 8.3 | 226 | 193 | 171 | 12 | 12 | 9.3 | 129 | 137 | 227 |
| 5 | 306 | 284 | 8.3 | 224 | 191 | 170 | 15 | 13 | 9.2 | 129 | 73 | 230 |
| 6 | 306 | 284 | 8.0 | 224 | 191 | 170 | 15 | 13 | 9.0 | 129 | 9.3 | 229 |
| 7 | 306 | 282 | 8.0 | 224 | 191 | 169 | 15 | 13 | 9.0 | 129 | 9.1 | 224 |
| 8 | 306 | 174 | 8.0 | 224 | 192 | 78 | 16 | 12 | 8.8 | 129 | 9.0 | 223 |
| 9 | 306 | 8.7 | 8.0 | 224 | 190 | 7.4 | 16 | 12 | 8.6 | 129 | 9.0 | 221 |
| 10 | 305 | 8.5 | 8.0 | 215 | 189 | 6.7 | 15 | 12 | 8.8 | 129 | 9.0 | 221 |
| 11 | 299 | 13 | 8.0 | 216 | 189 | 6.5 | 15 | 11 | 9.0 | 133 | 9.0 | 218 |
| 12 | 303 | 11 | 8.0 | 215 | 189 | 6.3 | 14 | 11 | 9.0 | 136 | 9.0 | 142 |
| 13 | 305 | 11 | 7.7 | 214 | 188 | 6.6 | 15 | 11 | 9.0 | 137 | 9.0 | 9.0 |
| 14 | 305 | 9.5 | 7.7 | 220 | 189 | 6.9 | 16 | 11 | 9.0 | 137 | 9.0 | 9.0 |
| 15 | 297 | 9.0 | 7.8 | 223 | 190 | 7.0 | 16 | 11 | 9.0 | 137 | 92 | 8.7 |
| 16 | 294 | 9.0 | 8.0 | 210 | 189 | 7.2 | 15 | 10 | 9.0 | 137 | 207 | 8.4 |
| 17 | 292 | 8.6 | 7.7 | 211 | 188 | 7.0 | 14 | 10 | 9.0 | 137 | 207 | 8.1 |
| 18 | 295 | 8.6 | 7.4 | 209 | 182 | 7.0 | 14 | 10 | 9.0 | 137 | 205 | 8.0 |
| 19 | 300 | 8.6 | 7.4 | 207 | 180 | 7.3 | 15 | 10 | 9.0 | 137 | 205 | 8.0 |
| 20 | 300 | 8.6 | 7.4 | 205 | 182 | 8.1 | 13 | 10 | 9.0 | 137 | 205 | 8.0 |
| 21 | 294 | 8.6 | 7.4 | 205 | 180 | 8.1 | 11 | 10 | 9.0 | 137 | 205 | 8.0 |
| 22 | 292 | 8.4 | 7.4 | 205 | 180 | 7.6 | 11 | 10 | 9.0 | 137 | 212 | 8.0 |
| 23 | 292 | 8.1 | 7.4 | 203 | 180 | 8.4 | 12 | 10 | 9.0 | 137 | 218 | 8.0 |
| 24 | 297 | 8.6 | 7.4 | 200 | 179 | 8.6 | 12 | 10 | 9.0 | 137 | 218 | 8.0 |
| 25 | 301 | 8.2 | 7.4 | 200 | 178 | 8.2 | 12 | 10 | 9.0 | 138 | 216 | 8.0 |
| 26 | 299 | 8.0 | 7.4 | 198 | 178 | 7.4 | 11 | 9.8 | 9.0 | 139 | 214 | 8.0 |
| 27 | 293 | 10 | 7.4 | 197 | 178 | 7.6 | 11 | 9.6 | 53 | 138 | 214 | 8.0 |
| 28 | 290 | 11 | 7.2 | 196 | 174 | 7.2 | 12 | 9.2 | 129 | 137 | 214 | 8.0 |
| 29 | 287 | 10 | 7.1 | 194 | --- | 6.9 | 12 | 9.0 | 129 | 137 | 220 | 8.0 |
| 30 | 287 | 9.6 | 7.1 | 194 | --- | 7.0 | 12 | 9.0 | 129 | 137 | 223 | 8.0 |
| 31 | 286 | --- | 7.1 | 192 | --- | 7.3 | --- | 9.0 | --- | 137 | 223 | --- |
| TOTAL | 9243 | 2371.6 | 239.7 | 6201.1 | 5205 | 1442.3 | 396.7 | 337.6 | 674.1 | 4166 | 4200.4 | 2751.2 |
| MEAN | 298 | 79.1 | 7.73 | 200 | 186 | 46.5 | 13.2 | 10.9 | 22.5 | 134 | 135 | 91.7 |
| MAX | 307 | 288 | 9.0 | 226 | 193 | 173 | 16 | 14 | 129 | 139 | 223 | 230 |
| MIN | 286 | 8.0 | 7.1 | 7.1 | 174 | 6.3 | 8.2 | 9.0 | 8.6 | 129 | 9.0 | 8.0 |
| AC-FT | 18330 | 4700 | 475 | 12300 | 10320 | 2860 | 787 | 670 | 1340 | 8260 | 8330 | 5460 |

CAL YR 1984 TOTAL 50850.4 MEAN 139 MAX 607 MIN 5.0 AC-FT 100900 MEAN a 110 AC-FT a 79600
WTR YR 1985 TOTAL 37228.7 MEAN 102 MAX 307 MIN 6.3 AC-FT 73840 MEAN a 65.5 AC-FT a 47440

a Adjusted for change in contents in Jackson Meadows Reservoir.

11408000 MILTON-BOWMAN TUNNEL OUTLET NEAR GRANITEVILLE, CA

LOCATION (REVISED).--Lat 39°27'37", long 120°36'37", in NW 1/4 NE 1/4 sec.3, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, on right bank 100 ft downstream from tunnel outlet near upper end of Bowman Lake, and 6.9 mi east of Graniteville.

PERIOD OF RECORD.--May 1928 to September 1930, February 1931 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to October 1962, published as "Milton-Bowman tunnel at outlet."

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 5,592.51 ft above National Geodetic Vertical Datum of 1929. Prior to Sept. 22, 1964, at datum 0.56 ft higher.

REMARKS.--Estimated daily discharges: Mar. 26, 27, Sept. 19-30. Records excellent except for periods of estimated daily record which are good. Tunnel diverts from Middle Yuba River at Milton, in sec.12, T.19 N., R.12 E., and discharges into Bowman Lake. Practically the entire flow of Middle Yuba River is diverted during low and medium flows. Middle Yuba River is regulated by Jackson Meadows Reservoir (station 11407800) since November 1964. See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE.--57 years, 74.4 ft³/s, 53,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 492 ft³/s, Feb. 11, 1941; minimum daily, 0.4 ft³/s, Oct. 7, 1944.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|------|-------|-------|------|------|------|-------|-------|--------|--------|
| 1 | 302 | 294 | 16 | 12 | 210 | 184 | 15 | 42 | 16 | 134 | 135 | 219 |
| 2 | 301 | 300 | 16 | 55 | 209 | 183 | 18 | 45 | 17 | 134 | 134 | 218 |
| 3 | 303 | 303 | 16 | 230 | 207 | 181 | 21 | 43 | 16 | 133 | 134 | 218 |
| 4 | 303 | 295 | 15 | 233 | 206 | 181 | 24 | 38 | 16 | 133 | 134 | 219 |
| 5 | 302 | 291 | 14 | 233 | 205 | 179 | 29 | 37 | 15 | 133 | 96 | 222 |
| 6 | 302 | 293 | 14 | 232 | 204 | 180 | 35 | 37 | 15 | 133 | 12 | 222 |
| 7 | 301 | 293 | 14 | 233 | 206 | 178 | 37 | 35 | 14 | 133 | 8.5 | 222 |
| 8 | 300 | 251 | 14 | 231 | 211 | 116 | 40 | 33 | 14 | 133 | 7.9 | 228 |
| 9 | 299 | 21 | 14 | 230 | 202 | 15 | 43 | 31 | 14 | 132 | 7.7 | 226 |
| 10 | 298 | 14 | 14 | 229 | 201 | 12 | 45 | 29 | 13 | 132 | 7.7 | 221 |
| 11 | 304 | 27 | 14 | 228 | 200 | 12 | 44 | 27 | 13 | 135 | 7.5 | 219 |
| 12 | 303 | 23 | 14 | 227 | 199 | 11 | 43 | 27 | 12 | 139 | 7.4 | 178 |
| 13 | 302 | 24 | 13 | 226 | 198 | 11 | 47 | 27 | 12 | 138 | 7.3 | 15 |
| 14 | 301 | 19 | 13 | 226 | 197 | 11 | 54 | 28 | 11 | 138 | 7.2 | 8.7 |
| 15 | 299 | 16 | 14 | 225 | 196 | 11 | 56 | 28 | 11 | 138 | 50 | 7.8 |
| 16 | 299 | 16 | 14 | 223 | 195 | 12 | 51 | 27 | 11 | 137 | 202 | 7.5 |
| 17 | 299 | 15 | 13 | 223 | 194 | 12 | 45 | 27 | 11 | 139 | 203 | 7.3 |
| 18 | 298 | 16 | 13 | 222 | 193 | 13 | 41 | 27 | 11 | 138 | 204 | 7.6 |
| 19 | 301 | 15 | 13 | 221 | 192 | 13 | 40 | 26 | 11 | 137 | 203 | 7.0 |
| 20 | 302 | 15 | 13 | 221 | 191 | 14 | 33 | 26 | 10 | 137 | 203 | 7.0 |
| 21 | 300 | 14 | 12 | 220 | 190 | 14 | 30 | 25 | 10 | 138 | 202 | 7.0 |
| 22 | 299 | 14 | 12 | 219 | 189 | 14 | 30 | 24 | 10 | 137 | 208 | 7.0 |
| 23 | 298 | 14 | 12 | 218 | 188 | 14 | 31 | 24 | 9.9 | 137 | 215 | 7.0 |
| 24 | 297 | 18 | 12 | 217 | 188 | 16 | 32 | 23 | 9.8 | 136 | 214 | 7.0 |
| 25 | 298 | 15 | 12 | 217 | 187 | 15 | 31 | 22 | 9.7 | 135 | 213 | 7.0 |
| 26 | 300 | 14 | 12 | 216 | 186 | 14 | 28 | 21 | 9.5 | 136 | 212 | 7.0 |
| 27 | 300 | 19 | 12 | 214 | 186 | 14 | 29 | 20 | 30 | 136 | 212 | 7.0 |
| 28 | 298 | 26 | 12 | 214 | 185 | 14 | 34 | 20 | 132 | 135 | 211 | 7.0 |
| 29 | 298 | 19 | 12 | 213 | --- | 14 | 35 | 20 | 134 | 135 | 215 | 7.0 |
| 30 | 296 | 17 | 12 | 212 | --- | 13 | 37 | 19 | 134 | 135 | 222 | 7.0 |
| 31 | 295 | --- | 12 | 211 | --- | 14 | --- | 17 | --- | 135 | 220 | --- |
| TOTAL | 9298 | 2711 | 413 | 6531 | 5515 | 1685 | 1078 | 875 | 751.9 | 4201 | 4115.2 | 2749.9 |
| MEAN | 300 | 90.4 | 13.3 | 211 | 197 | 54.4 | 35.9 | 28.2 | 25.1 | 136 | 133 | 91.7 |
| MAX | 304 | 303 | 16 | 233 | 211 | 184 | 56 | 45 | 134 | 139 | 222 | 228 |
| MIN | 295 | 14 | 12 | 12 | 185 | 11 | 15 | 17 | 9.5 | 132 | 7.2 | 7.0 |
| AC-FT | 18440 | 5380 | 819 | 12950 | 10940 | 3340 | 2140 | 1740 | 1490 | 8330 | 8160 | 5450 |
| CAL YR 1984 | TOTAL | 34982.2 | MEAN | 95.6 | MAX | 314 | MIN | 2.9 | AC-FT | 69390 | | |
| WTR YR 1985 | TOTAL | 39924.0 | MEAN | 109 | MAX | 304 | MIN | 7.0 | AC-FT | 79190 | | |

SACRAMENTO RIVER BASIN

11408850 MIDDLE YUBA RIVER NEAR CAMPTONVILLE, CA

LOCATION.--Lat 39°25'01", long 120°57'06", in SW 1/4 SE 1/4 sec.15, T.18 N., R.9 E., Sierra County, Hydrologic Unit 18020125, Tahoe National Forest, on right bank 0.6 mi downstream from Kanaka Creek, and 5.8 mi southeast of Camptonville.

DRAINAGE AREA.--136 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 2,170 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by Jackson Meadows Reservoir since November 1964 (station 11407800), Milton-Bowman tunnel (station 11408000) which diverts above station to Bowman Lake (station 11415500), and other small diversions above station. See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE.--18 years, 353 ft³/s, 255,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 15,500 ft³/s, Jan. 13, 1980, gage height, 16.00 ft from rating curve extended above 8,000 ft³/s; minimum daily, 11 ft³/s, July 29, Aug. 17, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1480 ft³/s, Feb. 8, gage height, 8.42 ft; minimum daily, 30 ft³/s, Sept. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|------|------|------|-------|-------|-------|-------|--------|------|------|
| 1 | 48 | 47 | 234 | 96 | 81 | 148 | 397 | 385 | 122 | 47 | 35 | 33 |
| 2 | 42 | 165 | 201 | 94 | 84 | 154 | 543 | 417 | 122 | 46 | 35 | 32 |
| 3 | 39 | 241 | 188 | 93 | 81 | 141 | 614 | 423 | 122 | 46 | 35 | 32 |
| 4 | 37 | 103 | 167 | 93 | 78 | 140 | 630 | 385 | 112 | 46 | 34 | 32 |
| 5 | 37 | 75 | 155 | 93 | 77 | 134 | 688 | 364 | 108 | 45 | 34 | 33 |
| 6 | 36 | 89 | 143 | 97 | 74 | 141 | 703 | 363 | 107 | 44 | 33 | 33 |
| 7 | 36 | 122 | 136 | 135 | 115 | 141 | 678 | 353 | 104 | 44 | 33 | 34 |
| 8 | 36 | 210 | 132 | 128 | 883 | 132 | 659 | 327 | 101 | 43 | 33 | 55 |
| 9 | 35 | 146 | 127 | 119 | 345 | 138 | 654 | 301 | 98 | 42 | 33 | 75 |
| 10 | 36 | 114 | 172 | 112 | 208 | 162 | 660 | 277 | 93 | 42 | 33 | 57 |
| 11 | 75 | 385 | 183 | 106 | 163 | 176 | 605 | 250 | 88 | 41 | 33 | 43 |
| 12 | 56 | 313 | 169 | 101 | 142 | 169 | 562 | 237 | 85 | 41 | 33 | 39 |
| 13 | 45 | 529 | 155 | 98 | 140 | 185 | 590 | 236 | 81 | 41 | 33 | 37 |
| 14 | 44 | 341 | 143 | 95 | 143 | 191 | 665 | 250 | 77 | 40 | 33 | 35 |
| 15 | 41 | 214 | 141 | 94 | 150 | 201 | 709 | 255 | 75 | 39 | 33 | 34 |
| 16 | 50 | 184 | 145 | 94 | 155 | 210 | 648 | 242 | 71 | 38 | 33 | 33 |
| 17 | 73 | 165 | 127 | 93 | 157 | 215 | 557 | 242 | 69 | 38 | 32 | 33 |
| 18 | 48 | 204 | 123 | 93 | 157 | 252 | 469 | 241 | 66 | 37 | 33 | 33 |
| 19 | 45 | 185 | 121 | 95 | 163 | 259 | 460 | 236 | 63 | 37 | 33 | 33 |
| 20 | 55 | 173 | 119 | 95 | 172 | 249 | 400 | 233 | 61 | 37 | 33 | 33 |
| 21 | 54 | 179 | 114 | 95 | 156 | 251 | 369 | 219 | 60 | 38 | 33 | 33 |
| 22 | 46 | 154 | 109 | 95 | 149 | 236 | 415 | 213 | 58 | 39 | 33 | 33 |
| 23 | 43 | 136 | 108 | 95 | 147 | 221 | 374 | 210 | 57 | 39 | 33 | 32 |
| 24 | 42 | 368 | 108 | 93 | 147 | 284 | 353 | 207 | 55 | 37 | 32 | 31 |
| 25 | 41 | 288 | 108 | 92 | 148 | 272 | 333 | 191 | 53 | 36 | 32 | 32 |
| 26 | 48 | 202 | 109 | 94 | 148 | 268 | 304 | 177 | 52 | 35 | 32 | 32 |
| 27 | 75 | 317 | 108 | 92 | 149 | 308 | 294 | 164 | 51 | 35 | 32 | 31 |
| 28 | 55 | 769 | 106 | 93 | 150 | 294 | 326 | 153 | 51 | 36 | 31 | 31 |
| 29 | 64 | 393 | 103 | 90 | --- | 256 | 345 | 147 | 49 | 35 | 31 | 31 |
| 30 | 60 | 283 | 101 | 86 | --- | 252 | 346 | 137 | 48 | 35 | 33 | 30 |
| 31 | 50 | --- | 98 | 83 | --- | 298 | --- | 127 | --- | 35 | 34 | --- |
| TOTAL | 1492 | 7094 | 4253 | 3032 | 4762 | 6478 | 15350 | 7962 | 2359 | 1234 | 1023 | 1085 |
| MEAN | 48.1 | 236 | 137 | 97.8 | 170 | 209 | 512 | 257 | 78.6 | 39.8 | 33.0 | 36.2 |
| MAX | 75 | 769 | 234 | 135 | 883 | 308 | 709 | 423 | 122 | 47 | 35 | 75 |
| MIN | 35 | 47 | 98 | 83 | 74 | 132 | 294 | 127 | 48 | 35 | 31 | 30 |
| AC-FT | 2960 | 14070 | 8440 | 6010 | 9450 | 12850 | 30450 | 15790 | 4680 | 2450 | 2030 | 2150 |
| CAL YR 1984 | TOTAL | 105471 | MEAN | 288 | MAX | 2040 | MIN | 35 | AC-FT | 209200 | | |
| WTR YR 1985 | TOTAL | 56124 | MEAN | 154 | MAX | 883 | MIN | 30 | AC-FT | 111300 | | |

11408880 MIDDLE YUBA RIVER BELOW OUR HOUSE DAM, NEAR CAMPTONVILLE, CA

LOCATION.--Lat 39°24'42", long 120°59'49", in SW 1/4 NW 1/4 sec.20, T.18 N., R.9 E., Sierra County, Hydrologic Unit 18020125, Tahoe National Forest, on right bank 400 ft downstream from Our House Dam, and 4.0 mi southeast of Camptonville.

DRAINAGE AREA.--145 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 1,957.51 ft above National Geodetic Vertical Datum of 1929. Prior to Nov. 4, 1970, at datum 10.0 ft higher.

REMARKS.--Estimated daily discharge: April 20 to June 4. Records good. Natural flow of stream affected by Jackson Meadows Reservoir since November 1964 (station 11407800), Milton-Bowman tunnel (station 11408000) which diverts above station to Bowman Lake (station 11415500), and Lohman Ridge tunnel since October 1968 which diverts 400 ft upstream to Oregon Creek and then to New Bullards Bar Reservoir via Camptonville tunnel. Other small diversions above station. See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE.--17 years, 144 ft³/s, 104,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 14,800 ft³/s, Jan. 13, 1980, gage height, 23.01 ft present datum from rating curve extended above 8600 ft³/s on basis of theoretical rating of Our House Dam spillway; minimum daily, 2.1 ft³/s, Jan. 10, 1982.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,160 ft³/s, Feb. 8, gage height, 14.66 ft; minimum daily, 25 ft³/s Oct. 4, 5, Aug. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|------|-------|------|------|------|-------|-------|-------|------|------|------|------|
| 1 | 27 | 34 | 54 | 43 | 45 | 38 | 40 | 57 | 61 | 29 | 30 | 27 |
| 2 | 26 | 35 | 53 | 42 | 46 | 38 | 41 | 57 | 62 | 29 | 30 | 27 |
| 3 | 26 | 38 | 52 | 43 | 46 | 38 | 42 | 59 | 63 | 29 | 31 | 27 |
| 4 | 25 | 35 | 52 | 43 | 46 | 37 | 41 | 59 | 64 | 29 | 31 | 27 |
| 5 | 25 | 35 | 50 | 44 | 46 | 37 | 41 | 59 | 64 | 29 | 31 | 27 |
| 6 | 28 | 47 | 50 | 44 | 46 | 37 | 41 | 59 | 64 | 29 | 30 | 27 |
| 7 | 31 | 57 | 50 | 45 | 46 | 38 | 40 | 60 | 64 | 29 | 29 | 28 |
| 8 | 31 | 58 | 50 | 45 | 359 | 37 | 40 | 58 | 62 | 29 | 29 | 29 |
| 9 | 31 | 57 | 50 | 45 | 47 | 36 | 40 | 57 | 62 | 29 | 29 | 29 |
| 10 | 31 | 57 | 50 | 45 | 45 | 36 | 40 | 57 | 62 | 29 | 27 | 29 |
| 11 | 31 | 60 | 51 | 45 | 41 | 37 | 40 | 57 | 62 | 29 | 28 | 29 |
| 12 | 32 | 61 | 50 | 45 | 40 | 38 | 39 | 57 | 61 | 29 | 28 | 29 |
| 13 | 33 | 57 | 45 | 45 | 40 | 38 | 39 | 57 | 60 | 29 | 28 | 29 |
| 14 | 34 | 51 | 42 | 45 | 40 | 38 | 45 | 57 | 57 | 29 | 27 | 29 |
| 15 | 34 | 49 | 42 | 45 | 39 | 39 | 48 | 57 | 57 | 29 | 27 | 29 |
| 16 | 34 | 51 | 42 | 46 | 39 | 39 | 48 | 57 | 44 | 29 | 27 | 29 |
| 17 | 34 | 47 | 42 | 46 | 40 | 39 | 48 | 57 | 33 | 29 | 27 | 29 |
| 18 | 34 | 46 | 42 | 46 | 40 | 38 | 52 | 57 | 33 | 29 | 27 | 29 |
| 19 | 34 | 47 | 43 | 45 | 39 | 39 | 57 | 57 | 33 | 30 | 27 | 29 |
| 20 | 34 | 48 | 44 | 45 | 38 | 39 | 58 | 57 | 32 | 29 | 28 | 29 |
| 21 | 34 | 46 | 42 | 45 | 38 | 39 | 57 | 58 | 32 | 29 | 28 | 29 |
| 22 | 34 | 46 | 42 | 45 | 37 | 39 | 57 | 58 | 31 | 29 | 28 | 29 |
| 23 | 34 | 44 | 42 | 45 | 37 | 38 | 57 | 58 | 29 | 29 | 28 | 29 |
| 24 | 34 | 49 | 41 | 45 | 38 | 38 | 57 | 58 | 28 | 29 | 27 | 29 |
| 25 | 34 | 49 | 41 | 45 | 38 | 39 | 57 | 58 | 29 | 29 | 27 | 29 |
| 26 | 34 | 49 | 43 | 45 | 38 | 39 | 57 | 58 | 29 | 29 | 27 | 29 |
| 27 | 34 | 50 | 41 | 47 | 38 | 39 | 58 | 57 | 29 | 30 | 27 | 29 |
| 28 | 34 | 146 | 41 | 47 | 38 | 40 | 58 | 57 | 29 | 30 | 27 | 29 |
| 29 | 34 | 55 | 41 | 48 | --- | 38 | 57 | 57 | 29 | 30 | 25 | 29 |
| 30 | 34 | 54 | 41 | 47 | --- | 39 | 57 | 59 | 29 | 30 | 26 | 29 |
| 31 | 34 | --- | 42 | 46 | --- | 39 | --- | 60 | --- | 30 | 27 | --- |
| TOTAL | 989 | 1558 | 1411 | 1397 | 1470 | 1183 | 1452 | 1790 | 1394 | 905 | 868 | 857 |
| MEAN | 31.9 | 51.9 | 45.5 | 45.1 | 52.5 | 38.2 | 48.4 | 57.7 | 46.5 | 29.2 | 28.0 | 28.6 |
| MAX | 34 | 146 | 54 | 48 | 359 | 40 | 58 | 60 | 64 | 30 | 31 | 29 |
| MIN | 25 | 34 | 41 | 42 | 37 | 36 | 39 | 57 | 28 | 29 | 25 | 27 |
| AC-FT | 1960 | 3090 | 2800 | 2770 | 2920 | 2350 | 2880 | 3550 | 2760 | 1800 | 1720 | 1700 |
| a | 1110 | 12620 | 6670 | 3830 | 8110 | 12360 | 30110 | 12820 | 2080 | 740 | 360 | 530 |

CAL YR 1984 TOTAL 20956 MEAN 57.3 MAX 1620 MIN 21 AC-FT 41570
WTR YR 1985 TOTAL 15274 MEAN 41.8 MAX 359 MIN 25 AC-FT 30300

a Lohman Ridge tunnel diversion, in acre-feet, to Oregon Creek. Flow through diversion is computed from upstream and downstream flow records adjusted for runoff from ungaged drainage area.

1984 18 212 109 62 146 201 506 208 35 12 5.9 8.9

1985 7.2 5.6 152 339 783 432 569 306 93 26 14 16

SACRAMENTO RIVER BASIN

11409300 OREGON CREEK AT CAMPTONVILLE, CA

LOCATION.--Lat 39°26'46", long 121°02'43", in SE 1/4 NE 1/4 sec.11, T.18 N., R.8 E., Yuba County, Hydrologic Unit 18020125, Tahoe National Forest, on right bank 25 ft downstream from county bridge, 0.5 mi southeast of Camptonville, and 5.5 mi upstream from mouth.

DRAINAGE AREA.--23.0 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 2,230 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: June 12 to Aug. 29. Records good prior to June and poor thereafter. No regulation or diversion above station. Swimmers often build dams on control during summer months. See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE.--18 years, 74.0 ft³/s, 53,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,830 ft³/s, Jan. 13, 1980, gage height, 10.83 ft; minimum daily, 0.53 ft³/s, Aug. 14-16, 1977.

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

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|---|------|--------------------------------|------------------|------|------|--------------------------------|------------------|
| Feb. 8 | 1030 | *873 | *6.60 | | | | |
| Minimum daily, 1.5 ft ³ /s, Aug. 27. | | | | | | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|------|------|------|------|------|-------|-------|-------|------|-------|
| 1 | 4.2 | 4.8 | 86 | 22 | 16 | 49 | 165 | 51 | 9.8 | 5.1 | 2.9 | 3.2 |
| 2 | 3.1 | 45 | 71 | 22 | 17 | 49 | 194 | 49 | 10 | 5.0 | 2.8 | 3.0 |
| 3 | 2.7 | 49 | 66 | 21 | 16 | 46 | 202 | 47 | 11 | 4.9 | 2.7 | 3.1 |
| 4 | 2.6 | 14 | 57 | 21 | 15 | 47 | 196 | 45 | 9.2 | 4.8 | 2.7 | 3.1 |
| 5 | 2.6 | 9.2 | 52 | 21 | 15 | 43 | 187 | 41 | 8.6 | 4.8 | 2.6 | 3.1 |
| 6 | 2.6 | 14 | 46 | 22 | 15 | 46 | 175 | 39 | 8.0 | 4.7 | 2.5 | 3.3 |
| 7 | 2.6 | 17 | 42 | 44 | 31 | 45 | 161 | 36 | 7.5 | 4.6 | 2.5 | 3.6 |
| 8 | 2.5 | 50 | 39 | 45 | 475 | 40 | 147 | 33 | 7.0 | 4.5 | 2.4 | 7.8 |
| 9 | 2.5 | 35 | 36 | 40 | 172 | 41 | 137 | 31 | 6.8 | 4.4 | 2.4 | 9.8 |
| 10 | 2.7 | 23 | 55 | 36 | 103 | 54 | 129 | 28 | 6.8 | 4.4 | 2.4 | 5.8 |
| 11 | 9.3 | 109 | 66 | 33 | 80 | 60 | 120 | 27 | 7.0 | 4.3 | 2.4 | 4.3 |
| 12 | 5.3 | 59 | 60 | 31 | 69 | 60 | 111 | 25 | 6.9 | 4.2 | 2.4 | 3.6 |
| 13 | 4.1 | 132 | 52 | 28 | 67 | 73 | 106 | 23 | 6.9 | 4.1 | 2.4 | 3.1 |
| 14 | 4.1 | 98 | 50 | 27 | 67 | 80 | 104 | 22 | 6.9 | 4.1 | 2.3 | 3.0 |
| 15 | 3.4 | 59 | 49 | 25 | 69 | 83 | 102 | 21 | 6.9 | 4.0 | 2.3 | 2.6 |
| 16 | 5.1 | 51 | 47 | 24 | 71 | 86 | 97 | 20 | 6.9 | 3.9 | 2.3 | 2.4 |
| 17 | 9.1 | 43 | 42 | 23 | 72 | 88 | 91 | 19 | 6.9 | 3.9 | 2.2 | 2.4 |
| 18 | 5.3 | 69 | 37 | 23 | 70 | 95 | 80 | 18 | 6.8 | 3.8 | 2.2 | 2.8 |
| 19 | 4.5 | 59 | 36 | 22 | 71 | 98 | 76 | 17 | 6.5 | 3.7 | 2.1 | 3.1 |
| 20 | 5.1 | 53 | 34 | 21 | 71 | 95 | 72 | 16 | 6.4 | 3.7 | 2.1 | 2.9 |
| 21 | 4.9 | 56 | 31 | 21 | 66 | 92 | 74 | 15 | 6.2 | 3.6 | 2.0 | 2.9 |
| 22 | 4.2 | 47 | 30 | 20 | 63 | 86 | 81 | 14 | 6.1 | 3.5 | 1.9 | 2.9 |
| 23 | 3.9 | 39 | 29 | 19 | 60 | 80 | 70 | 14 | 6.0 | 3.5 | 1.8 | 2.7 |
| 24 | 3.7 | 176 | 29 | 19 | 57 | 113 | 67 | 13 | 5.9 | 3.4 | 1.7 | 2.6 |
| 25 | 3.6 | 116 | 29 | 18 | 55 | 116 | 64 | 13 | 5.8 | 3.4 | 1.7 | 2.6 |
| 26 | 5.0 | 76 | 29 | 21 | 54 | 110 | 60 | 12 | 5.6 | 3.3 | 1.7 | 2.3 |
| 27 | 10 | 117 | 28 | 19 | 52 | 113 | 56 | 12 | 5.5 | 3.2 | 1.5 | 2.2 |
| 28 | 6.2 | 241 | 27 | 20 | 50 | 104 | 55 | 11 | 5.4 | 3.1 | 1.6 | 2.6 |
| 29 | 9.8 | 146 | 25 | 19 | --- | 94 | 54 | 12 | 5.3 | 3.1 | 2.3 | 2.9 |
| 30 | 6.9 | 107 | 24 | 18 | --- | 100 | 53 | 11 | 5.2 | 3.0 | 3.2 | 2.9 |
| 31 | 5.5 | --- | 23 | 17 | --- | 126 | --- | 9.7 | --- | 3.0 | 3.6 | --- |
| TOTAL | 147.1 | 2114.0 | 1327 | 762 | 2039 | 2412 | 3286 | 744.7 | 209.8 | 123.0 | 71.6 | 102.6 |
| MEAN | 4.75 | 70.5 | 42.8 | 24.6 | 72.8 | 77.8 | 110 | 24.0 | 6.99 | 3.97 | 2.31 | 3.42 |
| MAX | 10 | 241 | 86 | 45 | 475 | 126 | 202 | 51 | 11 | 5.1 | 3.6 | 9.8 |
| MIN | 2.5 | 4.8 | 23 | 17 | 15 | 40 | 53 | 9.7 | 5.2 | 3.0 | 1.5 | 2.2 |
| AC-FT | 292 | 4190 | 2630 | 1510 | 4040 | 4780 | 6520 | 1480 | 416 | 244 | 142 | 204 |
| CAL YR 1984 | TOTAL | 17723.7 | MEAN | 48.4 | MAX | 430 | MIN | 1.9 | AC-FT | 35150 | | |
| WTR YR 1985 | TOTAL | 13338.8 | MEAN | 36.5 | MAX | 475 | MIN | 1.5 | AC-FT | 26460 | | |

11409400 OREGON CREEK BELOW LOG CABIN DAM, NEAR CAMPTONVILLE, CA

LOCATION.--Lat 39°26'22", long 121°03'29", in SW 1/4 SW 1/4 sec.11, T.18 N., R.8 E., Yuba County, Hydrologic Unit 18020125, Tahoe National Forest, on right bank 500 ft downstream from Log Cabin Dam, 670 ft upstream from High Point Ravine, and 1.1 mi southwest of Camptonville.

DRAINAGE AREA.--29.1 mi².

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

REVISED RECORDS.--WDR CA-81-4: 1980(M).

GAGE.--Water-stage recorder. Datum of gage is 1,919.96 ft above National Geodetic Vertical Datum of 1929 (levels by Yuba County Water Agency). Prior to July 24, 1973, at site 470 ft downstream at datum 8.40 ft lower.

REMARKS.--No estimated daily discharges. Records good. Camptonville tunnel, maximum capacity, about 1,000 ft³/s, 520 ft upstream, diverts to New Bullards Bar Reservoir (station 11413515); diversion began October 1968. See schematic diagram showing diversions and storage in Yuba River basin.

AVERAGE DISCHARGE.--17 years, 34.0 ft³/s, 24,630 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,860 ft³/s, Jan. 12, 1980, gage height, 9.80 ft; minimum daily, 0.34 ft³/s, Sept. 18, 1972.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 676 ft³/s, Feb. 8, gage height, 4.93 ft; minimum daily, 2.6 ft³/s, July 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 38 | 9.1 | 16 | 12 | 7.7 | 13 | 14 | 14 | 13 | 8.3 | 5.8 | 5.2 |
| 2 | 29 | 9.9 | 15 | 12 | 7.9 | 13 | 15 | 15 | 13 | 8.4 | 5.5 | 3.3 |
| 3 | 22 | 9.7 | 15 | 12 | 7.9 | 13 | 15 | 15 | 13 | 8.7 | 4.8 | 3.4 |
| 4 | 19 | 7.0 | 15 | 10 | 20 | 13 | 15 | 14 | 13 | 8.7 | 4.2 | 3.3 |
| 5 | 17 | 8.3 | 15 | 9.4 | 10 | 13 | 15 | 14 | 12 | 8.7 | 3.9 | 5.0 |
| 6 | 14 | 12 | 15 | 8.9 | 10 | 13 | 15 | 14 | 12 | 8.7 | 3.6 | 5.5 |
| 7 | 8.6 | 13 | 15 | 9.5 | 15 | 13 | 15 | 14 | 12 | 8.7 | 3.5 | 7.0 |
| 8 | 6.7 | 13 | 15 | 9.4 | 195 | 13 | 15 | 14 | 13 | 8.7 | 3.4 | 12 |
| 9 | 6.8 | 12 | 15 | 9.1 | 18 | 13 | 15 | 14 | 13 | 8.7 | 3.4 | 13 |
| 10 | 7.6 | 12 | 16 | 9.1 | 15 | 14 | 15 | 14 | 13 | 8.7 | 3.9 | 13 |
| 11 | 18 | 15 | 16 | 9.1 | 12 | 14 | 14 | 13 | 13 | 8.6 | 3.3 | 12 |
| 12 | 7.9 | 14 | 16 | 8.8 | 11 | 13 | 14 | 14 | 13 | 8.7 | 3.2 | 12 |
| 13 | 6.3 | 16 | 15 | 8.3 | 11 | 13 | 14 | 14 | 13 | 8.7 | 3.1 | 12 |
| 14 | 6.2 | 15 | 15 | 8.0 | 11 | 13 | 15 | 14 | 13 | 8.7 | 3.3 | 12 |
| 15 | 6.6 | 13 | 15 | 7.2 | 11 | 13 | 17 | 14 | 13 | 8.7 | 3.7 | 9.9 |
| 16 | 8.0 | 13 | 15 | 7.2 | 11 | 13 | 17 | 14 | 12 | 8.7 | 3.8 | 8.6 |
| 17 | 8.7 | 13 | 14 | 7.0 | 12 | 13 | 17 | 14 | 11 | 8.5 | 3.7 | 8.0 |
| 18 | 8.5 | 14 | 14 | 6.9 | 12 | 13 | 16 | 14 | 11 | 8.5 | 5.9 | 9.8 |
| 19 | 8.3 | 13 | 14 | 6.8 | 12 | 13 | 16 | 14 | 12 | 8.4 | 5.9 | 10 |
| 20 | 8.5 | 13 | 14 | 6.5 | 12 | 13 | 15 | 14 | 12 | 8.0 | 4.7 | 8.9 |
| 21 | 8.5 | 13 | 14 | 6.7 | 12 | 13 | 15 | 14 | 9.4 | 9.1 | 3.7 | 8.4 |
| 22 | 8.3 | 13 | 14 | 6.6 | 13 | 13 | 14 | 14 | 7.2 | 9.4 | 3.5 | 7.6 |
| 23 | 8.2 | 12 | 13 | 6.7 | 13 | 13 | 14 | 14 | 7.3 | 9.6 | 3.4 | 6.6 |
| 24 | 7.9 | 15 | 13 | 6.9 | 13 | 13 | 13 | 14 | 7.6 | 9.2 | 3.1 | 5.6 |
| 25 | 7.7 | 14 | 13 | 6.8 | 13 | 13 | 13 | 14 | 7.9 | 7.5 | 3.0 | 5.5 |
| 26 | 8.1 | 13 | 13 | 7.7 | 13 | 13 | 14 | 13 | 7.9 | 6.7 | 2.9 | 5.0 |
| 27 | 9.3 | 14 | 13 | 7.6 | 13 | 14 | 14 | 13 | 7.9 | 5.2 | 2.8 | 4.6 |
| 28 | 9.1 | 19 | 13 | 7.6 | 13 | 13 | 14 | 13 | 7.9 | 5.8 | 2.8 | 4.5 |
| 29 | 9.3 | 18 | 13 | 7.6 | --- | 13 | 14 | 13 | 8.1 | 4.0 | 2.8 | 4.7 |
| 30 | 9.0 | 17 | 12 | 7.6 | --- | 13 | 14 | 13 | 8.3 | 2.6 | 4.4 | 4.6 |
| 31 | 8.9 | --- | 12 | 7.6 | --- | 13 | --- | 13 | --- | 3.4 | 7.5 | --- |
| TOTAL | 350.0 | 393.0 | 443 | 256.6 | 524.5 | 406 | 443 | 429 | 329.5 | 244.3 | 122.5 | 231.0 |
| MEAN | 11.3 | 13.1 | 14.3 | 8.28 | 18.7 | 13.1 | 14.8 | 13.8 | 11.0 | 7.88 | 3.95 | 7.70 |
| MAX | 38 | 19 | 16 | 12 | 195 | 14 | 17 | 15 | 13 | 9.6 | 7.5 | 13 |
| MIN | 6.2 | 7.0 | 12 | 6.5 | 7.7 | 13 | 13 | 13 | 7.2 | 2.6 | 2.8 | 3.3 |
| AC-FT | 694 | 780 | 879 | 509 | 1040 | 805 | 879 | 851 | 654 | 485 | 243 | 458 |
| a | 785 | 17140 | 9120 | 5230 | 12180 | 17600 | 37480 | 13840 | 1950 | 564 | 297 | 330 |

CAL YR 1984 TOTAL 4165.6 MEAN 11.4 MAX 42 MIN 1.9 AC-FT 8260
WTR YR 1985 TOTAL 4172.4 MEAN 11.4 MAX 195 MIN 2.6 AC-FT 8280

a Camptonville tunnel diversion, in acre-feet, to New Bullards Bar Reservoir. Flow through diversion is computed from upstream and downstream flow records adjusted for runoff from ungaged drainage area.

1685 13 288 148 85 218 286 630 225 33 9.2 4.8 6.5

SACRAMENTO RIVER BASIN

11413000 NORTH YUBA RIVER BELOW GOODYEARS BAR, CA

LOCATION.--Lat 39°31'30", long 120°56'13", in NE 1/4 SW 1/4 sec.11, T.19 N., R.9 E., Sierra County, Hydrologic Unit 18020125, Tahoe National Forest, on right bank 200 ft downstream from St. Catherine Creek, 3.1 mi southwest of Goodyears Bar, and 6.4 mi southwest of Downieville.

DRAINAGE AREA.--250 mi².

PERIOD OF RECORD.--October 1930 to current year. Prior to October 1949, published as North Fork Yuba River below Goodyears Bar. Monthly and yearly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1041: 1944. WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 2,453 ft above National Geodetic Vertical Datum of 1929 (river-profile survey).

REMARKS.--No estimated daily discharges. Records good. Several small diversions above station for irrigation and mining. See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE.--55 years, 772 ft³/s, 559,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 40,000 ft³/s, Feb. 1, 1963, gage height, 25.8 ft, from floodmarks, from rating curve extended above 8,500 ft³/s on basis of one float measurement at 17,900 ft³/s and slope-area measurements at gage heights 19.15 ft and 23.8 ft; minimum daily, 60 ft³/s, Sept. 7-14, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 3,200 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|---------|------|--------------------------------|------------------|------|------|--------------------------------|------------------|
| Apr. 14 | 2245 | *2,570 | *7.21 | | | | |

Minimum daily, 125 ft³/s, Aug. 27-29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|------|------|
| 1 | 202 | 194 | 563 | 264 | 228 | 414 | 763 | 1560 | 582 | 223 | 154 | 127 |
| 2 | 186 | 579 | 500 | 262 | 234 | 418 | 1030 | 1740 | 587 | 218 | 153 | 126 |
| 3 | 170 | 745 | 474 | 260 | 229 | 378 | 1240 | 1710 | 561 | 213 | 151 | 129 |
| 4 | 167 | 353 | 430 | 260 | 224 | 383 | 1360 | 1540 | 540 | 209 | 148 | 134 |
| 5 | 165 | 271 | 407 | 264 | 220 | 368 | 1530 | 1510 | 542 | 205 | 145 | 130 |
| 6 | 165 | 312 | 382 | 265 | 220 | 383 | 1660 | 1530 | 537 | 202 | 143 | 132 |
| 7 | 162 | 347 | 370 | 311 | 273 | 376 | 1660 | 1470 | 531 | 199 | 142 | 140 |
| 8 | 159 | 434 | 362 | 295 | 1300 | 348 | 1670 | 1350 | 519 | 197 | 140 | 247 |
| 9 | 158 | 329 | 353 | 284 | 631 | 352 | 1720 | 1240 | 508 | 194 | 138 | 259 |
| 10 | 159 | 313 | 436 | 274 | 428 | 378 | 1780 | 1130 | 472 | 191 | 138 | 194 |
| 11 | 310 | 963 | 474 | 264 | 357 | 382 | 1680 | 1010 | 443 | 190 | 136 | 174 |
| 12 | 224 | 795 | 453 | 256 | 325 | 380 | 1650 | 1010 | 421 | 191 | 135 | 161 |
| 13 | 225 | 979 | 415 | 254 | 324 | 403 | 1810 | 1040 | 401 | 184 | 136 | 153 |
| 14 | 213 | 736 | 383 | 256 | 325 | 419 | 2090 | 1130 | 379 | 179 | 136 | 149 |
| 15 | 182 | 526 | 396 | 254 | 341 | 437 | 2200 | 1150 | 360 | 176 | 135 | 143 |
| 16 | 202 | 479 | 384 | 251 | 357 | 456 | 1990 | 1100 | 346 | 173 | 134 | 140 |
| 17 | 217 | 429 | 349 | 248 | 365 | 477 | 1700 | 1120 | 336 | 171 | 134 | 139 |
| 18 | 192 | 533 | 335 | 256 | 366 | 557 | 1490 | 1140 | 319 | 169 | 139 | 143 |
| 19 | 196 | 463 | 330 | 260 | 384 | 559 | 1470 | 1140 | 306 | 167 | 139 | 141 |
| 20 | 238 | 443 | 317 | 262 | 402 | 572 | 1260 | 1140 | 295 | 166 | 139 | 139 |
| 21 | 216 | 429 | 309 | 262 | 374 | 593 | 1130 | 1080 | 285 | 177 | 134 | 136 |
| 22 | 200 | 383 | 301 | 258 | 368 | 563 | 1130 | 1080 | 273 | 186 | 132 | 135 |
| 23 | 194 | 355 | 298 | 251 | 370 | 546 | 1110 | 1090 | 264 | 174 | 130 | 133 |
| 24 | 190 | 847 | 296 | 249 | 379 | 675 | 1130 | 1080 | 255 | 164 | 128 | 133 |
| 25 | 207 | 624 | 293 | 247 | 389 | 620 | 1070 | 1010 | 249 | 158 | 127 | 131 |
| 26 | 218 | 465 | 290 | 258 | 391 | 614 | 980 | 927 | 243 | 166 | 126 | 129 |
| 27 | 248 | 792 | 288 | 242 | 398 | 649 | 1020 | 850 | 240 | 171 | 125 | 129 |
| 28 | 212 | 1480 | 282 | 253 | 399 | 623 | 1210 | 782 | 236 | 160 | 125 | 130 |
| 29 | 248 | 866 | 276 | 241 | --- | 570 | 1290 | 765 | 230 | 154 | 125 | 128 |
| 30 | 225 | 658 | 273 | 234 | --- | 549 | 1360 | 678 | 227 | 155 | 133 | 128 |
| 31 | 205 | --- | 269 | 229 | --- | 603 | --- | 629 | --- | 155 | 135 | --- |
| TOTAL | 6255 | 17122 | 11288 | 8024 | 10601 | 15045 | 43183 | 35731 | 11487 | 5637 | 4235 | 4412 |
| MEAN | 202 | 571 | 364 | 259 | 379 | 485 | 1439 | 1153 | 383 | 182 | 137 | 147 |
| MAX | 310 | 1480 | 563 | 311 | 1300 | 675 | 2200 | 1740 | 587 | 223 | 154 | 259 |
| MIN | 158 | 194 | 269 | 229 | 220 | 348 | 763 | 629 | 227 | 154 | 125 | 126 |
| AC-FT | 12410 | 33960 | 22390 | 15920 | 21030 | 29840 | 85650 | 70870 | 22780 | 11180 | 8400 | 8750 |
| CAL YR 1984 | TOTAL | 282879 | MEAN | 773 | MAX | 3320 | MIN | 156 | AC-FT | 561100 | | |
| WTR YR 1985 | TOTAL | 173020 | MEAN | 474 | MAX | 2200 | MIN | 125 | AC-FT | 343200 | | |

11413100 NORTH YUBA RIVER ABOVE SLATE CREEK, NEAR STRAWBERRY VALLEY, CA.

LOCATION.--Lat 39°31'29", long 121°05'26", in NE 1/4 SW 1/4 sec.9, T.19 N., R.8 E., Yuba County, Hydrologic Unit 18020125, Tahoe National Forest, on left bank 500 ft upstream from Slate Creek, and 2.8 mi southeast of Strawberry Valley.

DRAINAGE AREA.--351 mi².

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

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 1,953.44 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Several small diversions above station for irrigation and mining. See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE.--17 years, 1,269 ft³/s, 919,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,600 ft³/s, Jan. 13, 1980, gage height, 22.12 ft; minimum daily, 71 ft³/s, Sept. 7-15, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 29.8 ft from floodmarks, discharge, 63,400 ft³/s from slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,500 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|---|------|-----------------------------------|---------------------|------|------|-----------------------------------|---------------------|
| Feb. 8 | 1015 | *4,510 | *10.16 | | | | |
| Minimum daily, 137 ft ³ /s, Aug. 29. | | | | | | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|-------|-------|-------|--------|-------|-------|--------|------|-------|
| 1 | 238 | 232 | 923 | 396 | 341 | 697 | 1340 | 2030 | 767 | 294 | 177 | 144 |
| 2 | 220 | 661 | 792 | 394 | 355 | 718 | 1800 | 2230 | 769 | 290 | 177 | 139 |
| 3 | 201 | 1180 | 739 | 395 | 342 | 642 | 2130 | 2220 | 763 | 280 | 175 | 143 |
| 4 | 192 | 512 | 666 | 392 | 332 | 647 | 2290 | 2010 | 726 | 275 | 170 | 145 |
| 5 | 189 | 370 | 626 | 393 | 327 | 614 | 2510 | 1930 | 726 | 270 | 167 | 145 |
| 6 | 186 | 413 | 584 | 401 | 329 | 637 | 2670 | 1970 | 718 | 261 | 164 | 143 |
| 7 | 186 | 511 | 550 | 525 | 422 | 623 | 2650 | 1910 | 708 | 256 | 163 | 150 |
| 8 | 184 | 640 | 547 | 499 | 2900 | 582 | 2570 | 1770 | 696 | 242 | 161 | 264 |
| 9 | 181 | 515 | 531 | 469 | 1350 | 593 | 2600 | 1630 | 675 | 232 | 158 | 382 |
| 10 | 182 | 450 | 699 | 451 | 845 | 652 | 2660 | 1490 | 638 | 222 | 157 | 250 |
| 11 | 419 | 1380 | 864 | 431 | 685 | 683 | 2510 | 1350 | 603 | 219 | 155 | 204 |
| 12 | 314 | 1220 | 775 | 413 | 612 | 666 | 2410 | 1320 | 569 | 222 | 153 | 188 |
| 13 | 259 | 1690 | 692 | 406 | 602 | 711 | 2570 | 1350 | 548 | 214 | 152 | 177 |
| 14 | 271 | 1290 | 627 | 403 | 602 | 745 | 2940 | 1460 | 522 | 207 | 152 | 171 |
| 15 | 217 | 815 | 638 | 397 | 617 | 780 | 3060 | 1500 | 501 | 203 | 151 | 163 |
| 16 | 234 | 722 | 615 | 392 | 639 | 811 | 2820 | 1410 | 480 | 199 | 150 | 159 |
| 17 | 295 | 652 | 556 | 388 | 642 | 830 | 2420 | 1430 | 462 | 197 | 149 | 156 |
| 18 | 237 | 856 | 530 | 399 | 647 | 978 | 2080 | 1450 | 440 | 195 | 155 | 160 |
| 19 | 232 | 752 | 525 | 406 | 664 | 1020 | 2070 | 1440 | 412 | 193 | 154 | 160 |
| 20 | 297 | 675 | 506 | 408 | 704 | 1010 | 1810 | 1450 | 406 | 190 | 156 | 157 |
| 21 | 280 | 666 | 489 | 412 | 664 | 1040 | 1640 | 1380 | 382 | 198 | 149 | 153 |
| 22 | 243 | 589 | 470 | 392 | 648 | 986 | 1690 | 1370 | 371 | 216 | 146 | 152 |
| 23 | 231 | 533 | 464 | 395 | 652 | 937 | 1600 | 1370 | 362 | 204 | 145 | 150 |
| 24 | 224 | 1500 | 459 | 388 | 661 | 1190 | 1610 | 1370 | 350 | 191 | 142 | 149 |
| 25 | 237 | 1130 | 456 | 384 | 670 | 1160 | 1550 | 1300 | 338 | 184 | 141 | 147 |
| 26 | 252 | 764 | 452 | 405 | 669 | 1100 | 1420 | 1210 | 332 | 187 | 139 | 145 |
| 27 | 311 | 1330 | 442 | 379 | 676 | 1180 | 1420 | 1110 | 321 | 204 | 138 | 144 |
| 28 | 260 | 2950 | 436 | 396 | 674 | 1130 | 1650 | 1020 | 316 | 189 | 138 | 144 |
| 29 | 311 | 1610 | 426 | 376 | --- | 1020 | 1780 | 1010 | 305 | 179 | 137 | 143 |
| 30 | 293 | 1130 | 416 | 354 | --- | 973 | 1790 | 909 | 300 | 177 | 144 | 143 |
| 31 | 253 | --- | 401 | 343 | --- | 1060 | --- | 815 | --- | 178 | 151 | --- |
| TOTAL | 7629 | 27738 | 17896 | 12582 | 19271 | 26415 | 64060 | 46214 | 15506 | 6768 | 4766 | 5070 |
| MEAN | 246 | 925 | 577 | 406 | 688 | 852 | 2135 | 1491 | 517 | 218 | 154 | 169 |
| MAX | 419 | 2950 | 923 | 525 | 2900 | 1190 | 3060 | 2230 | 769 | 294 | 177 | 382 |
| MIN | 181 | 232 | 401 | 343 | 327 | 582 | 1340 | 815 | 300 | 177 | 137 | 139 |
| AC-FT | 15130 | 55020 | 35500 | 24960 | 38220 | 52390 | 127100 | 91670 | 30760 | 13420 | 9450 | 10060 |
| CAL YR 1984 | TOTAL | 397773 | MEAN | 1087 | MAX | 4930 | MIN | 178 | AC-FT | 789000 | | |
| WTR YR 1985 | TOTAL | 253915 | MEAN | 696 | MAX | 3060 | MIN | 137 | AC-FT | 503600 | | |

SACRAMENTO RIVER BASIN

11413250 SLATE CREEK TUNNEL NEAR STRAWBERRY VALLEY, CA

LOCATION.--Lat 39°36'57", long 121°03'03", in SE 1/4 SW 1/4 sec.2, T.20 N., R.8 E., Plumas County, Hydrologic Unit 18020125, Plumas National Forest, on right bank 30 ft upstream from diversion dam on Slate Creek, 0.3 mi upstream from Feney Ravine, and 4.5 mi northeast of town of Strawberry Valley.

PERIOD OF RECORD.--October 1966 to current year. Records of daily discharge for December 1961 to September 1966 are in files of Geological Survey. Monthly diversion used to adjust Slate Creek below diversion dam near Strawberry Valley since February 1962.

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

REMARKS.--No estimated daily discharges. Records good. Tunnel diverts water from Slate Creek to Sly Creek Reservoir (station 11395400) for power development. See schematic diagrams of South Fork Feather and Yuba River basins.

AVERAGE DISCHARGE.--19 years, 94.5 ft³/s, 68,470 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 863 ft³/s Apr. 6, 1963; no flow many days in each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|----------|------|------|------|------|-------|------|-------|-------|-----|-------|
| 1 | 8.6 | 7.1 | 146 | 36 | 33 | 136 | 220 | 295 | 49 | 8.5 | | 0 |
| 2 | 4.4 | 164 | 121 | 35 | 34 | 135 | 326 | 306 | 49 | 8.0 | | 0 |
| 3 | 2.4 | 100 | 107 | 35 | 34 | 115 | 421 | 288 | 46 | 7.3 | | 0 |
| 4 | 2.0 | 34 | 90 | 34 | 31 | 112 | 507 | 258 | 43 | 6.8 | | 0 |
| 5 | 1.7 | 22 | 84 | 35 | 31 | 100 | 591 | 246 | 42 | 6.3 | | 0 |
| 6 | 1.5 | 49 | 75 | 36 | 30 | 92 | 618 | 241 | 41 | 5.7 | | 0 |
| 7 | 0 | 69 | 71 | 51 | 33 | 84 | 603 | 226 | 39 | 5.2 | | 0 |
| 8 | 0 | 68 | 68 | 44 | 156 | 91 | 572 | 206 | 37 | 4.8 | | 33 |
| 9 | 0 | 47 | 66 | 45 | 103 | 91 | 576 | 187 | 35 | 4.4 | | 29 |
| 10 | 0 | 46 | 115 | 43 | 72 | 95 | 583 | 168 | 32 | 3.9 | | 18 |
| 11 | 33 | 245 | 176 | 41 | 61 | 93 | 533 | 148 | 30 | 3.9 | | 5.7 |
| 12 | 14 | 189 | 151 | 40 | 58 | 91 | 503 | 142 | 28 | 3.9 | | 2.3 |
| 13 | 8.4 | 338 | 121 | 39 | 62 | 101 | 540 | 140 | 27 | 3.1 | | .24 |
| 14 | 7.7 | 244 | 101 | 38 | 69 | 111 | 602 | 145 | 25 | 2.3 | | 0 |
| 15 | 3.5 | 128 | 90 | 38 | 81 | 124 | 604 | 141 | 23 | 1.8 | | 0 |
| 16 | 6.2 | 123 | 88 | 38 | 93 | 132 | 530 | 130 | 22 | 1.3 | | 0 |
| 17 | 13 | 102 | 72 | 38 | 99 | 142 | 436 | 128 | 21 | 1.0 | | 0 |
| 18 | 10 | 155 | 65 | 41 | 102 | 191 | 383 | 123 | 19 | .84 | | 0 |
| 19 | 6.1 | 120 | 62 | 42 | 112 | 207 | 369 | 117 | 18 | .64 | | 0 |
| 20 | 21 | 102 | 57 | 45 | 118 | 212 | 319 | 113 | 17 | .49 | | 0 |
| 21 | 14 | 87 | 54 | 46 | 109 | 220 | 294 | 104 | 16 | 1.7 | | 0 |
| 22 | 8.9 | 74 | 50 | 45 | 115 | 202 | 325 | 100 | 14 | 3.4 | | 0 |
| 23 | 6.5 | 67 | 49 | 43 | 122 | 193 | 297 | 97 | 14 | 1.8 | | 0 |
| 24 | 5.1 | 273 | 48 | 42 | 127 | 279 | 286 | 93 | 13 | .52 | | 0 |
| 25 | 4.5 | 174 | 47 | 41 | 129 | 251 | 265 | 84 | 12 | .28 | | 0 |
| 26 | 7.3 | 112 | 45 | 43 | 128 | 208 | 241 | 76 | 11 | .02 | | 0 |
| 27 | 13 | 267 | 43 | 38 | 131 | 200 | 246 | 69 | 11 | 0 | | 0 |
| 28 | 8.6 | 516 | 42 | 41 | 129 | 184 | 275 | 64 | 10 | 0 | | 0 |
| 29 | 21 | 285 | 40 | 38 | --- | 153 | 277 | 67 | 9.5 | 0 | | 0 |
| 30 | 14 | 191 | 38 | 33 | --- | 143 | 277 | 58 | 8.9 | 0 | | 0 |
| 31 | 9.6 | --- | 37 | 36 | --- | 162 | --- | 52 | --- | 0 | | --- |
| TOTAL | 256.0 | 4398.1 | 2419 | 1240 | 2402 | 4650 | 12619 | 4612 | 762.4 | 87.89 | 0 | 88.24 |
| MEAN | 8.26 | 147 | 78.0 | 40.0 | 85.8 | 150 | 421 | 149 | 25.4 | 2.84 | 0 | 2.94 |
| MAX | 33 | 516 | 176 | 51 | 156 | 279 | 618 | 306 | 49 | 8.5 | 0 | 33 |
| MIN | 0 | 7.1 | 37 | 33 | 30 | 84 | 220 | 52 | 8.9 | 0 | 0 | 0 |
| AC-FT | 508 | 8720 | 4800 | 2460 | 4760 | 9220 | 25030 | 9150 | 1510 | 174 | 0 | 175 |
| CAL YR 1984 | TOTAL | 31514.0 | MEAN | 86.1 | MAX | 828 | MIN | 0 | AC-FT | 62510 | | |
| WTR YR 1985 | TOTAL | 33534.63 | MEAN | 91.9 | MAX | 618 | MIN | 0 | AC-FT | 66520 | | |

11413300 SLATE CREEK BELOW DIVERSION DAM, NEAR STRAWBERRY VALLEY, CA

LOCATION.--Lat 39°36'52", long 121°03'04", in SE 1/4 SW 1/4 sec.2, T.20 N., R.8 E., Plumas County, Hydrologic Unit 18020125, Plumas National Forest, on right bank 300 ft downstream from diversion dam, 0.2 mi upstream from Feney Ravine, and 4.5 mi northeast of town of Strawberry Valley.

DRAINAGE AREA.--49.4 mi².

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

GAGE.--Water-stage recorder and 130° V-notch weir since October 1982. Elevation of gage is 3,570 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Mar. 20 to Apr. 30. Records good. Slate Creek tunnel (station 11413250) diverts at diversion dam, 300 ft upstream, up to 900 ft³/s from Slate Creek Reservoir, capacity, 223 ac-ft, to Sly Creek Reservoir (station 11395400). Diversion began in February 1962. See schematic diagrams of South Fork Feather and Yuba River basins. Daily records represent flow in Slate Creek below the diversion dam.

AVERAGE DISCHARGE (adjusted for diversion to Slate Creek tunnel).--25 years, 216 ft³/s, 156,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Creek only: Maximum discharge, 13,100 ft³/s, Dec. 22, 1964, gage height, 16.42 ft, from rating curve extended above 5,500 ft³/s on basis of computed flow over dam at gage heights 12.75 ft and 15.90 ft; minimum, 0.3 ft³/s, Mar. 4, 5, 1962.

Combined flow: Maximum discharge, 13,900 ft³/s, Dec. 22, 1964; minimum daily, 2.3 ft³/s, Nov. 23, 1961.

EXTREMES FOR CURRENT YEAR.--Creek only: Maximum discharge, 654 ft³/s, Nov. 13, gage height, 7.29 ft; minimum daily, 7.5 ft³/s, Sept. 5.

Combined flow: Maximum discharge, 818 ft³/s, Apr. 8, minimum daily, 7.5 ft³/s Sept. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|--------|------|------|------|------|------|-------|------|------|------|-------|-------|
| 1 | 9.1 | 12 | 12 | 12 | 12 | 12 | 12 | 11 | 11 | 11 | 11 | 8.1 |
| 2 | 9.1 | 21 | 12 | 12 | 12 | 11 | 12 | 11 | 11 | 11 | 11 | 7.8 |
| 3 | 9.0 | 12 | 12 | 12 | 12 | 11 | 12 | 11 | 11 | 11 | 11 | 7.7 |
| 4 | 8.8 | 12 | 12 | 12 | 12 | 11 | 12 | 11 | 11 | 11 | 10 | 7.7 |
| 5 | 8.8 | 12 | 12 | 12 | 12 | 11 | 12 | 11 | 11 | 11 | 9.9 | 7.5 |
| 6 | 9.2 | 12 | 12 | 12 | 12 | 11 | 12 | 11 | 11 | 11 | 9.7 | 7.7 |
| 7 | 11 | 12 | 12 | 12 | 12 | 11 | 12 | 11 | 11 | 11 | 9.5 | 8.7 |
| 8 | 11 | 12 | 12 | 12 | 13 | 11 | 16 | 11 | 11 | 11 | 9.4 | 14 |
| 9 | 11 | 12 | 12 | 12 | 12 | 11 | 12 | 11 | 11 | 11 | 9.4 | 12 |
| 10 | 10 | 12 | 12 | 12 | 12 | 11 | 12 | 11 | 11 | 11 | 9.0 | 12 |
| 11 | 11 | 54 | 12 | 12 | 12 | 11 | 12 | 11 | 11 | 11 | 8.9 | 12 |
| 12 | 11 | 12 | 12 | 12 | 12 | 11 | 12 | 11 | 11 | 11 | 8.8 | 12 |
| 13 | 11 | 66 | 12 | 12 | 12 | 11 | 12 | 11 | 11 | 11 | 8.9 | 12 |
| 14 | 11 | 12 | 12 | 12 | 12 | 11 | 12 | 11 | 11 | 11 | 8.9 | 12 |
| 15 | 11 | 12 | 12 | 12 | 12 | 11 | 12 | 11 | 11 | 11 | 8.9 | 12 |
| 16 | 11 | 12 | 12 | 12 | 12 | 11 | 12 | 11 | 11 | 11 | 8.8 | 11 |
| 17 | 11 | 12 | 12 | 12 | 12 | 11 | 12 | 11 | 11 | 11 | 8.8 | 11 |
| 18 | 11 | 12 | 12 | 12 | 12 | 11 | 12 | 11 | 11 | 11 | 9.4 | 11 |
| 19 | 11 | 12 | 12 | 12 | 12 | 11 | 12 | 11 | 11 | 11 | 9.3 | 11 |
| 20 | 12 | 12 | 12 | 12 | 12 | 11 | 12 | 11 | 11 | 11 | 9.0 | 11 |
| 21 | 12 | 12 | 12 | 12 | 12 | 11 | 12 | 11 | 11 | 11 | 8.8 | 11 |
| 22 | 12 | 12 | 12 | 12 | 12 | 11 | 14 | 11 | 11 | 11 | 8.7 | 11 |
| 23 | 12 | 12 | 12 | 12 | 12 | 11 | 12 | 11 | 11 | 11 | 8.4 | 9.9 |
| 24 | 12 | 13 | 12 | 12 | 12 | 12 | 12 | 11 | 11 | 11 | 8.2 | 9.3 |
| 25 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 11 | 11 | 11 | 8.0 | 9.3 |
| 26 | 12 | 12 | 12 | 12 | 12 | 12 | 12 | 11 | 11 | 11 | 7.7 | 9.1 |
| 27 | 12 | 22 | 12 | 12 | 12 | 12 | 12 | 11 | 11 | 12 | 7.7 | 9.0 |
| 28 | 12 | 143 | 12 | 12 | 12 | 12 | 12 | 11 | 11 | 11 | 7.7 | 9.1 |
| 29 | 12 | 12 | 12 | 12 | --- | 12 | 12 | 11 | 11 | 11 | 7.7 | 8.9 |
| 30 | 12 | 12 | 12 | 12 | --- | 12 | 11 | 11 | 11 | 11 | 8.1 | 8.9 |
| 31 | 12 | --- | 12 | 12 | --- | 12 | --- | 11 | --- | 11 | 8.5 | --- |
| TOTAL | 340.0 | 607 | 372 | 372 | 337 | 350 | 365 | 341 | 330 | 342 | 279.1 | 303.7 |
| MEAN | 11.0 | 20.2 | 12.0 | 12.0 | 12.0 | 11.3 | 12.2 | 11.0 | 11.0 | 11.0 | 9.00 | 10.1 |
| MAX | 12 | 143 | 12 | 12 | 13 | 12 | 16 | 11 | 11 | 12 | 11 | 14 |
| MIN | 8.8 | 12 | 12 | 12 | 12 | 11 | 11 | 11 | 11 | 11 | 7.7 | 7.5 |
| AC-FT | 674 | 1200 | 738 | 738 | 668 | 694 | 724 | 676 | 655 | 678 | 554 | 602 |
| MEAN | a 19.2 | 167 | 90.1 | 52.0 | 98.0 | 161 | 433 | 160 | 36.3 | 13.9 | 9.01 | 13.1 |
| AC-FT | a 1180 | 9920 | 5540 | 3200 | 5440 | 9910 | 25750 | 9830 | 2160 | 852 | 554 | 777 |

| | | | | | | | | | | | | | | |
|-------------|-------|---------|------|------|-----|-----|-----|-----|-------|-------|------|-------|-------|----------|
| CAL YR 1984 | TOTAL | 21766.2 | MEAN | 59.5 | MAX | 832 | MIN | 6.9 | AC-FT | 43170 | MEAN | a 213 | AC-FT | a 154100 |
| WTR YR 1985 | TOTAL | 4338.8 | MEAN | 11.9 | MAX | 143 | MIN | 7.5 | AC-FT | 8610 | MEAN | a 104 | AC-FT | a 75140 |

a Adjusted for diversion to Slate Creek tunnel.

SACRAMENTO RIVER BASIN

11413510 NEW COLGATE POWERPLANT NEAR FRENCH MEADOWS, CA

LOCATION.--Lat 39°19'51", long 121°11'23", in NE 1/4 SE 1/4 sec.16, T.17 N., R.7 E., Yuba County, Hydrologic Unit 18020125, at powerplant on right bank of Yuba River, 0.3 mi upstream from Dobbins Creek, and 2.3 mi northwest of French Corral.

PERIOD OF RECORD.--October 1966 to current year. Prior to October 1969, published as "Colgate powerplant."

GAGE.--Recorded output from powerplant turbines.

REMARKS.--Water is diverted from North Yuba River at New Bullards Bar Dam (station 11413515). Colgate powerplant was rebuilt during the 1970 water year with an increased capacity. Browns Valley ditch diverted up to 10 ft³/s at times from the head of the penstock for use in irrigation. This diversion discontinued Oct. 31, 1973. See schematic diagram of Yuba River basin.

COOPERATION.--Records collected by Yuba County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--19 years, 1,464 ft³/s, 1,061,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 4,200 ft³/s, June 2, 1971; no flow for several days in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|----------|--------|-------|--------|-------|-------|-------|-------|---------|-------|--------|
| 1 | 1670 | 677 | 1360 | 1790 | 591 | 303 | 826 | 1130 | 888 | 1630 | 629 | 0 |
| 2 | 1600 | 1070 | 1650 | 1610 | 0 | 843 | 1290 | 1340 | 61 | 1020 | 1120 | 980 |
| 3 | 1400 | 517 | 1370 | 2140 | 191 | 444 | 564 | 623 | 183 | 1210 | 1730 | 620 |
| 4 | 1300 | 633 | 1650 | 2390 | 157 | 217 | 37 | 679 | 577 | 595 | 844 | 335 |
| 5 | 1450 | 1290 | 1650 | 1450 | 361 | 307 | 146 | 727 | 1330 | 1550 | 927 | 711 |
| 6 | 1670 | 809 | 1650 | 1600 | 201 | 239 | 52 | 555 | 1770 | 938 | 693 | 315 |
| 7 | 1660 | 445 | 1650 | 2230 | 266 | 265 | 0 | 488 | 1020 | 1220 | 1070 | 750 |
| 8 | 1660 | 1110 | 1650 | 2000 | 192 | 50 | 664 | 324 | 88 | 1420 | 932 | 555 |
| 9 | 1660 | 927 | 1640 | 1960 | 165 | 0 | 336 | 289 | 1120 | 2140 | 1190 | 316 |
| 10 | 1660 | 1280 | 1640 | 2680 | 164 | 0 | 256 | 481 | 455 | 830 | 525 | 614 |
| 11 | 1660 | 828 | 1640 | 1400 | 95 | 163 | 262 | 1140 | 1480 | 842 | 840 | 1160 |
| 12 | 1640 | 787 | 1640 | 1360 | 329 | 242 | 394 | 1180 | 2170 | 1470 | 727 | 110 |
| 13 | 1650 | 884 | 1620 | 1280 | 147 | 0 | 455 | 869 | 1490 | 1670 | 1140 | 165 |
| 14 | 1670 | 689 | 1640 | 951 | 152 | 21 | 301 | 958 | 1790 | 889 | 1020 | 311 |
| 15 | 1650 | 869 | 1640 | 505 | 304 | 0 | 180 | 998 | 1580 | 1040 | 1280 | 153 |
| 16 | 584 | 1270 | 1640 | 1090 | 590 | 0 | 381 | 996 | 1120 | 1700 | 975 | 23 |
| 17 | 1110 | 1420 | 1640 | 1190 | 147 | 0 | 10 | 916 | 767 | 1220 | 239 | 0 |
| 18 | 1180 | 1600 | 1640 | 880 | 266 | 0 | 194 | 1500 | 898 | 1120 | 297 | 0 |
| 19 | 559 | 1600 | 1640 | 500 | 0 | 0 | 20 | 306 | 1100 | 1300 | 761 | 2.0 |
| 20 | 904 | 1590 | 1630 | 703 | 8.0 | 20 | 63 | 784 | 1410 | 979 | 727 | 1.0 |
| 21 | 710 | 1600 | 1630 | 355 | 366 | 31 | 196 | 472 | 838 | 1280 | 1280 | 0 |
| 22 | 988 | 1470 | 1630 | 349 | 564 | 138 | 1060 | 956 | 722 | 814 | 624 | 0 |
| 23 | 1140 | 1540 | 1630 | 513 | 0 | 33 | 96 | 629 | 401 | 1300 | 523 | 409 |
| 24 | 737 | 809 | 1620 | 209 | 0 | 0 | 491 | 1060 | 737 | 1230 | 490 | 212 |
| 25 | 1120 | 165 | 1620 | 320 | 201 | 381 | 108 | 335 | 1060 | 1680 | 170 | 282 |
| 26 | 1180 | 1370 | 1620 | 592 | 90 | 18 | 999 | 885 | 1420 | 1410 | 479 | 512 |
| 27 | 1110 | 1140 | 1620 | 292 | 361 | 112 | 738 | 532 | 1660 | 669 | 374 | 179 |
| 28 | 1130 | 155 | 1620 | 403 | 0 | 120 | 840 | 1200 | 1490 | 977 | 400 | 495 |
| 29 | 866 | 1160 | 1620 | 356 | --- | 373 | 278 | 564 | 1640 | 797 | 1080 | 465 |
| 30 | 1120 | 1440 | 2290 | 351 | --- | 497 | 1010 | 1200 | 582 | 1600 | 1080 | 0 |
| 31 | 692 | --- | 2330 | 298 | --- | 530 | --- | 840 | --- | 377 | 25 | --- |
| TOTAL | 39130 | 31144 | 51510 | 33747 | 5908.0 | 5347 | 12247 | 24956 | 31847 | 36917 | 24191 | 9675.0 |
| MEAN | 1262 | 1038 | 1661 | 1088 | 211 | 172 | 408 | 805 | 1061 | 1190 | 780 | 322 |
| MAX | 1670 | 1600 | 2330 | 2680 | 591 | 843 | 1290 | 1500 | 2170 | 2140 | 1730 | 1160 |
| MIN | 559 | 155 | 1360 | 209 | 0 | 0 | 0 | 289 | 61 | 377 | 25 | 0 |
| AC-FT | 77610 | 61770 | 102200 | 66940 | 11720 | 10610 | 24290 | 49500 | 63170 | 73220 | 47980 | 19190 |
| CAL YR 1984 | TOTAL | 787230.0 | MEAN | 2150 | MAX | 3520 | MIN | 155 | AC-FT | 1561500 | | |
| WTR YR 1985 | TOTAL | 306619.0 | MEAN | 840 | MAX | 2680 | MIN | 0 | AC-FT | 608200 | | |

11413515 NEW BULLARDS BAR RESERVOIR NEAR NORTH SAN JUAN, CA

LOCATION.--Lat 39°23'34", long 121°08'25", in SE 1/4 NW 1/4 sec.25, T.18 N., R.7 E., Yuba County, Hydrologic Unit 18020125, Plumas National Forest, in center of dam on North Yuba River, 2.2 mi upstream from Middle Yuba River, and 2.4 mi northwest of North San Juan.

DRAINAGE AREA.--489 mi².

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

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Yuba County Water Agency).

REMARKS.--Reservoir is formed by concrete-arch dam with a concrete-sidehill spillway. Spill controlled by three 30-ft by 53-ft radial gates. Storage began in January 1969. Usable capacity, 727,380 acre-ft between elevations 1,732.0 ft minimum power pool, and 1,955.0 ft normal gross pool. Dead storage, 233,920 acre-ft. Total capacity at normal gross pool, 961,300 acre-ft, elevation, 1,955.0 ft. Water is released to Colgate powerplant through a tunnel at the dam. Water is diverted into the reservoir from Middle Yuba River via Lohman Ridge tunnel to Oregon Creek then via Camptonville tunnel. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Yuba River basin.

COOPERATION.--Records collected by Yuba County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project. Contents not rounded to Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 966,103 acre-ft, June 12, 1982, elevation, 1,956.00 ft; minimum since reservoir first filled, 178,230 acre-ft, Dec. 29, 1980, elevation, 1,700.00 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 669,995 acre-ft, June 4, elevation, 1,886.80 ft; minimum, 355,554 acre-ft, Jan. 20, elevation, 1,786.84.

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

| | | | |
|-------|---------|-------|---------|
| 1,600 | 64,900 | 1,750 | 270,110 |
| 1,630 | 90,570 | 1,800 | 389,977 |
| 1,660 | 122,993 | 1,850 | 539,748 |
| 1,690 | 162,983 | 1,900 | 721,130 |
| 1,720 | 211,768 | 1,960 | 985,471 |

 CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
 INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1 | 473469 | 419367 | 443839 | 390462 | 358503 | 408993 | 480194 | 616894 | 666597 | 633585 | 576846 | 539418 |
| 2 | 470755 | 419099 | 443019 | 388174 | 359269 | 409132 | 482654 | 619267 | 668106 | 632198 | 574715 | 538099 |
| 3 | 468613 | 421304 | 442496 | 384877 | 360036 | 410049 | 487597 | 623053 | 669239 | 630304 | 571355 | 536879 |
| 4 | 466529 | 421984 | 441502 | 380882 | 360419 | 411581 | 494039 | 625766 | 669995 | 629577 | 570671 | 536452 |
| 5 | 464573 | 420059 | 439988 | 379107 | 360547 | 412697 | 500467 | 629213 | 668483 | 627035 | 569304 | 535301 |
| 6 | 461668 | 419777 | 438303 | 376941 | 360803 | 414433 | 507202 | 632198 | 666786 | 625947 | 567939 | 534940 |
| 7 | 458850 | 420172 | 436650 | 374468 | 362573 | 415975 | 514377 | 635412 | 666145 | 624137 | 566168 | 533661 |
| 8 | 456078 | 420342 | 434857 | 371667 | 374131 | 417381 | 519647 | 638891 | 667351 | 621609 | 564876 | 533829 |
| 9 | 453347 | 420059 | 433011 | 368801 | 378287 | 419071 | 525666 | 641794 | 666597 | 618008 | 562839 | 534087 |
| 10 | 450686 | 418930 | 432263 | 364607 | 380750 | 421474 | 531314 | 644374 | 666879 | 616930 | 562060 | 533497 |
| 11 | 448770 | 421474 | 431687 | 363139 | 382743 | 423317 | 537506 | 645185 | 665090 | 615710 | 560570 | 531662 |
| 12 | 446183 | 423175 | 430395 | 361572 | 383809 | 424880 | 542660 | 645481 | 662458 | 613418 | 559455 | 531793 |
| 13 | 443576 | 427161 | 429076 | 359933 | 385412 | 426790 | 548045 | 646811 | 660208 | 610595 | 557532 | 531859 |
| 14 | 441182 | 428506 | 427732 | 359091 | 386939 | 429020 | 554504 | 648994 | 657963 | 609241 | 555747 | 531532 |
| 15 | 438274 | 430166 | 426533 | 359091 | 387824 | 431458 | 561552 | 649846 | 656319 | 607639 | 553396 | 531565 |
| 16 | 437809 | 429879 | 425108 | 357866 | 389169 | 434194 | 567666 | 650514 | 655349 | 604443 | 552055 | 531794 |
| 17 | 436650 | 428933 | 423515 | 356467 | 391056 | 436650 | 573754 | 652408 | 655274 | 602779 | 551720 | 532186 |
| 18 | 434886 | 428504 | 421701 | 355782 | 392407 | 439697 | 578224 | 651999 | 654231 | 600905 | 551452 | 532514 |
| 19 | 434307 | 427590 | 419861 | 355578 | 394303 | 442757 | 583409 | 655163 | 652371 | 598788 | 550382 | 532841 |
| 20 | 433415 | 426590 | 418366 | 355554 | 396342 | 445684 | 587578 | 655797 | 651373 | 597380 | 549078 | 533169 |
| 21 | 432896 | 425450 | 416116 | 355782 | 397350 | 448622 | 591102 | 658150 | 650143 | 594920 | 546712 | 533497 |
| 22 | 431515 | 424311 | 414152 | 356213 | 398169 | 451217 | 593167 | 659459 | 648475 | 593868 | 545880 | 533825 |
| 23 | 429649 | 422948 | 411916 | 356213 | 399973 | 453674 | 597486 | 661332 | 648290 | 592116 | 545049 | 533398 |
| 24 | 428876 | 426476 | 410355 | 356492 | 401810 | 457209 | 600234 | 662083 | 647550 | 590019 | 544319 | 533300 |
| 25 | 427304 | 429736 | 408076 | 357000 | 403433 | 459805 | 603877 | 664337 | 646072 | 587021 | 544319 | 533070 |
| 26 | 425621 | 429535 | 406220 | 357102 | 404839 | 463641 | 605153 | 665090 | 643857 | 584797 | 543721 | 532448 |
| 27 | 424340 | 431458 | 404150 | 357484 | 405834 | 467708 | 606928 | 666597 | 641647 | 583756 | 543156 | 532350 |
| 28 | 423175 | 440424 | 402227 | 357892 | 407827 | 471038 | 608706 | 666220 | 639295 | 582162 | 542594 | 531690 |
| 29 | 421700 | 443078 | 399973 | 358198 | --- | 473316 | 611916 | 667351 | 636509 | 580986 | 540740 | 531107 |
| 30 | 420710 | 443721 | 396478 | 358350 | --- | 475603 | 614420 | 666597 | 635777 | 578224 | 539088 | 531369 |
| 31 | 420003 | --- | 392812 | 358554 | --- | 477742 | --- | 666408 | --- | 577741 | 539154 | --- |
| MAX | 473469 | 443721 | 443839 | 390462 | 407827 | 477742 | 614420 | 667351 | 669995 | 633585 | 576846 | 539418 |
| MIN | 420003 | 418930 | 392812 | 355554 | 358503 | 408993 | 480194 | 616894 | 635777 | 577741 | 539088 | 531107 |
| a | 1810.88 | 1819.13 | 1801.05 | 1788.02 | 1806.53 | 1830.50 | 1871.70 | 1885.85 | 1877.60 | 1861.26 | 1849.82 | 1847.41 |
| b | -56210 | +23718 | -50909 | -34258 | +49273 | +69915 | +136678 | +51988 | -30631 | -58036 | -38587 | -7785 |

CAL YR 1984 b -409178
WTR YR 1985 b +55156

a Elevation, in feet, NGVD, at end of month.
b Change in contents, in acre-feet.

SACRAMENTO RIVER BASIN

11413520 NORTH YUBA RIVER BELOW NEW BULLARDS BAR DAM, NEAR NORTH SAN JUAN, CA

LOCATION.--Lat 39°22'48", long 121°08'19", in SW 1/4 NE 1/4 sec.36, T.18 N., R.7 E., Yuba County, Hydrologic Unit 18020125, Plumas National Forest, on right bank 1.1 mi downstream from New Bullards Bar Dam, and 2 mi northwest of North San Juan.

DRAINAGE AREA.--490 mi².

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

GAGE.--Water-stage recorder and crest-stage gage. Elevation of gage is 1,280 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 11-15, Jan. 9 to Feb. 4, Feb. 15 to Mar. 31, Apr. 9-25. Records poor. Flow regulated by New Bullards Bar Reservoir since 1969 (station 11413515). Colgate power plant (station 11423510) diverts from New Bullards Bar Dam 1.1 mi upstream. Water is diverted out of basin through Slate Creek tunnel (station 11413250). See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE (since construction of New Bullards Bar Dam, unadjusted).--16 years (water years 1970-85), 235 ft³/s, 170,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 56,200 ft³/s, Jan. 22, 1970, gage height, 35.29 ft, from rating curve extended above 40,000 ft³/s on basis of computation of flow over old Colgate Dam; minimum daily, 0.42 ft³/s, Nov. 5, 1966.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 22, 1964, reached a stage of 49.8 ft, from floodmarks, discharge, 91,600 ft³/s, from computation of flow over old Colgate Dam.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 63 ft³/s, Feb. 8, gage height, 6.81 ft; minimum daily, 2.4 ft³/s, Sept. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 6.0 | 6.1 | 11 | 6.7 | 6.3 | 5.8 | 6.0 | 5.6 | 6.7 | 6.4 | 7.2 | 7.2 |
| 2 | 5.6 | 8.0 | 11 | 6.7 | 6.3 | 5.8 | 5.6 | 6.0 | 6.7 | 6.4 | 7.2 | 7.2 |
| 3 | 5.6 | 7.9 | 11 | 6.7 | 6.3 | 5.8 | 6.0 | 6.0 | 6.7 | 6.4 | 7.2 | 7.1 |
| 4 | 5.6 | 6.8 | 8.1 | 6.4 | 6.3 | 5.8 | 6.0 | 6.4 | 6.7 | 6.6 | 7.2 | 6.4 |
| 5 | 5.6 | 6.4 | 7.3 | 6.4 | 6.1 | 5.8 | 5.6 | 6.4 | 7.1 | 6.7 | 7.2 | 5.6 |
| 6 | 5.6 | 7.9 | 7.0 | 6.4 | 5.8 | 5.8 | 6.0 | 6.7 | 7.2 | 6.7 | 7.2 | 5.3 |
| 7 | 5.6 | 7.2 | 6.7 | 7.2 | 9.7 | 5.8 | 6.0 | 6.7 | 7.2 | 6.7 | 7.2 | 5.2 |
| 8 | 5.6 | 12 | 6.7 | 6.9 | 36 | 5.8 | 6.0 | 6.7 | 7.2 | 6.7 | 7.2 | 3.8 |
| 9 | 5.5 | 10 | 6.5 | 6.6 | 16 | 5.8 | 6.0 | 6.7 | 7.2 | 6.7 | 7.2 | 2.4 |
| 10 | 5.6 | 10 | 8.8 | 6.6 | 11 | 5.8 | 6.0 | 6.7 | 7.2 | 6.7 | 7.2 | 3.1 |
| 11 | 7.4 | 13 | 8.0 | 6.6 | 9.8 | 5.8 | 6.0 | 6.7 | 7.2 | 6.8 | 7.2 | 4.5 |
| 12 | 6.1 | 11 | 8.0 | 6.6 | 8.6 | 5.8 | 6.0 | 6.7 | 7.2 | 7.2 | 7.2 | 5.0 |
| 13 | 5.7 | 14 | 8.0 | 6.6 | 8.4 | 5.8 | 5.6 | 6.7 | 7.2 | 7.2 | 7.2 | 5.3 |
| 14 | 5.6 | 12 | 8.0 | 6.6 | 5.8 | 5.8 | 5.6 | 6.7 | 6.9 | 6.8 | 7.2 | 5.6 |
| 15 | 5.6 | 10 | 8.0 | 6.6 | 5.8 | 5.8 | 5.6 | 6.7 | 6.7 | 6.7 | 6.8 | 5.6 |
| 16 | 6.4 | 10 | 8.5 | 6.6 | 5.8 | 5.8 | 5.6 | 6.7 | 6.2 | 6.7 | 6.8 | 5.6 |
| 17 | 6.5 | 11 | 8.4 | 6.6 | 5.8 | 5.8 | 5.6 | 6.7 | 4.7 | 6.4 | 6.8 | 5.6 |
| 18 | 5.9 | 12 | 8.0 | 6.6 | 5.8 | 5.8 | 5.6 | 6.7 | 5.7 | 6.4 | 6.8 | 5.6 |
| 19 | 5.6 | 11 | 8.0 | 6.6 | 5.8 | 5.8 | 5.6 | 6.7 | 6.6 | 6.4 | 7.2 | 5.6 |
| 20 | 5.6 | 12 | 8.0 | 6.6 | 5.8 | 5.8 | 5.6 | 6.7 | 7.0 | 6.4 | 7.2 | 5.6 |
| 21 | 5.6 | 12 | 8.0 | 6.6 | 5.8 | 5.8 | 5.6 | 6.7 | 7.2 | 6.4 | 7.2 | 5.6 |
| 22 | 5.5 | 11 | 7.7 | 6.6 | 5.8 | 5.8 | 5.6 | 6.7 | 7.2 | 6.4 | 7.2 | 6.0 |
| 23 | 5.3 | 11 | 7.6 | 6.6 | 5.8 | 5.8 | 5.6 | 6.7 | 7.2 | 6.4 | 7.6 | 6.4 |
| 24 | 5.3 | 21 | 6.9 | 6.6 | 5.8 | 5.8 | 5.6 | 6.7 | 7.2 | 6.0 | 7.6 | 6.4 |
| 25 | 5.3 | 15 | 6.7 | 6.6 | 5.8 | 5.8 | 5.6 | 6.7 | 7.2 | 6.4 | 7.6 | 6.4 |
| 26 | 6.0 | 12 | 6.7 | 6.3 | 5.8 | 5.8 | 5.6 | 6.7 | 7.2 | 6.4 | 7.6 | 6.0 |
| 27 | 6.4 | 15 | 6.7 | 6.3 | 5.8 | 5.8 | 5.6 | 6.7 | 6.9 | 6.8 | 7.6 | 6.0 |
| 28 | 6.6 | 15 | 6.7 | 6.3 | 5.8 | 5.8 | 5.6 | 6.7 | 6.4 | 6.8 | 7.6 | 5.7 |
| 29 | 7.1 | 13 | 6.7 | 6.3 | --- | 5.8 | 5.6 | 6.7 | 6.4 | 6.8 | 7.2 | 5.6 |
| 30 | 6.6 | 12 | 6.7 | 6.3 | --- | 5.8 | 5.6 | 6.7 | 6.4 | 7.2 | 7.2 | --- |
| 31 | 6.4 | --- | 6.7 | 6.3 | --- | 5.8 | --- | 6.7 | --- | 7.2 | 7.2 | --- |
| TOTAL | 182.8 | 335.3 | 242.1 | 203.4 | 223.6 | 179.8 | 172.0 | 204.6 | 204.6 | 205.4 | 224.4 | 167.4 |
| MEAN | 5.90 | 11.2 | 7.81 | 6.56 | 7.99 | 5.80 | 5.73 | 6.60 | 6.82 | 6.63 | 7.24 | 5.58 |
| MAX | 7.4 | 21 | 11 | 7.2 | 36 | 5.8 | 6.0 | 6.7 | 7.2 | 7.2 | 7.6 | 7.2 |
| MIN | 5.3 | 6.1 | 6.5 | 6.3 | 5.8 | 5.8 | 5.6 | 5.6 | 4.7 | 6.0 | 6.8 | 2.4 |
| AC-FT | 363 | 665 | 480 | 403 | 444 | 357 | 341 | 406 | 406 | 407 | 445 | 332 |
| CAL YR 1984 | TOTAL | 25043.7 | MEAN | 68.4 | MAX | 8260 | MIN | 4.4 | AC-FT | 49670 | | |
| WTR YR 1985 | TOTAL | 2545.4 | MEAN | 6.97 | MAX | 36 | MIN | 2.4 | AC-FT | 5050 | | |

11414000 SOUTH YUBA RIVER NEAR CISCO, CA

LOCATION.--Lat 39°19'12", long 120°33'38", in SE 1/4 SW 1/4 sec.19, T.17 N., R.13 E., Nevada County, Hydrologic Unit 18020125, on right bank 0.7 mi downstream from Rattlesnake Creek, 1.3 mi west of Cisco Grove, and 1.5 mi northwest of Cisco.

DRAINAGE AREA.--51.8 mi².

PERIOD OF RECORD.--April 1942 to current year. Prior to October 1949, published as South Fork Yuba River near Cisco.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,520 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to October 1945, water-stage recorder at site 200 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Dec. 17-29, Jan. 3-9, 12, 15-31, Feb. 1-3, 5, 8-11, Mar. 8, 10, 11, 28. Records good except for estimated daily discharges which are fair. Low flow regulated by several small lakes operated by Pacific Gas and Electric Co.

AVERAGE DISCHARGE.--43 years, 205 ft³/s, 148,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 18,400 ft³/s, Jan. 31, 1963, gage height, 19.6 ft from floodmarks in gage house, 20.6 ft from outside floodmarks, from rating curve extended above 5,000 ft³/s on basis of slope-area measurement at gage height 15.8 ft; minimum daily, 0.1 ft³/s, Nov. 5-7, 1954.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|--|------|-----------------------------------|---------------------|------|------|-----------------------------------|---------------------|
| Apr. 14 | 2045 | *1,610 | *6.45 | | | | |
| Minimum daily, 2.6 ft ³ /s, Oct. 5. | | | | | | | |

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|------|------|------|------|-------|-------|-------|--------|-------|-------|
| 1 | 8.6 | 45 | 75 | 39 | 42 | 144 | 232 | 937 | 143 | 9.5 | 9.9 | 6.5 |
| 2 | 5.3 | 308 | 71 | 39 | 42 | 128 | 367 | 1010 | 181 | 8.6 | 9.0 | 6.6 |
| 3 | 3.9 | 320 | 69 | 39 | 41 | 100 | 452 | 864 | 180 | 7.8 | 8.8 | 6.6 |
| 4 | 3.0 | 128 | 64 | 39 | 40 | 87 | 522 | 719 | 183 | 7.1 | 8.4 | 6.5 |
| 5 | 2.6 | 86 | 66 | 40 | 38 | 84 | 639 | 754 | 192 | 6.4 | 8.3 | 12 |
| 6 | 18 | 126 | 62 | 40 | 37 | 74 | 713 | 795 | 191 | 6.1 | 8.5 | 25 |
| 7 | 21 | 125 | 63 | 40 | 36 | 73 | 730 | 721 | 179 | 7.6 | 8.7 | 26 |
| 8 | 21 | 116 | 66 | 40 | 36 | 72 | 749 | 593 | 168 | 8.9 | 7.0 | 38 |
| 9 | 21 | 97 | 63 | 40 | 36 | 70 | 799 | 505 | 148 | 8.4 | 4.8 | 40 |
| 10 | 21 | 92 | 66 | 40 | 36 | 68 | 822 | 424 | 129 | 8.1 | 4.4 | 32 |
| 11 | 38 | 517 | 63 | 40 | 36 | 68 | 719 | 345 | 111 | 8.1 | 4.5 | 32 |
| 12 | 25 | 357 | 61 | 40 | 37 | 67 | 744 | 438 | 98 | 8.0 | 4.8 | 61 |
| 13 | 23 | 219 | 55 | 40 | 42 | 70 | 925 | 550 | 87 | 7.7 | 4.9 | 59 |
| 14 | 24 | 149 | 53 | 40 | 44 | 77 | 1100 | 649 | 75 | 7.4 | 4.7 | 57 |
| 15 | 22 | 114 | 49 | 40 | 50 | 91 | 1090 | 607 | 64 | 6.9 | 5.3 | 56 |
| 16 | 25 | 105 | 48 | 40 | 58 | 105 | 830 | 562 | 57 | 6.6 | 6.1 | 54 |
| 17 | 27 | 92 | 47 | 40 | 64 | 116 | 619 | 590 | 51 | 6.1 | 6.1 | 53 |
| 18 | 24 | 94 | 45 | 40 | 70 | 123 | 526 | 604 | 44 | 9.4 | 6.5 | 52 |
| 19 | 26 | 83 | 44 | 40 | 84 | 121 | 544 | 602 | 38 | 11 | 6.2 | 49 |
| 20 | 31 | 82 | 43 | 40 | 87 | 157 | 351 | 550 | 33 | 11 | 6.1 | 45 |
| 21 | 27 | 78 | 42 | 40 | 80 | 181 | 281 | 496 | 28 | 12 | 5.8 | 36 |
| 22 | 26 | 70 | 42 | 40 | 78 | 161 | 280 | 526 | 24 | 11 | 5.5 | 29 |
| 23 | 26 | 69 | 41 | 40 | 83 | 163 | 369 | 538 | 21 | 11 | 5.3 | 26 |
| 24 | 25 | 78 | 41 | 41 | 99 | 191 | 433 | 506 | 19 | 10 | 5.1 | 25 |
| 25 | 30 | 76 | 40 | 41 | 115 | 142 | 388 | 439 | 17 | 7.3 | 4.9 | 24 |
| 26 | 35 | 67 | 40 | 41 | 121 | 109 | 321 | 370 | 15 | 4.7 | 4.9 | 23 |
| 27 | 54 | 120 | 40 | 42 | 133 | 94 | 429 | 323 | 14 | 5.6 | 4.8 | 14 |
| 28 | 41 | 151 | 40 | 42 | 137 | 95 | 667 | 271 | 13 | 16 | 4.8 | 11 |
| 29 | 64 | 97 | 40 | 42 | --- | 96 | 680 | 224 | 12 | 17 | 5.3 | 11 |
| 30 | 53 | 82 | 40 | 42 | --- | 97 | 764 | 180 | 10 | 17 | 7.1 | 11 |
| 31 | 49 | --- | 40 | 42 | --- | 136 | --- | 177 | --- | 12 | 6.6 | --- |
| TOTAL | 820.4 | 4143 | 1619 | 1249 | 1802 | 3360 | 18085 | 16869 | 2525 | 284.3 | 193.1 | 927.2 |
| MEAN | 26.5 | 138 | 52.2 | 40.3 | 64.4 | 108 | 603 | 544 | 84.2 | 9.17 | 6.23 | 30.9 |
| MAX | 64 | 517 | 75 | 42 | 137 | 191 | 1100 | 1010 | 192 | 17 | 9.9 | 61 |
| MIN | 2.6 | 45 | 40 | 39 | 36 | 67 | 232 | 177 | 10 | 4.7 | 4.4 | 6.5 |
| AC-FT | 1630 | 8220 | 3210 | 2480 | 3570 | 6660 | 35870 | 33460 | 5010 | 564 | 383 | 1840 |
| CAL YR 1984 | TOTAL | 76846.9 | MEAN | 210 | MAX | 1340 | MIN | 1.3 | AC-FT | 152400 | | |
| WTR YR 1985 | TOTAL | 51877.0 | MEAN | 142 | MAX | 1100 | MIN | 2.6 | AC-FT | 102900 | | |

SACRAMENTO RIVER BASIN

11414090 FORDYCE LAKE NEAR CISCO, CA

LOCATION (REVISED).--Lat 39°22'44", long 120°29'40", in NE 1/4 SE 1/4 sec.34, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, near left abutment of Fordyce Dam on Fordyce Creek, and 5.3 mi northeast of Cisco.

DRAINAGE AREA.--31.7 mi².

PERIOD OF RECORD.--October 1977 to current year. Periodic elevations only for October 1965 to September 1976 and daily contents for water year 1977 are in the files of the Geological Survey.

GAGE.--Water-stage recorder. Datum of gage is 6,290.5 ft above National Geodetic Vertical Datum of 1929 (levels by Pacific Gas and Electric Co). Prior to November 29, 1976, nonrecording gage on upstream side of dam at same datum.

REMARKS.--Lake is formed by a rockfill dam; storage began in 1926. In 1980 the capacity of Fordyce Lake was increased by the addition of 3 ft of flashboards. Capacity, 49,903 acre-ft between gage heights 0.85 ft, bottom of outlet valve and 114.6 ft, top of flashboards in spillway. Released water flows down Fordyce Creek (station 11414100) to Lake Spaulding (station 11414140) for use in a power and irrigation system. See schematic diagram of Yuba River basin.

COOPERATION.--Records were collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project. Contents not rounded to Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 49,903 acre-ft, June 27, July 4, 6, 1982 and June 9, 15-17, 1984, gage height, 114.60 ft; minimum, 250 acre-ft, Oct. 31 to Nov. 7, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 45,134 acre-ft, June 12, gage height, 108.24 ft; minimum, 3,007 acre-ft, Dec. 12, gage height, 21.70 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)

| | | | |
|----|-------|-------|--------|
| 4 | 219 | 40 | 8,183 |
| 5 | 278 | 50 | 11,797 |
| 10 | 774 | 60 | 16,174 |
| 15 | 1,570 | 70 | 21,196 |
| 20 | 2,608 | 80 | 26,770 |
| 25 | 3,827 | 90 | 32,820 |
| 30 | 5,170 | 100 | 39,342 |
| 35 | 6,628 | 114.6 | 49,903 |

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|-------|-------|-------|--------|--------|--------|--------|-------|-------|
| 1 | 4061 | 5512 | 7172 | 3700 | 4563 | 5787 | 5668 | 22506 | 42220 | 29283 | 8664 | 3778 |
| 2 | 4216 | 5934 | 6756 | 3733 | 4590 | 5857 | 5936 | 23565 | 42438 | 28433 | 7289 | 3768 |
| 3 | 4290 | 6158 | 6341 | 3751 | 4617 | 5904 | 6285 | 24454 | 42636 | 27562 | 6696 | 3758 |
| 4 | 4388 | 6230 | 5919 | 3776 | 4644 | 5978 | 6669 | 25196 | 42919 | 26752 | 6126 | 3758 |
| 5 | 4501 | 6259 | 5503 | 3801 | 4674 | 6057 | 7166 | 25998 | 43260 | 25912 | 5538 | 3768 |
| 6 | 4604 | 6341 | 5100 | 3832 | 4696 | 6135 | 7743 | 26857 | 43617 | 25099 | 4966 | 3837 |
| 7 | 4710 | 6394 | 4696 | 3880 | 4770 | 6194 | 8376 | 27615 | 43990 | 24297 | 4386 | 3893 |
| 8 | 4803 | 6459 | 4300 | 3909 | 4847 | 6238 | 9067 | 28231 | 44330 | 23272 | 4111 | 3896 |
| 9 | 4888 | 6500 | 3914 | 3927 | 4866 | 6288 | 9855 | 28744 | 44567 | 22441 | 4111 | 3896 |
| 10 | 4977 | 6553 | 3552 | 3952 | 4888 | 6332 | 10604 | 29139 | 44792 | 21660 | 4111 | 3896 |
| 11 | 5103 | 6992 | 3172 | 3976 | 4922 | 6373 | 11273 | 29506 | 44974 | 20853 | 4111 | 3896 |
| 12 | 5179 | 7237 | 3007 | 3996 | 4947 | 6206 | 11985 | 29995 | 45134 | 20080 | 4111 | 4399 |
| 13 | 5269 | 7404 | 3033 | 4017 | 4969 | 5936 | 12817 | 30653 | 44996 | 19304 | 4111 | 4495 |
| 14 | 5315 | 7497 | 3077 | 4017 | 4999 | 5665 | 13884 | 31408 | 44163 | 18537 | 4111 | 4590 |
| 15 | 5326 | 7573 | 3145 | 4061 | 5030 | 5357 | 14891 | 32126 | 43332 | 17791 | 3955 | 4682 |
| 16 | 5366 | 7623 | 3191 | 4090 | 5064 | 5016 | 15638 | 32851 | 42516 | 17018 | 3947 | 4773 |
| 17 | 5366 | 7673 | 3238 | 4113 | 5106 | 4715 | 16131 | 33614 | 41673 | 16278 | 3937 | 4866 |
| 18 | 5357 | 7718 | 3280 | 4147 | 5145 | 4359 | 16641 | 34391 | 40826 | 15544 | 3929 | 4961 |
| 19 | 5354 | 7762 | 3315 | 4189 | 5196 | 4252 | 17037 | 35220 | 39968 | 15087 | 3919 | 5066 |
| 20 | 5354 | 7800 | 3350 | 4218 | 5244 | 4367 | 17329 | 35953 | 39057 | 15051 | 3911 | 5173 |
| 21 | 5349 | 7842 | 3387 | 4261 | 5281 | 4485 | 17614 | 36712 | 38163 | 15014 | 3901 | 5281 |
| 22 | 5340 | 7870 | 3417 | 4292 | 5326 | 4595 | 17846 | 37524 | 37259 | 14736 | 3893 | 5383 |
| 23 | 5326 | 7909 | 3447 | 4322 | 5363 | 4715 | 18108 | 38351 | 36344 | 13998 | 3880 | 5486 |
| 24 | 5312 | 7979 | 3482 | 4343 | 5411 | 4855 | 18457 | 39152 | 35459 | 13276 | 3873 | 5584 |
| 25 | 5312 | 8011 | 3515 | 4346 | 5477 | 4949 | 18742 | 39784 | 34551 | 12572 | 3862 | 5682 |
| 26 | 5312 | 8044 | 3542 | 4346 | 5538 | 5075 | 19010 | 40365 | 33652 | 12187 | 3850 | 5769 |
| 27 | 5400 | 8147 | 3572 | 4346 | 5610 | 5184 | 19447 | 40868 | 32751 | 11801 | 3832 | 5857 |
| 28 | 5440 | 8199 | 3599 | 4346 | 5694 | 5264 | 20034 | 41429 | 31915 | 10495 | 3819 | 5936 |
| 29 | 5497 | 8015 | 3632 | 4346 | --- | 5335 | 20706 | 41680 | 31014 | 9798 | 3804 | 6019 |
| 30 | 5520 | 7595 | 3649 | 4346 | --- | 5414 | 21489 | 41890 | 30153 | 9094 | 3804 | 6099 |
| 31 | 5540 | --- | 3677 | 4536 | --- | 5503 | --- | 42065 | --- | 8755 | 3794 | --- |
| MAX | 5540 | 8199 | 7172 | 4536 | 5694 | 6373 | 21489 | 42065 | 45134 | 29283 | 8664 | 6099 |
| MIN | 4061 | 5512 | 3007 | 3700 | 4563 | 4252 | 5668 | 22506 | 30153 | 8755 | 3794 | 3758 |
| a | 31.30 | 38.16 | 24.41 | 27.70 | 31.83 | 31.17 | 70.55 | 103.95 | 85.68 | 41.73 | 24.87 | 33.21 |
| b | +1479 | +2055 | -3918 | +859 | +1158 | -191 | +15986 | +20576 | -11912 | -21398 | -4961 | +2305 |
| CAL YR 1984 | b | -31511 | | | | | | | | | | |
| WTR YR 1985 | b | +2038 | | | | | | | | | | |

a Gage height, in feet, at end of month.
b Change in contents, in acre-feet.

11414100 FORDYCE CREEK BELOW FORDYCE DAM, NEAR CISCO, CA

LOCATION.--Lat 39°22'48", long 102°29'54", in NW 1/4 SE 1/4 sec.34, T.18 N., R.13 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on right bank 850 ft downstream from Fordyce Dam, and 5.3 mi northeast of Cisco.

DRAINAGE AREA.--31.7 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 6,250 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Flow regulated by Fordyce Lake (station 11414090). See schematic diagram of Yuba River basin.

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

AVERAGE DISCHARGE.--19 years, 139 ft³/s, 100,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,660 ft³/s, July 9, 1974, gage height, 7.90 ft in gage well, 6.82 ft, from high-water marks, from rating curve extended above 1,000 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 3.5 ft³/s, Jan. 2-9, 1979.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 527 ft³/s, June 13,14, gage height, 3.86 ft; minimum daily, 5.6 ft³/s, Dec. 13-30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|--------|-------|-------|--------|-------|------|-------|--------|--------|-------|
| 1 | 14 | 16 | 248 | 5.8 | 6.7 | 7.8 | 8.3 | 23 | 41 | 452 | 318 | 7.2 |
| 2 | 14 | 19 | 243 | 5.8 | 6.7 | 7.8 | 8.8 | 24 | 41 | 447 | 312 | 7.2 |
| 3 | 14 | 17 | 235 | 5.9 | 6.7 | 7.8 | 9.2 | 25 | 41 | 445 | 296 | 7.2 |
| 4 | 14 | 17 | 233 | 6.0 | 6.7 | 7.8 | 10 | 25 | 41 | 443 | 289 | 7.2 |
| 5 | 14 | 17 | 223 | 6.0 | 6.7 | 7.8 | 11 | 25 | 41 | 438 | 280 | 7.2 |
| 6 | 14 | 17 | 219 | 6.1 | 6.7 | 7.8 | 12 | 26 | 41 | 435 | 273 | 7.2 |
| 7 | 14 | 18 | 217 | 6.3 | 6.7 | 8.0 | 12 | 27 | 42 | 430 | 158 | 7.2 |
| 8 | 14 | 18 | 213 | 6.3 | 6.7 | 8.3 | 13 | 27 | 42 | 427 | 7.8 | 7.6 |
| 9 | 14 | 18 | 209 | 6.3 | 6.7 | 8.3 | 14 | 27 | 43 | 418 | 7.8 | 7.5 |
| 10 | 16 | 18 | 206 | 6.3 | 6.7 | 8.3 | 15 | 28 | 43 | 415 | 7.7 | 7.5 |
| 11 | 16 | 21 | 202 | 6.3 | 6.7 | 8.3 | 15 | 28 | 44 | 413 | 7.5 | 7.5 |
| 12 | 16 | 20 | 110 | 6.5 | 6.7 | 91 | 16 | 28 | 44 | 411 | 7.5 | 7.5 |
| 13 | 15 | 19 | 5.6 | 6.5 | 6.9 | 153 | 17 | 29 | 198 | 404 | 7.5 | 7.5 |
| 14 | 15 | 19 | 5.6 | 6.5 | 7.2 | 152 | 18 | 29 | 512 | 401 | 7.5 | 7.5 |
| 15 | 16 | 19 | 5.6 | 6.5 | 7.3 | 175 | 19 | 30 | 510 | 399 | 7.5 | 7.5 |
| 16 | 16 | 19 | 5.6 | 6.5 | 7.5 | 193 | 19 | 31 | 501 | 397 | 7.5 | 7.5 |
| 17 | 16 | 19 | 5.6 | 6.5 | 7.5 | 191 | 19 | 31 | 503 | 390 | 7.5 | 7.6 |
| 18 | 16 | 19 | 5.6 | 6.5 | 7.5 | 187 | 19 | 32 | 500 | 384 | 7.5 | 7.8 |
| 19 | 15 | 19 | 5.6 | 6.5 | 7.5 | 81 | 19 | 32 | 489 | 300 | 7.5 | 7.8 |
| 20 | 15 | 19 | 5.6 | 6.5 | 7.5 | 6.6 | 19 | 33 | 492 | 20 | 7.5 | 7.9 |
| 21 | 15 | 19 | 5.6 | 6.5 | 7.5 | 6.7 | 19 | 34 | 485 | 20 | 7.5 | 8.0 |
| 22 | 15 | 19 | 5.6 | 6.5 | 7.5 | 6.7 | 20 | 34 | 479 | 103 | 7.5 | 8.3 |
| 23 | 15 | 19 | 5.6 | 6.5 | 7.5 | 6.8 | 21 | 35 | 479 | 387 | 7.5 | 8.3 |
| 24 | 15 | 19 | 5.6 | 6.5 | 7.5 | 7.0 | 20 | 36 | 475 | 383 | 7.5 | 8.6 |
| 25 | 15 | 19 | 5.6 | 6.5 | 7.5 | 7.0 | 20 | 37 | 472 | 377 | 7.5 | 8.7 |
| 26 | 15 | 19 | 5.6 | 6.5 | 7.5 | 7.3 | 20 | 37 | 468 | 373 | 7.3 | 8.9 |
| 27 | 16 | 20 | 5.6 | 6.5 | 7.6 | 8.3 | 21 | 37 | 468 | 355 | 7.2 | 8.9 |
| 28 | 15 | 20 | 5.6 | 6.5 | 7.8 | 7.8 | 21 | 38 | 465 | 341 | 7.2 | 9.2 |
| 29 | 16 | 132 | 5.6 | 6.5 | --- | 7.2 | 22 | 39 | 461 | 337 | 7.2 | 9.2 |
| 30 | 16 | 252 | 5.6 | 6.6 | --- | 7.2 | 22 | 39 | 456 | 333 | 7.2 | 9.3 |
| 31 | 16 | --- | 5.7 | 6.7 | --- | 7.5 | --- | 40 | --- | 325 | 7.2 | --- |
| TOTAL | 467 | 906 | 2664.5 | 197.4 | 199.7 | 1397.1 | 499.3 | 966 | 8917 | 11203 | 2105.1 | 236.5 |
| MEAN | 15.1 | 30.2 | 86.0 | 6.37 | 7.13 | 45.1 | 16.6 | 31.2 | 297 | 361 | 67.9 | 7.88 |
| MAX | 16 | 252 | 248 | 6.7 | 7.8 | 193 | 22 | 40 | 512 | 452 | 318 | 9.3 |
| MIN | 14 | 16 | 5.6 | 5.8 | 6.7 | 6.6 | 8.3 | 23 | 41 | 20 | 7.2 | 7.2 |
| AC-FT | 926 | 1800 | 5290 | 392 | 396 | 2770 | 990 | 1920 | 17690 | 22220 | 4180 | 469 |
| CAL YR 1984 | TOTAL | 67903.8 | MEAN | 186 | MAX | 585 | MIN | 5.6 | AC-FT | 134700 | | |
| WTR YR 1985 | TOTAL | 29758.6 | MEAN | 81.5 | MAX | 512 | MIN | 5.6 | AC-FT | 59030 | | |

SACRAMENTO RIVER BASIN

11414140 LAKE SPAULDING NEAR EMIGRANT GAP, CA

LOCATION.--Lat 39°19'35", long 120°38'32", in SE 1/4 NE 1/4 sec.20, T.17 N., R.12 E., Nevada County, Hydrologic Unit 18020125, near center of Spaulding Dam on South Yuba River and 2.5 mi northeast of Emigrant Gap.

DRAINAGE AREA.--118 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 4,809.6 ft above National Geodetic Vertical Datum of 1929 (levels by Pacific Gas and Electric Co.). Prior to July 1968, nonrecording gage at same site and datum.

REMARKS.--Lake is formed by three concrete-arch dams with spillway on the middle arch. Storage began in 1913. Capacity, 74,773 acre-ft between gage heights 0.6 ft, bottom of outlet and 205.0 ft, top of radial gates. Release water flows through Spaulding powerplants Nos. 1 and 2. Flow through powerplant No. 1 is transported out of Yuba River basin by Drum Canal to Bear River basin. See schematic diagram of Yuba River and Bear River basins.

COOPERATION.--Records were collected by Pacific Gas and Electric Co., under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project. Contents not rounded to Geological Survey standards.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 75,100 acre-ft, July 13, 1967, gage height, 205.5 ft; minimum, 914 acre-ft, Feb. 28, 1976, gage height, 25.5 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 69,778 acre-ft, June 27, gage height, 197.70 ft; minimum, 5,045 acre-ft, Mar. 14, gage height, 52.23 ft.

Capacity table (gage height, in feet, and contents, in acre-feet)

| | | | |
|----|-------|-----|--------|
| 20 | 566 | 70 | 9,632 |
| 25 | 874 | 100 | 19,541 |
| 30 | 1,352 | 150 | 41,545 |
| 40 | 2,742 | 200 | 71,329 |
| 50 | 4,578 | 206 | 75,473 |

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|--------|--------|-------|-------|-------|-------|--------|--------|--------|--------|--------|--------|
| 1 | 32580 | 22328 | 16463 | 12288 | 13284 | 7100 | 6177 | 36318 | 60407 | 69551 | 65281 | 41981 |
| 2 | 32954 | 23131 | 16205 | 12541 | 13387 | 6927 | 7209 | 37596 | 60854 | 69517 | 65145 | 41913 |
| 3 | 33335 | 24506 | 15965 | 12027 | 13407 | 6661 | 8395 | 38905 | 60948 | 69490 | 65016 | 41235 |
| 4 | 33784 | 25027 | 15639 | 11924 | 12940 | 6403 | 9907 | 40711 | 61104 | 69457 | 64687 | 40429 |
| 5 | 34254 | 24571 | 15314 | 12503 | 12301 | 6283 | 11739 | 42544 | 61273 | 69370 | 64077 | 39615 |
| 6 | 34738 | 24038 | 14985 | 13197 | 11621 | 6191 | 13226 | 43836 | 61429 | 69490 | 63534 | 39055 |
| 7 | 35238 | 23480 | 14652 | 13374 | 11155 | 6090 | 14668 | 44807 | 61542 | 69611 | 62854 | 39156 |
| 8 | 35665 | 22921 | 14357 | 13648 | 11030 | 5955 | 16552 | 45437 | 61950 | 69611 | 62158 | 39393 |
| 9 | 35424 | 22190 | 14002 | 13306 | 10468 | 5830 | 18726 | 45816 | 62291 | 69464 | 61023 | 39448 |
| 10 | 34757 | 21514 | 13747 | 13310 | 10227 | 5732 | 20788 | 46343 | 62051 | 69363 | 59886 | 38394 |
| 11 | 34250 | 23061 | 13481 | 13377 | 10191 | 5545 | 22367 | 47142 | 62114 | 69257 | 58754 | 37586 |
| 12 | 33718 | 23528 | 13075 | 13601 | 9782 | 5092 | 23776 | 48102 | 61592 | 69163 | 57633 | 36717 |
| 13 | 33821 | 23824 | 12250 | 14387 | 9297 | 5062 | 25373 | 48731 | 61573 | 69243 | 56486 | 35848 |
| 14 | 33887 | 23547 | 11507 | 14602 | 8764 | 5045 | 27417 | 49403 | 62322 | 69310 | 55370 | 35018 |
| 15 | 33302 | 23049 | 11291 | 14499 | 8648 | 5590 | 29430 | 49966 | 63324 | 69197 | 54205 | 34321 |
| 16 | 32636 | 22510 | 10831 | 14479 | 8798 | 6273 | 30705 | 50396 | 64276 | 69043 | 53199 | 33470 |
| 17 | 31543 | 21945 | 9105 | 14526 | 8961 | 6984 | 31670 | 51210 | 64809 | 68916 | 52538 | 32640 |
| 18 | 30661 | 21350 | 8838 | 14549 | 9184 | 7366 | 32475 | 52625 | 65320 | 68777 | 51892 | 31811 |
| 19 | 29972 | 20702 | 8284 | 15409 | 9283 | 7762 | 33302 | 54053 | 65812 | 68511 | 51239 | 30970 |
| 20 | 29879 | 20072 | 8009 | 16366 | 9129 | 7678 | 34410 | 54730 | 66307 | 67875 | 50578 | 30127 |
| 21 | 30051 | 19333 | 7927 | 16273 | 8838 | 7638 | 34321 | 54966 | 66817 | 67276 | 49915 | 29290 |
| 22 | 29593 | 18596 | 8619 | 15921 | 8619 | 7437 | 34118 | 55334 | 67690 | 66588 | 49285 | 28438 |
| 23 | 28745 | 17835 | 9137 | 15456 | 8574 | 7240 | 33840 | 56240 | 68551 | 66463 | 48636 | 28789 |
| 24 | 27689 | 17523 | 9581 | 14758 | 8574 | 7253 | 33769 | 56805 | 68923 | 66372 | 47997 | 29307 |
| 25 | 27689 | 16892 | 10017 | 14855 | 8445 | 7253 | 34004 | 57997 | 69203 | 66209 | 47527 | 29826 |
| 26 | 26072 | 16194 | 10377 | 15321 | 8058 | 6997 | 33568 | 59128 | 69497 | 66053 | 46643 | 30300 |
| 27 | 26051 | 16646 | 10317 | 15388 | 7708 | 6825 | 33126 | 59547 | 69778 | 66066 | 45442 | 30786 |
| 28 | 25878 | 17126 | 10128 | 15463 | 7329 | 6644 | 33540 | 59787 | 69704 | 66033 | 44139 | 31263 |
| 29 | 25300 | 16777 | 10667 | 14357 | --- | 6376 | 34198 | 59960 | 69658 | 65773 | 42990 | 31774 |
| 30 | 24330 | 16673 | 11205 | 13829 | --- | 6107 | 35243 | 60047 | 69597 | 65462 | 42069 | 32268 |
| 31 | 23178 | --- | 11789 | 13504 | --- | 5929 | --- | 60097 | --- | 65371 | 42012 | --- |
| MAX | 35665 | 25027 | 16463 | 16366 | 13407 | 7762 | 35243 | 60097 | 69778 | 69611 | 65281 | 41981 |
| MIN | 23178 | 16194 | 7927 | 11924 | 7329 | 5045 | 6177 | 36318 | 60407 | 65371 | 42012 | 28438 |
| a | 109.60 | 91.96 | 77.11 | 82.50 | 61.74 | 56.15 | 137.35 | 182.68 | 197.43 | 191.01 | 150.90 | 131.00 |
| b | -9017 | -6505 | -4884 | +1715 | -6175 | -1400 | +29314 | +24854 | +9500 | -4226 | -23359 | -9744 |
| CAL YR 1984 | b | -52256 | | | | | | | | | | |
| WTR YR 1985 | b | +73 | | | | | | | | | | |

a Gage height, in feet, at end of month.

b Change in contents, in acre-feet.

11414170 DRUM CANAL AT TUNNEL OUTLET, NEAR EMIGRANT GAP, CA

LOCATION.--Lat 39°19'03", long 120°39'08", in SE 1/4 SW 1/4 sec.20, T.17 N., R.12 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, 100 ft downstream from tunnel outlet, 1.0 mi downstream from Spaulding No. 1 powerplant, and 1.7 mi northeast of Emigrant Gap.

PERIOD OF RECORD.--October 1964 to current year. Prior to October 1972, published as "Drum Canal at intake."

GAGE.--Water-stage recorder. Elevation of gage is 4,880 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1968, in powerplant 0.7 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Canal diverts from Spaulding No. 1 powerplant at Lake Spaulding Dam. Water is used for irrigation and power in the Bear River basin. See schematic diagrams of Yuba River and Bear River basins.

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

AVERAGE DISCHARGE.--21 years, 547 ft³/s, 396,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 858 ft³/s, July 4, 1978; no flow for several days in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|-----------|-------|-------|-------|-------|-------|-------|-------|--------|-------|----------|
| 1 | 0 | 592 | 804 | 81 | 256 | 454 | 491 | 847 | 102 | 611 | 510 | 213 |
| 2 | 0 | 580 | 813 | 352 | 186 | 387 | 480 | 844 | 101 | 623 | 515 | 212 |
| 3 | 0 | 206 | 791 | 526 | 240 | 381 | 469 | 654 | 297 | 618 | 517 | 529 |
| 4 | 0 | 201 | 808 | 344 | 470 | 381 | 467 | 141 | 256 | 607 | 509 | 617 |
| 5 | 0 | 621 | 811 | 72 | 571 | 382 | 480 | 134 | 260 | 625 | 504 | 601 |
| 6 | 0 | 822 | 804 | 73 | 576 | 373 | 707 | 480 | 264 | 501 | 501 | 488 |
| 7 | 0 | 823 | 806 | 262 | 404 | 376 | 705 | 554 | 265 | 499 | 502 | 163 |
| 8 | 50 | 810 | 799 | 379 | 295 | 379 | 469 | 554 | 97 | 607 | 507 | 162 |
| 9 | 328 | 810 | 793 | 380 | 289 | 376 | 409 | 556 | 97 | 611 | 505 | 481 |
| 10 | 573 | 809 | 783 | 380 | 294 | 373 | 422 | 383 | 374 | 607 | 501 | 592 |
| 11 | 550 | 789 | 780 | 240 | 297 | 371 | 470 | 86 | 293 | 616 | 497 | 661 |
| 12 | 517 | 783 | 780 | 72 | 353 | 373 | 582 | 95 | 343 | 606 | 498 | 697 |
| 13 | 193 | 774 | 773 | 74 | 400 | 381 | 771 | 475 | 254 | 499 | 503 | 701 |
| 14 | 191 | 779 | 753 | 249 | 399 | 383 | 780 | 528 | 242 | 501 | 508 | 690 |
| 15 | 438 | 795 | 770 | 383 | 225 | 283 | 787 | 571 | 94 | 611 | 502 | 624 |
| 16 | 589 | 790 | 800 | 391 | 127 | 140 | 786 | 574 | 93 | 608 | 501 | 698 |
| 17 | 590 | 798 | 799 | 390 | 128 | 141 | 605 | 273 | 308 | 606 | 503 | 697 |
| 18 | 594 | 804 | 585 | 279 | 134 | 371 | 504 | 97 | 296 | 608 | 501 | 702 |
| 19 | 590 | 806 | 474 | 82 | 237 | 322 | 531 | 95 | 296 | 523 | 505 | 705 |
| 20 | 335 | 804 | 480 | 82 | 346 | 499 | 99 | 429 | 303 | 399 | 502 | 699 |
| 21 | 191 | 802 | 343 | 335 | 383 | 521 | 730 | 581 | 279 | 347 | 500 | 691 |
| 22 | 505 | 814 | 82 | 501 | 348 | 534 | 838 | 580 | 92 | 487 | 498 | 687 |
| 23 | 588 | 813 | 84 | 498 | 283 | 531 | 841 | 338 | 91 | 599 | 500 | 81 |
| 24 | 583 | 785 | 86 | 490 | 282 | 503 | 841 | 499 | 342 | 576 | 500 | 1.8 |
| 25 | 583 | 788 | 87 | 327 | 408 | 460 | 577 | 97 | 386 | 604 | 504 | 1.9 |
| 26 | 482 | 787 | 320 | 82 | 482 | 497 | 848 | 97 | 378 | 615 | 631 | 1.8 |
| 27 | 195 | 669 | 426 | 82 | 514 | 494 | 851 | 407 | 405 | 504 | 801 | 1.2 |
| 28 | 196 | 635 | 271 | 436 | 531 | 496 | 845 | 404 | 615 | 505 | 800 | .74 |
| 29 | 493 | 773 | 77 | 593 | --- | 491 | 722 | 319 | 608 | 613 | 803 | .80 |
| 30 | 603 | 780 | 78 | 588 | --- | 491 | 592 | 287 | 613 | 647 | 664 | .95 |
| 31 | 726 | --- | 80 | 462 | --- | 491 | --- | 309 | --- | 507 | 211 | --- |
| TOTAL | 10683 | 21842 | 16940 | 9485 | 9458 | 12635 | 18699 | 12288 | 8444 | 17490 | 16503 | 12400.19 |
| MEAN | 345 | 728 | 546 | 306 | 338 | 408 | 623 | 396 | 281 | 564 | 532 | 413 |
| MAX | 726 | 823 | 813 | 593 | 576 | 534 | 851 | 847 | 615 | 647 | 803 | 705 |
| MIN | 0 | 201 | 77 | 72 | 127 | 140 | 99 | 86 | 91 | 347 | 211 | .74 |
| AC-FT | 21190 | 43320 | 33600 | 18810 | 18760 | 25060 | 37090 | 24370 | 16750 | 34690 | 32730 | 24600 |
| CAL YR 1984 | TOTAL | 264975.00 | MEAN | 724 | MAX | 841 | MIN | 0 | AC-FT | 525600 | | |
| WTR YR 1985 | TOTAL | 166867.19 | MEAN | 457 | MAX | 851 | MIN | 0 | AC-FT | 331000 | | |

11414200 SOUTH YUBA CANAL NEAR EMIGRANT GAP, CA

LOCATION (REVISED).--Lat 39°18'49", long 120°39'43", in SE 1/4 NE 1/4 sec.30, T.17 N., R.12 E., Nevada County, Hydrologic Unit 18020125, on left bank of concrete flume 400 ft downstream from Bowman Lake Road and 2.5 mi northeast of Emigrant Gap.

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

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 4,590 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Canal diverts from Spaulding No. 2 powerplant at Lake Spaulding Dam. Downstream from the gage some flow is diverted to Boardman Canal (station 11421720) via the Bear River. The remainder of the water enters Deer Creek at Deer Creek powerplant. See schematic diagrams of Yuba River and Bear River basins.

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

AVERAGE DISCHARGE.--21 years, 94.6 ft³/s, 68,540 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 165 ft³/s, Aug. 3, 1965; no flow Apr. 20-22, 1966 and Apr. 6-11, 1971.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|------|------|------|------|-------|------|-------|-------|------|------|
| 1 | 79 | 79 | 39 | 35 | 63 | 64 | 34 | 56 | 74 | 82 | 86 | 80 |
| 2 | 75 | 68 | 38 | 36 | 58 | 69 | 35 | 58 | 74 | 80 | 86 | 82 |
| 3 | 68 | 56 | 44 | 37 | 62 | 69 | 36 | 59 | 76 | 81 | 87 | 85 |
| 4 | 66 | 63 | 37 | 36 | 62 | 73 | 35 | 59 | 75 | 83 | 86 | 82 |
| 5 | 66 | 72 | 37 | 35 | 60 | 75 | 35 | 61 | 76 | 82 | 84 | 77 |
| 6 | 67 | 73 | 37 | 36 | 57 | 75 | 35 | 64 | 76 | 81 | 82 | 75 |
| 7 | 66 | 70 | 37 | 52 | 60 | 75 | 17 | 65 | 77 | 81 | 84 | 74 |
| 8 | 67 | 62 | 37 | 58 | 63 | 75 | 3.0 | 64 | 76 | 82 | 84 | 68 |
| 9 | 70 | 60 | 38 | 55 | 63 | 75 | 2.8 | 65 | 77 | 81 | 85 | 64 |
| 10 | 67 | 61 | 47 | 47 | 63 | 75 | 2.8 | 66 | 79 | 83 | 85 | 69 |
| 11 | 67 | 52 | 47 | 38 | 63 | 73 | 2.8 | 66 | 82 | 84 | 84 | 72 |
| 12 | 66 | 49 | 40 | 37 | 60 | 74 | 2.9 | 66 | 83 | 82 | 84 | 73 |
| 13 | 68 | 42 | 39 | 37 | 53 | 73 | 3.3 | 66 | 82 | 82 | 84 | 75 |
| 14 | 69 | 48 | 54 | 37 | 66 | 70 | 3.2 | 68 | 84 | 80 | 84 | 75 |
| 15 | 69 | 53 | 62 | 37 | 51 | 70 | 3.2 | 67 | 84 | 80 | 84 | 75 |
| 16 | 69 | 53 | 61 | 37 | 52 | 71 | 3.2 | 67 | 85 | 80 | 84 | 75 |
| 17 | 66 | 53 | 61 | 37 | 51 | 71 | 3.0 | 67 | 85 | 80 | 85 | 74 |
| 18 | 64 | 54 | 61 | 37 | 51 | 66 | 2.8 | 69 | 86 | 82 | 85 | 74 |
| 19 | 63 | 54 | 61 | 37 | 51 | 37 | 17 | 67 | 86 | 86 | 84 | 71 |
| 20 | 63 | 53 | 61 | 37 | 51 | 36 | 36 | 68 | 86 | 85 | 84 | 70 |
| 21 | 63 | 55 | 54 | 57 | 50 | 36 | 33 | 69 | 87 | 85 | 82 | 71 |
| 22 | 64 | 54 | 50 | 75 | 51 | 36 | 34 | 70 | 88 | 85 | 82 | 71 |
| 23 | 63 | 54 | 49 | 78 | 51 | 35 | 35 | 74 | 89 | 87 | 80 | 73 |
| 24 | 64 | 47 | 49 | 77 | 50 | 36 | 37 | 74 | 88 | 85 | 79 | 74 |
| 25 | 66 | 56 | 49 | 75 | 51 | 36 | 34 | 75 | 88 | 79 | 81 | 67 |
| 26 | 64 | 55 | 48 | 75 | 50 | 48 | 41 | 75 | 89 | 69 | 82 | 85 |
| 27 | 61 | 53 | 49 | 75 | 50 | 58 | 46 | 75 | 87 | 77 | 81 | 83 |
| 28 | 72 | 45 | 42 | 79 | 50 | 57 | 47 | 75 | 89 | 85 | 81 | 83 |
| 29 | 79 | 43 | 36 | 78 | --- | 57 | 53 | 76 | 89 | 88 | 82 | 84 |
| 30 | 78 | 41 | 35 | 75 | --- | 42 | 56 | 76 | 87 | 89 | 81 | 86 |
| 31 | 79 | --- | 35 | 76 | --- | 33 | --- | 75 | --- | 86 | 80 | --- |
| TOTAL | 2108 | 1678 | 1434 | 1618 | 1563 | 1840 | 729.0 | 2102 | 2484 | 2552 | 2582 | 2267 |
| MEAN | 68.0 | 55.9 | 46.3 | 52.2 | 55.8 | 59.4 | 24.3 | 67.8 | 82.8 | 82.3 | 83.3 | 75.6 |
| MAX | 79 | 79 | 62 | 79 | 66 | 75 | 56 | 76 | 89 | 89 | 87 | 86 |
| MIN | 61 | 41 | 35 | 35 | 50 | 33 | 2.8 | 56 | 74 | 69 | 79 | 64 |
| AC-FT | 4180 | 3330 | 2840 | 3210 | 3100 | 3650 | 1450 | 4170 | 4930 | 5060 | 5120 | 4500 |
| CAL YR 1984 | TOTAL | 38962.1 | MEAN | 106 | MAX | 158 | MIN | 4.1 | AC-FT | 77280 | | |
| WTR YR 1985 | TOTAL | 22957.0 | MEAN | 62.9 | MAX | 89 | MIN | 2.8 | AC-FT | 45540 | | |

SACRAMENTO RIVER BASIN

11414250 SOUTH YUBA RIVER AT LANGS CROSSING, NEAR EMIGRANT GAP, CA

LOCATION.--Lat 39°19'07", long 120°39'27", in SW 1/4 SW 1/4 sec.20, T.17 N., R.12 E., Nevada County, Hydrologic Unit 18020125, on right bank 50 ft downstream from road bridge, 0.8 mi downstream from Spaulding Nos. 1 and 2 powerplants, and 1.6 mi northeast of Emigrant Gap.

DRAINAGE AREA.--120 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 4,432.44 ft above National Geodetic Vertical Datum of 1929 (levels by Pacific Gas and Electric Co.).

REMARKS.--No estimated daily discharges. Flow regulated by Lake Spaulding (station 11414140) 0.8 mi upstream. See schematic diagram of Yuba River and Bear River basins.

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

AVERAGE DISCHARGE.--19 years (water years 1967-85), 101 ft³/s, 73,170 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,700 ft³/s, Jan. 13, 1980, gage height, 19.6 ft, from floodmarks; minimum daily, 2.1 ft³/s, on several days during July and September 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 154 ft³/s, Nov. 27, gage height, 3.78 ft; minimum daily, 5.0 ft³/s, Oct. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 6.1 | 5.7 | 12 | 5.7 | 5.5 | 7.4 | 19 | 5.7 | 5.7 | 5.4 | 6.0 | 6.4 |
| 2 | 5.9 | 17 | 11 | 5.7 | 5.6 | 7.6 | 25 | 5.6 | 6.1 | 5.3 | 6.0 | 6.7 |
| 3 | 5.5 | 12 | 10 | 5.7 | 5.6 | 6.9 | 24 | 5.5 | 6.0 | 5.5 | 5.9 | 6.1 |
| 4 | 5.2 | 8.3 | 9.5 | 5.7 | 5.6 | 6.9 | 24 | 5.4 | 5.8 | 5.9 | 6.0 | 6.0 |
| 5 | 6.0 | 7.2 | 8.8 | 5.8 | 5.6 | 6.8 | 22 | 5.3 | 5.7 | 6.0 | 5.8 | 6.0 |
| 6 | 5.8 | 9.0 | 8.4 | 5.9 | 5.6 | 7.0 | 18 | 5.3 | 5.6 | 6.0 | 5.8 | 6.0 |
| 7 | 5.4 | 9.1 | 8.1 | 7.2 | 5.9 | 7.0 | 15 | 5.3 | 5.6 | 5.8 | 5.8 | 6.2 |
| 8 | 5.7 | 12 | 7.7 | 7.0 | 13 | 7.0 | 13 | 5.5 | 5.7 | 6.0 | 5.8 | 8.0 |
| 9 | 5.3 | 11 | 7.4 | 7.0 | 16 | 7.0 | 12 | 5.7 | 8.8 | 6.0 | 5.7 | 7.0 |
| 10 | 5.6 | 11 | 9.5 | 6.6 | 16 | 7.0 | 11 | 5.7 | 9.0 | 5.9 | 5.7 | 6.3 |
| 11 | 8.6 | 32 | 11 | 6.4 | 16 | 7.1 | 9.8 | 5.7 | 6.1 | 6.2 | 5.8 | 6.2 |
| 12 | 6.9 | 14 | 10 | 6.2 | 10 | 8.2 | 9.1 | 5.4 | 8.2 | 6.0 | 5.7 | 6.2 |
| 13 | 6.0 | 31 | 8.8 | 6.0 | 7.2 | 10 | 8.6 | 5.7 | 8.1 | 5.8 | 5.7 | 6.0 |
| 14 | 5.3 | 21 | 8.1 | 5.9 | 7.6 | 9.8 | 8.3 | 6.0 | 6.0 | 6.0 | 5.7 | 6.2 |
| 15 | 5.6 | 12 | 8.0 | 5.9 | 14 | 10 | 7.8 | 5.6 | 7.2 | 6.0 | 5.5 | 6.3 |
| 16 | 7.5 | 11 | 7.9 | 5.8 | 19 | 10 | 6.3 | 5.5 | 9.8 | 5.9 | 5.2 | 6.2 |
| 17 | 7.8 | 9.7 | 7.5 | 5.6 | 20 | 11 | 7.1 | 5.4 | 6.1 | 5.5 | 5.4 | 9.9 |
| 18 | 6.4 | 11 | 7.1 | 5.6 | 22 | 12 | 6.9 | 5.3 | 6.0 | 5.5 | 5.4 | 14 |
| 19 | 5.7 | 9.3 | 7.0 | 5.6 | 22 | 12 | 6.9 | 5.8 | 7.6 | 5.4 | 5.4 | 8.7 |
| 20 | 6.3 | 8.3 | 7.0 | 5.6 | 22 | 11 | 6.6 | 6.2 | 8.7 | 5.3 | 5.4 | 6.5 |
| 21 | 5.7 | 8.3 | 6.7 | 5.5 | 17 | 11 | 7.0 | 5.8 | 13 | 5.1 | 5.6 | 6.5 |
| 22 | 5.8 | 8.0 | 6.5 | 5.4 | 18 | 9.6 | 7.6 | 5.6 | 7.9 | 5.1 | 5.8 | 6.4 |
| 23 | 5.8 | 7.5 | 6.5 | 5.3 | 18 | 9.1 | 7.0 | 5.7 | 5.5 | 7.6 | 6.2 | 6.4 |
| 24 | 5.7 | 30 | 6.5 | 5.4 | 19 | 11 | 6.5 | 5.6 | 5.6 | 12 | 8.7 | 6.5 |
| 25 | 5.6 | 17 | 6.6 | 5.6 | 15 | 11 | 6.2 | 7.6 | 5.6 | 11 | 6.2 | 5.9 |
| 26 | 5.9 | 12 | 6.4 | 5.6 | 7.5 | 9.5 | 6.0 | 5.7 | 5.6 | 6.0 | 6.3 | 6.4 |
| 27 | 6.0 | 39 | 6.6 | 5.4 | 7.2 | 9.5 | 5.9 | 5.7 | 5.4 | 5.9 | 5.8 | 7.0 |
| 28 | 5.0 | 50 | 6.3 | 5.5 | 7.0 | 9.1 | 5.9 | 5.7 | 5.7 | 7.9 | 5.7 | 6.8 |
| 29 | 5.7 | 20 | 6.2 | 5.6 | --- | 8.8 | 5.9 | 5.9 | 5.5 | 14 | 6.0 | 6.4 |
| 30 | 5.7 | 14 | 6.1 | 5.4 | --- | 9.4 | 5.8 | 5.8 | 5.5 | 8.7 | 6.2 | 6.5 |
| 31 | 5.8 | --- | 5.9 | 5.4 | --- | 12 | --- | 5.7 | --- | 6.1 | 6.1 | --- |
| TOTAL | 185.3 | 467.4 | 245.1 | 181.0 | 352.9 | 281.7 | 324.2 | 176.4 | 203.1 | 204.8 | 182.3 | 205.7 |
| MEAN | 5.98 | 15.6 | 7.91 | 5.84 | 12.6 | 9.09 | 10.8 | 5.69 | 6.77 | 6.61 | 5.88 | 6.86 |
| MAX | 8.6 | 50 | 12 | 7.2 | 22 | 12 | 25 | 7.6 | 13 | 14 | 8.7 | 14 |
| MIN | 5.0 | 5.7 | 5.9 | 5.3 | 5.5 | 6.8 | 5.8 | 5.3 | 5.4 | 5.1 | 5.2 | 5.9 |
| AC-FT | 368 | 927 | 486 | 359 | 700 | 559 | 643 | 350 | 403 | 406 | 362 | 408 |
| CAL YR 1984 | TOTAL | 28855.9 | MEAN | 78.8 | MAX | 1480 | MIN | 5.0 | AC-FT | 57240 | | |
| WTR YR 1985 | TOTAL | 3009.9 | MEAN | 8.25 | MAX | 50 | MIN | 5.0 | AC-FT | 5970 | | |

11415500 BOWMAN LAKE NEAR GRANITEVILLE, CA

LOCATION (REVISED).--Lat 39°27'01", long 120°39'09", in SE 1/4 SW 1/4 sec.5, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, on right bank near rockfill portion of Bowman Dam on Canyon Creek, 4.6 mi east of Graniteville, and 8 mi south of Sierra City.

DRAINAGE AREA.--27.1 mi².

PERIOD OF RECORD.--December 1926 to current year.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Nevada Irrigation District). Prior to Oct. 8, 1964, nonrecording gage at same site and datum.

REMARKS.--Lake is formed by one rockfill and one concrete-arch dam; storage began in November 1926. Total capacity, 68,700 acre-ft between elevations 5,400 ft, bottom of outlet tunnel and 5,563.6 ft, top of radial spillway gates and crest of concrete-arch dam. Flashboards are occasionally added, increasing elevation to 5,565.8 ft and capacity to 70,400 acre-ft, all of which is available for release. Lake receives water from Middle Yuba River via Milton-Bowman tunnel (station 11408000), and releases it through Bowman-Spaulding canal (station 11416000) which conveys it to reservoirs of Pacific Gas and Electric Co. Water is eventually used for irrigation by Nevada Irrigation District. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Yuba River basin.

COOPERATION.--Selected gage-height readings provided by Nevada Irrigation District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 71,000 acre-ft, May 30, 1965, elevation, 5,566.5 ft; Lake completely drained for inspection and repair Nov. 25 to Dec. 9, 1949, Oct. 1-20, 1966, Oct. 4-29, 1972, and Sept. 21-30, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 67,400 acre-ft, May, 24, 25, elevation, 5,562.0 ft; minimum, 26,400 acre-ft, Jan. 20, elevation, 5504.0 ft.

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

| | | | |
|---------|-------|-------|--------|
| 5,419.6 | 0 | 5,460 | 6,900 |
| 5,425 | 500 | 5,470 | 10,200 |
| 5,430 | 900 | 5,480 | 14,200 |
| 5,435 | 1,400 | 5,510 | 30,000 |
| 5,440 | 2,100 | 5,540 | 49,800 |
| 5,450 | 4,100 | 5,570 | 73,800 |

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 44300 | 51000 | 43400 | 28400 | 27200 | 34000 | 33400 | 49200 | 67100 | 66500 | 66300 | 66400 |
| 2 | 44500 | 51400 | 42900 | 28000 | 27200 | 34300 | 33600 | 50100 | 67200 | 66500 | 66300 | 66400 |
| 3 | 44600 | 51600 | 42400 | 27800 | 27200 | 34600 | 33800 | 51000 | 67200 | 66500 | 66300 | 66400 |
| 4 | 44600 | 51600 | 42000 | 27800 | 27300 | 34700 | 34200 | 51900 | 67200 | 66400 | 66400 | 66400 |
| 5 | 44600 | 51600 | 41500 | 27700 | 27400 | 34800 | 34700 | 52600 | 67200 | 66400 | 66800 | 66400 |
| 6 | 44600 | 51700 | 41000 | 27700 | 27500 | 34900 | 35200 | 53300 | 67200 | 66400 | 66800 | 66400 |
| 7 | 44600 | 51800 | 40500 | 27700 | 28000 | 35000 | 35600 | 54000 | 67200 | 66400 | 66800 | 66400 |
| 8 | 44600 | 51900 | 40000 | 27600 | 28400 | 35000 | 36100 | 54800 | 67200 | 66400 | 66800 | 66500 |
| 9 | 44600 | 51300 | 39500 | 27500 | 28500 | 34700 | 36700 | 55400 | 67100 | 66400 | 66800 | 66500 |
| 10 | 44600 | 50800 | 39100 | 27400 | 28600 | 34400 | 37500 | 56100 | 67100 | 66400 | 66800 | 66400 |
| 11 | 44700 | 50600 | 38600 | 27400 | 28800 | 34300 | 38200 | 56800 | 67100 | 66400 | 66800 | 66400 |
| 12 | 44800 | 50600 | 38100 | 27200 | 29000 | 34200 | 38900 | 57500 | 67000 | 66400 | 66800 | 66200 |
| 13 | 44800 | 50500 | 37600 | 27100 | 29300 | 34100 | 39700 | 58300 | 67000 | 66400 | 66800 | 65700 |
| 14 | 44800 | 50200 | 37000 | 27000 | 29600 | 34100 | 40700 | 59200 | 67000 | 66400 | 66800 | 65200 |
| 15 | 45000 | 49600 | 36700 | 26900 | 29900 | 34100 | 41700 | 60400 | 67100 | 66400 | 66800 | 64600 |
| 16 | 45400 | 49200 | 36300 | 26800 | 30200 | 34000 | 42400 | 61600 | 67100 | 66400 | 67000 | 64000 |
| 17 | 45600 | 48800 | 35800 | 26700 | 30400 | 34000 | 43100 | 62700 | 67100 | 66400 | 66800 | 63500 |
| 18 | 45900 | 48400 | 35300 | 26600 | 30700 | 34000 | 43600 | 63900 | 67200 | 66400 | 66800 | 62900 |
| 19 | 45900 | 48000 | 34900 | 26500 | 31000 | 34000 | 44200 | 64900 | 67100 | 66400 | 66700 | 62400 |
| 20 | 46000 | 47600 | 34400 | 26400 | 31300 | 34000 | 44600 | 66000 | 67100 | 66400 | 66700 | 61800 |
| 21 | 46000 | 47200 | 34000 | 26500 | 31600 | 34000 | 44800 | 66800 | 67100 | 66400 | 66700 | 61200 |
| 22 | 45900 | 46700 | 33400 | 26600 | 31900 | 34000 | 45100 | 67100 | 67000 | 66400 | 66700 | 60600 |
| 23 | 46300 | 46200 | 33000 | 26600 | 32100 | 34000 | 45500 | 67300 | 66900 | 66400 | 66700 | 60000 |
| 24 | 46900 | 46000 | 32600 | 26700 | 32500 | 34000 | 46000 | 67400 | 66900 | 66500 | 66700 | 59500 |
| 25 | 47500 | 45500 | 32000 | 26800 | 32800 | 34000 | 46300 | 67400 | 66800 | 66400 | 66600 | 58900 |
| 26 | 48100 | 45100 | 31500 | 26800 | 33100 | 33900 | 46600 | 67300 | 66700 | 66400 | 66500 | 58300 |
| 27 | 48700 | 44900 | 31000 | 26900 | 33400 | 33800 | 46900 | 67200 | 66600 | 66400 | 66400 | 57700 |
| 28 | 49200 | 44600 | 30500 | 26900 | 33700 | 33700 | 47500 | 67200 | 66600 | 66400 | 66400 | 57200 |
| 29 | 49800 | 44300 | 29900 | 27000 | --- | 33500 | 48000 | 67200 | 66600 | 66400 | 66400 | 56600 |
| 30 | 50300 | 43800 | 29400 | 27100 | --- | 33400 | 48600 | 67200 | 66500 | 66400 | 66400 | 56000 |
| 31 | 50600 | --- | 28900 | 27100 | --- | 33400 | --- | 67200 | --- | 66300 | 66400 | --- |
| MAX | 50600 | 51900 | 43400 | 28400 | 33700 | 35000 | 48600 | 67400 | 67200 | 66500 | 67000 | 66500 |
| MIN | 44300 | 43800 | 28900 | 26400 | 27200 | 33400 | 33400 | 49200 | 66500 | 66300 | 66300 | 56000 |
| a | 5541.0 | 5531.5 | 5508.1 | 5505.2 | 5516.2 | 5515.6 | 5538.3 | 5561.7 | 5560.9 | 5550.6 | 5560.8 | 5547.7 |
| b | +6400 | -6800 | -14900 | -1800 | +6600 | -300 | +15200 | +18600 | -700 | -200 | +100 | -10400 |

CAL YR 1984 b -36600

WTR YR 1985 b +11800

SACRAMENTO RIVER BASIN

11416000 BOWMAN-SPAULDING CANAL INTAKE NEAR GRANITEVILLE, CA

LOCATION (REVISED).--Lat 39°26'26", long 120°39'29", in NW 1/4 SW 1/4 sec.8, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, Tahoe National Forest, on left bank 0.6 mi downstream from Bowman Dam, 4.2 mi east of Graniteville, and 8.5 mi south of Sierra City.

PERIOD OF RECORD.--October 1927 to current year. Prior to October 1970, published as Bowman-Spaulding Canal at intake or Bowman-Spaulding Canal intake, near Sierra City.

REVISED RECORDS.--WSP 1395: 1935-36, 1940.

GAGE.--Water-stage recorder. Datum of gage is 5,390.39 ft above National Geodetic Vertical Datum of 1929. Prior to July 1965 at site 0.3 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 24-26, Aug. 4-17, Aug. 27 to Sept. 1. Records excellent except flow below 5 ft³/s which are poor. Canal diverts from left bank of Canyon Creek at diversion dam 500 ft downstream from Bowman Dam. Water is diverted to Lake Spaulding and after passing through several powerhouses is used for irrigation by Nevada Irrigation District. See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE.--58 years, 161 ft³/s, 116,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 339 ft³/s, July 24, 1973; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|--------|----------|-------|-------|------|------|-------|--------|-------|--------|---------|-------|
| 1 | 229 | 118 | 295 | 282 | 199 | 85 | 83 | 8.7 | 85 | 244 | 235 | 252 |
| 2 | 229 | 172 | 294 | 295 | 199 | 85 | 83 | 9.4 | 84 | 242 | 233 | 251 |
| 3 | 258 | 260 | 293 | 299 | 199 | 85 | 80 | 10 | 84 | 241 | 230 | 251 |
| 4 | 287 | 270 | 291 | 299 | 200 | 158 | 80 | 11 | 82 | 241 | 83 | 250 |
| 5 | 287 | 267 | 295 | 298 | 200 | 198 | 80 | 12 | 83 | 240 | .37 | 250 |
| 6 | 286 | 271 | 298 | 298 | 132 | 197 | 80 | 12 | 83 | 239 | .37 | 250 |
| 7 | 286 | 270 | 297 | 265 | 78 | 197 | 80 | 13 | 83 | 238 | .37 | 250 |
| 8 | 286 | 278 | 295 | 298 | 127 | 196 | 80 | 14 | 83 | 238 | .37 | 258 |
| 9 | 286 | 285 | 293 | 298 | 179 | 196 | 38 | 15 | 81 | 238 | .37 | 263 |
| 10 | 286 | 304 | 292 | 298 | 179 | 195 | 6.3 | 15 | 76 | 238 | .37 | 258 |
| 11 | 289 | 283 | 291 | 298 | 130 | 138 | 6.1 | 16 | 72 | 240 | .37 | 254 |
| 12 | 294 | 269 | 289 | 297 | 99 | 74 | 6.2 | 16 | 91 | 242 | .37 | 254 |
| 13 | 300 | 287 | 263 | 296 | 83 | 78 | 6.9 | 17 | 106 | 241 | .37 | 260 |
| 14 | 300 | 283 | 304 | 296 | 80 | 81 | 7.7 | 18 | 106 | 241 | .20 | 277 |
| 15 | 166 | 281 | 298 | 296 | 86 | 75 | 8.0 | 18 | 106 | 239 | 0 | 277 |
| 16 | 136 | 291 | 297 | 295 | 87 | 77 | 7.8 | 17 | 106 | 239 | 117 | 279 |
| 17 | 170 | 296 | 295 | 295 | 86 | 81 | 7.9 | 18 | 105 | 238 | 255 | 278 |
| 18 | 178 | 294 | 293 | 295 | 87 | 81 | 8.1 | 19 | 102 | 237 | 250 | 277 |
| 19 | 303 | 290 | 292 | 294 | 87 | 81 | 9.5 | 20 | 115 | 238 | 247 | 278 |
| 20 | 303 | 294 | 296 | 294 | 88 | 81 | 8.5 | 21 | 114 | 239 | 245 | 286 |
| 21 | 302 | 297 | 304 | 184 | 82 | 81 | 93 | 43 | 129 | 241 | 238 | 284 |
| 22 | 302 | 294 | 302 | 208 | 75 | 81 | 23 | 64 | 143 | 242 | 255 | 284 |
| 23 | 82 | 292 | 299 | 210 | 75 | 81 | 9.0 | 101 | 141 | 242 | 254 | 284 |
| 24 | 2.0 | 293 | 297 | 210 | 75 | 119 | 8.9 | 109 | 138 | 242 | 251 | 283 |
| 25 | 2.0 | 291 | 295 | 204 | 76 | 126 | 8.6 | 143 | 135 | 243 | 248 | 286 |
| 26 | 2.0 | 296 | 293 | 198 | 76 | 154 | 7.6 | 163 | 182 | 242 | 255 | 293 |
| 27 | 7.3 | 305 | 291 | 199 | 76 | 198 | 6.7 | 161 | 185 | 242 | 257 | 292 |
| 28 | 5.3 | 303 | 289 | 199 | 80 | 176 | 7.2 | 118 | 213 | 241 | 255 | 290 |
| 29 | 8.1 | 298 | 288 | 199 | --- | 150 | 7.7 | 89 | 224 | 240 | 254 | 290 |
| 30 | 74 | 297 | 286 | 199 | --- | 123 | 8.1 | 87 | 236 | 238 | 255 | 289 |
| 31 | 118 | --- | 284 | 199 | --- | 84 | --- | 86 | --- | 236 | 255 | --- |
| TOTAL | 6063.7 | 8329 | 9089 | 8095 | 3220 | 3812 | 946.8 | 1464.1 | 3573 | 7442 | 4675.53 | 8128 |
| MEAN | 196 | 278 | 293 | 261 | 115 | 123 | 31.6 | 47.2 | 119 | 240 | 151 | 271 |
| MAX | 303 | 305 | 304 | 299 | 200 | 198 | 93 | 163 | 236 | 244 | 257 | 293 |
| MIN | 2.0 | 118 | 263 | 184 | 75 | 74 | 6.1 | 8.7 | 72 | 236 | 0 | 250 |
| AC-FT | 12030 | 16520 | 18030 | 16060 | 6390 | 7560 | 1880 | 2900 | 7090 | 14760 | 9270 | 16120 |
| CAL YR 1984 | TOTAL | 87703.90 | MEAN | 240 | MAX | 332 | MIN | .10 | AC-FT | 174000 | | |
| WTR YR 1985 | TOTAL | 64838.13 | MEAN | 178 | MAX | 305 | MIN | 0 | AC-FT | 128600 | | |

11416100 BOWMAN-SPAULDING CANAL AT JORDAN CREEK SIPHON VENTURI, NEAR EMIGRANT GAP, CA

LOCATION.--Lat 39°20'32", long 120°38'26", in SW 1/4 NW 1/4 sec. 16, T.17 N., R.12 E., Nevada County, Hydrologic Unit 18020125, at outlet of Jordan Creek siphon 0.6 mi downstream from Fuller Lake and 3.5 mi northeast of Emigrant Gap.

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

GAGE.--Water-stage recorder and Venturi section. Elevation of gage is 5,340 ft (revised) above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records show water diverted from Bowman Lake (station 11415500) plus numerous small tributaries before it enters Lake Spaulding (station 11414140). See schematic diagram of Yuba River Basin.

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

AVERAGE DISCHARGE.--21 years, 229 ft³/s, 165,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 335 ft³/s, Dec. 25, 1983; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|-----------|----------|---------|-------|--------------|------|------|------|-------|------|-------|
| 1 | 240 | 165 | 312 | 292 | 219 | 113 | 132 | 115 | 124 | 241 | 240 | 266 |
| 2 | 239 | 192 | 309 | 293 | 220 | 116 | 138 | 154 | 124 | 246 | 237 | 263 |
| 3 | 240 | 311 | 307 | 297 | 219 | 117 | 154 | 158 | 126 | 246 | 235 | 265 |
| 4 | 269 | 312 | 304 | 298 | 219 | 135 | 165 | 150 | 122 | 245 | 133 | 263 |
| 5 | 279 | 312 | 302 | 299 | 219 | 211 | 189 | 131 | 121 | 243 | 0 | 263 |
| 6 | 280 | 314 | 303 | 299 | 201 | 230 | 205 | 140 | 119 | 243 | 0 | 263 |
| 7 | 281 | 306 | 303 | 269 | 121 | 234 | 208 | 138 | 117 | 242 | 0 | 257 |
| 8 | 280 | 297 | 303 | 307 | 93 | 230 | 214 | 131 | 115 | 241 | 0 | 275 |
| 9 | 279 | 294 | 302 | 302 | 119 | 228 | 207 | 124 | 113 | 240 | 0 | 300 |
| 10 | 282 | 293 | 304 | 300 | 188 | 228 | 179 | 116 | 109 | 240 | 0 | 297 |
| 11 | 290 | 312 | 304 | 299 | 185 | 216 | 162 | 108 | 102 | 241 | 0 | 282 |
| 12 | 288 | 310 | 303 | 297 | 126 | 125 | 160 | 109 | 99 | 242 | 0 | 275 |
| 13 | 290 | 316 | 288 | 298 | 120 | 111 | 171 | 105 | 119 | 243 | 0 | 269 |
| 14 | 286 | 313 | 285 | 298 | 102 | 110 | 198 | 104 | 124 | 243 | 0 | 284 |
| 15 | 210 | 307 | 300 | 298 | 106 | 106 | 207 | 104 | 126 | 241 | 0 | 291 |
| 16 | 121 | 303 | 307 | 298 | 110 | 114 | 212 | 104 | 126 | 241 | 63 | 293 |
| 17 | 205 | 305 | 306 | 299 | 113 | 112 | 189 | 104 | 125 | 243 | 231 | 294 |
| 18 | 178 | 306 | 304 | 300 | 114 | 116 | 161 | 103 | 122 | 244 | 258 | 296 |
| 19 | 249 | 303 | 303 | 301 | 116 | 121 | 162 | 99 | 125 | 244 | 258 | 294 |
| 20 | 288 | 301 | 301 | 301 | 119 | 119 | 134 | 96 | 128 | 245 | 253 | 294 |
| 21 | 293 | 302 | 302 | 227 | 117 | 120 | 171 | 95 | 130 | 246 | 242 | 296 |
| 22 | 292 | 301 | 303 | 251 | 108 | 123 | 179 | 117 | 129 | 247 | 246 | 295 |
| 23 | 186 | 300 | 303 | 237 | 105 | 123 | 134 | 136 | 149 | 248 | 252 | 294 |
| 24 | 91 | 305 | 302 | 234 | 104 | 129 | 137 | 173 | 149 | 248 | 255 | 293 |
| 25 | 88 | 305 | 301 | 232 | 105 | 187 | 129 | 173 | 147 | 247 | 263 | 290 |
| 26 | 90 | 301 | 299 | 226 | 106 | 155 | 120 | 210 | 156 | 247 | 284 | 290 |
| 27 | 91 | 306 | 298 | 222 | 108 | 224 | 118 | 213 | 181 | 248 | 289 | 293 |
| 28 | 88 | 324 | 297 | 223 | 109 | 233 | 128 | 203 | 209 | 248 | 279 | 296 |
| 29 | 86 | 319 | 296 | 222 | --- | 205 | 134 | 138 | 223 | 246 | 266 | 294 |
| 30 | 83 | 315 | 295 | 218 | --- | 190 | 114 | 134 | 230 | 244 | 267 | 293 |
| 31 | 117 | --- | 293 | 218 | --- | 135 | --- | 128 | --- | 243 | 267 | --- |
| TOTAL | 6579 | 8950 | 9339 | 8455 | 3891 | 4916 | 4911 | 4113 | 4089 | 7566 | 4818 | 8518 |
| MEAN | 212 | 298 | 301 | 273 | 139 | 159 | 164 | 133 | 136 | 244 | 155 | 284 |
| MAX | 293 | 324 | 312 | 307 | 220 | 234 | 214 | 213 | 230 | 248 | 289 | 300 |
| MIN | 83 | 165 | 285 | 218 | 93 | 106 | 114 | 95 | 99 | 240 | 0 | 257 |
| AC-FT | 13050 | 17750 | 18520 | 16770 | 7720 | 9750 | 9740 | 8160 | 8110 | 15010 | 9560 | 16900 |
| CAL YR 1984 | TOTAL | 103450.10 | MEAN 283 | MAX 324 | MIN 0 | AC-FT 205200 | | | | | | |
| WTR YR 1985 | TOTAL | 76145.00 | MEAN 209 | MAX 324 | MIN 0 | AC-FT 151000 | | | | | | |

SACRAMENTO RIVER BASIN

11416500 CANYON CREEK BELOW BOWMAN LAKE, CA

LOCATION (REVISED).--Lat 39°26'23", long 120°39'37", in NE 1/4 SE 1/4 sec.7, T.18 N., R.12 E., Nevada County, Hydrologic Unit 18020125, on left bank 1 mi downstream from Bowman Dam, 3.5 mi upstream from Texas Creek, and 8.8 mi south of Sierra City.

DRAINAGE AREA.--28.3 mi².

PERIOD OF RECORD.--January 1927 to current year.

REVISED RECORDS.--WSP 1315-A: 1930(M). WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 5,300 ft (revised) above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Jan. 16-20, Feb. 7-9, Mar. 26-28, May 1 to June 6. Records good except period of no gage height record, May 1 to June 6, which is fair. Flow regulated by French Lake, usable capacity, 13,840 acre-ft, Bowman Lake (station 11415500), several smaller reservoirs, and diversion into Bowman-Spaulding Canal (station 11416000). See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE.--58 years, 35.6 ft³/s, 25,790 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,740 ft³/s, Jan. 22, 1970, gage height, 9.42 ft in gage well, 10.32 ft from floodmarks, from rating curve extended above 1,500 ft³/s on basis of slope-area measurement of peak flow; no flow at times in some years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 37 ft³/s, Nov. 11, gage height, 3.84 ft, maximum gage height, 3.95 ft, Feb. 8, backwater from ice; minimum daily, 3.4 ft³/s, Feb. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 6.7 | 6.9 | 5.0 | 4.2 | 3.8 | 4.5 | 5.5 | 4.4 | 3.8 | 4.3 | 4.5 | 4.9 |
| 2 | 6.6 | 13 | 4.8 | 4.3 | 3.7 | 4.4 | 6.8 | 4.4 | 3.8 | 4.2 | 4.5 | 5.0 |
| 3 | 6.7 | 9.8 | 4.6 | 4.4 | 3.7 | 4.0 | 6.8 | 4.4 | 3.7 | 4.3 | 4.3 | 5.0 |
| 4 | 6.9 | 7.9 | 4.6 | 4.4 | 3.8 | 4.0 | 8.2 | 4.4 | 3.7 | 4.2 | 9.0 | 4.9 |
| 5 | 6.9 | 7.5 | 4.6 | 4.4 | 3.9 | 3.9 | 8.4 | 4.4 | 3.7 | 4.2 | 11 | 5.0 |
| 6 | 6.9 | 9.3 | 4.6 | 4.6 | 3.7 | 4.4 | 7.2 | 4.4 | 3.7 | 4.1 | 9.8 | 5.0 |
| 7 | 6.9 | 9.5 | 4.7 | 4.4 | 3.7 | 4.2 | 6.5 | 4.4 | 3.7 | 4.1 | 11 | 5.0 |
| 8 | 6.9 | 9.4 | 4.7 | 4.5 | 3.7 | 4.0 | 6.2 | 4.3 | 3.7 | 4.1 | 11 | 6.6 |
| 9 | 6.9 | 8.6 | 4.7 | 4.5 | 3.7 | 4.0 | 6.2 | 4.3 | 3.7 | 4.1 | 9.6 | 6.8 |
| 10 | 6.9 | 9.1 | 5.3 | 4.4 | 3.7 | 4.1 | 5.6 | 4.3 | 3.6 | 4.2 | 9.6 | 5.9 |
| 11 | 8.1 | 20 | 5.5 | 4.3 | 3.7 | 4.0 | 5.0 | 4.3 | 3.7 | 4.2 | 9.4 | 5.4 |
| 12 | 7.1 | 11 | 5.2 | 4.2 | 3.5 | 3.9 | 4.9 | 4.2 | 3.7 | 4.3 | 9.3 | 5.2 |
| 13 | 7.2 | 13 | 4.7 | 4.2 | 3.4 | 3.9 | 5.2 | 4.2 | 3.7 | 4.3 | 9.2 | 5.9 |
| 14 | 7.1 | 11 | 4.7 | 4.2 | 3.5 | 4.1 | 5.4 | 4.2 | 3.7 | 4.2 | 9.2 | 17 |
| 15 | 6.5 | 9.4 | 4.7 | 4.2 | 3.6 | 4.0 | 5.0 | 4.1 | 3.7 | 4.2 | 9.1 | 17 |
| 16 | 6.4 | 9.9 | 4.5 | 4.2 | 3.7 | 4.1 | 4.3 | 4.1 | 3.8 | 4.2 | 7.0 | 17 |
| 17 | 6.7 | 9.7 | 4.2 | 4.2 | 3.8 | 4.2 | 4.1 | 4.1 | 3.8 | 4.3 | 4.8 | 17 |
| 18 | 6.6 | 9.8 | 4.2 | 4.2 | 4.0 | 4.9 | 3.8 | 4.0 | 3.7 | 4.3 | 4.9 | 17 |
| 19 | 7.8 | 5.8 | 4.0 | 4.2 | 4.3 | 4.9 | 5.0 | 4.0 | 3.8 | 4.3 | 4.8 | 16 |
| 20 | 8.2 | 5.4 | 4.1 | 4.2 | 4.3 | 4.9 | 4.1 | 4.0 | 3.8 | 4.4 | 4.8 | 10 |
| 21 | 7.7 | 5.4 | 4.2 | 4.2 | 4.2 | 4.7 | 4.7 | 4.0 | 3.8 | 4.6 | 4.7 | 10 |
| 22 | 7.6 | 5.2 | 4.2 | 4.1 | 4.3 | 4.3 | 6.1 | 3.9 | 3.9 | 4.5 | 4.4 | 9.9 |
| 23 | 6.8 | 5.1 | 4.2 | 4.0 | 4.5 | 4.4 | 4.4 | 3.9 | 4.0 | 4.5 | 4.4 | 9.9 |
| 24 | 6.4 | 7.1 | 4.3 | 4.0 | 4.5 | 4.9 | 4.0 | 8.0 | 4.0 | 4.5 | 4.5 | 10 |
| 25 | 6.3 | 5.7 | 4.2 | 3.9 | 4.5 | 4.4 | 3.6 | 4.5 | 3.9 | 4.5 | 4.5 | 8.3 |
| 26 | 7.1 | 5.2 | 4.2 | 3.9 | 4.5 | 4.2 | 3.5 | 4.0 | 4.1 | 4.6 | 4.4 | 4.1 |
| 27 | 8.3 | 11 | 4.3 | 3.9 | 4.6 | 4.0 | 4.3 | 3.9 | 4.1 | 4.5 | 4.7 | 4.0 |
| 28 | 9.3 | 9.7 | 4.3 | 3.9 | 4.5 | 3.9 | 4.4 | 3.9 | 4.5 | 4.5 | 4.8 | 4.0 |
| 29 | 10 | 5.8 | 4.4 | 3.9 | --- | 3.8 | 4.4 | 3.8 | 4.3 | 4.5 | 5.0 | 4.0 |
| 30 | 8.4 | 5.2 | 4.2 | 3.9 | --- | 3.7 | 4.3 | 3.8 | 4.2 | 4.5 | 5.0 | 3.9 |
| 31 | 6.9 | --- | 4.2 | 3.9 | --- | 4.2 | --- | 3.8 | --- | 4.5 | 5.0 | --- |
| TOTAL | 224.8 | 261.4 | 140.1 | 129.8 | 110.8 | 130.9 | 157.9 | 132.4 | 115.3 | 134.2 | 208.2 | 249.7 |
| MEAN | 7.25 | 8.71 | 4.52 | 4.19 | 3.96 | 4.22 | 5.26 | 4.27 | 3.84 | 4.33 | 6.72 | 8.32 |
| MAX | 10 | 20 | 5.5 | 4.6 | 4.6 | 4.9 | 8.4 | 8.0 | 4.5 | 4.6 | 11 | 17 |
| MIN | 6.3 | 5.1 | 4.0 | 3.9 | 3.4 | 3.7 | 3.5 | 3.8 | 3.6 | 4.1 | 4.3 | 3.9 |
| AC-FT | 446 | 518 | 278 | 257 | 220 | 260 | 313 | 263 | 229 | 266 | 413 | 495 |
| WATER YEAR 1984 | TOTAL | 7276.8 | MEAN | 19.9 | MAX | 435 | MIN | 3.7 | AC-FT | 14430 | | |
| WATER YEAR 1985 | TOTAL | 1995.5 | MEAN | 5.47 | MAX | 20 | MIN | 3.4 | AC-FT | 3960 | | |

11417500 SOUTH YUBA RIVER AT JONES BAR, NEAR GRASS VALLEY, CA

LOCATION.--Lat 39°17'32", long 121°06'13", in NW 1/4 SE 1/4 sec.32, T.17 N., R.8 E., Nevada County, Hydrologic Unit 18020125, on left bank at Jones Bar, 100 ft upstream from Rush Creek, 0.9 mi downstream from bridge on State Highway 49, and 5 mi northwest of Grass Valley.

DRAINAGE AREA.--308 mi².

PERIOD OF RECORD.--October 1940 to September 1948, April 1959 to current year. Published as South Fork Yuba River at Jones Bar 1940-48, and as South Yuba River at Jones Bar 1959-63.

REVISED RECORDS.--WSP 1315-A: 1942-43 (M), drainage area at former site. WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 1,060 ft above National Geodetic Vertical Datum of 1929, from river-profile map. Oct. 1, 1940, to Sept. 30, 1948, at site 150 ft upstream at datum 2.00 ft higher.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by Lake Spaulding, Fordyce Lake, Bowman Lake (stations 11414040, 11414090, 11415500), and many smaller reservoirs. Diversions into and out of basin for several powerhouses and for irrigation of about 20,000 acres by the Nevada Irrigation District. See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE.--34 years, 470 ft³/s, 340,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 53,600 ft³/s, Dec. 22, 1964, gage height, 25.0 ft, from floodmarks, from rating curve extended above 23,000 ft³/s on basis of slope-area measurement of peak flow; minimum, 1.0 ft³/s, Sept. 10-13, 1944.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a stage of 30.7 ft, from floodmarks, present datum, at site 100 ft upstream.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,100 ft³/s, Feb. 8, gage height, 10.36 ft; minimum daily, 38 ft³/s, Aug. 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|------|-------|-------|-------|------|-------|--------|------|------|
| 1 | 85 | 80 | 339 | 137 | 111 | 183 | 548 | 240 | 101 | 54 | 45 | 46 |
| 2 | 75 | 94 | 287 | 134 | 114 | 192 | 675 | 243 | 103 | 54 | 45 | 43 |
| 3 | 66 | 298 | 271 | 132 | 110 | 176 | 697 | 240 | 114 | 54 | 45 | 48 |
| 4 | 64 | 146 | 241 | 132 | 107 | 173 | 633 | 227 | 104 | 53 | 45 | 72 |
| 5 | 64 | 111 | 222 | 132 | 106 | 177 | 620 | 216 | 97 | 53 | 50 | 47 |
| 6 | 64 | 120 | 203 | 134 | 105 | 201 | 584 | 209 | 94 | 52 | 55 | 46 |
| 7 | 64 | 191 | 189 | 190 | 174 | 236 | 534 | 203 | 91 | 52 | 52 | 46 |
| 8 | 64 | 290 | 179 | 213 | 2350 | 209 | 489 | 194 | 87 | 52 | 49 | 62 |
| 9 | 64 | 236 | 172 | 179 | 780 | 223 | 462 | 185 | 84 | 51 | 49 | 107 |
| 10 | 65 | 164 | 236 | 166 | 396 | 365 | 450 | 179 | 80 | 50 | 49 | 94 |
| 11 | 131 | 421 | 271 | 156 | 312 | 355 | 415 | 175 | 77 | 50 | 48 | 68 |
| 12 | 100 | 353 | 246 | 148 | 269 | 304 | 385 | 163 | 74 | 50 | 48 | 59 |
| 13 | 77 | 708 | 221 | 142 | 252 | 318 | 378 | 159 | 72 | 50 | 47 | 56 |
| 14 | 75 | 548 | 197 | 139 | 242 | 309 | 396 | 157 | 70 | 49 | 47 | 54 |
| 15 | 105 | 287 | 192 | 136 | 239 | 302 | 400 | 155 | 69 | 48 | 47 | 58 |
| 16 | 88 | 229 | 213 | 132 | 238 | 296 | 383 | 147 | 68 | 47 | 47 | 62 |
| 17 | 144 | 221 | 187 | 132 | 233 | 294 | 353 | 144 | 67 | 46 | 46 | 63 |
| 18 | 98 | 234 | 176 | 132 | 225 | 303 | 329 | 142 | 65 | 45 | 45 | 64 |
| 19 | 85 | 232 | 171 | 132 | 223 | 321 | 324 | 137 | 64 | 45 | 43 | 69 |
| 20 | 87 | 201 | 169 | 130 | 226 | 297 | 313 | 133 | 62 | 45 | 43 | 65 |
| 21 | 97 | 258 | 162 | 129 | 217 | 301 | 297 | 128 | 62 | 45 | 42 | 60 |
| 22 | 86 | 203 | 158 | 127 | 202 | 276 | 346 | 124 | 63 | 48 | 41 | 56 |
| 23 | 81 | 175 | 156 | 122 | 200 | 257 | 318 | 120 | 61 | 49 | 40 | 55 |
| 24 | 85 | 628 | 156 | 119 | 199 | 288 | 283 | 117 | 59 | 48 | 40 | 54 |
| 25 | 79 | 506 | 156 | 116 | 195 | 334 | 266 | 113 | 57 | 45 | 40 | 54 |
| 26 | 74 | 307 | 156 | 124 | 193 | 413 | 250 | 108 | 56 | 44 | 39 | 54 |
| 27 | 104 | 585 | 154 | 121 | 192 | 649 | 238 | 107 | 55 | 43 | 38 | 49 |
| 28 | 103 | 1540 | 151 | 122 | 186 | 595 | 247 | 106 | 55 | 46 | 38 | 47 |
| 29 | 96 | 649 | 148 | 123 | --- | 427 | 246 | 106 | 55 | 44 | 39 | 47 |
| 30 | 102 | 425 | 145 | 116 | --- | 371 | 238 | 106 | 54 | 43 | 40 | 46 |
| 31 | 88 | --- | 140 | 112 | --- | 438 | --- | 101 | --- | 43 | 46 | --- |
| TOTAL | 2660 | 10440 | 6064 | 4259 | 8396 | 9583 | 12097 | 4884 | 2220 | 1498 | 1388 | 1751 |
| MEAN | 85.8 | 348 | 196 | 137 | 300 | 309 | 403 | 158 | 74.0 | 48.3 | 44.8 | 58.4 |
| MAX | 144 | 1540 | 339 | 213 | 2350 | 649 | 697 | 243 | 114 | 54 | 55 | 107 |
| MIN | 64 | 80 | 140 | 112 | 105 | 173 | 238 | 101 | 54 | 43 | 38 | 43 |
| AC-FT | 5280 | 20710 | 12030 | 8450 | 16650 | 19010 | 23990 | 9690 | 4400 | 2970 | 2750 | 3470 |
| CAL YR 1984 | TOTAL | 119459 | MEAN | 326 | MAX | 2350 | MIN | 55 | AC-FT | 236900 | | |
| WTR YR 1985 | TOTAL | 65240 | MEAN | 179 | MAX | 2350 | MIN | 38 | AC-FT | 129400 | | |

SACRAMENTO RIVER BASIN

11418000 YUBA RIVER BELOW ENGLEBRIGHT DAM, NEAR SMARTVILLE, CA

LOCATION.--Lat 39°14'07", long 121°16'23", in NW 1/4 NW 1/4 sec.23, T.16 N., R.6 E., Yuba County, Hydrologic Unit 18020125, on right bank 2,000 ft downstream from Englebright Dam, 0.5 mi upstream from Deer Creek, and 2.3 mi northeast of Smartville.

DRAINAGE AREA.--1,108 mi².

PERIOD OF RECORD.--October 1941 to current year. Prior to October 1953, published as "at Narrows Dam." October 1953 to Sept. 30, 1969, published as "at Englebright Dam." If records for Deer Creek near Smartville (station 11418500) since 1941 are added to records at this station, records equivalent to those published from 1903 to 1941 as Yuba River at Smartville (station 11419000) can be obtained.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 278.68 ft, above National Geodetic Vertical Datum of 1929 (levels by International Engineering Co.). Prior to Sept. 19, 1958, at site 2,000 ft upstream at datum 248.31 ft higher and Sept. 19, 1958, to Sept. 30, 1969, at datum 278.68 ft lower. Supplementary gage 2,000 ft upstream since Oct. 1, 1969, at Englebright Dam at datum 248.31 ft higher.

REMARKS.--No estimated daily discharges. Records good. Diversions out of basin for power and irrigation above station up to 1,800 ft³/s, see stations 11413250, 11414190, 11414200. Flow regulation by Lake Spaulding (station 11414140), Jackson Meadows and New Bullards Bar Reservoirs (stations 11407800, 11413515), Englebright Reservoir beginning in 1941, capacity, 70,000 acre-ft, Bowman and Fordyce Lakes (stations 11415500, 11414090), and many smaller reservoirs. See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE.--44 years, 2,561 ft³/s, 1,855,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 171,000 ft³/s, Dec. 22, 1964, gage height, 546.14 ft site and datum then in use, no flow through powerplant, from rating curve extended above 25,000 ft³/s on basis of computation of peak flow over spillway of dam at gage heights 544.72 ft and 546.14 ft; no flow at times in 1942, 1949, 1956, 1958-61, 1968-69.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,730 ft³/s, Feb. 8, gage height, 10.39 ft; minimum daily, 397 ft³/s, Sept. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|--------|-------|-------|-------|-------|-------|-------|---------|-------|-------|
| 1 | 2320 | 1060 | 1840 | 1780 | 558 | 563 | 1470 | 980 | 983 | 1330 | 977 | 666 |
| 2 | 1130 | 1060 | 1830 | 1780 | 558 | 563 | 1470 | 980 | 985 | 1720 | 973 | 666 |
| 3 | 702 | 1060 | 2030 | 1770 | 558 | 563 | 1440 | 982 | 977 | 1690 | 978 | 653 |
| 4 | 704 | 1060 | 2260 | 1780 | 558 | 563 | 1440 | 975 | 980 | 1060 | 986 | 630 |
| 5 | 1100 | 1060 | 2260 | 1770 | 561 | 563 | 1190 | 961 | 980 | 1060 | 982 | 643 |
| 6 | 1840 | 1060 | 2280 | 1760 | 565 | 563 | 1060 | 975 | 980 | 1080 | 980 | 645 |
| 7 | 1570 | 1060 | 2290 | 1760 | 567 | 563 | 1060 | 977 | 976 | 1060 | 986 | 645 |
| 8 | 1830 | 1310 | 2330 | 1750 | 2890 | 563 | 1060 | 980 | 968 | 1330 | 981 | 645 |
| 9 | 1840 | 1450 | 2160 | 1750 | 2690 | 563 | 908 | 976 | 967 | 1490 | 985 | 645 |
| 10 | 1840 | 1450 | 2180 | 1750 | 1880 | 563 | 686 | 973 | 1200 | 1480 | 978 | 651 |
| 11 | 1840 | 1460 | 2330 | 1700 | 1610 | 563 | 686 | 981 | 1440 | 1460 | 994 | 655 |
| 12 | 2030 | 1450 | 2340 | 1700 | 947 | 563 | 708 | 1000 | 1450 | 1260 | 996 | 501 |
| 13 | 2240 | 1450 | 2340 | 1700 | 575 | 558 | 692 | 987 | 1470 | 1070 | 957 | 397 |
| 14 | 2250 | 1450 | 2350 | 1720 | 572 | 558 | 692 | 977 | 1460 | 1060 | 971 | 419 |
| 15 | 1870 | 1700 | 2370 | 1720 | 572 | 558 | 692 | 983 | 1450 | 1340 | 995 | 425 |
| 16 | 1080 | 1850 | 2390 | 1080 | 572 | 558 | 691 | 986 | 1450 | 1470 | 845 | 433 |
| 17 | 1080 | 1850 | 2390 | 1060 | 572 | 567 | 686 | 980 | 1450 | 1460 | 667 | 433 |
| 18 | 1080 | 1850 | 2410 | 992 | 572 | 572 | 686 | 982 | 1230 | 1460 | 666 | 433 |
| 19 | 1030 | 1830 | 2440 | 906 | 569 | 571 | 686 | 975 | 1020 | 1230 | 662 | 433 |
| 20 | 1050 | 1840 | 2400 | 906 | 567 | 564 | 686 | 971 | 1060 | 1080 | 663 | 433 |
| 21 | 1080 | 1860 | 2240 | 774 | 567 | 563 | 686 | 1020 | 1020 | 1080 | 668 | 433 |
| 22 | 1080 | 1850 | 2060 | 563 | 566 | 563 | 686 | 1020 | 1020 | 1340 | 671 | 433 |
| 23 | 1060 | 1830 | 1910 | 563 | 563 | 563 | 686 | 964 | 1040 | 1480 | 671 | 433 |
| 24 | 1060 | 1840 | 1830 | 563 | 563 | 563 | 825 | 987 | 1060 | 1470 | 673 | 433 |
| 25 | 1060 | 1840 | 1800 | 563 | 563 | 563 | 972 | 993 | 1080 | 1450 | 676 | 433 |
| 26 | 1060 | 1840 | 1820 | 563 | 563 | 561 | 980 | 975 | 1050 | 1250 | 676 | 437 |
| 27 | 1070 | 1880 | 1820 | 560 | 563 | 558 | 980 | 978 | 1320 | 1060 | 681 | 441 |
| 28 | 1060 | 1860 | 1820 | 554 | 563 | 1340 | 980 | 973 | 1380 | 1070 | 676 | 441 |
| 29 | 1060 | 1840 | 1820 | 558 | --- | 1800 | 980 | 971 | 1060 | 1070 | 666 | 441 |
| 30 | 1060 | 1850 | 1810 | 546 | --- | 1800 | 980 | 976 | 1060 | 1040 | 666 | 446 |
| 31 | 1060 | --- | 1810 | 558 | --- | 1470 | --- | 980 | --- | 968 | 666 | --- |
| TOTAL | 42136 | 46850 | 65960 | 37499 | 23024 | 21606 | 27444 | 30418 | 34566 | 39468 | 25612 | 15422 |
| MEAN | 1359 | 1562 | 2128 | 1210 | 822 | 697 | 915 | 981 | 1152 | 1273 | 826 | 514 |
| MAX | 2320 | 1880 | 2440 | 1780 | 2890 | 1800 | 1470 | 1020 | 1470 | 1720 | 996 | 666 |
| MIN | 702 | 1060 | 1800 | 546 | 558 | 558 | 686 | 961 | 967 | 968 | 662 | 397 |
| AC-FT | 83580 | 92930 | 130800 | 74380 | 45670 | 42860 | 54440 | 60330 | 68560 | 78280 | 50800 | 30590 |
| CAL YR 1984 | TOTAL | 963166 | MEAN | 2632 | MAX | 17300 | MIN | 702 | AC-FT | 1910400 | | |
| WTR YR 1985 | TOTAL | 410005 | MEAN | 1123 | MAX | 2890 | MIN | 397 | AC-FT | 813200 | | |

11418500 DEER CREEK NEAR SMARTVILLE, CA

LOCATION.--Lat 39°13'28", long 121°16'03", in SW 1/4 SE 1/4 sec.23, T.16 N., R.6 E., Nevada County, Hydrologic Unit 18020125, on left bank 400 ft upstream from county road bridge, 0.9 mi upstream from mouth, and 2 mi northeast of Smartville.

DRAINAGE AREA.--84.6 mi².

PERIOD OF RECORD.--June 1935 to current year.

REVISED RECORDS.--WSP 1395: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 630 ft above National Geodetic Vertical Datum of 1929, from river-profile map. June 21, 1935, to Nov. 30, 1938, nonrecording gage at same site and datum.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream is affected by Scotts Flat Reservoir beginning in 1949, usable capacity, 26,300 acre-ft, increased to 49,000 acre-ft in July 1964, Deer Creek Reservoir, capacity, 1,400 acre-ft, Lake Wildwood, capacity, 3,840 acre-ft beginning in 1970, power developments, and diversion for irrigation. At times water from South Yuba River is diverted to Deer Creek and water from Deer Creek is diverted to Bear River. See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE.--50 years, 132 ft³/s, 95,630 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,600 ft³/s, Oct. 13, 1962, gage height, 13.77 ft, from rating curve extended above 5,200 ft³/s; minimum daily, 0.06 ft³/s, Aug. 5, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of March 1928 reached a stage of 14.5 ft from floodmarks, discharge, 14,000 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 6,360 ft³/s, Feb. 8, gage height, 10.60 ft; minimum daily, 1.6 ft³/s, June 25, 27

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|-------|-------|--------|-------|--------|-------|-------|-------|-------|-------|
| 1 | 6.2 | 381 | 22 | 9.0 | 8.5 | 21 | 93 | 7.3 | 4.6 | 2.1 | 2.2 | 4.0 |
| 2 | 6.2 | 213 | 19 | 8.8 | 11 | 30 | 123 | 11 | 5.7 | 1.7 | 2.3 | 3.2 |
| 3 | 5.1 | 13 | 141 | 8.0 | 18 | 21 | 140 | 10 | 7.3 | 1.8 | 2.2 | 2.5 |
| 4 | 5.0 | 8.3 | 23 | 7.6 | 21 | 24 | 148 | 9.2 | 6.2 | 2.1 | 2.5 | 1.9 |
| 5 | 4.9 | 7.0 | 87 | 8.2 | 19 | 31 | 156 | 8.8 | 4.9 | 2.5 | 2.5 | 1.9 |
| 6 | 5.1 | 210 | 14 | 7.9 | 19 | 132 | 160 | 9.2 | 5.1 | 2.3 | 1.9 | 1.9 |
| 7 | 4.9 | 154 | 12 | 21 | 166 | 461 | 155 | 12 | 3.9 | 2.1 | 2.0 | 2.1 |
| 8 | 4.6 | 149 | 11 | 23 | 3080 | 183 | 149 | 9.0 | 4.6 | 2.0 | 1.9 | 13 |
| 9 | 4.5 | 47 | 10 | 15 | 377 | 144 | 135 | 8.7 | 4.6 | 1.7 | 2.1 | 28 |
| 10 | 4.8 | 16 | 59 | 14 | 152 | 406 | 126 | 9.3 | 3.5 | 1.7 | 2.0 | 25 |
| 11 | 56 | 48 | 34 | 12 | 104 | 324 | 123 | 9.2 | 2.3 | 2.3 | 2.3 | 11 |
| 12 | 16 | 22 | 20 | 12 | 84 | 170 | 118 | 10 | 2.5 | 2.4 | 2.2 | 6.8 |
| 13 | 7.6 | 272 | 16 | 11 | 69 | 176 | 82 | 9.1 | 2.5 | 2.8 | 2.2 | 5.6 |
| 14 | 8.4 | 38 | 13 | 10 | 59 | 155 | 62 | 8.5 | 2.3 | 2.9 | 2.2 | 5.4 |
| 15 | 6.5 | 94 | 32 | 10 | 53 | 137 | 50 | 8.1 | 2.8 | 2.6 | 2.4 | 5.2 |
| 16 | 18 | 18 | 91 | 9.7 | 47 | 139 | 37 | 5.8 | 3.4 | 2.2 | 2.5 | 3.3 |
| 17 | 75 | 16 | 56 | 9.3 | 44 | 136 | 32 | 5.7 | 3.1 | 2.1 | 2.8 | 3.7 |
| 18 | 24 | 34 | 34 | 9.5 | 40 | 138 | 31 | 7.3 | 2.7 | 2.5 | 3.5 | 4.3 |
| 19 | 15 | 128 | 25 | 13 | 37 | 132 | 21 | 7.9 | 3.0 | 2.4 | 3.5 | 4.8 |
| 20 | 13 | 23 | 24 | 11 | 36 | 98 | 17 | 5.9 | 2.1 | 2.3 | 2.7 | 4.8 |
| 21 | 10 | 139 | 20 | 12 | 32 | 55 | 21 | 5.8 | 2.1 | 2.5 | 2.9 | 5.0 |
| 22 | 7.3 | 24 | 17 | 11 | 30 | 39 | 23 | 6.7 | 2.5 | 2.6 | 3.1 | 4.8 |
| 23 | 6.9 | 111 | 15 | 12 | 29 | 36 | 18 | 4.7 | 2.6 | 2.2 | 2.7 | 3.6 |
| 24 | 6.0 | 464 | 14 | 11 | 28 | 58 | 15 | 4.6 | 2.2 | 2.0 | 3.0 | 3.6 |
| 25 | 5.3 | 347 | 12 | 10 | 28 | 62 | 12 | 5.9 | 1.6 | 2.0 | 3.0 | 4.0 |
| 26 | 7.1 | 35 | 12 | 12 | 27 | 264 | 12 | 6.0 | 1.7 | 2.0 | 2.3 | 4.1 |
| 27 | 7.0 | 207 | 11 | 9.6 | 28 | 626 | 13 | 6.2 | 1.6 | 2.4 | 2.1 | 4.2 |
| 28 | 7.8 | 423 | 11 | 10 | 23 | 444 | 11 | 5.6 | 1.7 | 2.7 | 2.1 | 7.5 |
| 29 | 8.9 | 305 | 10 | 10 | --- | 229 | 9.8 | 7.5 | 1.7 | 2.3 | 2.3 | 8.3 |
| 30 | 230 | 113 | 9.9 | 8.9 | --- | 196 | 8.4 | 5.9 | 1.9 | 1.7 | 2.8 | 8.3 |
| 31 | 394 | --- | 9.3 | 8.3 | --- | 170 | --- | 6.1 | --- | 2.1 | 3.3 | --- |
| TOTAL | 981.1 | 4059.3 | 884.2 | 344.8 | 4669.5 | 5237 | 2101.2 | 237.0 | 96.7 | 69.0 | 77.5 | 191.8 |
| MEAN | 31.6 | 135 | 28.5 | 11.1 | 167 | 169 | 70.0 | 7.65 | 3.22 | 2.23 | 2.50 | 6.39 |
| MAX | 394 | 464 | 141 | 23 | 3080 | 626 | 160 | 12 | 7.3 | 2.9 | 3.5 | 28 |
| MIN | 4.5 | 7.0 | 9.3 | 7.6 | 8.0 | 21 | 8.4 | 4.6 | 1.6 | 1.7 | 1.9 | 1.9 |
| AC-FT | 1950 | 8050 | 1750 | 684 | 9260 | 10390 | 4170 | 470 | 192 | 137 | 154 | 380 |
| a | 30588 | 35152 | 37888 | 40217 | 44630 | 48040 | 47866 | 45649 | 41906 | 36626 | 31060 | 28243 |
| CAL YR 1984 | TOTAL | 33331.5 | MEAN | 91.1 | MAX | 1000 | MIN | 2.0 | AC-FT | 66110 | | |
| WTR YR 1985 | TOTAL | 18949.1 | MEAN | 51.9 | MAX | 3080 | MIN | 1.6 | AC-FT | 37590 | | |

a Contents, in acre-feet, at end of month for Scotts Flat Reservoir, provided by Nevada Irrigation District.

SACRAMENTO RIVER BASIN

11421000 YUBA RIVER NEAR MARYSVILLE, CA

LOCATION.--39°10'33", long 121°31'26", in New Helvetia Grant, Yuba County, Hydrologic Unit 18020107, on left bank 4.2 mi northeast of Marysville, and 5 mi downstream from Dry Creek.

DRAINAGE AREA.--1,339 mi².

PERIOD OF RECORD.--October 1940 to September 1943 (low-water periods only), October 1943 to current year. Published as "at Marysville" October 1940 to September 1957. Records published for two sites August 1954 to September 1955. Yearly discharge for the 1945 water year published in WSP 1315-A.

REVISED RECORDS.--WSP 1715: 1956(M). WSP 1931: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 2.95 ft below National Geodetic Vertical Datum of 1929. Prior to August 1954 and Oct. 1, 1956, to Sept. 30, 1957, at Simpson Lane Bridge in Marysville 4.2 mi downstream at same datum. Sept. 3, 1963, to Sept. 23, 1968, auxiliary water-stage recorder at Simpson Lane Bridge at same datum.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by several reservoirs above station. Many diversions above station for power. Diversions for irrigation of about 13,000 acres between stations below Englebright Dam and near Marysville. See schematic diagram of Yuba River basin.

AVERAGE DISCHARGE.--42 years (water years 1944-85), 2,600 ft³/s, 1,884,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge (water years 1944, 1947-85), 180,000 ft³/s, Dec. 22, 1964, gage height, 90.15 ft, from floodmarks, from rating curve extended above 91,000 ft³/s on basis of Corps of Engineers flood routing study; minimum recorded, 10 ft³/s, July 2, 1959.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 10,200 ft³/s, Feb. 8, gage height, 66.39 ft; minimum daily, 212 ft³/s, Aug. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|--------|-------|-------|-------|-------|-------|-------|---------|-------|-------|
| 1 | 2360 | 1200 | 1850 | 1710 | 631 | 667 | 1670 | 464 | 566 | 700 | 485 | 378 |
| 2 | 1670 | 1160 | 1820 | 1710 | 640 | 734 | 1640 | 460 | 574 | 1110 | 471 | 417 |
| 3 | 779 | 977 | 2040 | 1710 | 640 | 681 | 1650 | 485 | 560 | 1320 | 470 | 413 |
| 4 | 737 | 920 | 2260 | 1710 | 640 | 658 | 1640 | 482 | 544 | 672 | 477 | 382 |
| 5 | 759 | 899 | 2310 | 1700 | 641 | 651 | 1520 | 461 | 537 | 533 | 494 | 378 |
| 6 | 1700 | 965 | 2270 | 1690 | 645 | 690 | 1270 | 481 | 536 | 554 | 508 | 385 |
| 7 | 1510 | 1090 | 2280 | 1710 | 709 | 1280 | 1240 | 491 | 539 | 541 | 513 | 392 |
| 8 | 1700 | 1190 | 2290 | 1740 | 6340 | 979 | 1230 | 474 | 516 | 673 | 531 | 429 |
| 9 | 1690 | 1320 | 2220 | 1700 | 4370 | 838 | 1130 | 473 | 496 | 929 | 541 | 458 |
| 10 | 1680 | 1270 | 2210 | 1690 | 2440 | 979 | 783 | 476 | 577 | 923 | 504 | 494 |
| 11 | 1810 | 1340 | 2410 | 1640 | 2140 | 1340 | 726 | 481 | 929 | 912 | 555 | 507 |
| 12 | 1810 | 1340 | 2380 | 1630 | 1550 | 926 | 703 | 536 | 942 | 838 | 553 | 484 |
| 13 | 2040 | 1610 | 2340 | 1680 | 868 | 872 | 621 | 566 | 949 | 553 | 524 | 262 |
| 14 | 2030 | 1400 | 2340 | 1870 | 811 | 852 | 562 | 544 | 927 | 553 | 529 | 263 |
| 15 | 1900 | 1550 | 2410 | 1880 | 782 | 813 | 550 | 574 | 929 | 698 | 554 | 273 |
| 16 | 957 | 1780 | 2630 | 1420 | 769 | 802 | 529 | 619 | 936 | 944 | 494 | 287 |
| 17 | 977 | 1770 | 2530 | 1200 | 756 | 788 | 519 | 617 | 936 | 956 | 237 | 294 |
| 18 | 921 | 1810 | 2480 | 1170 | 740 | 775 | 487 | 616 | 838 | 958 | 215 | 291 |
| 19 | 864 | 1870 | 2490 | 1040 | 720 | 762 | 427 | 617 | 525 | 838 | 221 | 290 |
| 20 | 856 | 1790 | 2470 | 1030 | 711 | 732 | 394 | 627 | 533 | 569 | 212 | 289 |
| 21 | 895 | 1950 | 2300 | 993 | 706 | 680 | 377 | 712 | 515 | 575 | 251 | 286 |
| 22 | 901 | 1830 | 2100 | 691 | 703 | 648 | 345 | 681 | 517 | 714 | 282 | 285 |
| 23 | 877 | 1830 | 1930 | 662 | 678 | 627 | 291 | 643 | 529 | 964 | 286 | 284 |
| 24 | 873 | 2410 | 1820 | 659 | 674 | 620 | 279 | 636 | 559 | 987 | 230 | 279 |
| 25 | 853 | 2340 | 1760 | 650 | 672 | 631 | 439 | 620 | 574 | 960 | 245 | 275 |
| 26 | 843 | 1870 | 1760 | 650 | 672 | 633 | 472 | 588 | 544 | 879 | 267 | 281 |
| 27 | 859 | 1960 | 1780 | 649 | 668 | 1330 | 460 | 584 | 678 | 580 | 264 | 285 |
| 28 | 859 | 2420 | 1760 | 636 | 667 | 1670 | 453 | 583 | 932 | 577 | 270 | 285 |
| 29 | 855 | 2220 | 1760 | 638 | --- | 2140 | 460 | 592 | 602 | 581 | 288 | 285 |
| 30 | 941 | 1960 | 1750 | 630 | --- | 2130 | 466 | 583 | 560 | 575 | 338 | 281 |
| 31 | 1180 | --- | 1740 | 631 | --- | 1820 | --- | 569 | --- | 480 | 337 | --- |
| TOTAL | 38686 | 48041 | 66490 | 39119 | 32983 | 29748 | 23333 | 17335 | 19899 | 23646 | 12146 | 10192 |
| MEAN | 1248 | 1601 | 2145 | 1262 | 1178 | 960 | 778 | 559 | 663 | 763 | 392 | 340 |
| MAX | 2360 | 2420 | 2630 | 1880 | 6340 | 2140 | 1670 | 712 | 949 | 1320 | 555 | 507 |
| MIN | 737 | 899 | 1740 | 630 | 631 | 620 | 279 | 460 | 496 | 480 | 212 | 262 |
| AC-FT | 76730 | 95290 | 131900 | 77590 | 65420 | 59010 | 46280 | 34380 | 39470 | 46900 | 24090 | 20220 |
| CAL YR 1984 | TOTAL | 981953 | MEAN | 2683 | MAX | 21600 | MIN | 737 | AC-FT | 1948000 | | |
| WTR YR 1985 | TOTAL | 361618 | MEAN | 991 | MAX | 6340 | MIN | 212 | AC-FT | 717300 | | |

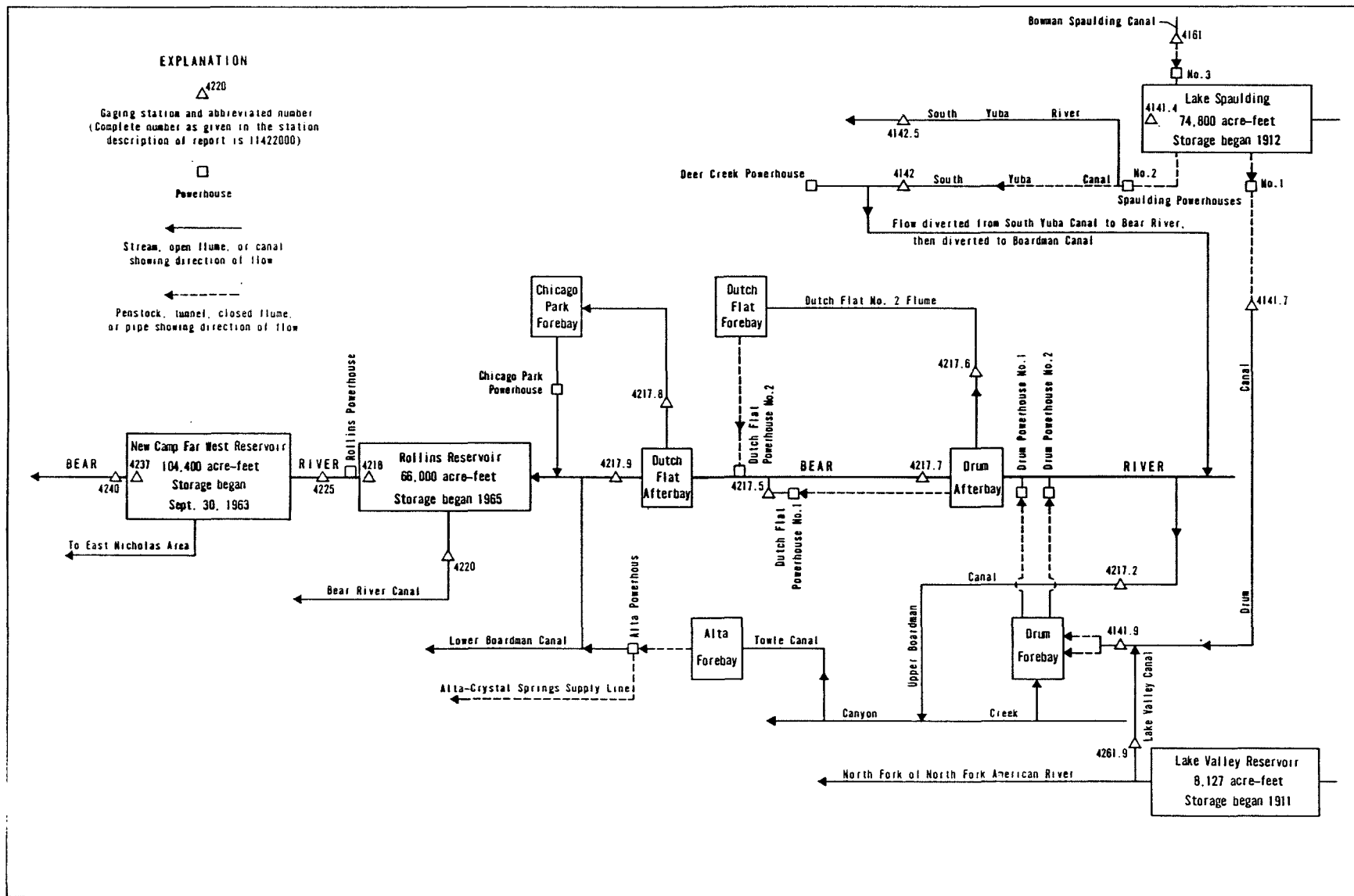


FIGURE 29. — Schematic diagram showing diversions and storage in Bear River basin.

SACRAMENTO RIVER BASIN

11421720 BOARDMAN CANAL NEAR EMIGRANT GAP, CA

LOCATION.--Lat 39°17'49", long 120°42'08", in SE 1/4 NE 1/4 sec.35, T.17 N., R.11 E., Placer County, Hydrologic Unit 18020126, on right bank 0.4 mi downstream from Boardman diversion dam and 1.7 mi west of Emigrant Gap.

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

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 4,490 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to June 14, 1967, water-stage recorder 0.2 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Water is diverted from Bear River to be used for power development and irrigation in the Bear River basin. See schematic diagram of Bear River basin.

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

AVERAGE DISCHARGE.--21 years, 19.3 ft³/s, 13,980 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 43 ft³/s, Dec. 21, 1964; no flow for several days in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|-------|-------|-------|-------|-------|------|-------|--------|------|------|
| 1 | 18 | 31 | 11 | 9.3 | 10 | 6.4 | 15 | 11 | 18 | 25 | 24 | 25 |
| 2 | 15 | 27 | 8.9 | 9.3 | 12 | 15 | 10 | 11 | 19 | 25 | 24 | 26 |
| 3 | 14 | 15 | 7.7 | 9.8 | 15 | 12 | 8.3 | 11 | 19 | 26 | 24 | 27 |
| 4 | 14 | 21 | 4.9 | 9.8 | 15 | 15 | 5.6 | 11 | 19 | 27 | 24 | 26 |
| 5 | 14 | 21 | 4.9 | 9.2 | 14 | 19 | 5.6 | 12 | 19 | 27 | 24 | 23 |
| 6 | 14 | 24 | 4.6 | 9.4 | 14 | 19 | 5.5 | 15 | 20 | 27 | 25 | 20 |
| 7 | 14 | 24 | 4.5 | 15 | 15 | 19 | 5.4 | 16 | 20 | 26 | 25 | 18 |
| 8 | 15 | 22 | 4.5 | 15 | 16 | 19 | 5.4 | 16 | 20 | 27 | 25 | 16 |
| 9 | 17 | 15 | 4.4 | 10 | 15 | 17 | 5.4 | 16 | 19 | 27 | 26 | 12 |
| 10 | 11 | 15 | 7.9 | 9.7 | 16 | 18 | 5.3 | 16 | 21 | 27 | 26 | 17 |
| 11 | 19 | 24 | 10 | 9.0 | 17 | 16 | 5.3 | 16 | 22 | 27 | 26 | 19 |
| 12 | 13 | 19 | 10 | 8.2 | 15 | 13 | 5.2 | 15 | 22 | 27 | 26 | 20 |
| 13 | 14 | 22 | 9.9 | 7.9 | 9.2 | 12 | 5.2 | 16 | 22 | 26 | 26 | 20 |
| 14 | 16 | 18 | 12 | 8.1 | 11 | 13 | 5.2 | 16 | 22 | 25 | 27 | 20 |
| 15 | 16 | 15 | 14 | 8.7 | 11 | 16 | 5.2 | 17 | 22 | 24 | 27 | 19 |
| 16 | 18 | 16 | 13 | 9.1 | 11 | 16 | 5.2 | 18 | 23 | 24 | 27 | 19 |
| 17 | 17 | 14 | 13 | 9.3 | 11 | 16 | 5.2 | 17 | 23 | 24 | 27 | 20 |
| 18 | 13 | 17 | 13 | 9.2 | 12 | 18 | 5.2 | 17 | 24 | 24 | 27 | 18 |
| 19 | 14 | 14 | 12 | 8.4 | 11 | 19 | 5.2 | 17 | 24 | 24 | 27 | 14 |
| 20 | 14 | 14 | 11 | 8.2 | 9.9 | 19 | 5.2 | 17 | 24 | 24 | 27 | 14 |
| 21 | 12 | 17 | 11 | 9.5 | 9.8 | 15 | 5.2 | 18 | 25 | 24 | 25 | 15 |
| 22 | 12 | 12 | 10 | 11 | 10 | 10 | 5.2 | 20 | 26 | 24 | 24 | 15 |
| 23 | 12 | 12 | 9.8 | 12 | 10 | 10 | 4.4 | 19 | 26 | 24 | 24 | 16 |
| 24 | 12 | 13 | 9.5 | 11 | 7.7 | 10 | 3.6 | 20 | 27 | 24 | 24 | 18 |
| 25 | 12 | 11 | 9.3 | 9.6 | 5.1 | 10 | 5.6 | 19 | 27 | 18 | 24 | 17 |
| 26 | 13 | 10 | 9.3 | 9.1 | 5.0 | 12 | 6.6 | 19 | 27 | .08 | 24 | 19 |
| 27 | 13 | 11 | 9.5 | 9.0 | 5.0 | 15 | 6.6 | 19 | 27 | 14 | 25 | 18 |
| 28 | 20 | 11 | 9.5 | 13 | 4.8 | 15 | 7.2 | 19 | 28 | 25 | 25 | 18 |
| 29 | 30 | 11 | 9.1 | 14 | --- | 15 | 7.9 | 19 | 27 | 26 | 25 | 18 |
| 30 | 31 | 11 | 8.5 | 11 | --- | 15 | 10 | 19 | 26 | 25 | 25 | 18 |
| 31 | 32 | --- | 8.9 | 11 | --- | 18 | --- | 19 | --- | 24 | 23 | --- |
| TOTAL | 506 | 507 | 285.6 | 312.8 | 317.5 | 462.4 | 185.9 | 511 | 688 | 741.08 | 782 | 565 |
| MEAN | 16.3 | 16.9 | 9.21 | 10.1 | 11.3 | 14.9 | 6.20 | 16.5 | 22.9 | 23.9 | 25.2 | 18.8 |
| MAX | 32 | 31 | 14 | 15 | 17 | 19 | 15 | 20 | 28 | 27 | 27 | 27 |
| MIN | 12 | 10 | 4.4 | 7.9 | 4.8 | 6.4 | 3.6 | 11 | 18 | .08 | 23 | 12 |
| AC-FT | 1000 | 1010 | 566 | 620 | 630 | 917 | 369 | 1010 | 1360 | 1470 | 1550 | 1120 |
| CAL YR 1984 | TOTAL | 3928.60 | MEAN | 10.7 | MAX | 39 | MIN | 0 | AC-FT | 7790 | | |
| WTR YR 1985 | TOTAL | 5864.28 | MEAN | 16.1 | MAX | 32 | MIN | .08 | AC-FT | 11630 | | |

11421750 DUTCH FLAT NO. 1 POWERPLANT NEAR DUTCH FLAT, CA

LOCATION.--Lat 39°13'02", long 120°50'04", in SE 1/4 SE 1/4 sec.27, T.16 N., R.10 E., Placer County, Hydrologic Unit 18020126, in powerplant on left bank of Dutch Flat Afterbay and 0.8 mi north of Dutch Flat.

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

GAGE.--Discharge computed from powerplant output. Elevation of gage is 2,740 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Water is diverted from Drum Afterbay through Dutch Flat tunnel and discharges into Dutch Flat Afterbay. See schematic diagram of Bear River basin.

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

AVERAGE DISCHARGE.--21 years, 245 ft³/s, 177,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 571 ft³/s, Apr. 13, May 9, 1982, Nov. 17, 1983; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|----------|----------|---------|-------|-------|--------|--------|------|-------|------|------|
| 1 | 0 | 212 | 197 | 55 | 197 | | 0 | 228 | 87 | 303 | 150 | 119 |
| 2 | 0 | 142 | 220 | 134 | 87 | | 0 | 205 | 103 | 228 | 126 | 166 |
| 3 | 0 | 111 | 197 | 166 | 0 | | 0 | 95 | 36 | 150 | 103 | 126 |
| 4 | 0 | 134 | 270 | 103 | 158 | | 0 | 126 | 111 | 158 | 103 | 173 |
| 5 | 0 | 286 | 205 | 63 | 119 | | 63 | 142 | 103 | 189 | 103 | 134 |
| 6 | 0 | 236 | 220 | 119 | 119 | | 197 | 150 | 95 | 142 | 119 | 111 |
| 7 | 0 | 286 | 261 | 0 | 0 | | 228 | 87 | 87 | 189 | 111 | 119 |
| 8 | 0 | 236 | 278 | 173 | 0 | | 418 | 87 | 55 | 212 | 111 | 166 |
| 9 | 158 | 278 | 286 | 278 | 197 | | 543 | 87 | 63 | 212 | 103 | 119 |
| 10 | 197 | 228 | 236 | 228 | 166 | | 398 | 150 | 36 | 189 | 103 | 166 |
| 11 | 111 | 295 | 278 | 189 | 0 | | 529 | 9.9 | 79 | 181 | 126 | 158 |
| 12 | 119 | 181 | 278 | 0 | 0 | | 368 | 71 | 79 | 181 | 142 | 158 |
| 13 | 142 | 253 | 286 | 95 | 0 | | 245 | 95 | 36 | 95 | 126 | 173 |
| 14 | 189 | 220 | 220 | 197 | 0 | | 236 | 126 | 126 | 126 | 166 | 212 |
| 15 | 205 | 205 | 261 | 173 | 0 | | 189 | 158 | 0 | 166 | 111 | 220 |
| 16 | 245 | 236 | 189 | 278 | 0 | | 270 | 228 | 71 | 158 | 119 | 228 |
| 17 | 126 | 261 | 181 | 173 | 0 | | 55 | 228 | 71 | 197 | 103 | 253 |
| 18 | 212 | 189 | 119 | 236 | 0 | | 0 | 9.9 | 111 | 166 | 173 | 228 |
| 19 | 181 | 150 | 119 | 36 | 0 | | 9.9 | 87 | 103 | 205 | 173 | 173 |
| 20 | 166 | 228 | 126 | 63 | 0 | | 55 | 79 | 87 | 236 | 134 | 212 |
| 21 | 103 | 270 | 0 | 142 | 0 | | 173 | 134 | 126 | 261 | 119 | 197 |
| 22 | 119 | 212 | 0 | 126 | 0 | | 270 | 166 | 63 | 166 | 119 | 253 |
| 23 | 173 | 220 | 0 | 103 | 0 | | 245 | 71 | 87 | 134 | 134 | 36 |
| 24 | 142 | 253 | 71 | 126 | 0 | | 220 | 79 | 158 | 189 | 103 | 0 |
| 25 | 134 | 303 | 0 | 189 | 0 | | 134 | 126 | 158 | 173 | 126 | 0 |
| 26 | 119 | 205 | 79 | 63 | 0 | | 228 | 87 | 189 | 278 | 173 | 0 |
| 27 | 142 | 181 | 228 | 71 | 0 | | 220 | 166 | 189 | 166 | 142 | 0 |
| 28 | 103 | 270 | 197 | 197 | 0 | | 220 | 55 | 205 | 166 | 270 | 0 |
| 29 | 189 | 220 | 95 | 189 | --- | | 126 | 87 | 418 | 212 | 212 | 0 |
| 30 | 134 | 261 | 79 | 150 | --- | | 134 | 95 | 236 | 181 | 158 | 0 |
| 31 | 228 | --- | 71 | 55 | --- | | --- | 181 | --- | 126 | 111 | --- |
| TOTAL | 3637 | 6762 | 5247 | 4170 | 1043 | 0 | 5773.9 | 3695.8 | 3368 | 5735 | 4172 | 3900 |
| MEAN | 117 | 225 | 169 | 135 | 37.3 | 0 | 192 | 119 | 112 | 185 | 135 | 130 |
| MAX | 245 | 303 | 286 | 278 | 197 | 0 | 543 | 228 | 418 | 303 | 270 | 253 |
| MIN | 0 | 111 | 0 | 0 | 0 | 0 | 0 | 9.9 | 0 | 95 | 103 | 0 |
| AC-FT | 7210 | 13410 | 10410 | 8270 | 2070 | 0 | 11450 | 7330 | 6680 | 11380 | 8280 | 7740 |
| CAL YR 1984 | TOTAL | 95315.00 | MEAN 260 | MAX 543 | MIN 0 | AC-FT | 189100 | | | | | |
| WTR YR 1985 | TOTAL | 47503.70 | MEAN 130 | MAX 543 | MIN 0 | AC-FT | 94220 | | | | | |

SACRAMENTO RIVER BASIN

11421760 DUTCH FLAT NO. 2 FLUME NEAR BLUE CANYON, CA

LOCATION.--Lat 39°15'16", long 120°46'28", in SE 1/4 NE 1/4 sec.18, T.16 N., R.11 E., Placer County, Hydrologic Unit 18020126, on left bank 600 ft downstream from Drum Afterbay, and 3.6 mi west of Blue Canyon.

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

GAGE.--Water-stage recorder. Datum of gage is 3,348.09 ft above National Geodetic Vertical Datum of 1929 (levels by Nevada Irrigation District).

REMARKS.--Estimated daily discharges: Sept. 26-30. Records good except flows below 3 ft³/s, which are poor. Water is diverted from Drum Afterbay through the flume to Dutch Flat No. 2 powerplant and then to Dutch Flat Afterbay. See schematic diagram of Bear River basin.

AVERAGE DISCHARGE.--19 years, 359 ft³/s, 260,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 626 ft³/s, Sept. 29, 1983; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|--------|----------|-------|--------|-------|-------|---------|--------|-------|--------|-------|--------|
| 1 | 2.2 | 323 | 586 | 5.6 | 38 | 534 | 594 | 473 | 11 | 249 | 361 | 58 |
| 2 | 2.2 | 464 | 578 | 251 | 111 | 409 | 586 | 597 | 11 | 380 | 366 | 22 |
| 3 | 2.2 | 141 | 580 | 315 | 260 | 415 | 583 | 532 | 297 | 368 | 374 | 375 |
| 4 | 2.2 | 126 | 552 | 242 | 318 | 405 | 594 | 33 | 136 | 403 | 389 | 391 |
| 5 | 32 | 366 | 575 | 24 | 456 | 410 | 592 | 9.6 | 147 | 354 | 396 | 400 |
| 6 | 5.3 | 463 | 556 | 25 | 425 | 397 | 589 | 395 | 168 | 324 | 367 | 348 |
| 7 | 4.2 | 479 | 568 | 311 | 398 | 340 | 594 | 446 | 186 | 313 | 363 | 24 |
| 8 | 2.4 | 460 | 531 | 150 | 363 | 467 | 99 | 472 | 26 | 234 | 384 | 42 |
| 9 | 3.2 | 577 | 509 | 144 | 135 | 397 | 2.5 | 464 | 10 | 409 | 377 | 363 |
| 10 | 297 | 565 | 521 | 145 | 151 | 393 | 2.5 | 299 | 276 | 367 | 378 | 414 |
| 11 | 567 | 577 | 525 | 78 | 314 | 426 | 2.5 | 5.9 | 260 | 385 | 350 | 434 |
| 12 | 423 | 545 | 532 | 13 | 316 | 410 | 206 | 6.3 | 244 | 386 | 358 | 485 |
| 13 | 21 | 585 | 466 | 8.8 | 446 | 441 | 596 | 420 | 212 | 360 | 284 | 456 |
| 14 | 14 | 559 | 491 | 107 | 417 | 424 | 596 | 390 | 178 | 323 | 314 | 435 |
| 15 | 304 | 561 | 546 | 173 | 255 | 410 | 595 | 366 | 18 | 417 | 357 | 372 |
| 16 | 347 | 566 | 547 | 77 | 196 | 195 | 595 | 361 | 18 | 409 | 346 | 418 |
| 17 | 390 | 549 | 570 | 171 | 176 | 226 | 592 | 273 | 234 | 369 | 363 | 419 |
| 18 | 457 | 550 | 552 | 50 | 198 | 370 | 594 | 8.1 | 198 | 398 | 335 | 428 |
| 19 | 429 | 562 | 404 | 21 | 304 | 382 | 594 | 8.5 | 167 | 379 | 262 | 435 |
| 20 | 119 | 560 | 392 | 21 | 350 | 566 | 97 | 345 | 237 | 202 | 370 | 448 |
| 21 | 105 | 542 | 254 | 168 | 394 | 568 | 498 | 428 | 145 | 207 | 348 | 465 |
| 22 | 372 | 545 | 108 | 433 | 424 | 592 | 596 | 427 | 20 | 364 | 363 | 375 |
| 23 | 432 | 559 | 116 | 378 | 306 | 591 | 559 | 217 | 11 | 408 | 352 | 9.1 |
| 24 | 425 | 535 | 99 | 380 | 323 | 592 | 596 | 285 | 158 | 370 | 347 | 5.4 |
| 25 | 423 | 552 | 98 | 36 | 427 | 587 | 454 | 44 | 223 | 349 | 346 | 4.8 |
| 26 | 385 | 557 | 248 | 12 | 498 | 552 | 594 | 25 | 173 | 294 | 376 | 2.0 |
| 27 | 99 | 575 | 208 | 12 | 523 | 593 | 592 | 314 | 157 | 309 | 504 | 0 |
| 28 | 58 | 547 | 103 | 297 | 585 | 592 | 597 | 254 | 227 | 289 | 536 | 0 |
| 29 | 346 | 586 | 24 | 396 | --- | 486 | 594 | 211 | 240 | 359 | 520 | 0 |
| 30 | 448 | 582 | 24 | 399 | --- | 586 | 485 | 225 | 319 | 394 | 466 | 0 |
| 31 | 478 | --- | 85 | 393 | --- | 501 | --- | 25 | --- | 380 | 81 | --- |
| TOTAL | 6994.9 | 15158 | 11948 | 5236.4 | 9107 | 14257 | 14268.5 | 8359.4 | 4707 | 10752 | 11333 | 7628.3 |
| MEAN | 226 | 505 | 385 | 169 | 325 | 460 | 476 | 270 | 157 | 347 | 366 | 254 |
| MAX | 567 | 586 | 586 | 433 | 585 | 593 | 597 | 597 | 319 | 417 | 536 | 485 |
| MIN | 2.2 | 126 | 24 | 5.6 | 38 | 195 | 2.5 | 5.9 | 10 | 202 | 81 | 0 |
| AC-FT | 13870 | 30070 | 23700 | 10390 | 18060 | 28280 | 28300 | 16580 | 9340 | 21330 | 22480 | 15130 |
| CAL YR 1984 | TOTAL | 184759.1 | MEAN | 505 | MAX | 610 | MIN | 2.2 | AC-FT | 366500 | | |
| WTR YR 1985 | TOTAL | 119749.5 | MEAN | 328 | MAX | 597 | MIN | 0 | AC-FT | 237500 | | |

11421770 BEAR RIVER BELOW DRUM AFTERBAY, NEAR BLUE CANYON, CA

LOCATION.--Lat 39°15'16", long 120°46'26", in SW 1/4 NW 1/4 sec.17, T.16 N., R.11 E., Placer County, Hydrologic Unit 18020126, on left bank 60 ft downstream from Drum Afterbay Dam, and 3.5 mi west of Blue Canyon.

DRAINAGE AREA.--12.3 mi².

PERIOD OF RECORD.--April 1966 to current year, low flows only April to September 1966.

GAGE.--Water-stage recorder and 4-ft steel Cipolletti weir set in a concrete broad-crested weir. Elevation of gage is 3,300 ft above National Geodetic Vertical Datum of 1929, from topographic map. April 1966 to May 25, 1967, water-stage recorder at present site at different datum, May 26, 1967, to Feb. 11, 1968, water-stage recorder at site 1,000 ft downstream at different datum.

REMARKS.--No estimated daily discharges. Water for Dutch Flat No. 1 powerplant (station 11421750) and Dutch Flat No. 2 flume (station 11421760) is diverted from Drum Afterbay just upstream from station. See schematic diagram of Bear River basin.

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

AVERAGE DISCHARGE.--19 years, 17.9 ft³/s, 12,790 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,530 ft³/s, Apr. 11, 1982, gage height, 4.64 ft, from rating curve extended above 1,200 ft³/s; minimum daily, 1.0 ft³/s, Dec. 9, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 12 ft³/s, Aug. 2 and Sept. 10, gage height, 0.87 ft; minimum daily, 5.4 ft³/s, Oct. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|-------|-------|-------|-------|-------|------|------|------|------|------|------|
| 1 | 7.1 | 6.1 | 6.1 | 6.1 | 6.2 | 6.0 | 11 | 10 | 11 | 11 | 11 | 11 |
| 2 | 6.7 | 6.1 | 6.2 | 6.0 | 6.1 | 6.1 | 10 | 11 | 11 | 11 | 11 | 11 |
| 3 | 6.3 | 6.0 | 6.1 | 6.0 | 6.1 | 6.1 | 10 | 11 | 11 | 11 | 11 | 11 |
| 4 | 6.4 | 6.0 | 6.1 | 6.1 | 6.1 | 6.1 | 10 | 11 | 11 | 11 | 11 | 11 |
| 5 | 6.4 | 6.0 | 6.1 | 6.1 | 6.1 | 6.1 | 10 | 11 | 11 | 11 | 11 | 11 |
| 6 | 5.5 | 6.1 | 6.2 | 6.1 | 6.1 | 6.1 | 10 | 11 | 11 | 11 | 11 | 11 |
| 7 | 5.5 | 6.0 | 6.1 | 6.1 | 6.1 | 6.1 | 10 | 11 | 11 | 11 | 11 | 11 |
| 8 | 5.5 | 6.1 | 6.1 | 6.0 | 6.1 | 6.1 | 10 | 11 | 11 | 11 | 11 | 11 |
| 9 | 5.5 | 6.0 | 6.1 | 6.1 | 6.0 | 6.1 | 10 | 11 | 11 | 11 | 11 | 11 |
| 10 | 5.5 | 6.1 | 5.9 | 6.1 | 6.1 | 6.1 | 10 | 11 | 11 | 11 | 11 | 11 |
| 11 | 5.5 | 6.1 | 5.8 | 6.1 | 6.1 | 6.1 | 10 | 11 | 11 | 11 | 11 | 11 |
| 12 | 5.8 | 6.1 | 5.8 | 6.1 | 6.1 | 6.0 | 10 | 11 | 11 | 11 | 11 | 11 |
| 13 | 6.5 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 10 | 11 | 11 | 11 | 11 | 11 |
| 14 | 6.3 | 6.1 | 6.2 | 6.1 | 6.1 | 6.1 | 10 | 11 | 11 | 11 | 11 | 11 |
| 15 | 6.3 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 10 | 11 | 11 | 11 | 11 | 11 |
| 16 | 6.0 | 6.1 | 6.2 | 6.1 | 6.1 | 6.0 | 10 | 11 | 11 | 11 | 11 | 11 |
| 17 | 5.6 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 10 | 11 | 11 | 11 | 11 | 11 |
| 18 | 5.7 | 6.0 | 6.1 | 6.1 | 6.1 | 6.1 | 10 | 11 | 11 | 11 | 11 | 11 |
| 19 | 5.8 | 6.1 | 6.1 | 6.1 | 6.1 | 6.0 | 10 | 11 | 11 | 11 | 11 | 11 |
| 20 | 5.4 | 6.1 | 6.1 | 6.1 | 6.2 | 6.0 | 10 | 11 | 11 | 11 | 11 | 11 |
| 21 | 5.5 | 6.1 | 6.2 | 6.1 | 6.1 | 6.0 | 10 | 11 | 11 | 11 | 11 | 11 |
| 22 | 5.9 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 10 | 11 | 11 | 11 | 11 | 11 |
| 23 | 6.1 | 6.0 | 6.1 | 6.1 | 6.1 | 6.0 | 10 | 11 | 11 | 11 | 11 | 11 |
| 24 | 6.2 | 6.1 | 6.1 | 6.1 | 6.1 | 6.0 | 10 | 11 | 11 | 11 | 11 | 11 |
| 25 | 6.2 | 6.0 | 6.1 | 6.1 | 6.1 | 6.0 | 10 | 11 | 11 | 11 | 11 | 11 |
| 26 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 10 | 11 | 11 | 11 | 11 | 11 |
| 27 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 | 6.0 | 10 | 11 | 11 | 11 | 11 | 11 |
| 28 | 6.1 | 6.1 | 6.1 | 5.9 | 6.1 | 6.0 | 10 | 11 | 11 | 11 | 11 | 11 |
| 29 | 6.0 | 6.1 | 6.1 | 5.9 | --- | 6.1 | 10 | 11 | 11 | 11 | 11 | 11 |
| 30 | 6.1 | 6.2 | 6.1 | 5.9 | --- | 6.1 | 10 | 11 | 11 | 11 | 11 | 11 |
| 31 | 6.0 | --- | 6.1 | 6.0 | --- | 8.6 | --- | 11 | --- | 11 | 11 | --- |
| TOTAL | 185.6 | 182.3 | 188.8 | 188.1 | 170.9 | 190.5 | 301 | 340 | 330 | 341 | 341 | 330 |
| MEAN | 5.99 | 6.08 | 6.09 | 6.07 | 6.10 | 6.15 | 10.0 | 11.0 | 11.0 | 11.0 | 11.0 | 11.0 |
| MAX | 7.1 | 6.2 | 6.2 | 6.1 | 6.2 | 8.6 | 11 | 11 | 11 | 11 | 11 | 11 |
| MIN | 5.4 | 6.0 | 5.8 | 5.9 | 6.0 | 6.0 | 10 | 10 | 11 | 11 | 11 | 11 |
| AC-FT | 368 | 362 | 374 | 373 | 339 | 378 | 597 | 674 | 655 | 676 | 676 | 655 |

CAL YR 1984 TOTAL 3193.8 MEAN 8.73 MAX 41 MIN 4.9 AC-FT 6330
WTR YR 1985 TOTAL 3089.2 MEAN 8.46 MAX 11 MIN 5.4 AC-FT 6130

SACRAMENTO RIVER BASIN

11421780 CHICAGO PARK FLUME NEAR DUTCH FLAT, CA

LOCATION.--Lat 39°12'55", long 120°50'23", in NW 1/4 NE 1/4 sec.34, T.16 N., R.10 E., Nevada County, Hydrologic Unit 18020126, on left bank 670 ft downstream from Dutch Flat Afterbay, and 0.6 mi north of Dutch Flat.

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

GAGE.--Water-stage recorder. Elevation of gage is 2,600 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 8, 1968, at site 420 ft upstream at same datum.

REMARKS.--Estimated daily discharges: Oct. 1-9 and Sept. 24-30. Records excellent except discharges below 70 ft³/s, which are poor. Water is diverted from Dutch Flat Afterbay through the flume to Chicago Park powerplant and then to Bear River. See schematic diagram of Bear River basin.

AVERAGE DISCHARGE.--19 years, 646 ft³/s, 468,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,130 ft³/s, Nov. 19, 1983; no flow several days in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|
| 1 | 10 | 607 | 906 | 126 | 278 | 563 | 589 | 857 | 196 | 607 | 554 | 212 |
| 2 | 10 | 588 | 901 | 373 | 241 | 430 | 692 | 780 | 143 | 665 | 503 | 214 |
| 3 | 10 | 303 | 935 | 588 | 238 | 431 | 687 | 689 | 340 | 644 | 499 | 505 |
| 4 | 10 | 234 | 849 | 420 | 484 | 431 | 655 | 216 | 245 | 572 | 482 | 606 |
| 5 | 10 | 667 | 834 | 133 | 628 | 429 | 651 | 232 | 300 | 593 | 534 | 561 |
| 6 | 10 | 887 | 853 | 135 | 612 | 430 | 835 | 514 | 299 | 554 | 524 | 523 |
| 7 | 10 | 844 | 930 | 432 | 424 | 430 | 806 | 600 | 300 | 486 | 526 | 211 |
| 8 | 10 | 811 | 842 | 395 | 768 | 431 | 809 | 597 | 128 | 607 | 518 | 212 |
| 9 | 10 | 844 | 842 | 392 | 417 | 428 | 613 | 595 | 121 | 571 | 529 | 442 |
| 10 | 246 | 867 | 843 | 406 | 371 | 431 | 518 | 470 | 368 | 606 | 521 | 582 |
| 11 | 657 | 966 | 841 | 356 | 461 | 433 | 585 | 157 | 327 | 628 | 519 | 632 |
| 12 | 607 | 921 | 862 | 189 | 331 | 458 | 645 | 111 | 338 | 605 | 513 | 681 |
| 13 | 205 | 916 | 907 | 129 | 404 | 498 | 913 | 443 | 287 | 572 | 511 | 679 |
| 14 | 206 | 931 | 831 | 256 | 430 | 509 | 794 | 572 | 300 | 485 | 511 | 679 |
| 15 | 553 | 824 | 785 | 421 | 339 | 388 | 801 | 567 | 123 | 543 | 510 | 603 |
| 16 | 673 | 842 | 815 | 423 | 243 | 275 | 916 | 611 | 120 | 610 | 509 | 681 |
| 17 | 591 | 840 | 854 | 422 | 192 | 287 | 777 | 500 | 315 | 621 | 511 | 675 |
| 18 | 552 | 841 | 808 | 327 | 236 | 424 | 618 | 88 | 340 | 619 | 423 | 700 |
| 19 | 630 | 839 | 497 | 135 | 307 | 401 | 621 | 143 | 335 | 629 | 512 | 698 |
| 20 | 391 | 842 | 493 | 135 | 393 | 571 | 175 | 397 | 334 | 484 | 510 | 676 |
| 21 | 297 | 842 | 382 | 293 | 419 | 593 | 759 | 604 | 281 | 511 | 509 | 681 |
| 22 | 461 | 839 | 143 | 620 | 435 | 679 | 917 | 605 | 111 | 574 | 511 | 787 |
| 23 | 611 | 838 | 177 | 542 | 375 | 591 | 907 | 477 | 113 | 623 | 511 | 177 |
| 24 | 611 | 996 | 217 | 517 | 357 | 604 | 911 | 367 | 327 | 623 | 507 | 10 |
| 25 | 610 | 945 | 176 | 330 | 490 | 620 | 626 | 196 | 491 | 625 | 506 | 10 |
| 26 | 549 | 843 | 344 | 130 | 527 | 610 | 851 | 149 | 340 | 614 | 602 | 0 |
| 27 | 212 | 833 | 473 | 131 | 532 | 601 | 852 | 423 | 391 | 498 | 825 | 0 |
| 28 | 206 | 1050 | 369 | 496 | 565 | 618 | 854 | 454 | 559 | 515 | 650 | 0 |
| 29 | 502 | 945 | 167 | 622 | --- | 631 | 849 | 275 | 602 | 614 | 766 | 0 |
| 30 | 642 | 939 | 133 | 598 | --- | 565 | 576 | 343 | 599 | 638 | 737 | 0 |
| 31 | 809 | --- | 198 | 500 | --- | 563 | --- | 292 | --- | 639 | 241 | --- |
| TOTAL | 10911 | 24484 | 19207 | 10972 | 11497 | 15353 | 21802 | 13324 | 9073 | 18175 | 16584 | 12437 |
| MEAN | 352 | 816 | 620 | 354 | 411 | 495 | 727 | 430 | 302 | 586 | 535 | 415 |
| MAX | 809 | 1050 | 935 | 622 | 768 | 679 | 917 | 857 | 602 | 665 | 825 | 787 |
| MIN | 10 | 234 | 133 | 126 | 192 | 275 | 175 | 88 | 111 | 484 | 241 | 0 |
| AC-FT | 21640 | 48560 | 38100 | 21760 | 22800 | 30450 | 43240 | 26430 | 18000 | 36050 | 32890 | 24670 |
| CAL YR 1984 | TOTAL | 310284 | MEAN | 848 | MAX | 1120 | MIN | 10 | AC-FT | 615400 | | |
| WTR YR 1985 | TOTAL | 183819 | MEAN | 504 | MAX | 1050 | MIN | 0 | AC-FT | 364600 | | |

11421790 BEAR RIVER BELOW DUTCH FLAT AFTERBAY, NEAR DUTCH FLAT, CA

LOCATION.--Lat 39°12'55", long 120°50'23", in NE 1/4 NW 1/4 sec.34, T.16 N., R.10 E., Placer County, Hydrologic Unit 18020126, at the left bank downstream end of spillway on Dutch Flat Afterbay Dam, 0.6 mi north of Dutch Flat.

DRAINAGE AREA.--21.5 mi².

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

REVISED RECORDS.--WDR CA-82-4: 1978, 1979(M), 1980.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 2,600 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records excellent. Water is imported from South Yuba River basin via Drum Canal above forebay (station 11414190). Chicago Park flume (station 11421780) diverts upstream from station to Chicago Park powerplant. Records include spill over Dutch Flat Afterbay Dam. This station measures flow from Dutch Flat Afterbay in connection with a Federal Energy Regulatory Commission Project. See schematic diagram of Bear River basin.

AVERAGE DISCHARGE.--19 years, 29.6 ft³/s, 21,450 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,220 ft³/s, Feb. 16, 1982; minimum daily, 0.08 ft³/s, Mar. 8-19, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 198 ft³/s, Nov. 29; minimum daily, 6.1 ft³/s, Feb. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|-------|-------|-------|-------|------|-------|------|------|------|
| 1 | 41 | 9.2 | 6.7 | 6.7 | 6.3 | 6.3 | 6.5 | 11 | 12 | 11 | 11 | 12 |
| 2 | 11 | 6.7 | 6.7 | 6.6 | 6.3 | 6.3 | 6.5 | 11 | 12 | 11 | 11 | 12 |
| 3 | 11 | 6.7 | 6.6 | 6.6 | 6.3 | 6.3 | 6.5 | 12 | 12 | 11 | 11 | 12 |
| 4 | 11 | 6.7 | 6.7 | 6.5 | 6.4 | 6.3 | 6.5 | 12 | 12 | 11 | 11 | 12 |
| 5 | 11 | 6.7 | 6.7 | 6.5 | 6.4 | 6.3 | 6.5 | 12 | 12 | 11 | 11 | 12 |
| 6 | 11 | 6.6 | 6.7 | 6.7 | 6.3 | 6.3 | 6.5 | 11 | 12 | 11 | 11 | 12 |
| 7 | 11 | 6.6 | 6.6 | 6.7 | 6.3 | 6.3 | 6.5 | 11 | 11 | 11 | 11 | 12 |
| 8 | 11 | 6.7 | 6.6 | 6.6 | 6.5 | 6.3 | 6.6 | 11 | 11 | 11 | 11 | 12 |
| 9 | 11 | 6.7 | 6.6 | 6.7 | 6.3 | 6.3 | 6.5 | 11 | 11 | 11 | 11 | 12 |
| 10 | 12 | 6.7 | 6.6 | 6.7 | 6.3 | 6.3 | 6.5 | 11 | 11 | 11 | 11 | 12 |
| 11 | 12 | 6.7 | 6.7 | 6.7 | 6.4 | 6.3 | 6.5 | 11 | 11 | 11 | 11 | 12 |
| 12 | 12 | 6.6 | 6.7 | 6.7 | 6.1 | 6.3 | 6.5 | 11 | 11 | 11 | 11 | 12 |
| 13 | 12 | 6.7 | 6.6 | 6.5 | 6.2 | 6.3 | 6.5 | 12 | 11 | 11 | 11 | 12 |
| 14 | 12 | 6.7 | 6.5 | 6.5 | 6.3 | 6.3 | 6.5 | 12 | 11 | 11 | 11 | 12 |
| 15 | 12 | 6.7 | 6.5 | 6.6 | 6.3 | 6.3 | 6.5 | 11 | 12 | 11 | 11 | 12 |
| 16 | 12 | 6.7 | 6.7 | 6.6 | 6.3 | 6.3 | 6.7 | 12 | 12 | 11 | 11 | 12 |
| 17 | 12 | 6.7 | 6.6 | 6.5 | 6.3 | 6.3 | 6.6 | 11 | 11 | 11 | 11 | 12 |
| 18 | 12 | 6.7 | 6.6 | 6.5 | 6.3 | 6.5 | 6.5 | 12 | 11 | 11 | 11 | 12 |
| 19 | 12 | 6.7 | 6.5 | 6.5 | 6.3 | 6.5 | 6.5 | 12 | 11 | 11 | 11 | 12 |
| 20 | 12 | 6.7 | 6.5 | 6.5 | 6.2 | 6.5 | 6.5 | 12 | 11 | 11 | 11 | 12 |
| 21 | 12 | 6.7 | 6.7 | 6.6 | 6.3 | 6.5 | 6.5 | 12 | 11 | 11 | 11 | 12 |
| 22 | 12 | 6.7 | 6.7 | 6.7 | 6.3 | 6.5 | 6.5 | 12 | 11 | 11 | 11 | 12 |
| 23 | 12 | 6.7 | 6.7 | 6.5 | 6.3 | 6.5 | 6.5 | 11 | 11 | 11 | 11 | 11 |
| 24 | 12 | 6.7 | 6.7 | 6.4 | 6.3 | 6.5 | 6.5 | 11 | 11 | 11 | 11 | 26 |
| 25 | 12 | 6.7 | 6.7 | 6.3 | 6.3 | 6.5 | 6.5 | 12 | 11 | 11 | 11 | 51 |
| 26 | 12 | 6.7 | 6.7 | 6.3 | 6.3 | 6.5 | 6.5 | 12 | 11 | 11 | 11 | 58 |
| 27 | 12 | 6.7 | 6.7 | 6.3 | 6.3 | 6.5 | 6.5 | 12 | 11 | 11 | 11 | 43 |
| 28 | 12 | 11 | 6.6 | 6.4 | 6.3 | 6.5 | 6.5 | 12 | 11 | 11 | 11 | 19 |
| 29 | 12 | 30 | 6.7 | 6.3 | --- | 6.4 | 9.3 | 12 | 11 | 11 | 12 | 16 |
| 30 | 12 | 6.7 | 6.7 | 6.3 | --- | 6.3 | 12 | 12 | 11 | 11 | 12 | 16 |
| 31 | 12 | --- | 6.7 | 6.3 | --- | 6.5 | --- | 12 | --- | 11 | 12 | --- |
| TOTAL | 393 | 230.8 | 206.0 | 202.3 | 176.5 | 197.8 | 203.7 | 359 | 338 | 341 | 344 | 504 |
| MEAN | 12.7 | 7.69 | 6.65 | 6.53 | 6.30 | 6.38 | 6.79 | 11.6 | 11.3 | 11.0 | 11.1 | 16.8 |
| MAX | 41 | 30 | 6.7 | 6.7 | 6.5 | 6.5 | 12 | 12 | 12 | 11 | 12 | 58 |
| MIN | 11 | 6.6 | 6.5 | 6.3 | 6.1 | 6.3 | 6.5 | 11 | 11 | 11 | 11 | 11 |
| AC-FT | 780 | 458 | 409 | 401 | 350 | 392 | 404 | 712 | 670 | 676 | 682 | 1000 |
| CAL YR 1984 | TOTAL | 4645.3 | MEAN | 12.7 | MAX | 139 | MIN | 6.1 | AC-FT | 9210 | | |
| WTR YR 1985 | TOTAL | 3496.1 | MEAN | 9.58 | MAX | 58 | MIN | 6.1 | AC-FT | 6930 | | |

SACRAMENTO RIVER BASIN

11421800 ROLLINS RESERVOIR NEAR COLFAX, CA

LOCATION (REVISED).--Lat 39°08'08", long 120°57'03", in NE 1/4 SE 1/4 sec.22, T.15 N., R.9 E., Placer County, Hydrologic Unit 18020126, on left bank 300 ft upstream from Rollins Dam on Bear River, 2.3 mi north of Colfax.

DRAINAGE AREA.--104 mi².

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

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Nevada Irrigation District).

REMARKS.--Reservoir is formed by an earthfill dam. Storage began Dec. 15, 1964. Usable capacity, 66,000 acre-ft between elevations 1,970.0 ft, invert of outlet tunnel and 2,171.0 ft, spillway crest. Dead storage, 270 acre-ft. Several diversions into and out of basin upstream for power development and irrigation. Stored water is released into Bear River, part of which is diverted to Bear River Canal (station 11422000) for power development. Water is later used for irrigation. See schematic diagram of Bear River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 70,200 acre-ft, Feb. 15, 1982, elevation, 2,176.0 ft; minimum since reservoir first filled, 4,250 acre-ft, Oct. 10, 1977, elevation, 2,022.5 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 66,800 acre-ft, Nov. 27, elevation, 2,172.0 ft; minimum, 28,000 acre-ft, Oct. 28, elevation, 2,109.8 ft.

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

| | | | |
|-------|--------|-------|--------|
| 2,020 | 3,920 | 2,100 | 23,900 |
| 2,030 | 5,320 | 2,120 | 32,700 |
| 2,040 | 6,990 | 2,140 | 43,800 |
| 2,050 | 8,940 | 2,160 | 57,300 |
| 2,060 | 11,200 | 2,176 | 70,200 |
| 2,080 | 16,800 | | |

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 48000 | 33000 | 66500 | 52500 | 44200 | 46500 | 52900 | 59800 | 53700 | 38600 | 39400 | 37500 |
| 2 | 46400 | 34300 | 66600 | 51800 | 43800 | 46600 | 53700 | 59900 | 53000 | 38900 | 39300 | 36800 |
| 3 | 44800 | 35200 | 66500 | 51400 | 43500 | 46600 | 54300 | 60200 | 52700 | 39000 | 39200 | 36700 |
| 4 | 43300 | 35600 | 66400 | 50800 | 44400 | 46700 | 54800 | 59700 | 52000 | 39100 | 39000 | 36800 |
| 5 | 41700 | 37000 | 66400 | 49500 | 45300 | 46800 | 55200 | 59100 | 51600 | 39100 | 39000 | 36900 |
| 6 | 40200 | 39100 | 66400 | 48300 | 45900 | 47000 | 56000 | 59100 | 51100 | 39100 | 38900 | 36900 |
| 7 | 38700 | 41000 | 66500 | 48000 | 46400 | 47300 | 56600 | 59300 | 50500 | 38900 | 38700 | 36200 |
| 8 | 37100 | 43000 | 66400 | 48000 | 51700 | 47600 | 57200 | 59500 | 49800 | 38900 | 38600 | 35600 |
| 9 | 35600 | 44800 | 66400 | 48300 | 52900 | 47800 | 57200 | 59800 | 48800 | 38900 | 38500 | 35400 |
| 10 | 34600 | 46400 | 66500 | 48600 | 53400 | 48200 | 57100 | 59800 | 48400 | 39000 | 38400 | 35600 |
| 11 | 34600 | 48600 | 66500 | 48400 | 53500 | 48600 | 57000 | 59100 | 47800 | 39100 | 38300 | 35800 |
| 12 | 34400 | 50700 | 66500 | 47800 | 53200 | 49000 | 56900 | 58300 | 47400 | 39100 | 38200 | 36200 |
| 13 | 33400 | 53400 | 66500 | 47100 | 52800 | 49400 | 57400 | 58100 | 46800 | 39200 | 38100 | 36500 |
| 14 | 32400 | 55500 | 66400 | 46600 | 52600 | 49700 | 57700 | 58300 | 46300 | 39000 | 38000 | 36800 |
| 15 | 32100 | 57100 | 66300 | 46500 | 52100 | 49500 | 57900 | 58500 | 45400 | 38900 | 37900 | 37000 |
| 16 | 32200 | 58500 | 66300 | 46400 | 51400 | 49000 | 58500 | 58800 | 44400 | 39000 | 37900 | 37400 |
| 17 | 32100 | 59500 | 66400 | 46400 | 50600 | 48500 | 58800 | 58800 | 43900 | 39100 | 37700 | 37700 |
| 18 | 31800 | 60600 | 66300 | 46200 | 49800 | 48200 | 58700 | 57900 | 43500 | 39200 | 37500 | 38100 |
| 19 | 31800 | 61600 | 65700 | 45500 | 49200 | 48000 | 58500 | 57200 | 43000 | 39300 | 37400 | 38500 |
| 20 | 31200 | 62700 | 65300 | 44800 | 48800 | 48100 | 57500 | 56900 | 42600 | 39300 | 37300 | 38800 |
| 21 | 30400 | 63800 | 64700 | 44400 | 48400 | 48100 | 57500 | 57100 | 42000 | 39200 | 37300 | 39100 |
| 22 | 29900 | 64200 | 63400 | 44700 | 48100 | 48400 | 58000 | 57400 | 41000 | 39100 | 37100 | 39700 |
| 23 | 29800 | 64500 | 62100 | 45000 | 47700 | 48400 | 58400 | 57400 | 40000 | 39200 | 37100 | 39200 |
| 24 | 29700 | 65900 | 61000 | 45100 | 47100 | 48600 | 58800 | 57200 | 39500 | 39200 | 37000 | 38100 |
| 25 | 29500 | 66500 | 59800 | 44900 | 46800 | 48800 | 58700 | 56500 | 39400 | 39400 | 37000 | 37100 |
| 26 | 29300 | 66400 | 59000 | 44300 | 46700 | 49300 | 59000 | 55800 | 38900 | 39400 | 37000 | 36100 |
| 27 | 28300 | 66800 | 58400 | 43600 | 46500 | 50200 | 59200 | 55500 | 38500 | 39400 | 37600 | 35200 |
| 28 | 28000 | 66700 | 57600 | 43600 | 46400 | 51100 | 59600 | 55500 | 38500 | 39400 | 37900 | 34600 |
| 29 | 29000 | 66600 | 56300 | 44100 | --- | 51700 | 59800 | 55000 | 38500 | 39400 | 38400 | 34000 |
| 30 | 30200 | 66600 | 55000 | 44400 | --- | 52100 | 59500 | 54700 | 38600 | 39400 | 38900 | 33300 |
| 31 | 31800 | --- | 53900 | 44500 | --- | 52400 | --- | 54400 | --- | 39400 | 38200 | --- |
| MAX | 48000 | 66800 | 66600 | 52500 | 53500 | 52400 | 59800 | 60200 | 53700 | 39400 | 39400 | 39700 |
| MIN | 28000 | 33000 | 53900 | 43600 | 43500 | 46500 | 52900 | 54400 | 38500 | 38600 | 37000 | 33300 |
| a | 2118.0 | 2171.7 | 2155.3 | 2141.2 | 2144.2 | 2153.3 | 2162.9 | 2156.0 | 2131.1 | 2132.6 | 2130.5 | 2121.7 |
| b | -17600 | +34800 | -12700 | -9400 | +1900 | +6000 | +7100 | -5100 | -15800 | +800 | -1200 | -4900 |
| CAL YR 1984 | b | -13400 | | | | | | | | | | |
| WTR YR 1985 | b | -16100 | | | | | | | | | | |

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

11422000 BEAR RIVER CANAL INTAKE NEAR COLFAX, CA

LOCATION.--Lat 39°07'58", long 120°57'12", in SW 1/4 SE 1/4 sec.22, T.15 N., R.9 E., Placer County, Hydrologic Unit 18020126, on right bank 400 ft (revised) downstream from canal inlet, 0.2 mi downstream from Rollins Dam, and 2.2 mi north of Colfax.

PERIOD OF RECORD.--January 1912 to September 1953, October 1964 to current year. Monthly discharge only for some periods published in WSP 1315-A. Prior to October 1912, published as Pacific Gas and Electric Co.'s Canal near Colfax, October 1912 to September 1953, published as Bear River Canal near Colfax.

GAGE.--Water-stage recorder. Elevation of gage is 1,950 ft (revised) above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Mar. 25, 1946, water-stage recorder at site 1.5 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Canal diverts from left bank of Bear River. Water is first used to develop power at Halsey and Wise powerplants, part of it is then distributed for irrigation and part is eventually spilled into North Fork American River. See schematic diagram showing diversion and storage in Bear River basin.

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

AVERAGE DISCHARGE.--62 years (water years 1913-53, 1965-85), 306 ft³/s, 221,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 531 ft³/s, Oct. 5, 6, 1980; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|----------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|
| 1 | 459 | 0 | 452 | 477 | 481 | 476 | 479 | 468 | 468 | 466 | 470 | 469 |
| 2 | 459 | 0 | 453 | 478 | 479 | 475 | 479 | 469 | 469 | 466 | 469 | 469 |
| 3 | 459 | 0 | 453 | 480 | 411 | 475 | 479 | 466 | 473 | 470 | 469 | 469 |
| 4 | 459 | 0 | 453 | 479 | 28 | 475 | 479 | 469 | 477 | 471 | 469 | 469 |
| 5 | 459 | 0 | 453 | 478 | 209 | 476 | 479 | 469 | 477 | 469 | 470 | 468 |
| 6 | 459 | 0 | 471 | 475 | 395 | 427 | 479 | 470 | 477 | 469 | 470 | 468 |
| 7 | 459 | 0 | 481 | 479 | 373 | 379 | 478 | 470 | 477 | 470 | 470 | 468 |
| 8 | 459 | 0 | 481 | 482 | 374 | 372 | 477 | 469 | 477 | 469 | 470 | 467 |
| 9 | 459 | 83 | 481 | 247 | 368 | 428 | 475 | 469 | 477 | 470 | 470 | 468 |
| 10 | 461 | 144 | 481 | 227 | 369 | 438 | 473 | 470 | 477 | 470 | 470 | 468 |
| 11 | 461 | 89 | 481 | 483 | 429 | 416 | 475 | 470 | 478 | 469 | 471 | 466 |
| 12 | 461 | 8.0 | 481 | 482 | 477 | 475 | 475 | 470 | 478 | 469 | 470 | 466 |
| 13 | 461 | 0 | 482 | 482 | 476 | 476 | 480 | 471 | 478 | 469 | 470 | 466 |
| 14 | 461 | 0 | 482 | 483 | 476 | 478 | 485 | 410 | 478 | 469 | 470 | 467 |
| 15 | 442 | 0 | 483 | 483 | 476 | 479 | 484 | 469 | 477 | 470 | 470 | 467 |
| 16 | 430 | 226 | 483 | 477 | 476 | 479 | 483 | 469 | 477 | 470 | 470 | 466 |
| 17 | 432 | 372 | 483 | 481 | 476 | 479 | 482 | 468 | 477 | 470 | 470 | 466 |
| 18 | 432 | 365 | 482 | 481 | 475 | 479 | 481 | 469 | 477 | 470 | 469 | 466 |
| 19 | 432 | 384 | 482 | 480 | 475 | 479 | 481 | 468 | 476 | 471 | 469 | 466 |
| 20 | 433 | 403 | 467 | 479 | 475 | 477 | 480 | 469 | 475 | 471 | 469 | 466 |
| 21 | 433 | 400 | 481 | 479 | 475 | 477 | 479 | 467 | 474 | 470 | 468 | 466 |
| 22 | 433 | 399 | 481 | 480 | 475 | 477 | 478 | 466 | 474 | 471 | 468 | 466 |
| 23 | 432 | 398 | 481 | 481 | 476 | 478 | 477 | 467 | 473 | 471 | 469 | 467 |
| 24 | 433 | 377 | 481 | 482 | 476 | 478 | 474 | 467 | 473 | 472 | 469 | 467 |
| 25 | 433 | 397 | 481 | 483 | 476 | 478 | 473 | 466 | 472 | 472 | 469 | 467 |
| 26 | 433 | 398 | 481 | 482 | 476 | 473 | 472 | 466 | 472 | 471 | 469 | 467 |
| 27 | 432 | 399 | 481 | 481 | 476 | 423 | 472 | 465 | 467 | 471 | 469 | 356 |
| 28 | 230 | 399 | 481 | 480 | 478 | 452 | 472 | 465 | 466 | 471 | 470 | 221 |
| 29 | 0 | 420 | 480 | 482 | --- | 478 | 471 | 467 | 466 | 470 | 470 | 222 |
| 30 | 0 | 453 | 480 | 483 | --- | 478 | 469 | 469 | 466 | 465 | 470 | 222 |
| 31 | 0 | --- | 479 | 484 | --- | 478 | --- | 469 | --- | 467 | 470 | --- |
| TOTAL | 12296 | 6114.0 | 14752 | 14410 | 12006 | 14308 | 14320 | 14456 | 14223 | 14559 | 14556 | 13166 |
| MEAN | 397 | 204 | 476 | 465 | 429 | 462 | 477 | 466 | 474 | 470 | 470 | 439 |
| MAX | 461 | 453 | 483 | 484 | 481 | 479 | 485 | 471 | 478 | 472 | 471 | 469 |
| MIN | 0 | 0 | 452 | 227 | 28 | 372 | 469 | 410 | 466 | 465 | 468 | 221 |
| AC-FT | 24390 | 12130 | 29260 | 28580 | 23810 | 28380 | 28400 | 28670 | 28210 | 28880 | 28870 | 26110 |
| CAL YR 1984 | TOTAL | 160419.0 | MEAN | 438 | MAX | 483 | MIN | 0 | AC-FT | 318200 | | |
| WTR YR 1985 | TOTAL | 159166.0 | MEAN | 436 | MAX | 485 | MIN | 0 | AC-FT | 315700 | | |

SACRAMENTO RIVER BASIN

11422500 BEAR RIVER BELOW ROLLINS DAM, NEAR COLFAX, CA

LOCATION.--Lat 39°07'53", long 120°57'29", in SE 1/4 SW 1/4 sec.22, T.15 N., R.9 E., Nevada County, Hydrologic Unit 18020126, on right bank 65 ft downstream from highway bridge, 0.5 mi downstream from Rollins Dam, and 2.2 mi north of Colfax.

DRAINAGE AREA.--105 mi².

PERIOD OF RECORD.--January 1912 to September 1913, October 1913 to July 1915 (gage heights and discharge measurements only), August 1915 to June 1917, November 1949 to September 1953, August 1964 to current year. Monthly discharge only for some periods, published in WSP 1315-A. Prior to August 1964, published as Bear River near Colfax. Records for November and December 1911 include diversion to Bear River Canal and are not equivalent.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 1,927.41 ft above National Geodetic Vertical Datum of 1929. Prior to Aug. 8, 1915, nonrecording gages at several sites above diversion dam 0.3 mi upstream at different datums. Aug. 8, 1915, to June 30, 1917, nonrecording gage 0.7 mi downstream at different datum. Nov. 1, 1949, to Sept. 30, 1953, at site 0.2 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Records excellent. Flow regulated by Rollins Reservoir (station 11421800) beginning Dec. 15, 1964. Bear River Canal (station 11422000) diverts upstream from station. See schematic diagram of Bear River basin.

AVERAGE DISCHARGE (unadjusted).--26 years (water years 1913, 1916, 1951-53, 1965-85), 414 ft³/s, 299,900 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge (prior to construction of Rollins Dam in 1964), 9,620 ft³/s, Nov. 20, 1950, gage height, 21.40 ft, site and datum then in use, from rating curve extended above 3,600 ft³/s, on basis of slope-area measurement of peak flow; no flow at times in 1912, 1952. Maximum discharge since construction of Rollins Dam, 15,400 ft³/s, Feb. 16, 1982, gage height, 12.95 ft, from rating curve extended above 6,000 ft³/s; minimum daily, 0.5 ft³/s, Nov. 17, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,440 ft³/s, Nov. 28, gage height, 4.13 ft; minimum daily, 21 ft³/s, Feb. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----------------------|--------|-------|-------|------|------|------|-------|------|-------|--------|------|------|
| 1 | 318 | 50 | 661 | 338 | 23 | 106 | 234 | 361 | 76 | 118 | 99 | 95 |
| 2 | 313 | 23 | 582 | 335 | 23 | 26 | 235 | 362 | 76 | 124 | 99 | 92 |
| 3 | 309 | 23 | 665 | 331 | 23 | 26 | 237 | 188 | 89 | 125 | 99 | 90 |
| 4 | 304 | 23 | 542 | 331 | 21 | 26 | 237 | 85 | 102 | 126 | 98 | 91 |
| 5 | 298 | 23 | 515 | 330 | 22 | 26 | 239 | 84 | 97 | 128 | 104 | 91 |
| 6 | 293 | 23 | 471 | 329 | 23 | 25 | 241 | 85 | 100 | 132 | 109 | 92 |
| 7 | 286 | 23 | 526 | 208 | 27 | 26 | 243 | 84 | 103 | 139 | 109 | 90 |
| 8 | 281 | 26 | 498 | 51 | 52 | 25 | 316 | 83 | 101 | 136 | 108 | 87 |
| 9 | 275 | 25 | 471 | 80 | 25 | 28 | 356 | 85 | 100 | 133 | 108 | 78 |
| 10 | 268 | 25 | 507 | 82 | 22 | 40 | 358 | 86 | 105 | 132 | 108 | 76 |
| 11 | 267 | 25 | 515 | 50 | 141 | 35 | 355 | 86 | 113 | 124 | 108 | 78 |
| 12 | 265 | 24 | 507 | 49 | 228 | 28 | 354 | 86 | 112 | 119 | 103 | 78 |
| 13 | 263 | 28 | 543 | 49 | 228 | 24 | 349 | 86 | 113 | 120 | 97 | 79 |
| 14 | 258 | 25 | 508 | 47 | 227 | 143 | 346 | 107 | 112 | 119 | 98 | 80 |
| 15 | 272 | 172 | 478 | 52 | 225 | 216 | 347 | 81 | 111 | 119 | 98 | 81 |
| 16 | 284 | 69 | 455 | 37 | 223 | 218 | 347 | 82 | 110 | 120 | 98 | 80 |
| 17 | 282 | 47 | 474 | 25 | 222 | 216 | 349 | 83 | 110 | 119 | 98 | 80 |
| 18 | 281 | 44 | 480 | 25 | 219 | 216 | 349 | 83 | 111 | 120 | 97 | 78 |
| 19 | 280 | 31 | 385 | 25 | 221 | 217 | 350 | 82 | 110 | 122 | 96 | 79 |
| 20 | 278 | 25 | 356 | 25 | 221 | 218 | 349 | 82 | 110 | 122 | 95 | 79 |
| 21 | 274 | 31 | 363 | 25 | 220 | 219 | 346 | 79 | 111 | 121 | 94 | 79 |
| 22 | 270 | 319 | 361 | 25 | 219 | 219 | 347 | 76 | 111 | 121 | 95 | 79 |
| 23 | 269 | 364 | 357 | 25 | 224 | 219 | 349 | 78 | 110 | 125 | 95 | 80 |
| 24 | 268 | 373 | 354 | 25 | 225 | 221 | 353 | 78 | 109 | 128 | 95 | 77 |
| 25 | 268 | 480 | 351 | 25 | 225 | 222 | 353 | 77 | 110 | 128 | 95 | 76 |
| 26 | 268 | 672 | 349 | 24 | 228 | 234 | 354 | 77 | 109 | 123 | 89 | 77 |
| 27 | 265 | 681 | 349 | 24 | 229 | 287 | 354 | 77 | 111 | 120 | 89 | 77 |
| 28 | 178 | 1340 | 348 | 24 | 227 | 258 | 357 | 78 | 111 | 119 | 91 | 76 |
| 29 | 90 | 966 | 346 | 24 | --- | 232 | 358 | 77 | 110 | 118 | 90 | 76 |
| 30 | 91 | 753 | 343 | 24 | --- | 233 | 360 | 76 | 112 | 111 | 92 | 75 |
| 31 | 95 | --- | 340 | 24 | --- | 233 | --- | 76 | --- | 103 | 95 | --- |
| TOTAL | 8011 | 6733 | 14000 | 3068 | 4213 | 4462 | 9722 | 3210 | 3165 | 3814 | 3049 | 2446 |
| MEAN | 258 | 224 | 452 | 99.0 | 150 | 144 | 324 | 104 | 106 | 123 | 98.4 | 81.5 |
| MAX | 318 | 1340 | 665 | 338 | 229 | 287 | 360 | 362 | 113 | 139 | 109 | 95 |
| MIN | 90 | 23 | 340 | 24 | 21 | 24 | 234 | 76 | 76 | 103 | 89 | 75 |
| AC-FT | 15890 | 13350 | 27770 | 6090 | 8360 | 8850 | 19280 | 6370 | 6280 | 7570 | 6050 | 4850 |
| WATER YEAR 1984 TOTAL | 212817 | | | 581 | MAX | 1890 | MIN | 23 | AC-FT | 422100 | | |
| WATER YEAR 1985 TOTAL | 65893 | | | 181 | MAX | 1340 | MIN | 21 | AC-FT | 130700 | | |

11424000 BEAR RIVER NEAR WHEATLAND, CA

LOCATION.--Lat 39°00'01", long 121°24'21", in SE 1/4 SW 1/4 sec.3, T.13 N., R.5 E., Placer County, Hydrologic Unit 18020108, on right bank 100 ft downstream from bridge on State Highway 65, 1 mi southeast of Wheatland, and 6.5 mi downstream from Rock Creek.

DRAINAGE AREA.--292 mi².

PERIOD OF RECORD.--October 1928 to current year.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 71.92 ft above National Geodetic Vertical Datum of 1929. See WSP 2131 for history of changes prior to May 28, 1970.

REMARKS.--Estimated daily discharges: Nov. 22 to Jan. 22. Records fair except for estimated daily discharges, which are poor. Natural flow of stream affected by inflow from Yuba River and American River basins. Flow regulated by Lake Combie, usable capacity, 7,840 acre-ft, Rollins Reservoir (station 11421800) since December 1964, and New Camp Far West Reservoir, usable capacity, 102,200 acre-ft, since October 1963. Many diversions for irrigation and power. See schematic diagram of Bear River basin.

AVERAGE DISCHARGE (prior to regulation by New Camp Far West Reservoir).--34 years (water years 1930-63), 417 ft³/s, 301,900 acre-ft/year; 22 years (water years 1964-85), 448 ft³/s, 324,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 33,000 ft³/s, Dec. 22, 1955, gage height, 19.30 ft site and datum then in use; maximum gage height, 20.83 ft, Nov. 21, 1950, site and datum then in use; no flow at times.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,850 ft³/s, Feb. 9, gage height, 10.50 ft; minimum daily, 6.9 ft³/s, Sept. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|------|-------|-------|-------|-------|-------|-------|------|------|------|------|-------|
| 1 | 20 | 28 | 886 | 355 | 39 | 366 | 540 | 30 | 30 | 17 | 15 | 12 |
| 2 | 20 | 24 | 744 | 353 | 55 | 361 | 463 | 35 | 32 | 14 | 15 | 11 |
| 3 | 20 | 24 | 722 | 351 | 59 | 342 | 396 | 36 | 32 | 15 | 15 | 11 |
| 4 | 20 | 24 | 702 | 350 | 324 | 217 | 430 | 39 | 36 | 17 | 16 | 9.3 |
| 5 | 20 | 24 | 621 | 348 | 558 | 34 | 283 | 38 | 33 | 15 | 15 | 10 |
| 6 | 20 | 24 | 572 | 344 | 434 | 42 | 36 | 39 | 35 | 14 | 15 | 11 |
| 7 | 20 | 24 | 555 | 340 | 155 | 410 | 35 | 39 | 29 | 14 | 16 | 11 |
| 8 | 21 | 28 | 530 | 334 | 2150 | 775 | 304 | 37 | 27 | 15 | 16 | 12 |
| 9 | 21 | 26 | 515 | 220 | 2350 | 672 | 607 | 34 | 25 | 15 | 17 | 12 |
| 10 | 21 | 26 | 596 | 220 | 1050 | 720 | 346 | 32 | 24 | 14 | 15 | 13 |
| 11 | 31 | 27 | 672 | 220 | 693 | 1140 | 48 | 32 | 24 | 14 | 14 | 12 |
| 12 | 26 | 28 | 618 | 195 | 627 | 846 | 226 | 33 | 24 | 13 | 13 | 13 |
| 13 | 22 | 33 | 564 | 170 | 606 | 657 | 442 | 31 | 25 | 13 | 18 | 11 |
| 14 | 21 | 28 | 559 | 170 | 576 | 533 | 411 | 34 | 24 | 13 | 14 | 12 |
| 15 | 21 | 27 | 556 | 170 | 597 | 426 | 306 | 32 | 23 | 14 | 15 | 9.8 |
| 16 | 22 | 27 | 620 | 140 | 592 | 370 | 248 | 29 | 24 | 14 | 15 | 11 |
| 17 | 28 | 26 | 602 | 120 | 372 | 366 | 234 | 29 | 26 | 12 | 14 | 11 |
| 18 | 45 | 29 | 566 | 120 | 196 | 366 | 160 | 29 | 30 | 13 | 14 | 10 |
| 19 | 47 | 28 | 533 | 120 | 171 | 473 | 209 | 31 | 28 | 15 | 15 | 9.6 |
| 20 | 40 | 28 | 476 | 90 | 69 | 351 | 199 | 30 | 28 | 19 | 15 | 8.7 |
| 21 | 35 | 49 | 448 | 80 | 64 | 32 | 201 | 31 | 27 | 20 | 16 | 9.5 |
| 22 | 32 | 103 | 404 | 70 | 40 | 141 | 189 | 30 | 27 | 22 | 14 | 13 |
| 23 | 30 | 138 | 401 | 64 | 62 | 398 | 143 | 29 | 28 | 21 | 13 | 15 |
| 24 | 32 | 387 | 392 | 76 | 148 | 591 | 87 | 31 | 30 | 20 | 14 | 14 |
| 25 | 19 | 812 | 383 | 63 | 155 | 351 | 58 | 32 | 37 | 17 | 13 | 11 |
| 26 | 29 | 707 | 384 | 68 | 344 | 91 | 32 | 31 | 33 | 16 | 13 | 6.9 |
| 27 | 29 | 723 | 382 | 71 | 349 | 587 | 25 | 34 | 28 | 18 | 13 | 7.1 |
| 28 | 29 | 1340 | 377 | 80 | 380 | 682 | 28 | 38 | 23 | 18 | 11 | 7.4 |
| 29 | 29 | 1430 | 370 | 103 | --- | 731 | 28 | 38 | 21 | 18 | 12 | 7.5 |
| 30 | 29 | 1070 | 363 | 57 | --- | 707 | 28 | 30 | 19 | 18 | 13 | 8.4 |
| 31 | 29 | --- | 359 | 177 | --- | 618 | --- | 28 | --- | 16 | 12 | --- |
| TOTAL | 828 | 7292 | 16472 | 5639 | 13215 | 14396 | 6742 | 1021 | 832 | 494 | 446 | 320.2 |
| MEAN | 26.7 | 243 | 531 | 182 | 472 | 464 | 225 | 32.9 | 27.7 | 15.9 | 14.4 | 10.7 |
| MAX | 47 | 1430 | 886 | 355 | 2350 | 1140 | 607 | 39 | 37 | 22 | 18 | 15 |
| MIN | 19 | 24 | 359 | 57 | 39 | 32 | 25 | 28 | 19 | 12 | 11 | 6.9 |
| AC-FT | 1640 | 14460 | 32670 | 11180 | 26210 | 28550 | 13370 | 2030 | 1650 | 980 | 885 | 635 |

CAL YR 1984 TOTAL 164322 MEAN 449 MAX 2950 MIN 13 AC-FT 325900
WTR YR 1985 TOTAL 67697.2 MEAN 185 MAX 2350 MIN 6.9 AC-FT 134300

SACRAMENTO RIVER BASIN

11425500 SACRAMENTO RIVER AT VERONA, CA

LOCATION.--Lat 38°46'51", long 121°36'12", in SW 1/4 SE 1/4 sec.23, T.11 N., R.3 E., Sutter County, Hydrologic Unit 18020109, on left bank 0.8 mi southeast of Verona, 1 mi downstream from Feather River, 6.2 mi east of Knights Landing, and at mile 19.6 upstream from Sacramento.

DRAINAGE AREA.--21,251 mi².

PERIOD OF RECORD.--May 1926 to September 1929 (low-water periods only), October 1929 to current year.

REVISED RECORDS.--WDR CA-77-4; Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 3.00 ft below National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation, return flow from irrigated areas, and bypassing for flood control. When discharge exceeds about 55,000 ft³/s flow begins over Fremont weir, 3.0 mi upstream on right bank, into Yolo Bypass (station 11453000).

AVERAGE DISCHARGE.--56 years (water years 1930-85), 19,430 ft³/s, 14,080,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 80,900 ft³/s, Feb. 22, 1980, gage height, 38.12 ft, from rating curve extended above 67,000 ft³/s, maximum gage height, 41.20 ft, Mar. 1, 1940; minimum daily, 304 ft³/s, July 23, 24, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 35,400 ft³/s, Nov. 30, gage height, 24.08 ft; minimum daily, 7,870 ft³/s, Apr. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|--------|---------|---------|--------|--------|--------|--------|--------|--------|----------|--------|--------|
| 1 | 12900 | 10200 | 33800 | 17400 | 12500 | 12600 | 14100 | 7940 | 14200 | 12200 | 12800 | 10800 |
| 2 | 13000 | 10600 | 31500 | 17200 | 12600 | 12100 | 13400 | 8300 | 14100 | 12800 | 12800 | 10800 |
| 3 | 12400 | 11200 | 30100 | 17100 | 12800 | 11700 | 13400 | 8570 | 14100 | 13100 | 12800 | 10800 |
| 4 | 11600 | 11400 | 30200 | 16500 | 12700 | 11600 | 13100 | 9050 | 13700 | 13700 | 12600 | 10900 |
| 5 | 11300 | 11800 | 32500 | 15800 | 13000 | 11300 | 13000 | 9620 | 13000 | 13400 | 12500 | 11000 |
| 6 | 11200 | 12100 | 33200 | 14800 | 13000 | 11400 | 12900 | 9800 | 12500 | 13200 | 12300 | 10900 |
| 7 | 11900 | 12100 | 32800 | 14600 | 12800 | 12400 | 12400 | 9940 | 11500 | 12900 | 12100 | 11000 |
| 8 | 11900 | 12300 | 32100 | 14900 | 14800 | 14700 | 11900 | 9670 | 10600 | 12800 | 11900 | 11000 |
| 9 | 11900 | 13000 | 31100 | 15100 | 27500 | 14900 | 11800 | 9720 | 10200 | 12900 | 11900 | 11400 |
| 10 | 11500 | 13600 | 30300 | 15500 | 30400 | 14900 | 12000 | 10000 | 10700 | 12800 | 12100 | 12800 |
| 11 | 11200 | 14400 | 30600 | 15400 | 26000 | 15800 | 11700 | 10200 | 11000 | 12700 | 12000 | 14200 |
| 12 | 10900 | 15100 | 32700 | 15300 | 21700 | 16800 | 10600 | 10500 | 11200 | 12800 | 12000 | 14400 |
| 13 | 11300 | 19600 | 34300 | 15000 | 18600 | 16000 | 9900 | 10600 | 10900 | 12900 | 12000 | 13400 |
| 14 | 11700 | 24900 | 33900 | 14900 | 16600 | 14800 | 9680 | 10800 | 10200 | 13400 | 11900 | 12800 |
| 15 | 11200 | 28300 | 32600 | 14800 | 14800 | 13500 | 9670 | 11000 | 9790 | 13900 | 12000 | 12300 |
| 16 | 10600 | 28500 | 31800 | 14800 | 13500 | 12100 | 10100 | 11100 | 9520 | 14400 | 12000 | 11700 |
| 17 | 10200 | 27200 | 31200 | 14400 | 13100 | 11300 | 11000 | 12700 | 9670 | 14900 | 12100 | 11200 |
| 18 | 9920 | 28000 | 30100 | 14200 | 12800 | 11100 | 11400 | 14000 | 9840 | 15200 | 12200 | 10900 |
| 19 | 9950 | 28200 | 28700 | 14200 | 12700 | 11000 | 11300 | 14200 | 10100 | 15400 | 12500 | 10500 |
| 20 | 9990 | 28300 | 27500 | 13700 | 12600 | 11000 | 11300 | 13000 | 10100 | 15600 | 12700 | 9650 |
| 21 | 9960 | 27700 | 26500 | 13500 | 13500 | 10600 | 11100 | 11700 | 10400 | 15400 | 11900 | 9200 |
| 22 | 9930 | 27700 | 25300 | 13200 | 14200 | 10100 | 10800 | 11700 | 10600 | 15700 | 11600 | 9140 |
| 23 | 9860 | 27800 | 24000 | 12900 | 14300 | 10100 | 10800 | 11800 | 10700 | 16000 | 11600 | 8900 |
| 24 | 9500 | 26900 | 22800 | 12600 | 14200 | 10100 | 10800 | 11800 | 11100 | 16000 | 11400 | 8400 |
| 25 | 9140 | 29400 | 21500 | 12400 | 14100 | 10200 | 10200 | 12400 | 11500 | 15800 | 11400 | 8090 |
| 26 | 9080 | 33000 | 20700 | 12300 | 14100 | 9970 | 9470 | 12500 | 10900 | 15100 | 11200 | 7980 |
| 27 | 9110 | 33000 | 20200 | 12200 | 14100 | 11300 | 9050 | 12800 | 10600 | 14000 | 10700 | 8260 |
| 28 | 9170 | 32700 | 19200 | 12100 | 13400 | 13400 | 8520 | 13200 | 10400 | 13400 | 10400 | 8750 |
| 29 | 9550 | 34400 | 18400 | 12100 | --- | 14800 | 8050 | 13500 | 10800 | 13200 | 10300 | 8840 |
| 30 | 9780 | 35200 | 17900 | 12200 | --- | 15100 | 7870 | 14000 | 11600 | 12900 | 10200 | 8770 |
| 31 | 9950 | --- | 17500 | 12300 | --- | 15000 | --- | 14200 | --- | 12900 | 10700 | --- |
| TOTAL | 331590 | 668600 | 865000 | 443400 | 436400 | 391670 | 331310 | 350310 | 335520 | 431400 | 366600 | 318780 |
| MEAN | 10700 | 22290 | 27900 | 14300 | 15590 | 12630 | 11040 | 11300 | 11180 | 13920 | 11830 | 10630 |
| MAX | 13000 | 35200 | 34300 | 17400 | 30400 | 16800 | 14100 | 14200 | 14200 | 16000 | 12800 | 14400 |
| MIN | 9080 | 10200 | 17500 | 12100 | 12500 | 9970 | 7870 | 7940 | 9520 | 12200 | 10200 | 7980 |
| AC-FT | 657700 | 1326000 | 1716000 | 879500 | 865600 | 776900 | 657200 | 694800 | 665500 | 855700 | 727200 | 632300 |
| CAL YR 1984 | TOTAL | 7811580 | MEAN | 21340 | MAX | 71700 | MIN | 8690 | AC-FT | 15490000 | | |
| WTR YR 1985 | TOTAL | 5270580 | MEAN | 14440 | MAX | 35200 | MIN | 7870 | AC-FT | 10450000 | | |

11426000 SACRAMENTO WEIR SPILL TO YOLO BYPASS, NEAR SACRAMENTO, CA

LOCATION.--Lat 38°36'25", long 121°33'15", unsurveyed, Sacramento County, Hydrologic Unit 18020109, two gages on right bank, one 100 ft upstream from weir and one 100 ft downstream from weir, 3.2 mi upstream from American River, 4 mi northwest of Sacramento, and at mile 4.2 upstream from Sacramento.

PERIOD OF RECORD.--October 1939 to current year. Monthly discharge only for water years 1940-51, published in WSP 1735. Published as Sacramento weir near Sacramento 1939-61. Gage-height records collected at same site February 1926 to September 1934 and major flood flows only October 1934 to September 1939 are contained in reports of California Department of Water Resources.

GAGE.--Water-stage recorders and concrete weir crest. Datum of gage is 3.00 ft below National Geodetic Vertical Datum of 1929. October 1939 to September 1942, October 1959 to September 1963, water-stage recorder or nonrecording gage at downstream end of weir. October 1942 to September 1959, water-stage recorder on left bank at Sacramento River opposite center of weir. Since February 1963, water-stage recorders on right bank 100 ft upstream and 100 ft downstream from ends of weir.

REMARKS.--Crest of weir is at gage height 22.0 ft and top of moveable gates at 28.0 ft. Weir consists of 48 gates each 38.1 ft long. Flow over weir enters Yolo Bypass by way of Sacramento Bypass. Flow regulated by weir gates. Since February 1963, stage is obtained by averaging the stage obtained at sites above and below the weir.

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

AVERAGE DISCHARGE.--46 years, 247 ft³/s, 179,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 118,000 ft³/s, Mar. 26, 1928; maximum gage height, 33.01 ft, Dec. 23, 1955; no flow all or most of each year.

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

SACRAMENTO RIVER BASIN

11426190 LAKE VALLEY CANAL NEAR EMIGRANT GAP, CA

LOCATION.--Lat 39°17'56", long 120°38'31", in SE 1/4 NE 1/4 sec.32, T.17 N., R.12 E., Placer County, Hydrologic Unit 18020128, on right bank 0.8 mi upstream from inlet to Carpenter Flat siphon and 1.5 mi east of Emigrant Gap.

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

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 5,410 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1979, on right bank 0.7 mi downstream at different datum.

REMARKS.--No estimated daily discharges. Canal diverts from right bank of the North Fork of North Fork American River, 2.0 mi downstream from Lake Valley Reservoir to the Drum Canal in the Bear River basin. See schematic diagram of Bear River and Yuba River basins.

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

AVERAGE DISCHARGE.--21 years, 16.6 ft³/s, 12,030 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 75 ft³/s, Jan. 13, 1980; no flow many days in each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|--------|--------|------|-------|------|------|------|-------|-------|------|------|------|
| 1 | .18 | 4.1 | 13 | 20 | 24 | 23 | 34 | 36 | 3.3 | .13 | .13 | 0 |
| 2 | .18 | 8.9 | 25 | 20 | 19 | 22 | 37 | 39 | 4.5 | .13 | .13 | 0 |
| 3 | .18 | 13 | 24 | 20 | 22 | 19 | 34 | 39 | 4.0 | .13 | .13 | 0 |
| 4 | .18 | 4.1 | 23 | 20 | 23 | 19 | 38 | 33 | 3.2 | .13 | .13 | 0 |
| 5 | .18 | 4.3 | 22 | 20 | 27 | 20 | 39 | 32 | 2.1 | .13 | .13 | 0 |
| 6 | .18 | 6.0 | 21 | 20 | 15 | 19 | 39 | 30 | 1.3 | .10 | .13 | 0 |
| 7 | .18 | 9.3 | 21 | 22 | 17 | 20 | 39 | 22 | 1.0 | .09 | .13 | 0 |
| 8 | .18 | 9.8 | 21 | 21 | 25 | 25 | 39 | 18 | .88 | .09 | .13 | .04 |
| 9 | 2.7 | .47 | 20 | 21 | 18 | 28 | 39 | 16 | .77 | .09 | .13 | .09 |
| 10 | 9.3 | .56 | 22 | 21 | 16 | 28 | 38 | 14 | .68 | .09 | .11 | .09 |
| 11 | 11 | 5.4 | 22 | 20 | 24 | 28 | 37 | 12 | .55 | .09 | .09 | .09 |
| 12 | 10 | 2.0 | 22 | 20 | 18 | 28 | 38 | 15 | .43 | .09 | .09 | .09 |
| 13 | 9.8 | 2.7 | 20 | 20 | 17 | 28 | 39 | 17 | .34 | .09 | .09 | .09 |
| 14 | 9.5 | 8.2 | 25 | 17 | 17 | 28 | 39 | 18 | .27 | .09 | .09 | .09 |
| 15 | 9.4 | 12 | 31 | 4.8 | 17 | 29 | 39 | 17 | .20 | .09 | .09 | .09 |
| 16 | 10 | 8.2 | 32 | 7.1 | 17 | 29 | 38 | 16 | .18 | .09 | .09 | .09 |
| 17 | 13 | 9.3 | 31 | 8.5 | 18 | 29 | 37 | 15 | .18 | .09 | .09 | 1.8 |
| 18 | 16 | 13 | 30 | 17 | 18 | 30 | 37 | 15 | .18 | .13 | .09 | .09 |
| 19 | 16 | 11 | 30 | 17 | 19 | 30 | 37 | 15 | .18 | .19 | .09 | .09 |
| 20 | 14 | 7.8 | 28 | 15 | 20 | 32 | 31 | 13 | .18 | .18 | .09 | .09 |
| 21 | 8.5 | 1.9 | 22 | 14 | 19 | 33 | 30 | 9.2 | .18 | .18 | .09 | .10 |
| 22 | 7.7 | 6.6 | 22 | 13 | 20 | 32 | 36 | 9.9 | .18 | .18 | .09 | .11 |
| 23 | 7.6 | 5.8 | 22 | 13 | 20 | 32 | 35 | 9.5 | .12 | .18 | .09 | .13 |
| 24 | 7.4 | 4.5 | 22 | 12 | 21 | 35 | 35 | 8.5 | .11 | .18 | 0 | .13 |
| 25 | 7.3 | 8.6 | 22 | 11 | 22 | 31 | 30 | 7.3 | .13 | .18 | 0 | .13 |
| 26 | 8.0 | 1.9 | 22 | 11 | 22 | 28 | 26 | 6.2 | .13 | .18 | 0 | .13 |
| 27 | 9.6 | 2.3 | 22 | 11 | 23 | 29 | 30 | 5.3 | .13 | .18 | 0 | .13 |
| 28 | 8.1 | 4.0 | 21 | 14 | 23 | 29 | 35 | 4.7 | .13 | .18 | 0 | .13 |
| 29 | 8.0 | 3.3 | 21 | 21 | --- | 28 | 35 | 4.7 | .13 | .10 | 0 | .13 |
| 30 | 3.0 | 3.1 | 21 | 21 | --- | 28 | 35 | 4.1 | .13 | .13 | 0 | .13 |
| 31 | 2.4 | --- | 21 | 20 | --- | 30 | --- | 3.6 | --- | .13 | 0 | --- |
| TOTAL | 209.74 | 182.13 | 721 | 512.4 | 561 | 849 | 1075 | 505.0 | 25.79 | 4.04 | 2.45 | 4.08 |
| MEAN | 6.77 | 6.07 | 23.3 | 16.5 | 20.0 | 27.4 | 35.8 | 16.3 | .86 | .13 | .079 | .14 |
| MAX | 16 | 13 | 32 | 22 | 27 | 35 | 39 | 39 | 4.5 | .19 | .13 | 1.8 |
| MIN | .18 | .47 | 13 | 4.8 | 15 | 19 | 26 | 3.6 | .11 | .09 | 0 | 0 |
| AC-FT | 416 | 361 | 1430 | 1020 | 1110 | 1680 | 2130 | 1000 | 51 | 8.0 | 4.9 | 8.1 |

CAL YR 1984 TOTAL 9559.87 MEAN 26.1 MAX 44 MIN 0 AC-FT 18960
WTR YR 1985 TOTAL 4651.63 MEAN 12.7 MAX 39 MIN 0 AC-FT 9230

11426200 NORTH FORK FORBES CREEK NEAR DUTCH FLAT, CA

LOCATION.--Lat 39°08'37", long 120°45'30", in NW 1/4 SE 1/4 sec.17, T.15 N., R.11 E., Placer County, Hydrologic Unit 18020128, Tahoe National Forest, on right bank 0.2 mi downstream from Big Reservoir, and 6.0 mi southeast of Dutch Flat.

DRAINAGE AREA.--1.68 mi².

PERIOD OF RECORD.--July 1956 to September 1985 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 3,980 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Flow regulated by Big Reservoir, capacity, 2,200 acre-ft. Some diversions above station for mining.

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

AVERAGE DISCHARGE.--29 years, 4.55 ft³/s, 3,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 377 ft³/s, Jan. 22, 1970, gage height, 4.76 ft; no flow many days in 1964-66, 1977, 1981, 1982.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known, 6.40 ft, probably Dec. 23, 1955, from floodmarks, discharge unknown.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 38 ft³/s, Apr. 7, gage height, 2.94 ft; minimum daily, 0.09 ft³/s, Oct. 6, 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|------|------|------|
| 1 | .12 | .49 | .92 | 1.3 | .74 | 3.2 | 8.2 | 1.7 | .27 | .18 | .18 | .14 |
| 2 | .11 | .48 | 1.7 | .80 | .74 | 3.4 | 6.9 | 1.6 | .27 | .18 | .18 | .14 |
| 3 | .11 | .29 | 2.3 | .69 | .74 | 3.1 | 7.4 | 1.5 | .27 | .18 | .18 | .16 |
| 4 | .11 | .29 | 1.5 | .54 | .74 | 3.6 | 8.2 | 1.6 | .24 | .18 | .16 | .16 |
| 5 | .11 | .29 | 1.4 | .98 | .69 | 3.7 | 9.2 | 1.6 | .24 | .18 | .16 | .14 |
| 6 | .09 | .38 | 1.3 | 1.6 | .59 | 4.8 | 9.2 | 1.8 | .22 | .18 | .16 | .14 |
| 7 | .09 | .41 | 1.3 | 1.8 | 1.2 | 5.0 | 15 | 2.0 | .22 | .18 | .16 | .14 |
| 8 | .11 | .64 | 1.1 | 1.6 | 7.9 | 3.6 | 17 | 2.3 | .22 | .18 | .16 | .17 |
| 9 | .12 | .54 | 1.1 | 1.4 | 7.1 | 3.4 | 9.9 | 2.3 | .22 | .18 | .16 | .18 |
| 10 | .14 | .59 | 2.3 | 1.3 | 5.4 | 3.9 | 6.7 | 2.1 | .22 | .18 | .16 | .16 |
| 11 | .24 | .54 | 2.3 | 1.9 | 4.4 | 3.6 | 6.4 | 2.4 | .22 | .20 | .14 | .14 |
| 12 | .22 | .45 | 1.9 | 1.2 | 5.5 | 3.2 | 6.4 | 1.7 | .22 | .20 | .14 | .14 |
| 13 | .24 | .55 | 1.6 | 1.1 | 4.4 | 3.1 | 5.6 | 1.7 | .22 | .20 | .14 | .12 |
| 14 | .24 | .29 | 1.1 | 1.1 | 3.2 | 3.2 | 5.2 | 1.4 | .22 | .20 | .14 | .12 |
| 15 | .32 | .24 | 1.2 | 1.1 | 3.5 | 4.1 | 4.8 | 1.3 | .22 | .20 | .14 | .12 |
| 16 | .41 | .24 | 1.4 | 1.1 | 3.6 | 4.2 | 4.6 | 1.1 | .22 | .20 | .14 | .12 |
| 17 | .22 | .22 | 1.4 | 1.1 | 3.2 | 4.3 | 4.4 | .99 | .22 | .20 | .14 | .12 |
| 18 | .22 | .24 | 1.3 | .99 | 3.1 | 4.3 | 4.1 | .80 | .22 | .18 | .16 | .12 |
| 19 | .22 | .24 | 2.1 | .86 | 3.1 | 4.8 | 3.9 | .69 | .22 | .18 | .16 | .12 |
| 20 | .24 | .24 | 2.3 | .80 | 3.1 | 5.0 | 3.6 | .69 | .22 | .18 | .16 | .14 |
| 21 | .24 | .27 | 1.9 | .74 | 2.7 | 5.4 | 3.7 | .64 | .22 | .18 | .16 | .14 |
| 22 | .24 | .27 | 1.6 | .59 | 2.6 | 5.4 | 3.7 | .64 | .24 | .18 | .16 | .14 |
| 23 | .27 | .27 | 1.4 | .49 | 2.4 | 5.2 | 3.4 | .59 | .24 | .18 | .16 | .12 |
| 24 | .29 | .58 | 1.2 | .45 | 2.7 | 6.1 | 3.0 | .59 | .24 | .18 | .16 | .11 |
| 25 | .29 | .45 | 1.1 | .45 | 7.1 | 8.0 | 2.7 | .65 | .27 | .18 | .16 | .11 |
| 26 | .35 | .35 | .99 | .38 | 5.8 | 6.7 | 2.3 | 1.3 | .24 | .18 | .16 | .11 |
| 27 | .38 | .66 | .99 | .38 | 4.1 | 6.4 | 2.1 | 1.1 | .20 | .18 | .14 | .12 |
| 28 | .41 | 1.1 | .86 | .45 | 3.4 | 6.4 | 1.9 | .92 | .20 | .18 | .14 | .14 |
| 29 | .45 | .74 | 1.2 | .74 | --- | 5.2 | 1.8 | .74 | .18 | .18 | .14 | .12 |
| 30 | .45 | .74 | 1.3 | 1.1 | --- | 4.8 | 1.8 | .43 | .18 | .18 | .14 | .14 |
| 31 | .45 | --- | 1.1 | .92 | --- | 7.8 | --- | .28 | --- | .18 | .14 | --- |
| TOTAL | 7.50 | 13.08 | 45.16 | 29.95 | 93.74 | 144.9 | 173.1 | 39.15 | 6.80 | 5.72 | 4.78 | 4.04 |
| MEAN | .24 | .44 | 1.46 | .97 | 3.35 | 4.67 | 5.77 | 1.26 | .23 | .18 | .15 | .13 |
| MAX | .45 | 1.1 | 2.3 | 1.9 | 7.9 | 8.0 | 17 | 2.4 | .27 | .20 | .18 | .18 |
| MIN | .09 | .22 | .86 | .38 | .59 | 3.1 | 1.8 | .28 | .18 | .18 | .14 | .11 |
| AC-FT | 15 | 26 | 90 | 59 | 186 | 287 | 343 | 78 | 13 | 11 | 9.5 | 8.0 |
| CAL YR 1984 | TOTAL | 961.43 | MEAN | 2.63 | MAX | 27 | MIN | .09 | AC-FT | 1910 | | |
| WTR YR 1985 | TOTAL | 567.92 | MEAN | 1.56 | MAX | 17 | MIN | .09 | AC-FT | 1130 | | |

SACRAMENTO RIVER BASIN

11426400 NORTH SHIRTTAIL CREEK NEAR DUTCH FLAT, CA

LOCATION.--Lat 39°07'40", long 120°48'01", in SE 1/4 SW 1/4 sec.24, T.15 N., R.10 E., Placer County, Hydrologic Unit 18020128, Tahoe National Forest, on left bank by spillway terminal structure downstream from Sugar Pine Dam, and 5.6 mi southeast of Dutch Flat.

DRAINAGE AREA.--9.10 mi².

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

REVISED RECORDS.--WRD CA-84-4: 1982(M), 1983(M).

GAGE.--Water-stage recorder. Datum of gage is 3,371.09 ft above National Geodetic Vertical Datum of 1929 (levels by Gordon Ball Contractors, Division of Dillingham Corporation). Prior to Nov. 4, 1981, at site 2,000 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 1-11, Apr. 25-June 25. Flow slightly regulated by Big Reservoir, capacity, 2,200 acre-ft. Since November 1981, regulated by Sugar Pine Reservoir, capacity, 6,700 acre-ft. Foresthill Public Utility District diverts up to 2,800 acre-ft annually since construction of Sugar Pine Dam.

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

AVERAGE DISCHARGE.--25 years (water years 1957-81) 19.6 ft³/s, 14,200 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,370 ft³/s, Jan. 13, 1980, gage height, 12.32 ft site and datum then in use; from rating curve extended above 590 ft³/s on basis of slope-area measurement of peak flow; no flow many days in 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Dec. 23, 1955, reached a stage of 7.30 ft, site and datum then in use, from floodmarks, discharge, 1,650 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 523 ft³/s, Nov. 28, gage height, 29.75 ft; minimum daily, 0.71 ft³/s, several days in November.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|-------|-------|-------|------|-------|-------|-------|-------|-------|-------|
| 1 | 1.3 | 1.3 | 1.6 | 10 | 5.0 | 12 | 34 | 5.0 | 2.6 | 2.0 | .99 | .99 |
| 2 | 1.3 | 1.4 | 1.6 | 10 | 5.0 | 12 | 49 | 5.0 | 2.6 | 2.0 | .99 | .99 |
| 3 | 1.3 | 1.5 | 1.6 | 10 | 5.0 | 12 | 51 | 5.0 | 2.6 | 2.1 | .99 | .99 |
| 4 | 1.3 | 1.4 | 1.6 | 10 | 5.0 | 12 | 51 | 4.0 | 2.6 | 2.0 | .99 | .99 |
| 5 | 1.3 | 1.4 | 1.6 | 10 | 5.0 | 12 | 51 | 4.0 | 2.6 | 2.0 | .99 | 1.0 |
| 6 | 1.3 | 1.4 | 1.6 | 6.0 | 5.0 | 12 | 50 | 4.0 | 2.5 | 2.0 | .99 | 1.0 |
| 7 | 1.3 | 1.4 | 1.5 | 5.2 | 5.2 | 12 | 44 | 4.0 | 2.5 | 2.0 | .99 | 1.0 |
| 8 | 1.3 | 1.8 | 1.6 | 5.1 | 8.1 | 12 | 46 | 3.5 | 2.5 | 2.0 | .99 | 1.1 |
| 9 | 1.3 | 1.7 | 3.0 | 5.1 | 7.2 | 12 | 41 | 3.5 | 2.5 | 2.0 | .99 | 1.0 |
| 10 | 1.3 | 1.5 | 5.4 | 5.1 | 7.0 | 13 | 33 | 3.5 | 2.5 | 2.0 | .99 | 1.0 |
| 11 | 1.3 | 1.8 | 5.3 | 5.1 | 6.8 | 13 | 29 | 3.5 | 2.5 | 2.0 | .99 | 1.0 |
| 12 | 1.3 | 1.6 | 7.4 | 5.1 | 6.7 | 13 | 24 | 3.5 | 2.4 | 2.0 | .99 | 1.0 |
| 13 | 1.3 | 1.8 | 10 | 5.1 | 6.7 | 13 | 22 | 3.5 | 2.4 | 2.0 | .99 | 1.0 |
| 14 | 1.3 | .90 | 10 | 5.1 | 6.7 | 13 | 20 | 3.5 | 2.4 | 2.0 | 1.0 | .99 |
| 15 | 1.3 | .74 | 10 | 5.1 | 6.7 | 13 | 19 | 3.0 | 2.4 | 2.0 | .99 | .99 |
| 16 | 1.4 | .71 | 10 | 5.1 | 6.7 | 13 | 17 | 3.0 | 2.4 | 2.0 | .99 | .99 |
| 17 | 1.4 | .71 | 10 | 5.1 | 8.7 | 12 | 16 | 3.0 | 2.4 | 1.5 | .99 | 1.0 |
| 18 | 1.3 | .78 | 10 | 5.1 | 11 | 16 | 16 | 3.0 | 2.3 | .99 | .99 | 1.0 |
| 19 | 1.3 | .71 | 10 | 5.1 | 11 | 19 | 16 | 3.0 | 2.3 | .99 | .99 | .99 |
| 20 | 1.3 | .74 | 10 | 5.1 | 11 | 25 | 15 | 3.0 | 2.3 | .99 | .99 | .99 |
| 21 | 1.3 | .74 | 10 | 5.1 | 11 | 25 | 16 | 3.0 | 2.3 | 1.0 | .99 | .99 |
| 22 | 1.3 | .71 | 10 | 5.1 | 11 | 25 | 16 | 2.8 | 2.3 | 1.0 | .99 | .94 |
| 23 | 1.3 | .71 | 10 | 5.1 | 11 | 24 | 15 | 2.8 | 2.3 | .99 | .99 | .99 |
| 24 | 1.3 | .90 | 10 | 5.1 | 11 | 27 | 15 | 2.8 | 2.2 | .99 | .99 | .99 |
| 25 | 1.3 | .90 | 10 | 5.1 | 11 | 30 | 13 | 2.7 | 2.2 | .99 | .99 | 1.2 |
| 26 | 1.3 | .82 | 10 | 5.1 | 11 | 34 | 11 | 2.7 | 2.2 | .99 | .99 | 1.4 |
| 27 | 1.3 | 10 | 10 | 5.1 | 11 | 42 | 9.0 | 2.7 | 2.0 | .87 | .99 | 1.4 |
| 28 | 1.3 | 115 | 10 | 5.1 | 11 | 36 | 7.0 | 2.7 | 2.0 | .82 | .99 | 1.4 |
| 29 | 1.3 | 1.9 | 10 | 5.0 | --- | 24 | 6.0 | 2.7 | 2.0 | .94 | .99 | 1.4 |
| 30 | 1.3 | 1.8 | 10 | 5.0 | --- | 22 | 6.0 | 2.7 | 2.0 | .99 | .99 | 1.4 |
| 31 | 1.3 | --- | 10 | 5.0 | --- | 24 | --- | 2.6 | --- | 1.3 | .99 | --- |
| TOTAL | 40.5 | 158.77 | 223.8 | 183.3 | 227.5 | 584 | 758.0 | 103.7 | 70.8 | 47.45 | 30.70 | 32.12 |
| MEAN | 1.31 | 5.29 | 7.22 | 5.91 | 8.12 | 18.8 | 25.3 | 3.35 | 2.36 | 1.53 | .99 | 1.07 |
| MAX | 1.4 | 115 | 10 | 10 | 11 | 42 | 51 | 5.0 | 2.6 | 2.1 | 1.0 | 1.4 |
| MIN | 1.3 | .71 | 1.5 | 5.0 | 5.0 | 12 | 6.0 | 2.6 | 2.0 | .82 | .99 | .94 |
| AC-FT | 80 | 315 | 444 | 364 | 451 | 1160 | 1500 | 206 | 140 | 94 | 61 | 64 |
| CAL YR 1984 | TOTAL | 4126.77 | MEAN | 11.5 | MAX | 323 | MIN | .71 | AC-FT | 8380 | | |
| WTR YR 1985 | TOTAL | 2460.64 | MEAN | 6.74 | MAX | 115 | MIN | .71 | AC-FT | 4880 | | |

11427000 NORTH FORK AMERICAN RIVER AT NORTH FORK DAM, CA

LOCATION.--Lat 38°56'10", long 121°01'22", in SW 1/4 NW 1/4 sec.31, T.13 N., R.9 E., Placer County, Hydrologic Unit 18020128, on left bank 50 ft upstream from spillway at North Fork Dam, 2 mi upstream from Middle Fork, and 4 mi northeast of Auburn.

DRAINAGE AREA.--342 mi².

PERIOD OF RECORD.--October 1941 to current year.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 715.0 ft above National Geodetic Vertical Datum of 1929 (levels by Corps of Engineers).

REMARKS.--No estimated daily discharges. Records good. Minor regulation by Lake Clementine, usable capacity, 12,800 acre-ft formed by North Fork Dam. Storage in Big Reservoir and Lake Valley Reservoir, combined capacity, 10,300 acre-ft above station. Lake Valley Canal (station 11426190) diverts from North Fork of North Fork American River into Bear River basin for power development in powerhouses of Pacific Gas and Electric Co. Combined storage and diversion have small effect on natural flow.

AVERAGE DISCHARGE.--44 years, 844 ft³/s, 611,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 65,400 ft³/s, Dec. 23, 1964, gage height, 11.87 ft, from rating curve extended above 24,000 ft³/s on basis of computed flow over spillway of dam at gage height 10.22 ft; no flow Aug. 27-30, Sept. 2-11, 1944, Oct. 5, 6, 1963, Nov. 7-10, 1965, caused by operation of valve in North Fork Dam.

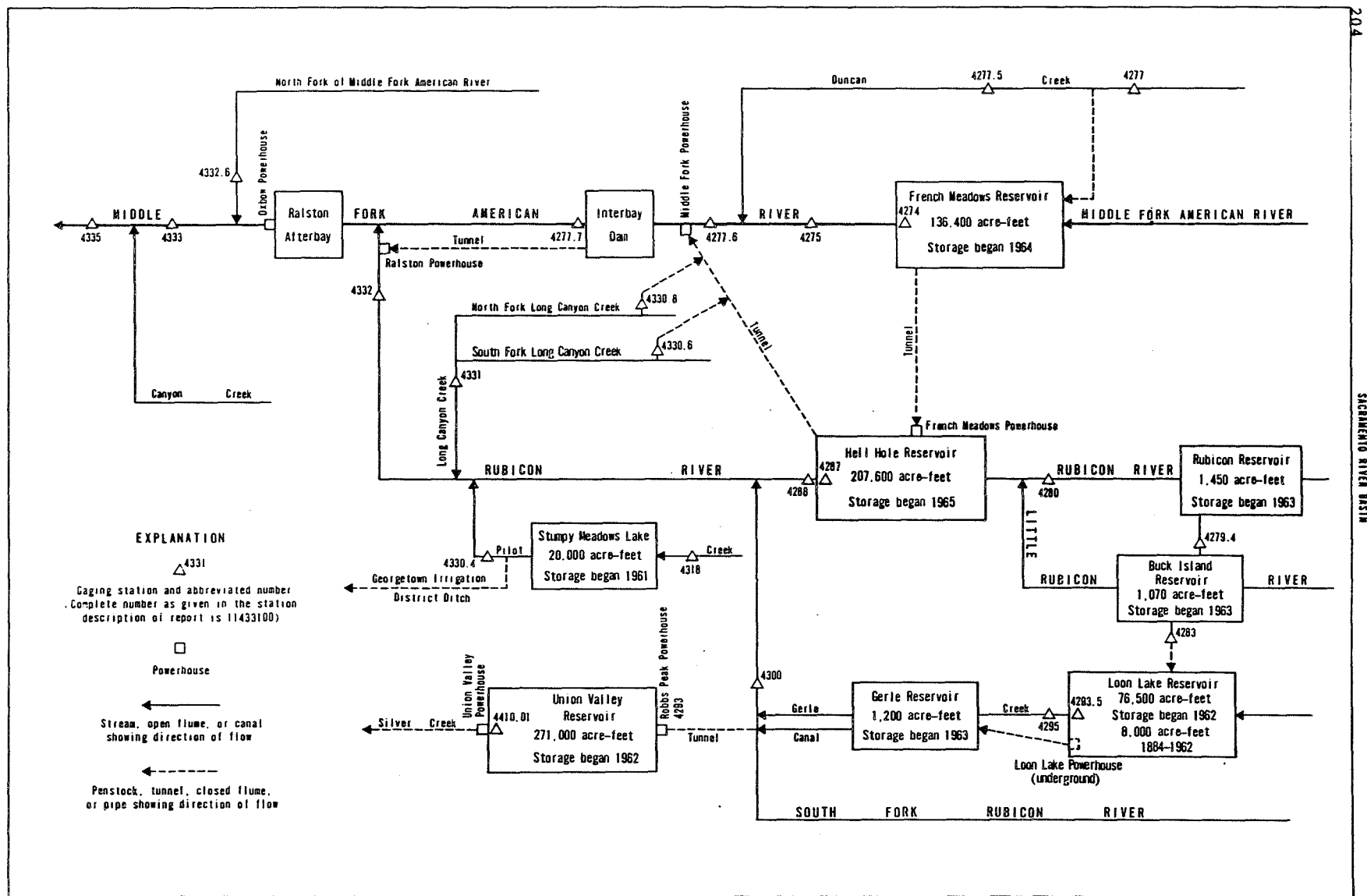
EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 4,300 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|--------|------|-----------------------------------|---------------------|------|------|-----------------------------------|---------------------|
| Feb. 8 | 1315 | *5,070 | *3.78 | | | | |

Minimum daily, 30 ft³/s, Aug. 27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|------|------|
| 1 | 59 | 114 | 656 | 218 | 181 | 440 | 1060 | 1330 | 350 | 90 | 43 | 35 |
| 2 | 65 | 112 | 551 | 213 | 192 | 465 | 1430 | 1480 | 349 | 87 | 44 | 33 |
| 3 | 58 | 780 | 513 | 211 | 184 | 410 | 1680 | 1530 | 378 | 83 | 43 | 33 |
| 4 | 56 | 358 | 452 | 210 | 178 | 406 | 1690 | 1290 | 353 | 80 | 42 | 33 |
| 5 | 55 | 201 | 413 | 212 | 172 | 403 | 1810 | 1170 | 355 | 78 | 41 | 34 |
| 6 | 55 | 177 | 380 | 215 | 172 | 447 | 1940 | 1210 | 367 | 76 | 40 | 34 |
| 7 | 58 | 321 | 357 | 249 | 200 | 572 | 1930 | 1190 | 364 | 74 | 38 | 36 |
| 8 | 58 | 463 | 348 | 296 | 2850 | 559 | 1910 | 1060 | 358 | 72 | 36 | 43 |
| 9 | 56 | 414 | 336 | 256 | 1440 | 520 | 1870 | 935 | 334 | 70 | 36 | 69 |
| 10 | 56 | 287 | 414 | 243 | 737 | 613 | 1950 | 849 | 310 | 65 | 34 | 78 |
| 11 | 87 | 712 | 451 | 229 | 541 | 824 | 1830 | 735 | 284 | 65 | 34 | 58 |
| 12 | 97 | 1160 | 417 | 219 | 451 | 678 | 1650 | 716 | 265 | 66 | 34 | 47 |
| 13 | 75 | 1100 | 397 | 212 | 403 | 641 | 1740 | 762 | 252 | 65 | 34 | 43 |
| 14 | 65 | 962 | 357 | 207 | 394 | 625 | 2040 | 856 | 238 | 61 | 34 | 42 |
| 15 | 61 | 556 | 358 | 205 | 397 | 613 | 2160 | 916 | 221 | 59 | 34 | 42 |
| 16 | 69 | 439 | 386 | 205 | 408 | 612 | 2050 | 817 | 208 | 58 | 34 | 42 |
| 17 | 131 | 411 | 353 | 204 | 415 | 615 | 1580 | 826 | 201 | 56 | 35 | 45 |
| 18 | 121 | 430 | 332 | 209 | 416 | 641 | 1340 | 844 | 192 | 55 | 36 | 65 |
| 19 | 96 | 425 | 321 | 222 | 429 | 649 | 1360 | 844 | 182 | 53 | 36 | 56 |
| 20 | 93 | 363 | 310 | 225 | 446 | 668 | 1140 | 847 | 170 | 52 | 36 | 47 |
| 21 | 104 | 405 | 291 | 228 | 418 | 707 | 1000 | 764 | 158 | 54 | 36 | 44 |
| 22 | 97 | 351 | 277 | 227 | 388 | 684 | 995 | 748 | 148 | 55 | 34 | 42 |
| 23 | 86 | 308 | 268 | 218 | 386 | 636 | 1000 | 766 | 137 | 54 | 33 | 42 |
| 24 | 84 | 644 | 265 | 208 | 392 | 709 | 1030 | 762 | 130 | 51 | 33 | 42 |
| 25 | 82 | 857 | 262 | 202 | 407 | 741 | 970 | 701 | 122 | 49 | 33 | 41 |
| 26 | 85 | 535 | 257 | 207 | 419 | 727 | 860 | 634 | 115 | 48 | 31 | 40 |
| 27 | 97 | 538 | 251 | 204 | 429 | 1370 | 810 | 565 | 109 | 46 | 30 | 40 |
| 28 | 135 | 2800 | 243 | 209 | 440 | 1460 | 1000 | 512 | 103 | 43 | 31 | 39 |
| 29 | 132 | 1370 | 236 | 212 | --- | 1080 | 1170 | 457 | 98 | 42 | 31 | 39 |
| 30 | 161 | 856 | 229 | 193 | --- | 868 | 1120 | 409 | 93 | 42 | 33 | 39 |
| 31 | 136 | --- | 224 | 183 | --- | 878 | --- | 374 | --- | 42 | 36 | --- |
| TOTAL | 2670 | 18449 | 10905 | 6751 | 13885 | 21261 | 44115 | 26899 | 6944 | 1891 | 1105 | 1323 |
| MEAN | 86.1 | 615 | 352 | 218 | 496 | 686 | 1470 | 868 | 231 | 61.0 | 35.6 | 44.1 |
| MAX | 161 | 2800 | 656 | 296 | 2850 | 1460 | 2160 | 1530 | 378 | 90 | 44 | 78 |
| MIN | 55 | 112 | 224 | 183 | 172 | 403 | 810 | 374 | 93 | 42 | 30 | 33 |
| AC-FT | 5300 | 36590 | 21630 | 13390 | 27540 | 42170 | 87500 | 53350 | 13770 | 3750 | 2190 | 2620 |
| CAL YR 1984 | TOTAL | 245753 | MEAN | 671 | MAX | 4180 | MIN | 47 | AC-FT | 487500 | | |
| WTR YR 1985 | TOTAL | 156198 | MEAN | 428 | MAX | 2850 | MIN | 30 | AC-FT | 309800 | | |



11427400 FRENCH MEADOWS RESERVOIR NEAR FORESTHILL, CA

LOCATION.--Lat 39°06'32", long 120°25'49", in SW 1/4 NE 1/4 sec.32, T.15 N., R.14 E., Placer County, Hydrologic Unit 18020128, Tahoe National Forest, on left bank 2.2 mi upstream from dam on Middle Fork American River, 6.9 mi upstream from Chipmunk Creek, and 21 mi northeast of Foresthill.

DRAINAGE AREA.--47.0 mi².

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

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Placer County Water Agency).

REMARKS.--Reservoir is formed by rockfill dam with earth core. Storage began Dec. 21, 1964. Usable capacity, 125,601 acre-ft between elevations 5,125 ft minimum operating level, and 5,263 ft, top of radial gates. Dead storage, 10,804 acre-ft. Reservoir is used to store water for hydroelectric power. Up to 400 ft³/s is diverted from Duncan Creek through a tunnel to reservoir. Water is released through a tunnel to French Meadows powerplant at Hell Hole Reservoir on the Rubicon River; release began Dec. 13, 1965. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records were collected by Placer County Water Agency, under general Supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 137,700 acre-ft, May 19, 1966, elevation, 5,263.9 ft; minimum since reservoir first filled, 37,722 acre-ft, Nov. 20, 1977, elevation, 5,170.86 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 123,849 acre-ft, June 10, elevation, 5,253.90 ft; minimum, 54,355 acre-ft, Dec. 21, elevation, 5,191.21 ft.

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

| | | | |
|-------|--------|-------|---------|
| 5,125 | 10,804 | 5,200 | 62,447 |
| 5,130 | 13,075 | 5,230 | 94,074 |
| 5,150 | 23,743 | 5,270 | 146,502 |
| 5,170 | 37,085 | | |

 CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
 INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1 | 81629 | 64680 | 62352 | 54963 | 57460 | 60954 | 67899 | 100800 | 121580 | 119597 | 111564 | 98087 |
| 2 | 80788 | 64796 | 62030 | 55007 | 57505 | 61095 | 68444 | 102169 | 121926 | 119295 | 111325 | 97344 |
| 3 | 80025 | 64806 | 61783 | 55106 | 57569 | 61349 | 69151 | 103378 | 122152 | 118876 | 111299 | 96733 |
| 4 | 79235 | 64787 | 61321 | 55178 | 57596 | 61424 | 70052 | 104459 | 122418 | 118522 | 111261 | 96053 |
| 5 | 78448 | 64497 | 60898 | 55258 | 57678 | 61764 | 71070 | 105484 | 122698 | 118286 | 110958 | 95371 |
| 6 | 77654 | 64401 | 60475 | 55312 | 57725 | 61982 | 72299 | 106638 | 122966 | 118260 | 110569 | 94783 |
| 7 | 76907 | 64381 | 60027 | 55447 | 57944 | 62200 | 73610 | 107439 | 123246 | 118260 | 110180 | 94271 |
| 8 | 76172 | 64275 | 59561 | 55501 | 58248 | 62323 | 74932 | 108270 | 123501 | 117921 | 109779 | 93612 |
| 9 | 75546 | 64015 | 59115 | 55582 | 58294 | 62438 | 76371 | 108991 | 123742 | 117543 | 109491 | 93150 |
| 10 | 74850 | 63803 | 58865 | 55627 | 58368 | 62656 | 77908 | 109629 | 123849 | 117162 | 109441 | 92552 |
| 11 | 74384 | 64150 | 58377 | 55663 | 58423 | 62789 | 79203 | 110156 | 123474 | 116815 | 109416 | 91933 |
| 12 | 73683 | 64227 | 57963 | 55735 | 58478 | 62914 | 80465 | 110758 | 123285 | 116582 | 109041 | 91269 |
| 13 | 72892 | 64680 | 57451 | 55780 | 58543 | 63009 | 82073 | 111426 | 123099 | 116543 | 108643 | 90632 |
| 14 | 72156 | 64642 | 57013 | 55807 | 58598 | 63258 | 83927 | 112146 | 123006 | 116530 | 108270 | 89974 |
| 15 | 71334 | 64458 | 56658 | 55879 | 58681 | 63391 | 85711 | 112845 | 123073 | 116219 | 107885 | 89318 |
| 16 | 70979 | 64284 | 56258 | 55915 | 58764 | 63593 | 87366 | 113469 | 123166 | 115818 | 107662 | 88643 |
| 17 | 70374 | 64102 | 55825 | 55969 | 58875 | 63784 | 88643 | 114160 | 122965 | 115444 | 107650 | 87936 |
| 18 | 69771 | 63958 | 55348 | 56069 | 58977 | 63996 | 89782 | 114839 | 122605 | 115071 | 107612 | 87311 |
| 19 | 69161 | 63813 | 54855 | 56204 | 59143 | 64244 | 90837 | 115625 | 122312 | 114865 | 107217 | 86698 |
| 20 | 68593 | 63622 | 54561 | 56295 | 59255 | 64381 | 91361 | 116245 | 122006 | 114839 | 106687 | 86032 |
| 21 | 67919 | 63363 | 54355 | 56431 | 59440 | 64690 | 92116 | 116737 | 121779 | 114827 | 105999 | 85335 |
| 22 | 67444 | 63200 | 54391 | 56521 | 59533 | 64981 | 93174 | 117387 | 121779 | 114480 | 105240 | 84674 |
| 23 | 67050 | 62980 | 54453 | 56658 | 59673 | 65272 | 93971 | 118051 | 121726 | 114109 | 104507 | 84015 |
| 24 | 66696 | 63018 | 54507 | 56739 | 59840 | 65670 | 94852 | 118640 | 121500 | 113763 | 103717 | 83391 |
| 25 | 66383 | 62809 | 54570 | 56840 | 60027 | 65934 | 95563 | 119203 | 121102 | 113393 | 102978 | 82692 |
| 26 | 66109 | 62599 | 54632 | 56958 | 60241 | 66109 | 96193 | 119703 | 120612 | 113163 | 102205 | 82052 |
| 27 | 66099 | 62656 | 54685 | 57031 | 60466 | 66667 | 96062 | 120137 | 120230 | 113113 | 101459 | 81403 |
| 28 | 65914 | 62923 | 54703 | 57140 | 60709 | 66883 | 97851 | 120560 | 119953 | 113074 | 100704 | 80712 |
| 29 | 65670 | 62809 | 54828 | 57204 | --- | 67089 | 98620 | 120851 | 119953 | 112680 | 100046 | 80036 |
| 30 | 65398 | 62647 | 54864 | 57258 | --- | 67276 | 99582 | 121115 | 119940 | 112260 | 99416 | 79363 |
| 31 | 65039 | --- | 54935 | 57331 | --- | 67533 | --- | 121380 | --- | 111982 | 98750 | --- |
| MAX | 81629 | 64806 | 62352 | 57331 | 60709 | 67533 | 99582 | 121380 | 123849 | 119597 | 111564 | 98087 |
| MIN | 65039 | 62599 | 54355 | 54963 | 57460 | 60954 | 67899 | 100800 | 119940 | 111982 | 98750 | 79363 |
| a | 5202.70 | 5200.21 | 5191.86 | 5194.51 | 5198.16 | 5205.25 | 5234.69 | 5252.05 | 5250.96 | 5244.80 | 5233.99 | 5216.77 |
| b | -17305 | -2392 | -7712 | +2396 | +3378 | +6824 | +32049 | +21798 | -1440 | -7958 | -13232 | -19387 |

CAL YR 1984 b -57706

WTR YR 1985 b -2981

a Elevation, in feet NGVD, at end of month.
b Change in contents, in acre-feet.

SACRAMENTO RIVER BASIN

11427500 MIDDLE FORK AMERICAN RIVER AT FRENCH MEADOWS, CA

LOCATION.--Lat 39°06'35", long 120°28'49", in SW 1/4 NW 1/4 sec.36, T.15 N., R.13 E., Placer County, Hydrologic Unit 18020128, Tahoe National Forest, on left bank 0.6 mi downstream from French Meadows Dam, 4.1 mi upstream from Chipmunk Creek, and 14 mi south of Cisco.

DRAINAGE AREA.--47.9 mi².

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

REVISED RECORDS.--WSP 1445: 1953-54. WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,920 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1962, at site 0.8 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Feb. 7-10. Considerable regulation by French Meadows Reservoir (station 11427400) 0.6 mi upstream beginning December 1964. Water diverted into basin from Duncan Creek to French Meadows Reservoir since December 1964. Water diverted out of basin from French Meadows Reservoir to Hell Hole Reservoir since December 1965. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Gage-height record and discharge measurements were provided by the Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--13 years (water years 1952-64, prior to regulation by French Meadows Reservoir), 149 ft³/s, 107,900 acre-ft/yr; 21 years (water years 1965-85), 21.4 ft³/s, 15,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 21,500 ft³/s, Jan. 31, 1963, gage height, 14.20 ft, from rating curve extended above 1,100 ft³/s on basis of peak flow at former site; minimum 0.3 ft³/s, Oct. 4, 5, 21-25, 1960, Oct. 5, 6, 1961. Maximum discharge since construction of French Meadows Dam in 1964, 1,310 ft³/s, Apr. 30, 1965, gage height, 7.68 ft; minimum daily, 0.8 ft³/s, Oct. 22-25, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 93 ft³/s, May 15, gage height, 5.18 ft; minimum daily, 8.1 ft³/s, on several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-----------|---------|---------|------------|-------|-------|-------|-------|-------|-------|
| 1 | 8.3 | 8.3 | 9.9 | 8.3 | 8.6 | 10 | 11 | 10 | 9.1 | 8.6 | 8.6 | 9.1 |
| 2 | 8.3 | 9.9 | 9.6 | 8.3 | 8.6 | 10 | 12 | 9.8 | 9.0 | 8.6 | 8.6 | 9.1 |
| 3 | 8.3 | 9.0 | 9.4 | 8.3 | 8.6 | 10 | 13 | 9.4 | 8.8 | 8.6 | 8.6 | 8.9 |
| 4 | 8.3 | 8.4 | 9.3 | 8.3 | 8.6 | 10 | 14 | 9.2 | 8.8 | 8.6 | 8.6 | 8.7 |
| 5 | 8.3 | 8.3 | 9.1 | 8.3 | 8.6 | 10 | 14 | 9.1 | 8.7 | 8.6 | 8.6 | 8.3 |
| 6 | 8.3 | 9.1 | 9.1 | 8.5 | 8.4 | 10 | 15 | 9.1 | 8.6 | 8.6 | 8.6 | 8.3 |
| 7 | 8.3 | 8.7 | 9.1 | 8.3 | 8.4 | 10 | 15 | 9.1 | 8.6 | 8.6 | 8.6 | 8.3 |
| 8 | 8.3 | 8.9 | 9.1 | 8.5 | 8.4 | 10 | 15 | 9.1 | 8.6 | 8.6 | 8.6 | 8.9 |
| 9 | 8.3 | 8.6 | 9.1 | 8.6 | 8.5 | 10 | 15 | 9.0 | 8.6 | 8.6 | 8.4 | 9.1 |
| 10 | 8.3 | 8.8 | 9.1 | 8.6 | 8.8 | 10 | 15 | 8.8 | 8.6 | 8.6 | 8.3 | 8.8 |
| 11 | 8.8 | 11 | 9.1 | 8.5 | 8.8 | 10 | 14 | 8.8 | 8.6 | 8.6 | 8.3 | 8.6 |
| 12 | 8.3 | 9.9 | 9.1 | 8.3 | 8.8 | 10 | 13 | 8.8 | 8.7 | 8.6 | 8.4 | 8.6 |
| 13 | 8.3 | 12 | 8.8 | 8.3 | 8.8 | 10 | 12 | 8.7 | 8.8 | 8.6 | 8.6 | 8.6 |
| 14 | 8.3 | 10 | 8.8 | 8.3 | 8.8 | 10 | 13 | 8.5 | 8.8 | 8.6 | 8.6 | 8.6 |
| 15 | 8.3 | 9.4 | 8.8 | 8.3 | 8.9 | 10 | 13 | 15 | 8.8 | 8.6 | 8.6 | 8.6 |
| 16 | 8.8 | 9.5 | 8.8 | 8.4 | 9.1 | 10 | 12 | 8.4 | 8.8 | 8.4 | 8.6 | 8.6 |
| 17 | 8.6 | 9.3 | 8.8 | 8.6 | 9.1 | 10 | 12 | 8.3 | 8.8 | 8.3 | 8.6 | 8.6 |
| 18 | 8.3 | 9.7 | 8.8 | 8.6 | 9.2 | 10 | 11 | 8.3 | 8.8 | 8.3 | 8.6 | 8.6 |
| 19 | 8.3 | 9.5 | 8.8 | 8.6 | 9.4 | 10 | 11 | 8.8 | 8.8 | 8.3 | 8.6 | 8.6 |
| 20 | 8.5 | 9.2 | 8.6 | 8.6 | 9.4 | 11 | 11 | 9.1 | 8.8 | 8.3 | 8.6 | 8.6 |
| 21 | 8.2 | 9.1 | 8.3 | 8.6 | 9.4 | 11 | 11 | 9.1 | 8.8 | 8.3 | 8.6 | 8.4 |
| 22 | 8.1 | 9.1 | 8.3 | 8.6 | 9.5 | 11 | 11 | 9.1 | 8.8 | 8.3 | 8.4 | 8.2 |
| 23 | 8.1 | 9.1 | 8.3 | 8.6 | 9.7 | 11 | 10 | 8.8 | 8.8 | 8.3 | 8.3 | 8.1 |
| 24 | 8.1 | 11 | 8.3 | 8.6 | 9.8 | 11 | 9.8 | 8.8 | 8.8 | 8.2 | 8.3 | 8.1 |
| 25 | 8.1 | 10 | 8.3 | 8.6 | 10 | 11 | 9.8 | 9.0 | 8.8 | 8.2 | 8.8 | 8.2 |
| 26 | 8.3 | 9.7 | 8.3 | 8.6 | 10 | 11 | 9.3 | 9.1 | 8.8 | 8.3 | 8.8 | 8.4 |
| 27 | 8.2 | 13 | 8.2 | 8.6 | 10 | 11 | 9.2 | 9.1 | 8.8 | 8.3 | 8.8 | 8.7 |
| 28 | 8.2 | 19 | 8.1 | 8.6 | 10 | 11 | 9.3 | 9.1 | 8.8 | 8.5 | 8.9 | 8.8 |
| 29 | 8.4 | 11 | 8.1 | 8.6 | --- | 10 | 9.2 | 9.3 | 8.6 | 8.6 | 9.4 | 8.8 |
| 30 | 8.3 | 10 | 8.2 | 8.6 | --- | 10 | 9.7 | 9.1 | 8.6 | 8.6 | 9.1 | 8.7 |
| 31 | 8.3 | --- | 8.3 | 8.6 | --- | 11 | --- | 9.1 | --- | 8.6 | 9.1 | --- |
| TOTAL | 257.8 | 298.5 | 271.9 | 263.1 | 254.2 | 320 | 359.3 | 284.9 | 262.7 | 262.8 | 267.5 | 257.9 |
| MEAN | 8.32 | 9.95 | 8.77 | 8.49 | 9.08 | 10.3 | 12.0 | 9.19 | 8.76 | 8.48 | 8.63 | 8.60 |
| MAX | 8.8 | 19 | 9.9 | 8.6 | 10 | 11 | 15 | 15 | 9.1 | 8.6 | 9.4 | 9.1 |
| MIN | 8.1 | 8.3 | 8.1 | 8.3 | 8.4 | 10 | 9.2 | 8.3 | 8.6 | 8.2 | 8.3 | 8.1 |
| AC-FT | 511 | 592 | 539 | 522 | 504 | 635 | 713 | 565 | 521 | 521 | 531 | 512 |
| a | 16590 | 7870 | 9520 | 0 | 0 | 0 | 0 | 123 | 5620 | 7660 | 12790 | 19930 |
| CAL YR 1984 | TOTAL | 4783.5 | MEAN 13.1 | MAX 203 | MIN 6.2 | AC-FT 9490 | | | | | | |
| WTR YR 1985 | TOTAL | 3360.6 | MEAN 9.21 | MAX 19 | MIN 8.1 | AC-FT 6670 | | | | | | |

a Diversion, in acre-feet, from French Meadows Reservoir to Hell Hole Reservoir through French Meadows Powerplant, provided by Placer County Water Agency.

11427700 DUNCAN CREEK NEAR FRENCH MEADOWS, CA

LOCATION.--Lat 39°08'09", long 120°28'39", in NE 1/4 NW 1/4 sec.24, T.15 N., R.13 E., Placer County, Hydrologic Unit 18020128, Tahoe National Forest, on left bank 0.2 mi upstream from diversion dam, 0.5 mi downstream from Little Duncan Creek, 2 mi northwest of French Meadows, and 20 mi northeast of Foresthill.

DRAINAGE AREA.--9.94 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 5,270 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Sept. 3, 1965, at site 150 ft upstream at datum 9.56 ft higher.

REMARKS.--Estimated daily discharges for the following periods of ice effect: Nov. 8, 9, 26, Dec. 15-17, Jan. 28-30, Feb. 2-5, 8-11, Mar. 6-8, 26-29. Station is upstream from all diversion to French Meadows Reservoir. See schematic diagram of Middle Fork American River and Rubicon River basins.

COOPERATION.--Gage-height record and discharge measurements were provided by the Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--25 years, 38.6 ft³/s, 27,970 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,650 ft³/s, Dec. 22, 1964, gage height, 10.6 ft, from floodmarks, from rating curve extended above 400 ft³/s on basis of computation of flow over diversion dam; minimum daily, 0.10 ft³/s on several days during July and August 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 250 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|---------|------|--------------------------------|------------------|------|------|--------------------------------|------------------|
| Apr. 14 | 1700 | *246 | *7.11 | | | | |

Minimum daily, 0.46 ft³/s, Aug. 27, 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|-------|-------|-------|-------|-------|------|------|-------|-------|-------|-------|
| 1 | 1.8 | 2.6 | 17 | 7.5 | 10 | 21 | 31 | 133 | 24 | 3.0 | .95 | .76 |
| 2 | 1.2 | 64 | 16 | 7.8 | 9.4 | 19 | 46 | 155 | 27 | 2.8 | .92 | .74 |
| 3 | 1.1 | 28 | 15 | 8.2 | 9.1 | 17 | 56 | 149 | 25 | 2.6 | .86 | .72 |
| 4 | 1.0 | 11 | 14 | 8.9 | 8.5 | 16 | 70 | 130 | 24 | 2.4 | .79 | .74 |
| 5 | .99 | 6.6 | 14 | 8.9 | 8.5 | 15 | 90 | 128 | 23 | 2.4 | .76 | .72 |
| 6 | .94 | 22 | 13 | 8.5 | 8.1 | 10 | 108 | 126 | 22 | 2.2 | .75 | .76 |
| 7 | .94 | 19 | 13 | 8.9 | 7.8 | 9.4 | 122 | 116 | 21 | 2.2 | .71 | 1.2 |
| 8 | .94 | 13 | 14 | 8.2 | 7.4 | 12 | 128 | 104 | 20 | 2.0 | .69 | 6.5 |
| 9 | .90 | 12 | 13 | 8.2 | 8.0 | 15 | 141 | 90 | 19 | 2.0 | .68 | 6.4 |
| 10 | .90 | 11 | 13 | 7.8 | 7.7 | 15 | 146 | 76 | 17 | 1.9 | .66 | 3.7 |
| 11 | 5.7 | 77 | 13 | 8.2 | 7.7 | 14 | 133 | 67 | 15 | 1.9 | .64 | 2.9 |
| 12 | 1.7 | 38 | 13 | 8.5 | 8.1 | 14 | 127 | 67 | 14 | 1.9 | .62 | 2.0 |
| 13 | 1.7 | 35 | 12 | 8.5 | 8.4 | 15 | 152 | 73 | 12 | 1.8 | .62 | 1.7 |
| 14 | 1.4 | 23 | 11 | 7.8 | 8.7 | 15 | 190 | 81 | 11 | 1.6 | .61 | 1.5 |
| 15 | 1.3 | 20 | 10 | 8.5 | 10 | 16 | 198 | 79 | 9.7 | 1.5 | .59 | 1.3 |
| 16 | 1.8 | 19 | 9.3 | 9.3 | 11 | 17 | 160 | 79 | 8.8 | 1.4 | .58 | 1.3 |
| 17 | 2.5 | 18 | 11 | 11 | 12 | 18 | 132 | 81 | 7.9 | 1.3 | .63 | 1.2 |
| 18 | 1.9 | 18 | 11 | 13 | 13 | 19 | 115 | 82 | 7.4 | 1.3 | .81 | 1.2 |
| 19 | 2.5 | 17 | 11 | 13 | 14 | 20 | 108 | 83 | 6.4 | 1.2 | .73 | 1.2 |
| 20 | 5.7 | 16 | 10 | 13 | 14 | 24 | 83 | 77 | 6.0 | 1.3 | .68 | 1.1 |
| 21 | 3.3 | 15 | 9.7 | 14 | 12 | 25 | 72 | 71 | 5.5 | 1.4 | .64 | 1.1 |
| 22 | 2.9 | 14 | 9.3 | 13 | 13 | 24 | 76 | 73 | 5.1 | 1.4 | .58 | 1.0 |
| 23 | 2.6 | 14 | 9.3 | 13 | 15 | 26 | 76 | 72 | 4.8 | 1.3 | .55 | 1.0 |
| 24 | 2.7 | 14 | 9.3 | 13 | 17 | 26 | 74 | 67 | 4.6 | 1.2 | .51 | .98 |
| 25 | 2.9 | 14 | 9.3 | 11 | 18 | 22 | 71 | 60 | 4.4 | 1.0 | .48 | .97 |
| 26 | 9.1 | 13 | 9.3 | 11 | 19 | 17 | 67 | 51 | 4.1 | 1.0 | .47 | .93 |
| 27 | 4.9 | 22 | 8.9 | 11 | 21 | 17 | 75 | 45 | 3.7 | .97 | .46 | .93 |
| 28 | 4.1 | 32 | 8.5 | 9.3 | 21 | 16 | 91 | 39 | 3.6 | .89 | .46 | .93 |
| 29 | 12 | 21 | 8.5 | 8.2 | --- | 16 | 95 | 34 | 3.3 | .85 | .64 | .93 |
| 30 | 5.1 | 18 | 8.2 | 10 | --- | 18 | 108 | 30 | 3.2 | .87 | 1.2 | .92 |
| 31 | 3.4 | --- | 8.2 | 10 | --- | 23 | --- | 27 | --- | .91 | .96 | --- |
| TOTAL | 89.91 | 647.2 | 351.8 | 307.2 | 327.4 | 551.4 | 3141 | 2545 | 362.5 | 50.49 | 21.23 | 47.33 |
| MEAN | 2.90 | 21.6 | 11.3 | 9.91 | 11.7 | 17.8 | 105 | 82.1 | 12.1 | 1.63 | .68 | 1.58 |
| MAX | 12 | 77 | 17 | 14 | 21 | 26 | 198 | 155 | 27 | 3.0 | 1.2 | 6.5 |
| MIN | .90 | 2.6 | 8.2 | 7.5 | 7.4 | 9.4 | 31 | 27 | 3.2 | .85 | .46 | .72 |
| AC-FT | 178 | 1280 | 698 | 609 | 649 | 1090 | 6230 | 5050 | 719 | 100 | 42 | 94 |

| CAL YR 1984 | TOTAL | 12911.29 | MEAN | 35.3 | MAX | 206 | MIN | .65 | AC-FT | 25610 |
|-------------|-------|----------|------|------|-----|-----|-----|-----|-------|-------|
| WTR YR 1985 | TOTAL | 8442.46 | MEAN | 23.1 | MAX | 198 | MIN | .46 | AC-FT | 16750 |

SACRAMENTO RIVER BASIN

11427750 DUNCAN CREEK BELOW DIVERSION DAM, NEAR FRENCH MEADOWS, CA

LOCATION.--Lat 39°07'59", long 120°28'58", in NE 1/4 SE 1/4 sec.23, T.15 N., R.13 E., Placer County, Hydrologic Unit 18020128, Tahoe National Forest, on right bank 800 ft downstream from unnamed right bank tributary, 1,000 ft downstream from Duncan Creek diversion dam, and 20 mi northeast of Foresthill.

DRAINAGE AREA.--10.5 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 5,210 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges for the following periods of ice effect: Dec. 15-18, Jan. 28 to Feb. 5, Feb. 7, 12, Mar. 5-8, 26-29. Natural flow affected by transmountain diversion through Duncan Creek diversion tunnel to French Meadows Reservoir (station 11427400). Maximum design flow of tunnel is 400 ft³/s. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Gage-height record and discharge measurements were provided by the Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--21 years, 14.4 ft³/s, 10,430 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,640 ft³/s, Dec. 22, 1964, gage height, 8.74 ft in gage well, 10.0 ft, from floodmarks, from rating curve extended above 400 ft³/s on basis of computation of peak flow over diversion dam; no flow at times in 1965-66.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 123 ft³/s, Nov. 6, gage height, 2.84 ft; maximum gage height, 3.26 ft, Mar. 28, backwater from ice jam; minimum daily, 0.63 ft³/s, Aug. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|-------|-------|-------|------|------|-------|-------|-------|-------|-------|
| 1 | 2.5 | 3.7 | 11 | 8.6 | 8.7 | 13 | 14 | 11 | 9.8 | 2.6 | 1.1 | .95 |
| 2 | 1.5 | 10 | 11 | 8.8 | 8.7 | 13 | 17 | 12 | 9.8 | 2.5 | 1.0 | .90 |
| 3 | 1.2 | 11 | 11 | 9.2 | 8.7 | 12 | 19 | 11 | 9.8 | 2.3 | .98 | .90 |
| 4 | 1.2 | 9.5 | 11 | 9.6 | 8.7 | 12 | 19 | 12 | 9.8 | 2.1 | .92 | .91 |
| 5 | 1.2 | 7.1 | 11 | 9.8 | 8.4 | 12 | 19 | 13 | 9.7 | 2.0 | .90 | .91 |
| 6 | 1.2 | 10 | 11 | 9.5 | 8.4 | 11 | 19 | 12 | 9.4 | 2.0 | .87 | 1.0 |
| 7 | 1.1 | 10 | 11 | 9.7 | 8.4 | 11 | 19 | 12 | 9.3 | 1.9 | .85 | 1.4 |
| 8 | 1.1 | 10 | 11 | 9.3 | 8.4 | 12 | 19 | 12 | 9.2 | 1.8 | .84 | 4.9 |
| 9 | 1.1 | 10 | 11 | 9.2 | 8.4 | 12 | 18 | 12 | 9.2 | 1.8 | .82 | 7.1 |
| 10 | 1.1 | 10 | 11 | 8.8 | 8.4 | 12 | 18 | 12 | 9.2 | 1.7 | .82 | 4.1 |
| 11 | 6.0 | 16 | 11 | 8.7 | 8.7 | 12 | 17 | 11 | 9.2 | 1.8 | .81 | 3.1 |
| 12 | 2.4 | 13 | 11 | 8.6 | 9.0 | 11 | 17 | 11 | 9.1 | 1.7 | .79 | 2.2 |
| 13 | 2.2 | 13 | 11 | 8.6 | 9.0 | 11 | 17 | 12 | 9.0 | 1.5 | .82 | 1.8 |
| 14 | 1.9 | 11 | 11 | 8.9 | 9.3 | 12 | 17 | 12 | 8.7 | 1.4 | .83 | 1.6 |
| 15 | 1.6 | 11 | 11 | 9.5 | 10 | 12 | 16 | 12 | 8.5 | 1.3 | .82 | 1.4 |
| 16 | 2.5 | 11 | 11 | 10 | 11 | 12 | 15 | 12 | 7.7 | 1.3 | .80 | 1.4 |
| 17 | 3.8 | 11 | 11 | 11 | 11 | 13 | 15 | 12 | 7.2 | 1.2 | .83 | 1.3 |
| 18 | 2.6 | 11 | 11 | 12 | 12 | 13 | 14 | 12 | 6.6 | 1.2 | 1.1 | 1.4 |
| 19 | 3.6 | 11 | 10 | 12 | 12 | 13 | 14 | 12 | 6.0 | 1.2 | .96 | 1.3 |
| 20 | 7.0 | 11 | 9.9 | 12 | 12 | 14 | 13 | 12 | 5.6 | 1.3 | .89 | 1.2 |
| 21 | 4.7 | 11 | 9.5 | 12 | 12 | 14 | 13 | 12 | 5.2 | 1.4 | .85 | 1.2 |
| 22 | 3.9 | 11 | 9.4 | 12 | 12 | 13 | 13 | 11 | 4.7 | 1.4 | .82 | 1.2 |
| 23 | 3.9 | 11 | 9.5 | 12 | 12 | 14 | 13 | 11 | 4.4 | 1.3 | .78 | 1.2 |
| 24 | 4.0 | 11 | 9.5 | 11 | 13 | 14 | 13 | 11 | 4.1 | 1.2 | .73 | 1.1 |
| 25 | 4.2 | 11 | 9.5 | 11 | 13 | 13 | 12 | 11 | 3.8 | 1.1 | .71 | 1.1 |
| 26 | 6.9 | 11 | 9.3 | 11 | 13 | 13 | 12 | 11 | 3.5 | 1.1 | .70 | 1.1 |
| 27 | 6.4 | 13 | 9.1 | 10 | 13 | 13 | 12 | 10 | 3.3 | 1.0 | .67 | 1.1 |
| 28 | 4.7 | 14 | 8.9 | 10 | 13 | 12 | 12 | 10 | 3.2 | .98 | .63 | 1.1 |
| 29 | 9.4 | 12 | 8.7 | 8.7 | --- | 12 | 12 | 10 | 2.9 | .93 | .77 | 1.0 |
| 30 | 6.2 | 12 | 8.6 | 8.7 | --- | 12 | 11 | 9.9 | 2.8 | .95 | 1.4 | 1.1 |
| 31 | 4.7 | --- | 8.6 | 8.7 | --- | 12 | --- | 9.8 | --- | 1.0 | 1.1 | --- |
| TOTAL | 105.8 | 327.3 | 318.5 | 308.9 | 290.2 | 385 | 459 | 353.7 | 210.7 | 46.96 | 26.91 | 50.97 |
| MEAN | 3.41 | 10.9 | 10.3 | 9.96 | 10.4 | 12.4 | 15.3 | 11.4 | 7.02 | 1.51 | .87 | 1.70 |
| MAX | 9.4 | 16 | 11 | 12 | 13 | 14 | 19 | 13 | 9.8 | 2.6 | 1.4 | 7.1 |
| MIN | 1.1 | 3.7 | 8.6 | 8.6 | 8.4 | 11 | 11 | 9.8 | 2.8 | .93 | .63 | .90 |
| AC-FT | 210 | 649 | 632 | 613 | 576 | 764 | 910 | 702 | 418 | 93 | 53 | 101 |
| CAL YR 1984 | TOTAL | 3040.97 | MEAN | 8.31 | MAX | 22 | MIN | .82 | AC-FT | 6030 | | |
| WTR YR 1985 | TOTAL | 2883.94 | MEAN | 7.90 | MAX | 19 | MIN | .63 | AC-FT | 5720 | | |

11427760 MIDDLE FORK AMERICAN RIVER ABOVE MIDDLE FORK POWERHOUSE, NEAR FORESTHILL, CA

LOCATION.--Lat 39°01'31", long 120°35'40", in NW 1/4 NW 1/4 sec.36, T.14 N., R.12 E., Placer County, Hydrologic Unit 18020128, Tahoe National Forest, on right bank 300 ft upstream from Middle Fork powerhouse, 3.7 mi upstream from Big Mosquito Creek, and 11 mi east of Foresthill.

DRAINAGE AREA.--87.8 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 2,540 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to May 15, 1980 (corrected), at datum 5.00 ft higher. May 15, 1980, to Oct. 11, 1984, at datum 4.00 ft higher.

REMARKS.--No estimated daily discharges. Considerable regulation by French Meadows Reservoir (station 11427400) 11 mi upstream. Transbasin diversions from French Meadows Reservoir to Hell Hole Reservoir (station 11428700) through French Meadows powerplant. See schematic diagram of Middle Fork American and Rubicon River Basins.

COOPERATION.--Gage-height record and discharge measurements were provided by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--20 years, 106 ft³/s, 76,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,860 ft³/s, Jan. 13, 1980, gage height, 8.47 ft, datum then in use from rating curve extended above 2,500 ft³/s; minimum daily, 5.3 ft³/s, Sept. 10, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 421 ft³/s, Nov. 28, gage height, 7.26 ft; minimum daily, 17 ft³/s, Aug. 10-11, 26-28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|-------|------|------|------|------|-------|------|-------|-------|------|------|
| 1 | 26 | 26 | 94 | 46 | 46 | 89 | 122 | 105 | 48 | 26 | 19 | 18 |
| 2 | 21 | 38 | 84 | 46 | 48 | 91 | 165 | 102 | 52 | 25 | 19 | 18 |
| 3 | 20 | 61 | 79 | 46 | 46 | 82 | 201 | 98 | 49 | 25 | 19 | 18 |
| 4 | 20 | 38 | 73 | 46 | 45 | 81 | 219 | 92 | 47 | 24 | 18 | 18 |
| 5 | 19 | 33 | 69 | 47 | 45 | 77 | 235 | 89 | 46 | 24 | 18 | 18 |
| 6 | 19 | 48 | 66 | 48 | 44 | 79 | 249 | 86 | 45 | 24 | 18 | 18 |
| 7 | 19 | 49 | 64 | 56 | 49 | 76 | 253 | 83 | 44 | 24 | 18 | 18 |
| 8 | 19 | 70 | 62 | 52 | 107 | 72 | 250 | 80 | 43 | 23 | 18 | 27 |
| 9 | 19 | 52 | 61 | 50 | 73 | 73 | 248 | 77 | 42 | 23 | 18 | 39 |
| 10 | 19 | 49 | 71 | 50 | 58 | 80 | 243 | 75 | 40 | 22 | 17 | 30 |
| 11 | 37 | 109 | 70 | 48 | 55 | 80 | 224 | 72 | 39 | 22 | 17 | 23 |
| 12 | 26 | 77 | 71 | 48 | 53 | 80 | 212 | 70 | 38 | 23 | 18 | 22 |
| 13 | 23 | 151 | 67 | 47 | 54 | 81 | 212 | 67 | 38 | 22 | 18 | 20 |
| 14 | 22 | 107 | 64 | 47 | 54 | 82 | 220 | 65 | 37 | 21 | 18 | 20 |
| 15 | 22 | 72 | 65 | 47 | 58 | 84 | 215 | 70 | 37 | 21 | 18 | 19 |
| 16 | 27 | 64 | 65 | 48 | 62 | 87 | 195 | 63 | 36 | 20 | 18 | 19 |
| 17 | 42 | 60 | 59 | 49 | 66 | 91 | 184 | 61 | 35 | 20 | 18 | 19 |
| 18 | 27 | 66 | 59 | 51 | 68 | 96 | 166 | 59 | 34 | 20 | 18 | 19 |
| 19 | 26 | 61 | 58 | 52 | 74 | 98 | 167 | 58 | 33 | 20 | 18 | 19 |
| 20 | 31 | 57 | 56 | 53 | 77 | 104 | 151 | 57 | 32 | 20 | 18 | 19 |
| 21 | 30 | 56 | 54 | 53 | 73 | 108 | 146 | 56 | 31 | 20 | 18 | 18 |
| 22 | 26 | 53 | 53 | 53 | 74 | 106 | 154 | 55 | 30 | 21 | 18 | 18 |
| 23 | 25 | 51 | 53 | 53 | 77 | 105 | 142 | 53 | 30 | 21 | 18 | 18 |
| 24 | 25 | 92 | 52 | 51 | 80 | 112 | 132 | 53 | 29 | 20 | 18 | 18 |
| 25 | 25 | 79 | 52 | 50 | 83 | 106 | 123 | 53 | 28 | 19 | 18 | 18 |
| 26 | 27 | 65 | 51 | 52 | 85 | 112 | 114 | 51 | 28 | 19 | 17 | 18 |
| 27 | 31 | 107 | 50 | 50 | 89 | 112 | 110 | 51 | 27 | 19 | 17 | 19 |
| 28 | 27 | 283 | 50 | 52 | 89 | 105 | 110 | 50 | 27 | 19 | 17 | 19 |
| 29 | 31 | 147 | 48 | 49 | --- | 97 | 107 | 50 | 26 | 19 | 18 | 19 |
| 30 | 31 | 109 | 48 | 46 | --- | 96 | 104 | 49 | 26 | 19 | 19 | 19 |
| 31 | 27 | --- | 48 | 47 | --- | 103 | --- | 48 | --- | 19 | 19 | --- |
| TOTAL | 789 | 2330 | 1916 | 1533 | 1832 | 2845 | 5373 | 2098 | 1097 | 664 | 558 | 605 |
| MEAN | 25.5 | 77.7 | 61.8 | 49.5 | 65.4 | 91.8 | 179 | 67.7 | 36.6 | 21.4 | 18.0 | 20.2 |
| MAX | 42 | 283 | 94 | 56 | 107 | 112 | 253 | 105 | 52 | 26 | 19 | 39 |
| MIN | 19 | 26 | 48 | 46 | 44 | 72 | 104 | 48 | 26 | 19 | 17 | 18 |
| AC-FT | 1560 | 4620 | 3800 | 3040 | 3630 | 5640 | 10660 | 4160 | 2180 | 1320 | 1110 | 1200 |
| CAL YR 1984 | TOTAL | 30778 | MEAN | 84.1 | MAX | 642 | MIN | 17 | AC-FT | 61050 | | |
| WTR YR 1985 | TOTAL | 21640 | MEAN | 59.3 | MAX | 283 | MIN | 17 | AC-FT | 42920 | | |

SACRAMENTO RIVER BASIN

11427770 MIDDLE FORK AMERICAN RIVER BELOW INTERBAY DAM, NEAR FORESTHILL, CA

LOCATION.--Lat 39°01'35", long 120°36'09", in SW 1/4 SE 1/4 sec.26, T.14 N., R.12 E., Placer County, Hydrologic Unit 18020128, Tahoe National Forest, on right bank 500 ft downstream from Interbay Dam, 3.3 mi upstream from Big Mosquito Creek, and 10.6 mi east of Foresthill.

DRAINAGE AREA.--89.1 mi².

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

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Elevation of gage is 2,470 ft, above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Flow regulated by French Meadows Reservoir (station 11427400) and after Aug. 22, 1966, by Interbay Reservoir, capacity, 130 acre-ft between normal operating limits of 2,502.0 ft and 2,526.0 ft. Water is diverted from Hell Hole Reservoir through a tunnel to Middle Fork powerplant and re-diverted to Ralston powerplant. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--20 years, 66.2 ft³/s, 47,960 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,900 ft³/s, Jan. 13, 1980, gage height, 7.95 ft; minimum daily, 1.0 ft³/s, Oct. 25-30, 1966, Jan. 19, 1967.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 64 ft³/s, Dec. 31; minimum daily, 15 ft³/s, Oct. 23.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|------|-------|-------|------|------|------|-------|-------|-------|-------|-------|-------|
| 1 | 22 | 21 | 38 | 61 | 49 | 24 | 24 | 24 | 23 | 23 | 23 | 20 |
| 2 | 16 | 21 | 37 | 54 | 49 | 24 | 24 | 23 | 23 | 23 | 23 | 20 |
| 3 | 19 | 21 | 37 | 41 | 50 | 24 | 24 | 24 | 23 | 24 | 23 | 20 |
| 4 | 21 | 21 | 37 | 33 | 47 | 24 | 24 | 24 | 23 | 24 | 23 | 20 |
| 5 | 21 | 21 | 37 | 22 | 40 | 24 | 24 | 24 | 23 | 23 | 22 | 20 |
| 6 | 17 | 22 | 36 | 22 | 27 | 24 | 24 | 24 | 23 | 23 | 20 | 20 |
| 7 | 17 | 21 | 37 | 24 | 27 | 24 | 24 | 24 | 23 | 23 | 20 | 23 |
| 8 | 17 | 22 | 37 | 25 | 27 | 24 | 24 | 23 | 23 | 23 | 20 | 25 |
| 9 | 17 | 21 | 37 | 25 | 25 | 24 | 24 | 24 | 24 | 23 | 21 | 25 |
| 10 | 17 | 21 | 37 | 24 | 25 | 24 | 24 | 24 | 24 | 23 | 21 | 26 |
| 11 | 41 | 21 | 37 | 24 | 25 | 24 | 24 | 24 | 24 | 24 | 21 | 26 |
| 12 | 25 | 21 | 37 | 28 | 24 | 24 | 24 | 23 | 24 | 24 | 21 | 26 |
| 13 | 21 | 22 | 37 | 27 | 24 | 24 | 24 | 24 | 24 | 24 | 20 | 26 |
| 14 | 20 | 22 | 37 | 26 | 24 | 24 | 24 | 23 | 24 | 24 | 21 | 26 |
| 15 | 18 | 29 | 37 | 26 | 23 | 24 | 24 | 24 | 24 | 24 | 20 | 26 |
| 16 | 30 | 42 | 36 | 25 | 24 | 24 | 24 | 23 | 24 | 24 | 20 | 26 |
| 17 | 56 | 57 | 32 | 25 | 23 | 24 | 24 | 23 | 23 | 24 | 20 | 26 |
| 18 | 27 | 55 | 27 | 25 | 24 | 24 | 24 | 23 | 23 | 24 | 20 | 26 |
| 19 | 26 | 54 | 27 | 25 | 24 | 24 | 24 | 24 | 23 | 24 | 20 | 26 |
| 20 | 35 | 53 | 26 | 25 | 24 | 24 | 24 | 24 | 23 | 24 | 20 | 25 |
| 21 | 31 | 50 | 26 | 25 | 24 | 24 | 24 | 23 | 23 | 24 | 20 | 25 |
| 22 | 21 | 43 | 25 | 25 | 24 | 24 | 24 | 24 | 23 | 23 | 21 | 26 |
| 23 | 15 | 41 | 25 | 24 | 24 | 24 | 24 | 23 | 23 | 23 | 21 | 26 |
| 24 | 17 | 40 | 25 | 25 | 24 | 24 | 35 | 23 | 23 | 23 | 21 | 26 |
| 25 | 18 | 39 | 25 | 25 | 24 | 24 | 24 | 23 | 23 | 23 | 21 | 26 |
| 26 | 20 | 38 | 24 | 24 | 24 | 24 | 24 | 23 | 24 | 23 | 21 | 26 |
| 27 | 22 | 39 | 22 | 24 | 24 | 24 | 24 | 23 | 23 | 22 | 21 | 26 |
| 28 | 23 | 39 | 22 | 25 | 24 | 24 | 24 | 23 | 23 | 23 | 21 | 26 |
| 29 | 21 | 38 | 22 | 42 | --- | 24 | 24 | 23 | 23 | 23 | 21 | 26 |
| 30 | 21 | 38 | 45 | 51 | --- | 24 | 24 | 23 | 23 | 23 | 20 | 26 |
| 31 | 21 | --- | 64 | 50 | --- | 24 | --- | 23 | --- | 23 | 20 | --- |
| TOTAL | 713 | 993 | 1028 | 927 | 797 | 744 | 731 | 727 | 699 | 725 | 647 | 737 |
| MEAN | 23.0 | 33.1 | 33.2 | 29.9 | 28.5 | 24.0 | 24.4 | 23.5 | 23.3 | 23.4 | 20.9 | 24.6 |
| MAX | 56 | 57 | 64 | 61 | 50 | 24 | 35 | 24 | 24 | 24 | 23 | 26 |
| MIN | 15 | 21 | 22 | 22 | 23 | 24 | 24 | 23 | 23 | 22 | 20 | 20 |
| AC-FT | 1410 | 1970 | 2040 | 1840 | 1580 | 1480 | 1450 | 1440 | 1390 | 1440 | 1280 | 1460 |
| a | 9180 | 36490 | 38450 | 8120 | 4080 | 7080 | 14360 | 10320 | 26000 | 31830 | 35250 | 35330 |

CAL YR 1984 TOTAL 17667 MEAN 48.3 MAX 661 MIN 15 AC-FT 35040
WTR YR 1985 TOTAL 9468 MEAN 25.9 MAX 64 MIN 15 AC-FT 18780

a Diversion, in acre-feet, to Ralston powerplant, provided by the Placer County Water Agency.

11427940 RUBICON-ROCKBOUND TUNNEL NEAR MEEKS BAY, CA

LOCATION (REVISED).--Lat 38°59'16", long 120°13'29", in NE 1/4 SE 1/4 sec.8, T.13 N., R.16 E., El Dorado County, Hydrologic Unit 18020128, Eldorado National Forest, on right bank at tunnel intake 100 ft upstream from diversion dam on Rubicon River, 3.5 mi upstream from Rubicon Springs, and 6.4 mi southwest of Meeks Bay.

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

GAGE.--Water-stage recorder. Datum of gage is 6,533.23 ft above National Geodetic Vertical Datum of 1929 (levels by Sacramento Municipal Utility District). Auxiliary water-stage recorder since Aug. 26, 1966, 220 ft downstream from tunnel outlet at different datum.

REMARKS.--Estimated daily discharges: Dec. 14, Jan. 12, 13. Records good including estimated daily discharges. Tunnel diverts water from Rubicon River to Rockbound Lake which flows into Buck Island Lake. Water is then diverted via Buck-Loon tunnel (station 11428300) to Loon Lake for power development. See schematic diagram of Middle Fork American and Rubicon River basins.

AVERAGE DISCHARGE.--22 years, 109 ft³/s, 78,970 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,120 ft³/s, Dec. 23, 1964, no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|----------|------|-------|-------|------|-------|-------|--------|--------|-------|--------|
| 1 | 0 | 23 | 30 | 11 | 7.8 | 36 | 64 | 412 | 104 | 20 | .13 | .38 |
| 2 | 0 | 129 | 27 | 10 | 8.1 | 30 | 100 | 504 | 108 | 18 | .12 | .15 |
| 3 | 0 | 474 | 26 | 10 | 8.2 | 24 | 140 | 473 | 118 | 18 | .11 | 2.8 |
| 4 | 0 | 155 | 24 | 10 | 7.7 | 20 | 165 | 350 | 153 | 16 | .11 | 2.9 |
| 5 | 0 | 72 | 23 | 11 | 7.1 | 18 | 185 | 317 | 213 | 15 | .11 | 1.6 |
| 6 | 0 | 73 | 21 | 11 | 6.6 | 18 | 227 | 358 | 258 | 13 | .11 | .87 |
| 7 | 0 | 85 | 21 | 11 | 6.5 | 19 | 262 | 336 | 286 | 12 | .11 | .55 |
| 8 | 0 | 65 | 21 | 12 | 6.0 | 18 | 295 | 274 | 293 | 10 | .27 | 1.9 |
| 9 | 0 | 58 | 20 | 12 | 8.3 | 17 | 299 | 222 | 263 | 9.5 | .56 | 29 |
| 10 | 0 | 55 | 20 | 11 | 14 | 20 | 323 | 163 | 226 | 8.6 | .49 | 34 |
| 11 | 0 | 240 | 20 | 11 | 19 | 18 | 315 | 132 | 193 | 7.3 | .47 | 34 |
| 12 | 3.7 | 228 | 20 | 10 | 16 | 16 | 312 | 164 | 189 | 5.6 | .40 | 25 |
| 13 | 39 | 116 | 20 | 11 | 15 | 17 | 351 | 217 | 189 | 4.2 | .35 | 26 |
| 14 | 49 | 83 | 20 | 11 | 15 | 19 | 428 | 301 | 173 | 3.3 | .33 | 23 |
| 15 | 23 | 63 | 20 | 11 | 17 | 22 | 490 | 326 | 152 | 2.4 | .93 | 25 |
| 16 | 14 | 51 | 21 | 11 | 22 | 25 | 437 | 270 | 157 | 1.7 | 1.8 | 16 |
| 17 | 15 | 43 | 20 | 11 | 24 | 25 | 268 | 286 | 155 | .95 | 1.8 | 9.3 |
| 18 | 17 | 41 | 18 | 14 | 24 | 25 | 186 | 332 | 156 | .46 | 1.8 | 17 |
| 19 | 19 | 38 | 17 | 16 | 27 | 24 | 181 | 360 | 145 | .22 | 1.6 | 29 |
| 20 | 30 | 36 | 16 | 17 | 28 | 34 | 135 | 362 | 67 | .18 | 1.6 | 17 |
| 21 | 29 | 35 | 15 | 18 | 22 | 45 | 106 | 310 | 6.0 | .18 | 1.6 | 9.0 |
| 22 | 22 | 34 | 15 | 17 | 19 | 45 | 100 | 326 | 58 | .18 | 1.4 | 4.9 |
| 23 | 20 | 30 | 14 | 15 | 18 | 46 | 134 | 365 | 74 | .18 | 1.8 | 2.7 |
| 24 | 17 | 31 | 14 | 13 | 22 | 58 | 179 | 377 | 64 | .16 | 8.6 | 1.6 |
| 25 | 24 | 34 | 14 | 12 | 27 | 44 | 159 | 360 | 49 | .14 | 11 | .68 |
| 26 | 66 | 33 | 13 | 11 | 31 | 32 | 121 | 323 | 37 | .14 | 6.2 | .19 |
| 27 | 99 | 33 | 13 | 11 | 36 | 25 | 123 | 267 | 32 | .14 | 3.6 | .01 |
| 28 | 44 | 37 | 12 | 11 | 35 | 29 | 214 | 210 | 29 | .13 | 2.5 | 0 |
| 29 | 57 | 41 | 12 | 10 | --- | 32 | 261 | 166 | 26 | .13 | 1.6 | 0 |
| 30 | 51 | 36 | 11 | 9.0 | --- | 28 | 293 | 132 | 22 | .11 | 1.0 | 0 |
| 31 | 34 | --- | 11 | 8.2 | --- | 37 | --- | 136 | --- | .11 | .64 | --- |
| TOTAL | 672.7 | 2472 | 569 | 367.2 | 497.3 | 866 | 6853 | 9131 | 3995.0 | 168.01 | 53.14 | 314.53 |
| MEAN | 21.7 | 82.4 | 18.4 | 11.8 | 17.8 | 27.9 | 228 | 295 | 133 | 5.42 | 1.71 | 10.5 |
| MAX | 99 | 474 | 30 | 18 | 36 | 58 | 490 | 504 | 293 | 20 | 11 | 34 |
| MIN | 0 | 23 | 11 | 8.2 | 6.0 | 16 | 64 | 132 | 6.0 | .11 | .11 | 0 |
| AC-FT | 1330 | 4900 | 1130 | 728 | 986 | 1720 | 13590 | 18110 | 7920 | 333 | 105 | 624 |
| CAL YR 1984 | TOTAL | 42646.19 | MEAN | 117 | MAX | 817 | MIN | 0 | AC-FT | 84590 | | |
| WTR YR 1985 | TOTAL | 25958.88 | MEAN | 71.1 | MAX | 504 | MIN | 0 | AC-FT | 51490 | | |

SACRAMENTO RIVER BASIN

11428000 RUBICON RIVER AT RUBICON SPRINGS, NEAR MEEKS BAY, CA

LOCATION.--Lat 39°01'10", long 120°14'46", in SW 1/4 NE 1/4 sec.31, T.14 N., R.16 E., El Dorado County, Hydrologic Unit 18020128, Eldorado National Forest, on right bank 200 ft downstream from Rubicon Springs, 0.7 mi upstream from Miller Creek, 3.5 mi downstream from Rubicon diversion dam, and 7 mi west of Meeks Bay.

DRAINAGE AREA.--31.4 mi².

PERIOD OF RECORD.--February 1910 to March 1914 (published as "at Rubicon Springs"), October 1956 to current year.

GAGE.--Water-stage recorder. Datum of gage is 6,052.97 ft above National Geodetic Vertical Datum of 1929.

Feb. 1, 1910, to Mar. 31, 1914, nonrecording gage or water-stage recorder at site 0.4 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Jan. 7-10, 16-28, Feb. 8, 9, Mar. 9-11, Sept. 1-17. Records good except period of estimated daily record, Sept. 1-17, which is fair. Flow below 1,200 ft³/s controlled by Rubicon diversion dam 3.5 mi upstream. Diversion to Rubicon-Rockbound tunnel (station 11427940) began Dec. 26, 1963. See schematic diagram of Middle Fork American and Rubicon River basins.

AVERAGE DISCHARGE (adjusted for diversion to Rubicon-Rockbound tunnel).--32 years (water years 1911-13, 1957-85), 127 ft³/s, 92,010 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft³/s, Feb. 1, 1963, gage height, 14.28 ft, from rating curve extended above 1,200 ft³/s on basis of slope-conveyance computation of peak flow; no flow at times in some years prior to construction of Rubicon diversion dam in 1963 and 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of December 1955 reached a stage of 13.0 ft from floodmarks, present site and datum, discharge, 9,270 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 152 ft³/s, Apr. 14, gage height, 3.33 ft; minimum daily, 0.88 ft³/s, Aug. 31 to Sept. 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEPT | | |
|-------------|-------|---------|------|-------|------|------|-------|-------|-------|-------|--------|--------|---------|-------|
| 1 | 8.5 | 9.3 | 15 | 9.9 | 10 | 21 | 41 | 55 | 10 | 8.4 | 5.5 | .88 | | |
| 2 | 7.2 | 43 | 14 | 9.7 | 10 | 18 | 51 | 55 | 11 | 8.4 | 5.4 | .88 | | |
| 3 | 7.1 | 43 | 14 | 9.8 | 10 | 15 | 54 | 44 | 11 | 8.4 | 5.4 | .88 | | |
| 4 | 7.1 | 13 | 13 | 10 | 10 | 14 | 61 | 37 | 11 | 8.4 | 5.4 | .88 | | |
| 5 | 7.1 | 9.8 | 13 | 10 | 10 | 14 | 73 | 36 | 10 | 8.4 | 5.3 | .88 | | |
| 6 | 7.1 | 25 | 13 | 10 | 10 | 13 | 71 | 36 | 10 | 8.1 | 5.3 | .90 | | |
| 7 | 7.1 | 20 | 13 | 10 | 10 | 13 | 71 | 33 | 9.8 | 8.1 | 5.9 | .92 | | |
| 8 | 7.0 | 21 | 13 | 10 | 10 | 12 | 75 | 28 | 9.7 | 8.1 | 5.7 | 1.0 | | |
| 9 | 6.9 | 16 | 13 | 10 | 10 | 12 | 82 | 24 | 9.3 | 8.4 | 4.2 | 1.2 | | |
| 10 | 6.8 | 15 | 13 | 10 | 10 | 12 | 82 | 21 | 9.0 | 8.1 | 3.7 | 1.1 | | |
| 11 | 19 | 78 | 13 | 10 | 10 | 13 | 71 | 19 | 8.7 | 8.0 | 3.7 | 1.0 | | |
| 12 | 9.4 | 32 | 13 | 10 | 10 | 13 | 80 | 20 | 8.5 | 7.7 | 3.9 | 1.1 | | |
| 13 | 9.0 | 27 | 12 | 10 | 11 | 14 | 90 | 21 | 8.4 | 7.6 | 4.4 | 1.4 | | |
| 14 | 9.0 | 20 | 12 | 10 | 12 | 15 | 93 | 23 | 8.2 | 7.6 | 4.2 | 7.0 | | |
| 15 | 8.6 | 17 | 12 | 10 | 14 | 16 | 87 | 22 | 8.1 | 7.6 | 4.2 | 6.6 | | |
| 16 | 11 | 16 | 12 | 10 | 15 | 18 | 63 | 19 | 7.7 | 7.8 | 2.9 | 6.5 | | |
| 17 | 15 | 15 | 11 | 10 | 16 | 18 | 55 | 19 | 7.7 | 7.4 | 1.9 | 5.8 | | |
| 18 | 11 | 17 | 11 | 10 | 17 | 18 | 46 | 19 | 7.7 | 7.4 | 1.8 | 6.6 | | |
| 19 | 14 | 16 | 11 | 10 | 19 | 19 | 42 | 19 | 7.7 | 7.4 | 1.7 | 6.3 | | |
| 20 | 15 | 15 | 11 | 10 | 19 | 26 | 31 | 18 | 7.6 | 7.4 | 1.6 | 5.8 | | |
| 21 | 11 | 15 | 11 | 10 | 15 | 27 | 29 | 16 | 7.9 | 7.6 | 1.6 | 5.8 | | |
| 22 | 10 | 14 | 11 | 10 | 15 | 26 | 32 | 16 | 8.4 | 7.5 | 1.5 | 5.8 | | |
| 23 | 9.7 | 14 | 11 | 10 | 16 | 27 | 43 | 15 | 8.6 | 7.4 | 1.4 | 5.8 | | |
| 24 | 9.3 | 19 | 11 | 10 | 18 | 29 | 41 | 15 | 8.5 | 7.3 | 1.4 | 5.8 | | |
| 25 | 9.2 | 16 | 11 | 10 | 20 | 23 | 33 | 14 | 8.4 | 7.2 | 1.5 | 5.8 | | |
| 26 | 12 | 14 | 11 | 10 | 22 | 18 | 27 | 13 | 8.4 | 7.1 | 1.9 | 5.8 | | |
| 27 | 11 | 23 | 11 | 10 | 23 | 17 | 32 | 13 | 8.5 | 5.7 | 1.9 | 5.5 | | |
| 28 | 10 | 31 | 10 | 10 | 21 | 17 | 44 | 12 | 8.4 | 5.6 | 1.6 | 5.3 | | |
| 29 | 11 | 19 | 10 | 10 | --- | 15 | 43 | 11 | 8.4 | 5.5 | 1.1 | 5.3 | | |
| 30 | 10 | 16 | 10 | 10 | --- | 16 | 50 | 11 | 8.4 | 5.5 | .91 | 5.0 | | |
| 31 | 9.6 | --- | 10 | 10 | --- | 24 | --- | 10 | --- | 5.5 | .88 | --- | | |
| TOTAL | 305.7 | 649.1 | 369 | 309.4 | 393 | 553 | 1693 | 714 | 265.0 | 230.6 | 97.79 | 113.52 | | |
| MEAN | 9.86 | 21.6 | 11.9 | 9.98 | 14.0 | 17.8 | 56.4 | 23.0 | 8.83 | 7.44 | 3.15 | 3.78 | | |
| MAX | 19 | 78 | 15 | 10 | 23 | 29 | 93 | 55 | 11 | 8.4 | 5.9 | 7.0 | | |
| MIN | 6.8 | 9.3 | 10 | 9.7 | 10 | 12 | 27 | 10 | 7.6 | 5.5 | .88 | .88 | | |
| AC-FT | 606 | 1290 | 732 | 614 | 780 | 1100 | 3360 | 1420 | 526 | 457 | 194 | 225 | | |
| MEAN a | 31.6 | 104 | 30.2 | 21.8 | 31.9 | 45.9 | 285 | 318 | 142 | 12.8 | 4.86 | 14.3 | | |
| AC-FT a | 1940 | 6190 | 1860 | 1340 | 1770 | 2820 | 16950 | 19530 | 8450 | 790 | 299 | 849 | | |
| CAL YR 1984 | TOTAL | 6827.10 | MEAN | 18.7 | MAX | 122 | MIN | 6.6 | AC-FT | 13540 | MEAN a | 135 | AC-FT a | 98130 |
| WTR YR 1985 | TOTAL | 5693.11 | MEAN | 15.6 | MAX | 93 | MIN | .88 | AC-FT | 11290 | MEAN a | 86.7 | AC-FT a | 62780 |

a Adjusted for diversion to Rubicon-Rockbound tunnel.

11428300 BUCK-LOON TUNNEL NEAR MEEKS BAY, CA

LOCATION.--Lat 39°00'17", long 102°15'21", in SE 1/4 NW 1/4 sec.6, T.13 N., R.16 E., El Dorado County, Hydrologic Unit 18020128, Eldorado National Forest, on right bank at tunnel intake near left abutment of diversion dam, 7.4 mi southwest of Meeks Bay.

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

GAGE.--Water-stage recorder. Datum of gage is 6,425.0 ft above National Geodetic Vertical Datum of 1929 (levels by Sacramento Municipal Utility District).

REMARKS.--No estimated daily discharges. Records good. Tunnel diverts water from Buck Island Lake and discharges into Loon Lake. Buck Island Lake receives water from Rubicon River via Rubicon-Rockbound tunnel (station 11427940). Gates are closed at the tunnel entrance during the summer and opened each fall to raise the level of Buck Island Lake for recreation purposes. See schematic diagram of Middle Fork American and Rubicon River basins.

AVERAGE DISCHARGE.--22 years, 140 ft³/s, 101,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,240 ft³/s, Dec. 23, 1964; no flow at times in most years.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|--------|----------|------|------|-------|------|-------|-------|--------|--------|-------|--------|
| 1 | 0 | 43 | 46 | 15 | 12 | 45 | 64 | 504 | 148 | 22 | 9.6 | 0 |
| 2 | 0 | 62 | 40 | 14 | 14 | 45 | 109 | 634 | 135 | 20 | 2.4 | 0 |
| 3 | 0 | 573 | 37 | 14 | 12 | 37 | 162 | 658 | 148 | 18 | .35 | 0 |
| 4 | 0 | 317 | 34 | 14 | 12 | 31 | 203 | 510 | 174 | 17 | 0 | 0 |
| 5 | 0 | 142 | 33 | 14 | 11 | 28 | 236 | 428 | 240 | 16 | 0 | 0 |
| 6 | 0 | 101 | 31 | 15 | 9.9 | 30 | 282 | 461 | 308 | 15 | 0 | 0 |
| 7 | .63 | 128 | 29 | 17 | 11 | 30 | 323 | 457 | 343 | 14 | 0 | 0 |
| 8 | .86 | 118 | 29 | 18 | 24 | 26 | 363 | 389 | 364 | 12 | 0 | 0 |
| 9 | .51 | 90 | 29 | 16 | 20 | 23 | 385 | 320 | 339 | 11 | 0 | 5.8 |
| 10 | .26 | 80 | 30 | 16 | 14 | 25 | 417 | 243 | 297 | 11 | 0 | 30 |
| 11 | 2.3 | 224 | 30 | 15 | 16 | 26 | 427 | 187 | 252 | 10 | 0 | 48 |
| 12 | 5.2 | 371 | 29 | 14 | 20 | 24 | 410 | 205 | 233 | 9.1 | 0 | 50 |
| 13 | 15 | 221 | 28 | 12 | 20 | 22 | 444 | 267 | 234 | 8.7 | 0 | 50 |
| 14 | 48 | 141 | 24 | 13 | 19 | 22 | 528 | 369 | 222 | 8.6 | 0 | 38 |
| 15 | 45 | 101 | 27 | 13 | 20 | 24 | 616 | 431 | 193 | 8.5 | 0 | 31 |
| 16 | 31 | 79 | 33 | 14 | 23 | 28 | 618 | 371 | 188 | 8.4 | 0 | 26 |
| 17 | 27 | 65 | 29 | 14 | 27 | 31 | 418 | 368 | 187 | 8.2 | 0 | 19 |
| 18 | 23 | 61 | 26 | 16 | 29 | 32 | 273 | 417 | 188 | 8.0 | 0 | 15 |
| 19 | 25 | 55 | 25 | 18 | 31 | 32 | 247 | 458 | 180 | 7.8 | 0 | 21 |
| 20 | 34 | 52 | 23 | 21 | 35 | 36 | 199 | 473 | 95 | 7.6 | 0 | 24 |
| 21 | 42 | 52 | 22 | 23 | 33 | 51 | 153 | 419 | 8.1 | 7.4 | 0 | 19 |
| 22 | 38 | 48 | 20 | 23 | 27 | 58 | 131 | 413 | 11 | 7.2 | 0 | 13 |
| 23 | 32 | 44 | 19 | 22 | 24 | 59 | 150 | 455 | 49 | 7.0 | 0 | 9.4 |
| 24 | 29 | 51 | 19 | 19 | 25 | 72 | 223 | 479 | 66 | 3.0 | 0 | 6.6 |
| 25 | 31 | 51 | 19 | 17 | 30 | 71 | 225 | 467 | 56 | .76 | 0 | 4.7 |
| 26 | 49 | 47 | 18 | 18 | 36 | 57 | 178 | 424 | 44 | .75 | 0 | 3.2 |
| 27 | 117 | 49 | 18 | 16 | 42 | 53 | 153 | 362 | 36 | .75 | 0 | 2.1 |
| 28 | 89 | 65 | 17 | 16 | 45 | 44 | 244 | 295 | 32 | .74 | 0 | 1.4 |
| 29 | 78 | 57 | 17 | 15 | --- | 39 | 342 | 232 | 29 | .73 | 0 | .91 |
| 30 | 80 | 52 | 16 | 13 | --- | 37 | 370 | 182 | 26 | .72 | 0 | .61 |
| 31 | 61 | --- | 15 | 12 | --- | 40 | --- | 170 | --- | 7.7 | 0 | --- |
| TOTAL | 903.76 | 3540 | 812 | 497 | 641.9 | 1178 | 8893 | 12048 | 4825.1 | 277.65 | 12.35 | 418.72 |
| MEAN | 29.2 | 118 | 26.2 | 16.0 | 22.9 | 38.0 | 296 | 389 | 161 | 8.96 | .40 | 14.0 |
| MAX | 117 | 573 | 46 | 23 | 45 | 72 | 618 | 658 | 364 | 22 | 9.6 | 50 |
| MIN | 0 | 43 | 15 | 12 | 9.9 | 22 | 64 | 170 | 8.1 | .72 | 0 | 0 |
| AC-FT | 1790 | 7020 | 1610 | 986 | 1270 | 2340 | 17640 | 23900 | 9570 | 551 | 24 | 831 |
| CAL YR 1984 | TOTAL | 55070.85 | MEAN | 150 | MAX | 1040 | MIN | 0 | AC-FT | 109200 | | |
| WTR YR 1985 | TOTAL | 34047.48 | MEAN | 93.3 | MAX | 658 | MIN | 0 | AC-FT | 67530 | | |

SACRAMENTO RIVER BASIN

11428700 HELL HOLE RESERVOIR NEAR MEEKS BAY, CA

LOCATION.--Lat 39°03'54", long 120°24'50", in SE 1/4 NW 1/4 sec.16, T.14 N., R.14 E., Placer County, Hydrologic Unit 18020128, Eldorado National Forest, on right bank 0.3 mi upstream from Hell Hole Dam on Rubicon River, and 15.6 mi west of Meeks Bay.

DRAINAGE AREA.--114 mi².

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Placer County Water Agency).

REMARKS.--Reservoir is formed by rockfill dam with earth core. Storage began Dec. 6, 1965. Usable capacity, 207,342 acre-ft, between elevations 4,287.65 ft, invert of river outlet and 4,630.0 ft, crest of ogee spillway. Dead storage 248 acre-ft. Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records were collected by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 211,050 acre-ft, Dec. 20, 1981, elevation, 4,632.75 ft; minimum since reservoir first filled, 37,499 acre-ft, Mar. 23, 1973, elevation, 4,428.28 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 182,900 acre-ft, May 31, elevation, 4,609.62 ft; minimum, 99,883 acre-ft, Feb. 7, elevation, 4,552.14 ft.

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

| | | | |
|-------|--------|-------|---------|
| 4,340 | 5,220 | 4,500 | 83,025 |
| 4,360 | 9,835 | 4,550 | 122,720 |
| 4,380 | 16,250 | 4,600 | 171,865 |
| 4,400 | 24,160 | 4,650 | 233,420 |
| 4,450 | 49,610 | | |

 CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
 INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1 | 121528 | 131889 | 122592 | 103305 | 100506 | 105553 | 114476 | 157384 | 182819 | 170442 | 145490 | 122294 |
| 2 | 121213 | 132059 | 121996 | 103177 | 100616 | 105874 | 115099 | 159363 | 182877 | 169761 | 144416 | 121783 |
| 3 | 120612 | 131566 | 121147 | 103018 | 100727 | 106140 | 115939 | 161149 | 182830 | 169115 | 143252 | 120823 |
| 4 | 120045 | 131200 | 120046 | 103082 | 100553 | 106406 | 117025 | 162527 | 182608 | 168549 | 141972 | 120180 |
| 5 | 119412 | 130603 | 119210 | 103209 | 100246 | 106607 | 118771 | 164002 | 182397 | 167719 | 141360 | 119682 |
| 6 | 119935 | 130159 | 118208 | 103297 | 100104 | 106801 | 120629 | 165399 | 182269 | 167112 | 140694 | 119057 |
| 7 | 120680 | 129628 | 117293 | 103026 | 99883 | 106978 | 122549 | 166683 | 182024 | 166067 | 139850 | 118703 |
| 8 | 121290 | 129460 | 116349 | 103034 | 99955 | 107124 | 124219 | 167852 | 181848 | 165235 | 139237 | 117821 |
| 9 | 121902 | 128974 | 115432 | 103042 | 100057 | 107382 | 126190 | 168660 | 181360 | 164373 | 138140 | 117670 |
| 10 | 122515 | 128613 | 114559 | 102946 | 100238 | 107706 | 127840 | 169371 | 181290 | 164013 | 136818 | 117109 |
| 11 | 123259 | 129584 | 113771 | 102700 | 100293 | 107909 | 129584 | 170185 | 181231 | 163286 | 135517 | 116732 |
| 12 | 124081 | 129566 | 112839 | 102787 | 100427 | 108103 | 131271 | 171012 | 180790 | 162290 | 134610 | 116098 |
| 13 | 124874 | 130559 | 112023 | 102811 | 100600 | 108306 | 133592 | 171775 | 180697 | 161224 | 133754 | 115539 |
| 14 | 125626 | 130399 | 111095 | 102620 | 100798 | 108566 | 136023 | 172721 | 180059 | 160237 | 133103 | 115099 |
| 15 | 126382 | 129664 | 110383 | 102302 | 101027 | 108769 | 138438 | 173670 | 178892 | 159310 | 132346 | 114484 |
| 16 | 127035 | 128895 | 109281 | 102080 | 101296 | 109054 | 140332 | 174576 | 177798 | 158344 | 131244 | 113946 |
| 17 | 127761 | 128199 | 108306 | 101835 | 101589 | 109502 | 142097 | 175247 | 177407 | 157658 | 129858 | 113152 |
| 18 | 128437 | 127542 | 107277 | 101731 | 101859 | 109828 | 143378 | 176194 | 177121 | 157016 | 129602 | 112880 |
| 19 | 129106 | 126765 | 106938 | 101771 | 102223 | 110138 | 144630 | 176949 | 176743 | 156262 | 128666 | 112245 |
| 20 | 129858 | 126060 | 106623 | 101953 | 102557 | 110440 | 145588 | 177660 | 176023 | 155344 | 127928 | 111587 |
| 21 | 130515 | 125575 | 106261 | 101875 | 102819 | 111013 | 146493 | 178672 | 175634 | 154152 | 127438 | 110882 |
| 22 | 130995 | 124701 | 105907 | 101716 | 103090 | 111267 | 147393 | 179504 | 174928 | 153451 | 126886 | 110244 |
| 23 | 131397 | 123970 | 105609 | 101534 | 103377 | 111653 | 148357 | 179978 | 174463 | 152498 | 126538 | 109852 |
| 24 | 131763 | 123866 | 105336 | 101471 | 103680 | 112154 | 149378 | 180395 | 174372 | 151682 | 126094 | 109379 |
| 25 | 132130 | 123352 | 105087 | 101193 | 104031 | 112385 | 150253 | 180894 | 173998 | 151001 | 125695 | 108932 |
| 26 | 132625 | 122626 | 104583 | 101327 | 104399 | 112574 | 151022 | 181325 | 173579 | 150152 | 125228 | 108322 |
| 27 | 132751 | 122720 | 104375 | 101463 | 104775 | 112945 | 151987 | 181650 | 173104 | 150111 | 124752 | 108322 |
| 28 | 132346 | 123730 | 104103 | 101312 | 105159 | 113259 | 153215 | 182141 | 172405 | 148607 | 124262 | 107731 |
| 29 | 132472 | 123798 | 103576 | 101106 | --- | 113284 | 154452 | 182561 | 171753 | 147760 | 123592 | 107156 |
| 30 | 132301 | 123259 | 103353 | 100877 | --- | 113441 | 155750 | 182783 | 170744 | 146908 | 122959 | 106728 |
| 31 | 132041 | --- | 103257 | 100727 | --- | 113979 | --- | 182900 | --- | 146404 | 122805 | --- |
| MAX | 132751 | 132059 | 122592 | 103305 | 105159 | 113979 | 155750 | 182900 | 182877 | 170442 | 145490 | 122294 |
| MIN | 119412 | 122626 | 103257 | 100727 | 99883 | 105553 | 114476 | 157384 | 170744 | 146404 | 122805 | 106728 |
| a | 4560.66 | 4550.63 | 4526.40 | 4523.21 | 4528.78 | 4539.60 | 4585.15 | 4609.62 | 4599.00 | 4575.93 | 4550.10 | 4530.73 |
| b | +9952 | -8782 | -20002 | -2530 | +4432 | +8820 | +41771 | +27150 | -12156 | -24340 | -23599 | -16077 |
| CAL YR 1984 | b | -102209 | | | | | | | | | | |
| WTR YR 1985 | b | -15361 | | | | | | | | | | |

a Elevation, in feet NGVD, at end of month.

b Change in contents, in acre-feet.

11428800 RUBICON RIVER BELOW HELL HOLE DAM, NEAR MEEKS BAY, CA

LOCATION.--Lat 39°03'24", long 120°24'25", in NE 1/4 NE 1/4 sec.21, T.14 N., R.14 E., Placer County, Hydrologic Unit 18020128, Eldorado National Forest, on right bank 600 ft downstream from outlet of dam, and 15.3 mi west of Meeks Bay.

DRAINAGE AREA.--114 mi².

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

GAGE.--Water-stage recorder and V-notch sharp-crested weir. Datum of gage is 4,231.52 ft above National Geodetic Vertical Datum of 1929 (levels by Placer County Water Agency).

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated by Hell Hole Reservoir (station 11428700) 600 ft upstream from station. During years when Hell Hole Dam spills, records include flow which bypasses the station. Transbasin diversions upstream from station through Buck-Loon tunnel (station 11428300) to Loon Lake Reservoir (station 11429350); from Middle Fork American River basin through tunnel from French Meadows Reservoir (station 11427400) to Hell Hole Reservoir; from Hell Hole Reservoir through tunnel to Middle Fork American River powerplant. Diversion began Sept. 8, 1966. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Gage height record and discharge measurements were provided by the Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--19 years, 30.5 ft³/s, 22,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,380 ft³/s, Dec. 20, 1981, including flow over spillway; no flow Aug. 25 to Sept. 11, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 48 ft³/s, Nov. 28, gage height, 4.39 ft; minimum daily, 11 ft³/s, Dec. 20.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|------|-------|-------|------|------|------|------|------|-------|-------|-------|-------|
| 1 | 21 | 23 | 22 | 13 | 12 | 13 | 17 | 16 | 23 | 23 | 23 | 23 |
| 2 | 21 | 23 | 23 | 13 | 12 | 13 | 17 | 16 | 23 | 23 | 21 | 22 |
| 3 | 21 | 24 | 22 | 13 | 12 | 13 | 16 | 16 | 23 | 23 | 21 | 22 |
| 4 | 21 | 23 | 22 | 13 | 12 | 13 | 16 | 16 | 22 | 23 | 21 | 22 |
| 5 | 21 | 23 | 22 | 13 | 12 | 13 | 16 | 16 | 22 | 23 | 21 | 22 |
| 6 | 21 | 24 | 22 | 13 | 12 | 13 | 17 | 16 | 22 | 23 | 21 | 22 |
| 7 | 21 | 24 | 22 | 13 | 12 | 13 | 17 | 15 | 22 | 23 | 21 | 23 |
| 8 | 21 | 24 | 22 | 13 | 16 | 13 | 17 | 15 | 22 | 23 | 21 | 23 |
| 9 | 21 | 24 | 22 | 13 | 16 | 14 | 17 | 15 | 22 | 23 | 21 | 23 |
| 10 | 22 | 24 | 22 | 13 | 14 | 14 | 16 | 15 | 22 | 23 | 21 | 23 |
| 11 | 23 | 27 | 22 | 13 | 13 | 14 | 17 | 15 | 22 | 23 | 21 | 23 |
| 12 | 23 | 24 | 22 | 13 | 13 | 14 | 17 | 15 | 22 | 23 | 21 | 23 |
| 13 | 23 | 25 | 22 | 13 | 14 | 14 | 18 | 15 | 22 | 23 | 21 | 23 |
| 14 | 23 | 24 | 22 | 13 | 15 | 14 | 18 | 16 | 23 | 23 | 21 | 23 |
| 15 | 23 | 24 | 16 | 13 | 15 | 14 | 18 | 22 | 23 | 23 | 21 | 23 |
| 16 | 23 | 24 | 13 | 13 | 14 | 14 | 17 | 23 | 23 | 23 | 21 | 23 |
| 17 | 23 | 24 | 13 | 13 | 14 | 14 | 17 | 23 | 23 | 23 | 21 | 23 |
| 18 | 23 | 24 | 13 | 13 | 15 | 13 | 16 | 23 | 23 | 23 | 21 | 23 |
| 19 | 22 | 23 | 12 | 13 | 14 | 13 | 16 | 23 | 23 | 23 | 21 | 23 |
| 20 | 22 | 23 | 11 | 13 | 14 | 13 | 16 | 23 | 23 | 23 | 22 | 23 |
| 21 | 22 | 23 | 14 | 12 | 14 | 13 | 16 | 23 | 23 | 23 | 22 | 23 |
| 22 | 22 | 23 | 14 | 12 | 14 | 13 | 16 | 23 | 23 | 23 | 22 | 23 |
| 23 | 22 | 23 | 14 | 12 | 14 | 13 | 15 | 22 | 23 | 23 | 22 | 23 |
| 24 | 22 | 25 | 14 | 12 | 13 | 13 | 16 | 22 | 23 | 23 | 22 | 23 |
| 25 | 22 | 24 | 14 | 12 | 13 | 13 | 15 | 22 | 23 | 23 | 23 | 23 |
| 26 | 22 | 23 | 13 | 12 | 13 | 14 | 15 | 22 | 23 | 23 | 23 | 23 |
| 27 | 22 | 27 | 13 | 12 | 13 | 19 | 15 | 22 | 23 | 24 | 23 | 23 |
| 28 | 23 | 27 | 13 | 12 | 13 | 15 | 15 | 22 | 23 | 23 | 23 | 23 |
| 29 | 23 | 24 | 13 | 13 | --- | 13 | 15 | 23 | 23 | 23 | 23 | 23 |
| 30 | 23 | 17 | 13 | 13 | --- | 14 | 16 | 23 | 23 | 23 | 23 | 23 |
| 31 | 23 | --- | 13 | 12 | --- | 16 | --- | 23 | --- | 22 | 22 | --- |
| TOTAL | 685 | 714 | 535 | 394 | 378 | 425 | 490 | 601 | 680 | 713 | 671 | 685 |
| MEAN | 22.1 | 23.8 | 17.3 | 12.7 | 13.5 | 13.7 | 16.3 | 19.4 | 22.7 | 23.0 | 21.6 | 22.8 |
| MAX | 23 | 27 | 23 | 13 | 16 | 19 | 18 | 23 | 23 | 24 | 23 | 23 |
| MIN | 21 | 17 | 11 | 12 | 12 | 13 | 15 | 15 | 22 | 22 | 21 | 22 |
| AC-FT | 1360 | 1420 | 1060 | 781 | 750 | 843 | 972 | 1190 | 1350 | 1410 | 1330 | 1360 |
| a | 9070 | 33310 | 36270 | 6630 | 1990 | 2760 | 4910 | 7750 | 25750 | 32280 | 35460 | 35060 |

CAL YR 1984 TOTAL 7194.1 MEAN 19.7 MAX 38 MIN 8.1 AC-FT 14270
WTR YR 1985 TOTAL 6971 MEAN 19.1 MAX 27 MIN 11 AC-FT 13830

a Diversion, in acre-feet, from Hell Hole Reservoir to Middle Fork powerplant, provided by Placer County Water Agency.

SACRAMENTO RIVER BASIN

11429300 ROBBS PEAK POWERPLANT NEAR KYBURZ, CA

LOCATION.--Lat 38°53'50", long 120°22'38", in SE 1/4 SW 1/4 sec.11, T.12 N., R.14 E., El Dorado County, Hydrologic Unit 18020128, Eldorado National Forest, in powerplant on shore of Union Valley Reservoir and 9.5 mi northwest of Kyburz.

PERIOD OF RECORD.--October 1962 to current year. Prior to October 1965, published as Robbs Peak tunnel near Riverton.

GAGE.--Discharge computed from powerplant output. Elevation of gage is 4,880 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to October 1965, water-stage recorder and concrete control in abandoned section of canal 0.5 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Tunnel diverts at South Fork Rubicon River diversion dam in NE 1/4 sec.27, T.13 N., R.14 E., and discharges into Union Valley Reservoir (station 11441001). Water is imported from Rubicon River basin via Rubicon-Rockbound tunnel and Buck-Loon tunnel to Loon Lake, then via Loon Lake powerplant or Gerl Creek to Robbs Peak tunnel and powerplant. The water is later used in the South Fork American River basin for power development. See schematic diagrams of Middle Fork American and Rubicon River basins and South Fork American River basin.

COOPERATION.--Records provided by Sacramento Municipal Utility District, rounded to Geological Survey standards.

AVERAGE DISCHARGE.--23 years, 253 ft³/s, 183,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 1,440 ft³/s, Dec. 22-24, 1964; no flow many days in each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|-----------|-------|--------|-------|-------|-------|-------|--------|--------|--------|--------|
| 1 | 0 | 32 | 362 | 61 | 148 | 285 | 228 | 347 | 199 | 60 | 122 | 1.0 |
| 2 | 0 | 47 | 70 | 1.0 | 183 | 283 | 312 | 368 | 175 | 44 | 97 | 1.0 |
| 3 | 0 | 184 | 252 | 47 | 41 | 406 | 361 | 314 | 284 | 183 | 96 | 75 |
| 4 | 0 | 53 | 467 | 46 | 172 | 410 | 407 | 281 | 235 | 1.0 | 1.0 | 114 |
| 5 | 0 | 8.0 | 460 | 55 | 176 | 394 | 488 | 274 | 211 | 1.0 | 93 | 108 |
| 6 | 0 | 34 | 464 | 16 | 187 | 387 | 486 | 274 | 164 | 178 | 1.0 | 106 |
| 7 | 0 | 97 | 330 | 156 | 180 | 390 | 486 | 240 | 228 | 1.0 | 77 | 109 |
| 8 | 0 | 62 | 474 | 148 | 175 | 385 | 486 | 143 | 210 | 114 | 45 | 1.0 |
| 9 | 0 | 88 | 216 | 139 | 161 | 91 | 528 | 225 | 134 | 105 | 141 | 121 |
| 10 | 0 | 3.0 | 439 | 137 | 53 | 127 | 550 | 174 | 274 | 121 | 457 | 88 |
| 11 | 0 | 279 | 474 | 134 | 180 | 79 | 470 | 121 | 166 | 149 | 423 | 111 |
| 12 | 0 | 178 | 477 | 138 | 173 | 68 | 495 | 136 | 196 | 140 | 57 | 112 |
| 13 | 0 | 205 | 454 | 33 | 192 | 88 | 546 | 137 | 170 | 61 | 128 | 120 |
| 14 | 0 | 109 | 464 | 157 | 185 | 47 | 626 | 226 | 196 | 1.0 | 123 | 144 |
| 15 | 0 | 103 | 470 | 218 | 194 | 145 | 593 | 182 | 159 | 126 | 140 | 1.0 |
| 16 | 0 | 292 | 224 | 213 | 205 | 89 | 496 | 166 | 40 | 102 | 121 | 106 |
| 17 | 0 | 340 | 420 | 139 | 86 | 120 | 425 | 157 | 139 | 101 | 6.0 | 124 |
| 18 | 0 | 112 | 457 | 150 | 145 | 152 | 327 | 135 | 122 | 117 | 1.0 | 111 |
| 19 | 0 | 369 | 466 | 158 | 216 | 136 | 334 | 203 | 117 | 99 | 137 | 208 |
| 20 | 0 | 456 | 451 | 64 | 254 | 160 | 283 | 132 | 117 | 138 | 116 | 84 |
| 21 | 0 | 481 | 460 | 171 | 219 | 173 | 232 | 174 | 139 | 1.0 | 35 | 134 |
| 22 | 0 | 129 | 454 | 84 | 221 | 142 | 240 | 104 | 1.0 | 161 | 150 | 145 |
| 23 | 1.0 | 90 | 201 | 55 | 227 | 147 | 270 | 308 | 1.0 | 138 | 120 | 1.0 |
| 24 | 9.0 | 73 | 172 | 53 | 110 | 200 | 313 | 240 | 160 | 97 | 99 | 1.0 |
| 25 | 35 | 61 | 172 | 54 | 256 | 185 | 266 | 212 | 1.0 | 112 | 8.0 | 12 |
| 26 | 48 | 371 | 429 | 55 | 253 | 95 | 162 | 75 | 63 | 55 | 95 | 1.0 |
| 27 | 1.0 | 514 | 449 | 41 | 276 | 112 | 253 | 124 | 73 | 87 | 106 | 1.0 |
| 28 | 1.0 | 630 | 450 | 44 | 304 | 90 | 282 | 185 | 1.0 | 1.0 | 101 | 1.0 |
| 29 | 41 | 505 | 449 | 50 | --- | 144 | 301 | 217 | 1.0 | 120 | 107 | 1.0 |
| 30 | 4.0 | 447 | 125 | 41 | --- | 123 | 286 | 227 | 57 | 60 | 107 | 1.0 |
| 31 | 46 | --- | 51 | 43 | --- | 116 | --- | 208 | --- | 102 | 105 | --- |
| TOTAL | 186.0 | 6352.0 | 11303 | 2901.0 | 5172 | 5769 | 11532 | 6309 | 4033.0 | 2776.0 | 3415.0 | 2143.0 |
| MEAN | 6.00 | 212 | 365 | 93.6 | 185 | 186 | 384 | 204 | 134 | 89.5 | 110 | 71.4 |
| MAX | 48 | 630 | 477 | 218 | 304 | 410 | 626 | 368 | 284 | 183 | 457 | 208 |
| MIN | 0 | 3.0 | 51 | 1.0 | 41 | 47 | 162 | 75 | 1.0 | 1.0 | 1.0 | 1.0 |
| AC-FT | 369 | 12600 | 22420 | 5750 | 10260 | 11440 | 22870 | 12510 | 8000 | 5510 | 6770 | 4250 |
| CAL YR 1984 | TOTAL | 115104.00 | MEAN | 314 | MAX | 795 | MIN | 0 | AC-FT | 228300 | | |
| WTR YR 1985 | TOTAL | 61891.00 | MEAN | 170 | MAX | 630 | MIN | 0 | AC-FT | 122800 | | |

11429350 LOON LAKE NEAR MEEKS BAY, CA

LOCATION.--Lat 38°58'59", long 120°19'22", in SE 1/4 SW 1/4 sec.8, T.13 N., R.15 E., El Dorado County, Hydrologic Unit 18020128, Eldorado National Forest, in powerhouse intake structure, 1.6 mi southwest of right bank end of Loon Lake Dam on Gerle Creek, and 10 mi southwest of town of Meeks Bay.

DRAINAGE AREA.--7.96 mi².

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

REVISED RECORDS.--WDR CA-76-4: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Sacramento Municipal Utility District). Prior to Sept. 23, 1975, at site 1.6 mi northeast on right bank end of Loon Lake Dam at same datum.

REMARKS.--Reservoir is formed by an earthfill dam completed Dec. 27, 1963. Storage began Dec. 5, 1963. Prior to September 1962, reservoir was formed by granite block dam built in 1884, capacity, 8,000 acre-ft. Usable capacity, 73,900 acre-ft, between elevations 6,325 ft, invert of fishwater release valve and 6,410 ft crest of spillway. Dead storage, 2,300 acre-ft. Lake receives water from Rubicon River via Rubicon-Rockbound tunnel to Buck Island Lake and from Buck Island Lake to Loon Lake via Buck-Loon tunnel (stations 11427940, 11428300). Records, including extremes, represent total contents at 2400 hours. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Capacity tables provided by Sacramento Municipal Utility District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 77,700 acre-ft, June 6, 1969, elevation, 6,411.1 ft; minimum since reservoir first filled, 3,690 acre-ft, Nov. 3, 1970, elevation, 6,330.3 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 74,000 acre-ft, June 18-20, elevation, 6,408.4 ft; minimum, 21,300 acre-ft, Mar. 8, 9, elevation, 6,362.0 ft.

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

| | |
|-------|--------|
| 6,330 | 3,600 |
| 6,340 | 7,200 |
| 6,350 | 12,500 |
| 6,360 | 19,600 |
| 6,370 | 28,500 |
| 6,390 | 50,000 |
| 6,412 | 79,000 |

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 47800 | 49300 | 50500 | 32600 | 30600 | 25100 | 24100 | 48600 | 71200 | 73500 | 66900 | 58900 |
| 2 | 47800 | 49500 | 50600 | 32600 | 30300 | 24900 | 24500 | 50100 | 71200 | 73300 | 66700 | 58900 |
| 3 | 47800 | 50900 | 50300 | 32600 | 30300 | 24200 | 25000 | 51800 | 71000 | 73100 | 66500 | 58500 |
| 4 | 47800 | 51500 | 49400 | 32600 | 30100 | 23600 | 25700 | 52900 | 71000 | 73100 | 66300 | 58200 |
| 5 | 47800 | 51900 | 48700 | 32600 | 29800 | 23000 | 26300 | 53900 | 71200 | 72800 | 66200 | 58000 |
| 6 | 47700 | 52300 | 47800 | 32700 | 29600 | 22500 | 27200 | 54900 | 71400 | 72600 | 66200 | 57700 |
| 7 | 47700 | 52600 | 47400 | 32600 | 29500 | 22000 | 28100 | 56000 | 71900 | 72600 | 66000 | 57500 |
| 8 | 47700 | 53200 | 46500 | 32500 | 29500 | 21300 | 29200 | 56900 | 72300 | 72400 | 65700 | 57600 |
| 9 | 47600 | 53300 | 46300 | 32300 | 29200 | 21300 | 30100 | 57700 | 72600 | 72100 | 65300 | 57600 |
| 10 | 47600 | 53500 | 45600 | 32200 | 29300 | 21400 | 31200 | 58100 | 72800 | 71900 | 64400 | 57500 |
| 11 | 47700 | 54200 | 44700 | 32100 | 29000 | 21400 | 32200 | 58600 | 73000 | 71600 | 63500 | 57200 |
| 12 | 47700 | 55000 | 44000 | 31900 | 28500 | 21500 | 33300 | 59000 | 73000 | 71300 | 63200 | 57100 |
| 13 | 47700 | 55800 | 43200 | 31900 | 28200 | 21500 | 34600 | 59600 | 73100 | 71200 | 63000 | 56800 |
| 14 | 47700 | 56000 | 42400 | 31700 | 27900 | 21600 | 36100 | 60400 | 73300 | 71000 | 62700 | 56700 |
| 15 | 47800 | 56200 | 41700 | 31400 | 27700 | 21700 | 37500 | 61200 | 73400 | 70900 | 62600 | 56700 |
| 16 | 48000 | 55900 | 41600 | 31000 | 27400 | 21800 | 39000 | 61900 | 73700 | 70600 | 62300 | 56400 |
| 17 | 48000 | 55400 | 40800 | 30800 | 27500 | 21900 | 40100 | 62700 | 73800 | 70300 | 62200 | 56200 |
| 18 | 48100 | 55500 | 39900 | 30700 | 27500 | 22000 | 40800 | 63600 | 74000 | 70000 | 62100 | 56000 |
| 19 | 48100 | 55000 | 39100 | 30500 | 27200 | 22000 | 41400 | 64500 | 74000 | 69800 | 61800 | 55500 |
| 20 | 48200 | 54300 | 38300 | 30500 | 27000 | 22200 | 41800 | 65400 | 74000 | 69500 | 61500 | 55300 |
| 21 | 48200 | 53500 | 37400 | 30400 | 26700 | 22300 | 42300 | 66200 | 73800 | 69500 | 61300 | 55000 |
| 22 | 48300 | 53500 | 36700 | 30400 | 26500 | 22500 | 42600 | 67000 | 73800 | 69200 | 61000 | 55000 |
| 23 | 48300 | 53700 | 36500 | 30400 | 26200 | 22600 | 43000 | 67600 | 73800 | 68900 | 60800 | 55000 |
| 24 | 48300 | 54000 | 36300 | 30400 | 26200 | 22900 | 43600 | 68300 | 73700 | 68700 | 60500 | 55000 |
| 25 | 48300 | 54000 | 36000 | 30500 | 26100 | 23000 | 44100 | 68900 | 73700 | 68400 | 60400 | 55000 |
| 26 | 48400 | 53400 | 35100 | 30600 | 25900 | 23300 | 44500 | 69900 | 73800 | 68200 | 60100 | 55000 |
| 27 | 48700 | 52900 | 34100 | 30600 | 25600 | 23500 | 45000 | 70600 | 73800 | 67900 | 59900 | 54900 |
| 28 | 48800 | 52300 | 33300 | 30700 | 25400 | 23700 | 45600 | 71000 | 73800 | 67900 | 59600 | 54900 |
| 29 | 48900 | 51600 | 32500 | 30800 | --- | 23700 | 46400 | 71200 | 73800 | 67600 | 59400 | 54900 |
| 30 | 49000 | 51000 | 32500 | 30800 | --- | 23700 | 47400 | 71200 | 73700 | 67400 | 59100 | 54800 |
| 31 | 49200 | --- | 32500 | 30800 | --- | 23900 | --- | 71200 | --- | 67100 | 58900 | --- |
| MAX | 49200 | 56200 | 50600 | 35600 | 30600 | 25100 | 47400 | 71200 | 74000 | 73500 | 66900 | 58900 |
| MIN | 47600 | 49300 | 32500 | 30400 | 25400 | 21300 | 24100 | 48600 | 71000 | 67100 | 58900 | 54800 |
| a | 6389.3 | 6390.8 | 6374.2 | 6372.4 | 6366.7 | 6365.1 | 6387.8 | 6406.4 | 6408.2 | 6403.4 | 6397.0 | 6393.8 |
| b | +1400 | +1800 | -18500 | -1700 | -5400 | -1500 | +23500 | +23800 | +2500 | -6600 | -8200 | -4100 |
| CAL YR 1984 | b | -42600 | | | | | | | | | | |
| WTR YR 1985 | b | +7000 | | | | | | | | | | |

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.

SACRAMENTO RIVER BASIN

11429500 GERLE CREEK BELOW LOON LAKE DAM, NEAR MEEKS BAY, CA

LOCATION.--Lat 39°00'20", long 120°18'52", in NE 1/4 NE 1/4 sec.5, T.13 N., R.15 E., El Dorado County, Hydrologic Unit 18020128, Eldorado National Forest, on right bank 0.3 mi downstream from Loon Lake Dam, and 11 mi southwest of Meeks Bay.

DRAINAGE AREA.--8.01 mi².

PERIOD OF RECORD.--July 1910 to April 1914 (fragmentary), August 1962 to current year. Prior to August 1962, published as "near Rubicon Springs."

GAGE.--Water-stage recorder and V-notch concrete weir. Elevation of gage is 6,250 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to August 1962, nonrecording gage at site 1,400 ft upstream at different datum.

REMARKS.--Estimated daily discharges: Feb. 10-18. Records excellent except for estimated daily discharges which are good. Beginning in 1884, flow regulated by Loon Lake (station 11429350). Original dam was dismantled during September and October 1962 to permit construction of a new earthfill dam which was completed Dec. 27, 1963. Storage began Dec. 5, 1963. Loon Lake receives water from Rubicon River via Rubicon-Rockbound tunnel to Buck Island Lake and from Buck Island Lake to Loon Lake via Buck-Loon tunnel (stations 11427940, 11428300). Diversion to Loon Lake powerplant starting August 1971, bypasses station and returns to Gerle Creek at Gerle Creek Dam. See schematic diagram of Middle Fork American and Rubicon River basins.

AVERAGE DISCHARGE.--10 years (water years, 1911, 1963-71, prior to diversion to Loon Lake powerplant), 131 ft³/s, 94,910 acre-ft/yr; 14 years (water years 1972-85), 8.45 ft³/s, 6,120 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,240 ft³/s, unregulated, Feb. 1, 1963, gage height, 12.65 ft, from rating curve extended above 600 ft³/s on basis of slope-area measurement of peak flow; no flow Oct. 15, 1913. Maximum discharge since construction of Loon Lake Dam in 1963, 1,050 ft³/s, June 5, 1969, gage height, 9.03 ft; minimum daily, 3.6 ft³/s, Sept. 27, 28, Nov. 3, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 132 ft³/s, Aug. 21, gage height, 3.92 ft; minimum daily, 7.8 ft³/s, Dec. 25, 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 8.7 | 8.6 | 8.7 | 8.0 | 8.6 | 8.8 | 9.4 | 11 | 8.0 | 8.3 | 8.1 | 8.0 |
| 2 | 8.6 | 10 | 8.7 | 8.0 | 8.6 | 8.6 | 9.5 | 10 | 8.3 | 8.3 | 8.3 | 8.0 |
| 3 | 8.6 | 9.3 | 8.7 | 8.0 | 8.6 | 8.6 | 9.6 | 9.2 | 8.3 | 8.3 | 8.3 | 8.0 |
| 4 | 8.6 | 8.8 | 8.6 | 8.3 | 8.6 | 8.6 | 10 | 9.0 | 8.2 | 8.3 | 8.3 | 8.0 |
| 5 | 8.6 | 8.6 | 8.6 | 8.6 | 8.6 | 8.4 | 11 | 9.1 | 8.2 | 8.3 | 8.7 | 8.0 |
| 6 | 8.6 | 9.8 | 8.6 | 8.6 | 8.6 | 8.3 | 10 | 9.1 | 8.2 | 8.3 | 8.3 | 8.0 |
| 7 | 8.6 | 9.0 | 8.6 | 8.8 | 8.6 | 8.3 | 11 | 9.0 | 8.3 | 8.3 | 8.3 | 8.0 |
| 8 | 8.6 | 9.0 | 8.6 | 8.9 | 8.6 | 8.3 | 11 | 8.9 | 8.3 | 8.3 | 8.3 | 9.2 |
| 9 | 8.6 | 8.9 | 8.6 | 8.8 | 8.6 | 8.3 | 11 | 8.7 | 8.3 | 8.3 | 8.3 | 8.7 |
| 10 | 8.6 | 8.9 | 8.6 | 8.6 | 8.6 | 8.3 | 11 | 8.6 | 8.3 | 8.3 | 8.3 | 8.6 |
| 11 | 9.4 | 11 | 8.6 | 8.6 | 8.6 | 8.3 | 11 | 8.6 | 8.3 | 8.3 | 8.3 | 8.0 |
| 12 | 8.6 | 9.4 | 8.4 | 8.6 | 8.5 | 8.3 | 10 | 8.6 | 8.3 | 8.2 | 8.3 | 7.9 |
| 13 | 8.6 | 9.4 | 8.3 | 8.6 | 8.5 | 8.3 | 11 | 8.7 | 8.3 | 8.1 | 8.3 | 8.0 |
| 14 | 8.6 | 9.2 | 8.3 | 8.6 | 8.5 | 8.6 | 11 | 8.7 | 8.3 | 8.1 | 8.3 | 8.0 |
| 15 | 8.6 | 9.2 | 8.3 | 8.6 | 8.5 | 9.2 | 11 | 8.6 | 8.5 | 8.1 | 8.3 | 8.0 |
| 16 | 8.7 | 9.0 | 8.3 | 8.6 | 8.6 | 9.2 | 10 | 8.6 | 8.3 | 8.1 | 8.3 | 8.0 |
| 17 | 8.7 | 8.9 | 8.1 | 8.6 | 8.6 | 9.2 | 9.8 | 8.5 | 8.3 | 8.1 | 8.3 | 8.0 |
| 18 | 8.6 | 8.9 | 8.0 | 8.6 | 8.7 | 9.2 | 9.9 | 8.5 | 8.3 | 8.0 | 8.3 | 8.0 |
| 19 | 9.0 | 8.9 | 8.0 | 8.6 | 8.8 | 9.3 | 9.7 | 8.6 | 8.3 | 8.0 | 8.3 | 8.0 |
| 20 | 9.0 | 8.9 | 8.0 | 8.6 | 8.6 | 9.5 | 9.2 | 8.6 | 8.3 | 8.0 | 8.3 | 8.0 |
| 21 | 8.6 | 8.9 | 8.0 | 8.6 | 8.5 | 9.5 | 9.3 | 8.6 | 8.3 | 8.0 | 9.0 | 8.0 |
| 22 | 8.6 | 8.9 | 8.0 | 8.6 | 8.4 | 9.2 | 9.5 | 8.6 | 8.3 | 8.0 | 8.6 | 8.0 |
| 23 | 8.9 | 8.9 | 8.0 | 8.6 | 8.6 | 9.0 | 10 | 8.6 | 8.3 | 8.0 | 8.3 | 8.0 |
| 24 | 8.6 | 8.9 | 8.0 | 8.6 | 8.7 | 8.9 | 9.8 | 8.6 | 8.3 | 8.0 | 8.1 | 8.0 |
| 25 | 8.6 | 8.9 | 7.8 | 8.6 | 8.8 | 8.8 | 9.5 | 8.5 | 8.3 | 8.0 | 8.0 | 8.0 |
| 26 | 8.9 | 8.9 | 7.8 | 8.6 | 9.2 | 8.8 | 9.4 | 8.3 | 8.3 | 8.0 | 8.2 | 8.2 |
| 27 | 8.6 | 9.0 | 8.0 | 8.6 | 9.0 | 8.9 | 9.9 | 8.3 | 8.3 | 8.0 | 8.1 | 8.3 |
| 28 | 8.8 | 8.9 | 8.0 | 8.6 | 8.9 | 8.9 | 10 | 8.3 | 8.3 | 8.0 | 8.0 | 8.3 |
| 29 | 8.7 | 8.9 | 8.0 | 8.6 | --- | 8.8 | 10 | 8.2 | 8.3 | 8.0 | 8.0 | 8.3 |
| 30 | 8.6 | 8.9 | 8.0 | 8.6 | --- | 8.8 | 10 | 8.1 | 8.3 | 8.0 | 8.0 | 8.3 |
| 31 | 8.6 | --- | 8.0 | 8.6 | --- | 9.1 | --- | 8.0 | --- | 8.0 | 8.0 | --- |
| TOTAL | 269.4 | 272.8 | 256.2 | 265.2 | 242.0 | 272.3 | 303.5 | 270.7 | 248.6 | 252.0 | 256.5 | 243.8 |
| MEAN | 8.69 | 9.09 | 8.26 | 8.55 | 8.64 | 8.78 | 10.1 | 8.73 | 8.29 | 8.13 | 8.27 | 8.13 |
| MAX | 9.4 | 11 | 8.7 | 8.9 | 9.2 | 9.5 | 11 | 11 | 8.5 | 8.3 | 9.0 | 9.2 |
| MIN | 8.6 | 8.6 | 7.8 | 8.0 | 8.4 | 8.3 | 9.2 | 8.0 | 8.0 | 8.0 | 8.0 | 7.9 |
| AC-FT | 534 | 541 | 508 | 526 | 480 | 540 | 602 | 537 | 493 | 500 | 509 | 484 |
| a | 20 | 7530 | 19790 | 2810 | 6900 | 5060 | 56 | 2490 | 6590 | 6150 | 7340 | 4150 |
| CAL YR 1984 | TOTAL | 3112.9 | MEAN | 8.51 | MAX | 12 | MIN | 7.7 | AC-FT | 6170 | | |
| WTR YR 1985 | TOTAL | 3153.0 | MEAN | 8.64 | MAX | 11 | MIN | 7.8 | AC-FT | 6250 | | |

a Diversion, in acre-feet, to Loon Lake powerplant, provided by Sacramento Municipal Utility District.

11430000 SOUTH FORK RUBICON RIVER BELOW GERLE CREEK, NEAR GEORGETOWN, CA

LOCATION.--Lat 38°57'17", long 120°24'02", in SW 1/4 SW 1/4 sec.22, T.13 N., R.14 E., El Dorado County, Hydrologic Unit 18020128, Eldorado National Forest, on left bank 600 ft downstream from Gerle Creek, 1.2 mi downstream from South Fork Rubicon River diversion dam, and 18 mi east of Georgetown.

DRAINAGE AREA.--47.6 mi².

PERIOD OF RECORD.--February 1910 to June 1914 (published as Little South Fork Rubicon River below Gerle Creek near Quintette), August 1961 to current year.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Elevation of gage is 4,970 ft above National Geodetic Vertical Datum of 1929, from topographic map. Feb. 1, 1910, to June 21, 1914, nonrecording gage at site about 700 ft downstream at different datum.

REMARKS.--No estimated daily discharges. Records excellent. Beginning in 1884, flow regulated by Loon Lake (station 11429350). Original dam was dismantled during September and October 1962 to permit construction of a new earthfill dam which was completed Dec. 27, 1963. Loon Lake receives water from Rubicon River via Rubicon-Rockbound tunnel to Buck Island Lake and from Buck Island Lake to Loon Lake via Buck-Loon tunnel (stations 11427940, 11428300). Prior to Dec. 3, 1961, water was diverted out of the basin in Georgetown Divide ditch. Water is diverted 1.2 mi upstream at South Fork Rubicon River diversion dam to Robbs Peak Powerplant (station 11429300). Diversion of up to 1,320 ft³/s to Silver Creek basin began in October 1962. See schematic diagram of Middle Fork American and Rubicon River basins.

AVERAGE DISCHARGE (unadjusted).--23 years (water years 1963-85), 23.9 ft³/s, 17,320 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 11,500 ft³/s, Jan. 31, 1963, gage height, 12.32 ft, from rating curve extended above 2,500 ft³/s on basis of slope-area measurement of peak flow; minimum, 0.8 ft³/s, Sept. 21, 1962.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 720 ft³/s, Feb. 9, gage height, 5.43 ft; minimum daily, 4.0 ft³/s, Nov. 4.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|-------|-------|-------|-------|------|-------|-------|------|-------|
| 1 | 11 | 8.5 | 7.9 | 4.7 | 5.3 | 7.2 | 7.5 | 11 | 10 | 9.7 | 12 | 12 |
| 2 | 10 | 6.1 | 7.2 | 4.6 | 5.5 | 7.2 | 8.6 | 11 | 11 | 10 | 12 | 12 |
| 3 | 10 | 5.0 | 7.1 | 4.7 | 5.4 | 6.8 | 9.2 | 11 | 11 | 11 | 12 | 19 |
| 4 | 10 | 4.0 | 6.9 | 4.9 | 5.6 | 7.0 | 9.6 | 11 | 10 | 11 | 12 | 12 |
| 5 | 10 | 4.4 | 6.8 | 5.4 | 5.6 | 6.9 | 10 | 11 | 10 | 11 | 12 | 12 |
| 6 | 10 | 7.9 | 6.7 | 5.5 | 5.6 | 7.2 | 10 | 11 | 11 | 12 | 11 | 12 |
| 7 | 10 | 7.3 | 6.4 | 6.2 | 5.8 | 7.0 | 10 | 10 | 10 | 11 | 11 | 12 |
| 8 | 10 | 8.0 | 6.1 | 5.7 | 8.6 | 6.7 | 10 | 10 | 10 | 11 | 11 | 13 |
| 9 | 10 | 6.9 | 6.0 | 5.8 | 37 | 6.6 | 10 | 10 | 10 | 11 | 12 | 14 |
| 10 | 10 | 7.2 | 6.5 | 5.8 | 10 | 6.7 | 9.8 | 10 | 11 | 12 | 12 | 13 |
| 11 | 12 | 11 | 6.7 | 5.8 | 6.3 | 6.7 | 9.1 | 10 | 10 | 12 | 12 | 13 |
| 12 | 11 | 8.4 | 6.8 | 6.1 | 5.9 | 6.8 | 8.8 | 10 | 11 | 11 | 11 | 12 |
| 13 | 11 | 13 | 6.3 | 5.9 | 5.7 | 7.0 | 8.8 | 10 | 11 | 11 | 12 | 12 |
| 14 | 11 | 9.3 | 6.2 | 6.4 | 5.7 | 6.7 | 8.8 | 10 | 10 | 11 | 11 | 12 |
| 15 | 10 | 7.7 | 6.0 | 6.2 | 6.5 | 6.4 | 8.3 | 10 | 11 | 11 | 11 | 11 |
| 16 | 12 | 7.7 | 5.2 | 6.2 | 6.0 | 6.5 | 7.7 | 10 | 10 | 11 | 11 | 11 |
| 17 | 11 | 7.3 | 5.1 | 6.3 | 6.0 | 6.7 | 8.8 | 10 | 10 | 11 | 11 | 11 |
| 18 | 12 | 8.3 | 5.9 | 6.4 | 6.1 | 6.9 | 7.5 | 10 | 10 | 11 | 11 | 11 |
| 19 | 11 | 7.4 | 6.1 | 5.7 | 6.3 | 6.9 | 7.1 | 10 | 10 | 11 | 11 | 12 |
| 20 | 11 | 6.9 | 5.8 | 5.4 | 6.3 | 7.2 | 6.5 | 10 | 11 | 12 | 11 | 12 |
| 21 | 12 | 6.5 | 6.0 | 5.7 | 6.2 | 7.2 | 6.3 | 10 | 11 | 11 | 11 | 11 |
| 22 | 13 | 6.2 | 5.9 | 5.6 | 6.7 | 6.8 | 6.3 | 10 | 11 | 11 | 12 | 11 |
| 23 | 12 | 5.7 | 5.9 | 5.5 | 6.9 | 6.7 | 6.0 | 10 | 11 | 10 | 12 | 10 |
| 24 | 12 | 11 | 5.8 | 5.4 | 6.9 | 7.1 | 5.7 | 10 | 11 | 10 | 11 | 10 |
| 25 | 11 | 7.8 | 5.6 | 5.5 | 6.9 | 6.6 | 5.4 | 10 | 10 | 10 | 12 | 10 |
| 26 | 11 | 6.9 | 5.5 | 5.5 | 7.1 | 6.7 | 5.0 | 10 | 10 | 11 | 11 | 9.9 |
| 27 | 11 | 15 | 5.1 | 5.3 | 7.3 | 6.9 | 4.9 | 10 | 9.9 | 13 | 12 | 10 |
| 28 | 11 | 16 | 5.0 | 5.4 | 7.3 | 6.7 | 4.9 | 10 | 9.9 | 12 | 12 | 10 |
| 29 | 11 | 9.9 | 5.0 | 5.4 | --- | 5.9 | 7.4 | 10 | 9.9 | 11 | 12 | 10 |
| 30 | 11 | 8.6 | 5.0 | 5.4 | --- | 6.1 | 11 | 10 | 9.8 | 12 | 12 | 10 |
| 31 | 10 | --- | 4.6 | 5.3 | --- | 6.7 | --- | 10 | --- | 12 | 12 | --- |
| TOTAL | 338 | 245.9 | 187.1 | 173.7 | 210.5 | 210.5 | 239.0 | 316 | 311.5 | 344.7 | 358 | 349.9 |
| MEAN | 10.9 | 8.20 | 6.04 | 5.60 | 7.52 | 6.79 | 7.97 | 10.2 | 10.4 | 11.1 | 11.5 | 11.7 |
| MAX | 13 | 16 | 7.9 | 6.4 | 37 | 7.2 | 11 | 11 | 11 | 13 | 12 | 19 |
| MIN | 10 | 4.0 | 4.6 | 4.6 | 5.3 | 5.9 | 4.9 | 10 | 9.8 | 9.7 | 11 | 9.9 |
| AC-FT | 670 | 488 | 371 | 345 | 418 | 418 | 474 | 627 | 618 | 684 | 710 | 694 |
| CAL YR 1984 | TOTAL | 3350.3 | MEAN | 9.15 | MAX | 112 | MIN | 4.0 | AC-FT | 6650 | | |
| WTR YR 1985 | TOTAL | 3284.8 | MEAN | 9.00 | MAX | 37 | MIN | 4.0 | AC-FT | 6520 | | |

SACRAMENTO RIVER BASIN

11431800 PILOT CREEK ABOVE STUMPY MEADOWS LAKE, CA

LOCATION.--Lat 38°53'41", long 120°34'02", in NE 1/4 NW 1/4 sec.18, T.12 N., R.13 E., El Dorado County, Hydrologic Unit 18020128, on right bank 2.1 mi upstream from Stumpy Meadows Dam, and 12.5 mi east of Georgetown.

DRAINAGE AREA.--11.7 mi².

PERIOD OF RECORD.--October 1960 to current year. Prior to October 1971, published as "above Stumpy Meadows Reservoir."

GAGE.--Water-stage recorder. Elevation of gage is 4,280 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 10-13, 15-19, 22, Jan. 6-9, 26, 30, 31, Feb. 1, 4, 5, 7-12, 16-21, 24-27, Mar. 1, 6-8, 30, 31, Apr. 1 to May 29. Records good except estimated periods, which are fair. No regulation or diversion upstream from station. See schematic diagram of Middle Fork American and Rubicon River basins.

AVERAGE DISCHARGE.--25 years, 26.4 ft³/s, 19,130 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 2,490 ft³/s, Jan. 13, 1980, gage height, 6.31 ft, in gage well, 6.84 ft, from floodmarks, from rating curve extended above 170 ft³/s on basis of slope-area measurement of peak flow; maximum gage height, 8.05 ft, Jan. 31, 1963; minimum daily, 0.14 ft³/s, Aug. 16, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 140 ft³/s, and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|---------|------|-----------------------------------|---------------------|------|------|-----------------------------------|---------------------|
| Nov. 27 | 2245 | *137 | 2.81 | | | | |

Minimum daily, 3.1 ft³/s, Aug. 25-29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|-------|------|-------|------|------|------|------|-------|-------|-------|-------|
| 1 | 11 | 6.3 | 28 | 11 | 11 | 22 | 34 | 35 | 11 | 5.8 | 4.3 | 3.2 |
| 2 | 6.7 | 14 | 24 | 11 | 11 | 22 | 47 | 45 | 13 | 5.7 | 4.1 | 3.2 |
| 3 | 5.8 | 19 | 22 | 11 | 11 | 20 | 58 | 43 | 12 | 5.6 | 3.9 | 3.6 |
| 4 | 5.6 | 10 | 20 | 10 | 11 | 20 | 63 | 40 | 11 | 5.4 | 3.8 | 3.6 |
| 5 | 5.5 | 8.5 | 19 | 10 | 11 | 19 | 69 | 37 | 10 | 5.3 | 3.7 | 3.7 |
| 6 | 5.5 | 16 | 17 | 10 | 11 | 19 | 75 | 37 | 9.9 | 5.3 | 3.7 | 4.2 |
| 7 | 5.4 | 14 | 16 | 10 | 11 | 19 | 76 | 33 | 9.6 | 5.3 | 3.6 | 4.7 |
| 8 | 5.2 | 19 | 16 | 11 | 11 | 19 | 77 | 29 | 9.3 | 5.1 | 3.6 | 8.5 |
| 9 | 5.2 | 13 | 15 | 11 | 11 | 19 | 81 | 27 | 9.1 | 5.0 | 3.5 | 13 |
| 10 | 5.2 | 14 | 15 | 11 | 11 | 19 | 75 | 25 | 8.8 | 5.0 | 3.5 | 8.8 |
| 11 | 13 | 31 | 15 | 11 | 12 | 19 | 62 | 22 | 8.5 | 5.3 | 3.4 | 6.2 |
| 12 | 7.7 | 22 | 15 | 11 | 12 | 19 | 65 | 20 | 8.2 | 5.2 | 3.4 | 5.5 |
| 13 | 6.7 | 58 | 15 | 11 | 12 | 19 | 76 | 20 | 8.0 | 4.8 | 3.5 | 5.1 |
| 14 | 6.5 | 36 | 15 | 11 | 12 | 19 | 84 | 20 | 7.9 | 4.7 | 3.5 | 4.9 |
| 15 | 6.0 | 22 | 15 | 10 | 12 | 20 | 76 | 22 | 7.7 | 4.6 | 3.4 | 4.8 |
| 16 | 9.0 | 20 | 14 | 11 | 14 | 21 | 65 | 21 | 7.5 | 4.5 | 3.4 | 4.7 |
| 17 | 16 | 18 | 14 | 11 | 17 | 22 | 54 | 21 | 7.5 | 4.4 | 3.6 | 4.6 |
| 18 | 8.9 | 23 | 14 | 11 | 18 | 24 | 45 | 20 | 7.2 | 4.4 | 4.3 | 4.7 |
| 19 | 8.6 | 18 | 13 | 11 | 19 | 24 | 38 | 20 | 7.0 | 4.3 | 4.0 | 4.6 |
| 20 | 9.0 | 16 | 13 | 11 | 19 | 26 | 33 | 19 | 6.8 | 4.4 | 3.8 | 4.5 |
| 21 | 8.1 | 15 | 13 | 11 | 16 | 28 | 28 | 17 | 6.7 | 4.7 | 3.6 | 4.4 |
| 22 | 7.3 | 14 | 13 | 11 | 15 | 28 | 28 | 17 | 6.7 | 4.6 | 3.4 | 4.4 |
| 23 | 7.0 | 13 | 13 | 10 | 17 | 28 | 31 | 16 | 6.6 | 4.4 | 3.3 | 4.2 |
| 24 | 6.6 | 37 | 12 | 10 | 19 | 31 | 38 | 15 | 6.4 | 4.1 | 3.2 | 4.2 |
| 25 | 6.3 | 26 | 12 | 10 | 20 | 30 | 35 | 14 | 6.4 | 4.0 | 3.1 | 4.1 |
| 26 | 6.8 | 20 | 12 | 10 | 23 | 31 | 32 | 13 | 6.2 | 4.0 | 3.1 | 4.1 |
| 27 | 6.8 | 43 | 12 | 10 | 23 | 33 | 28 | 13 | 6.1 | 3.9 | 3.1 | 4.1 |
| 28 | 6.6 | 88 | 12 | 10 | 23 | 32 | 27 | 12 | 6.0 | 3.9 | 3.1 | 4.2 |
| 29 | 7.2 | 45 | 11 | 9.9 | --- | 26 | 28 | 12 | 5.9 | 3.8 | 3.1 | 4.2 |
| 30 | 6.8 | 34 | 11 | 10 | --- | 24 | 30 | 11 | 5.8 | 4.1 | 3.6 | 4.3 |
| 31 | 6.5 | --- | 11 | 10 | --- | 25 | --- | 11 | --- | 4.2 | 3.6 | --- |
| TOTAL | 228.5 | 732.8 | 467 | 326.9 | 413 | 727 | 1558 | 707 | 242.8 | 145.8 | 110.2 | 148.3 |
| MEAN | 7.37 | 24.4 | 15.1 | 10.5 | 14.8 | 23.5 | 51.9 | 22.8 | 8.09 | 4.70 | 3.55 | 4.94 |
| MAX | 16 | 88 | 28 | 11 | 23 | 33 | 84 | 45 | 13 | 5.8 | 4.3 | 13 |
| MIN | 5.2 | 6.3 | 11 | 9.9 | --- | 19 | 27 | 11 | 5.8 | 3.8 | 3.1 | 3.2 |
| AC-FT | 453 | 1450 | 926 | 648 | 819 | 1440 | 3090 | 1400 | 482 | 289 | 219 | 294 |

| | | | | | | | | | | |
|-------------|-------|--------|------|------|-----|-----|-----|-----|-------|-------|
| CAL YR 1984 | TOTAL | 8596.9 | MEAN | 23.5 | MAX | 132 | MIN | 4.2 | AC-FT | 17050 |
| WTR YR 1985 | TOTAL | 5807.3 | MEAN | 15.9 | MAX | 88 | MIN | 3.1 | AC-FT | 11520 |

11433040 PILOT CREEK BELOW MUTTON CANYON, NEAR GEORGETOWN, CA

LOCATION.--Lat 38°55'25", long 120°38'27", in NE 1/4 NW 1/4 sec.4, T.12 N., R.12 E., El Dorado County, Hydrologic Unit 18020128, Eldorado National Forest, on left bank 450 ft downstream from Mutton Canyon, 500 ft downstream from Georgetown Divide diversion dam, 2.5 mi downstream from Stumpy Meadows Dam, and 10 mi east of Georgetown.

DRAINAGE AREA.--21.1 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 3,760 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Stumpy Meadows Lake 2.5 mi upstream, usable capacity, 17,500 acre-ft, completed in November 1961. Georgetown Irrigation District ditch, capacity, about 20 ft³/s, diverts water out of Pilot Creek, 500 ft upstream from station. See schematic diagram of Middle Fork American and Rubicon River basins.

AVERAGE DISCHARGE.--24 years, 32.9 ft³/s, 23,840 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 5,430 ft³/s, Dec. 22, 1964, gage height, 9.60 ft, from rating curve extended above 300 ft³/s on basis of slope-area measurement at gage height 5.00 ft; maximum gage height, 10.06 ft, Dec. 23, 1964; minimum daily, 0.20 ft³/s, Sept. 24, Nov. 1-5, 1966.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 80 ft³/s, Apr. 9, gage height, 4.64 ft; minimum daily, 1.0 ft³/s, Sept. 24-28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|------|------|-------|-------|------|-------|-------|-------|------|------|
| 1 | 3.8 | 1.6 | 3.9 | 2.4 | 2.2 | 3.3 | 23 | 12 | 2.4 | 1.6 | 1.8 | 1.4 |
| 2 | 1.6 | 3.7 | 3.6 | 2.4 | 2.2 | 3.4 | 28 | 11 | 2.9 | 1.6 | 1.7 | 1.4 |
| 3 | 1.6 | 3.1 | 3.5 | 2.4 | 2.1 | 3.2 | 37 | 12 | 2.5 | 1.7 | 1.7 | 1.4 |
| 4 | 1.5 | 2.1 | 3.3 | 2.3 | 2.1 | 3.2 | 47 | 11 | 2.3 | 2.3 | 1.7 | 1.4 |
| 5 | 1.5 | 1.9 | 3.3 | 2.3 | 2.1 | 3.2 | 58 | 8.4 | 2.3 | 2.3 | 1.6 | 1.4 |
| 6 | 1.5 | 3.3 | 3.2 | 2.4 | 2.1 | 3.3 | 66 | 6.7 | 2.2 | 2.2 | 1.6 | 1.4 |
| 7 | 1.5 | 2.7 | 3.0 | 3.1 | 2.9 | 3.2 | 72 | 5.6 | 2.2 | 2.1 | 1.6 | 1.4 |
| 8 | 1.4 | 6.2 | 2.9 | 2.9 | 17 | 3.1 | 76 | 4.7 | 2.1 | 2.2 | 1.6 | 3.6 |
| 9 | 1.4 | 3.5 | 2.8 | 2.7 | 7.0 | 3.2 | 78 | 4.1 | 2.1 | 2.4 | 1.6 | 2.9 |
| 10 | 1.4 | 3.1 | 4.2 | 2.6 | 4.2 | 3.5 | 78 | 3.9 | 2.0 | 2.3 | 1.6 | 1.7 |
| 11 | 3.0 | 6.9 | 3.6 | 2.5 | 3.7 | 3.8 | 73 | 4.0 | 2.0 | 2.3 | 1.6 | 1.4 |
| 12 | 1.8 | 3.4 | 3.3 | 2.4 | 3.4 | 3.7 | 68 | 3.5 | 1.9 | 2.3 | 1.5 | 1.3 |
| 13 | 1.7 | 14 | 3.1 | 2.3 | 3.4 | 3.6 | 65 | 3.1 | 2.2 | 2.2 | 1.5 | 1.2 |
| 14 | 1.6 | 6.4 | 2.9 | 2.3 | 3.3 | 3.6 | 64 | 2.9 | 2.9 | 2.1 | 1.5 | 1.2 |
| 15 | 1.6 | 3.7 | 2.9 | 2.3 | 3.4 | 3.7 | 63 | 2.8 | 2.9 | 2.1 | 1.5 | 1.2 |
| 16 | 2.9 | 3.3 | 2.9 | 2.3 | 3.4 | 3.8 | 60 | 2.7 | 2.8 | 2.1 | 1.5 | 1.1 |
| 17 | 2.8 | 2.9 | 2.7 | 2.3 | 3.4 | 5.8 | 56 | 2.6 | 2.7 | 2.1 | 1.6 | 1.1 |
| 18 | 1.9 | 3.8 | 2.7 | 2.3 | 3.3 | 9.6 | 51 | 2.7 | 2.7 | 2.0 | 1.6 | 1.1 |
| 19 | 1.9 | 3.0 | 2.7 | 2.3 | 3.4 | 11 | 47 | 2.6 | 2.6 | 2.0 | 1.6 | 1.1 |
| 20 | 2.0 | 2.8 | 2.7 | 2.3 | 3.3 | 12 | 43 | 2.5 | 2.6 | 2.0 | 1.5 | 1.1 |
| 21 | 1.8 | 3.1 | 2.6 | 2.3 | 3.2 | 14 | 43 | 2.5 | 2.3 | 2.1 | 1.5 | 1.1 |
| 22 | 1.8 | 2.8 | 2.6 | 2.3 | 3.3 | 15 | 39 | 2.4 | 1.9 | 2.0 | 1.4 | 1.1 |
| 23 | 1.7 | 2.7 | 2.6 | 2.2 | 3.3 | 16 | 34 | 2.4 | 1.8 | 2.0 | 1.4 | 1.1 |
| 24 | 1.6 | 7.2 | 2.5 | 2.2 | 3.2 | 23 | 30 | 2.7 | 1.8 | 1.9 | 1.4 | 1.0 |
| 25 | 1.6 | 4.4 | 2.5 | 2.2 | 3.2 | 28 | 24 | 4.0 | 1.7 | 1.9 | 1.4 | 1.0 |
| 26 | 1.8 | 3.3 | 2.5 | 2.3 | 3.2 | 42 | 19 | 4.0 | 1.7 | 1.8 | 1.4 | 1.0 |
| 27 | 1.8 | 6.5 | 2.5 | 2.3 | 3.2 | 58 | 16 | 4.0 | 1.6 | 1.8 | 1.4 | 1.0 |
| 28 | 1.7 | 11 | 2.5 | 2.3 | 3.2 | 42 | 16 | 3.2 | 1.6 | 1.8 | 1.4 | 1.0 |
| 29 | 1.9 | 6.3 | 2.4 | 2.2 | --- | 26 | 15 | 2.4 | 1.6 | 1.8 | 1.4 | 1.1 |
| 30 | 1.8 | 4.5 | 2.4 | 2.2 | --- | 22 | 13 | 2.4 | 1.6 | 1.8 | 1.5 | 1.1 |
| 31 | 1.7 | --- | 2.4 | 2.2 | --- | 22 | --- | 2.4 | --- | 1.8 | 1.4 | --- |
| TOTAL | 57.6 | 133.2 | 90.7 | 73.5 | 103.7 | 401.2 | 1402 | 141.2 | 65.9 | 62.6 | 47.5 | 40.3 |
| MEAN | 1.86 | 4.44 | 2.93 | 2.37 | 3.70 | 12.9 | 46.7 | 4.55 | 2.20 | 2.02 | 1.53 | 1.34 |
| MAX | 3.8 | 14 | 4.2 | 3.1 | 17 | 58 | 78 | 12 | 2.9 | 2.4 | 1.8 | 3.6 |
| MIN | 1.4 | 1.6 | 2.4 | 2.2 | 2.1 | 3.1 | 13 | 2.4 | 1.6 | 1.6 | 1.4 | 1.0 |
| AC-FT | 114 | 264 | 180 | 146 | 206 | 796 | 2780 | 280 | 131 | 124 | 94 | 80 |
| CAL YR 1984 | TOTAL | 7834.9 | MEAN | 21.4 | MAX | 221 | MIN | 1.4 | AC-FT | 15540 | | |
| WTR YR 1985 | TOTAL | 2619.4 | MEAN | 7.18 | MAX | 78 | MIN | 1.0 | AC-FT | 5200 | | |

SACRAMENTO RIVER BASIN

11433060 SOUTH FORK LONG CANYON CREEK DIVERSION TUNNEL NEAR VOLCANOVILLE, CA

LOCATION.--Lat 39°03'04", long 120°28'14", in SW 1/4 NE 1/4 sec.24, T.14 N., R.13 E., Placer County, Hydrologic Unit 18020128, Eldorado National Forest, on right bank at diversion dam, 3.3 mi upstream from confluence with North and South Forks Long Canyon Creek, and 17.2 mi east of Volcanoville.

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

GAGE.--Water-stage recorder and sharp-crested weir. Elevation of gage is 4,630 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Nov. 6-18, Jan. 30 to Feb. 8. Tunnel completed in September 1965; diversion began in February 1966. Flow is diverted from South Fork Long Canyon Creek to a tunnel from Hell Hole Reservoir to Middle Fork powerplant on the Middle Fork American River. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--20 years, 9.76 ft³/s, 7,070 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 251 ft³/s, Nov. 12, 1973; no flow for part of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|-------|-------|--------|-------|------|-------|-------|------|-----|-----|
| 1 | | 0 | 10 | 1.4 | 1.0 | 9.8 | 22 | 32 | 2.9 | | | |
| 2 | | 0 | 9.1 | 1.2 | 1.0 | 8.4 | 34 | 33 | 3.8 | | | |
| 3 | | 0 | 8.0 | 1.0 | 1.0 | 7.0 | 40 | 32 | 3.3 | | | |
| 4 | | 0 | 7.4 | 1.2 | 1.0 | 5.8 | 42 | 30 | 2.2 | | | |
| 5 | | 0 | 6.7 | 1.4 | 1.0 | 5.4 | 48 | 28 | 1.4 | | | |
| 6 | | 0 | 6.1 | 1.4 | 1.0 | 5.4 | 51 | 27 | 1.0 | | | |
| 7 | | 0 | 6.1 | 2.4 | 1.0 | 5.4 | 52 | 26 | .85 | | | |
| 8 | | .50 | 5.8 | 2.2 | 0 | 5.2 | 53 | 24 | .70 | | | |
| 9 | | 1.5 | 5.8 | 2.0 | .85 | 4.9 | 55 | 22 | .43 | | | |
| 10 | | 2.0 | 7.0 | 1.8 | .85 | 5.8 | 54 | 20 | .32 | | | |
| 11 | | 47 | 7.4 | 1.6 | .70 | 6.1 | 52 | 19 | .13 | | | |
| 12 | | 18 | 7.7 | 1.0 | .55 | 6.7 | 53 | 18 | 0 | | | |
| 13 | | 22 | 6.7 | .85 | .70 | 7.7 | 58 | 17 | 0 | | | |
| 14 | | 11 | 5.8 | .85 | .85 | 9.1 | 63 | 17 | 0 | | | |
| 15 | | 7.0 | 5.4 | .85 | 2.2 | 9.8 | 62 | 16 | 0 | | | |
| 16 | | 5.0 | 5.2 | 1.2 | 4.1 | 10 | 56 | 16 | 0 | | | |
| 17 | | 5.0 | 4.9 | 1.4 | 5.2 | 11 | 54 | 15 | 0 | | | |
| 18 | | 6.0 | 4.6 | 2.0 | 6.7 | 12 | 47 | 15 | 0 | | | |
| 19 | | 6.1 | 4.1 | 2.4 | 8.4 | 13 | 45 | 14 | 0 | | | |
| 20 | | 5.2 | 3.8 | 2.4 | 8.4 | 16 | 38 | 13 | 0 | | | |
| 21 | | 4.6 | 3.8 | 2.4 | 7.0 | 16 | 38 | 12 | 0 | | | |
| 22 | | 4.1 | 3.6 | 2.2 | 7.4 | 16 | 43 | 10 | 0 | | | |
| 23 | | 3.8 | 3.3 | 1.6 | 8.0 | 16 | 38 | 9.8 | 0 | | | |
| 24 | | 12 | 3.3 | 1.4 | 8.4 | 16 | 35 | 9.1 | 0 | | | |
| 25 | | 7.7 | 3.3 | 1.2 | 9.4 | 14 | 32 | 8.0 | 0 | | | |
| 26 | | 5.8 | 2.9 | 1.4 | 9.8 | 11 | 30 | 7.4 | 0 | | | |
| 27 | | 19 | 2.4 | 1.2 | 10 | 10 | 30 | 6.7 | 0 | | | |
| 28 | | 33 | 2.0 | 1.4 | 10 | 10 | 31 | 5.8 | 0 | | | |
| 29 | | 17 | 2.0 | 1.2 | --- | 9.4 | 31 | 5.4 | 0 | | | |
| 30 | | 12 | 1.8 | 1.1 | --- | 9.8 | 31 | 4.1 | 0 | | | |
| 31 | | --- | 1.6 | 1.1 | --- | 13 | --- | 3.3 | --- | | | |
| TOTAL | 0 | 255.30 | 157.6 | 46.75 | 116.50 | 305.7 | 1318 | 515.6 | 17.03 | 0 | 0 | 0 |
| MEAN | 0 | 8.51 | 5.08 | 1.51 | 4.16 | 9.86 | 43.9 | 16.6 | .57 | 0 | 0 | 0 |
| MAX | 0 | 47 | 10 | 2.4 | 10 | 16 | 63 | 33 | 3.8 | 0 | 0 | 0 |
| MIN | 0 | 0 | 1.6 | .85 | 0 | 4.9 | 22 | 3.3 | 0 | 0 | 0 | 0 |
| AC-FT | 0 | 506 | 313 | 93 | 231 | 606 | 2610 | 1020 | 34 | 0 | 0 | 0 |
| CAL YR 1984 | TOTAL | 4214.41 | MEAN | 11.5 | MAX | 96 | MIN | 0 | AC-FT | 8360 | | |
| WTR YR 1985 | TOTAL | 2732.48 | MEAN | 7.49 | MAX | 63 | MIN | 0 | AC-FT | 5420 | | |

11433080 NORTH FORK LONG CANYON CREEK DIVERSION TUNNEL NEAR VOLCANOVILLE, CA

LOCATION.--Lat 39°02'57", long 120°28'56", in SW 1/4 NW 1/4 sec.24, T.14 N., R.13 E., Placer County, Hydrologic Unit 18020128, Eldorado National Forest, on left bank at diversion dam, 3.2 mi upstream from confluence of North and South Forks Long Canyon Creek, and 16.9 mi east of Volcanoville.

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

GAGE.--Water-stage recorder and Parshall flume. Elevation of gage is 4,700 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No regulation or diversion above station. Tunnel completed in September 1965 and diversions began in February 1966. Flow is diverted from North Fork Long Canyon Creek to a tunnel from Hell Hole Reservoir to Middle Fork powerplant on the Middle Fork American River. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--20 years, 3.76 ft³/s, 2,720 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, .75 ft³/s, May, 25, 1983; no flow for part of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|-------|------|-------|--------|------|--------|-------|------|-----|------|
| 1 | | 0 | 5.1 | 0 | 0 | 4.8 | 11 | 14 | .52 | | | 0 |
| 2 | | 0 | 3.8 | 0 | 0 | 4.2 | 26 | 14 | .77 | | | 0 |
| 3 | | 0 | 3.2 | 0 | 0 | 2.9 | 28 | 13 | .96 | | | 0 |
| 4 | | 0 | 2.6 | 0 | 0 | 2.3 | 29 | 12 | .32 | | | 0 |
| 6 | | 0 | 2.1 | 0 | 0 | 1.3 | 32 | 10 | .12 | | | 0 |
| 7 | | 0 | 2.3 | 0 | 0 | 1.2 | 32 | 9.1 | 0 | | | 0 |
| 8 | | .84 | 2.4 | 0 | 0 | 1.3 | 31 | 8.3 | 0 | | | .11 |
| 9 | | 1.4 | 2.1 | 0 | 0 | 1.4 | 31 | 7.7 | 0 | | | 1.1 |
| 10 | | 1.5 | 2.5 | 0 | 0 | 1.0 | 31 | 7.0 | 0 | | | .21 |
| 11 | | 24 | 2.6 | 0 | 0 | .77 | 28 | 6.4 | 0 | | | .16 |
| 12 | | 11 | 2.5 | 0 | 0 | 2.4 | 28 | 5.9 | 0 | | | .16 |
| 13 | | 13 | 1.6 | 0 | 0 | 4.5 | 30 | 5.5 | 0 | | | .12 |
| 14 | | 6.8 | .45 | 0 | .18 | 4.5 | 32 | 5.2 | 0 | | | 0 |
| 15 | | 4.4 | .32 | .04 | .68 | 4.7 | 32 | 4.7 | 0 | | | 0 |
| 16 | | 3.6 | .32 | .21 | 2.1 | 4.7 | 25 | 4.2 | 0 | | | 0 |
| 17 | | 3.6 | .21 | .60 | 3.1 | 5.4 | 23 | 3.9 | 0 | | | 0 |
| 18 | | 4.2 | .16 | 1.2 | 4.2 | 6.0 | 20 | 3.6 | 0 | | | 0 |
| 19 | | 4.0 | .16 | 1.2 | 5.4 | 6.0 | 21 | 3.2 | 0 | | | 0 |
| 20 | | 3.8 | .12 | 1.2 | 4.7 | 5.9 | 17 | 3.0 | 0 | | | 0 |
| 21 | | 3.2 | 0 | 1.1 | 3.2 | 5.9 | 17 | 2.6 | 0 | | | 0 |
| 22 | | 3.0 | 0 | .68 | 3.6 | 5.9 | 21 | 2.3 | 0 | | | 0 |
| 23 | | 3.0 | 0 | .21 | 4.5 | 5.9 | 18 | 1.9 | 0 | | | 0 |
| 24 | | 7.0 | 0 | .12 | 4.2 | 6.0 | 17 | 1.7 | 0 | | | 0 |
| 25 | | 4.8 | 0 | 0 | 5.4 | 6.4 | 15 | 1.4 | 0 | | | 0 |
| 26 | | 3.5 | 0 | 0 | 5.7 | 6.0 | 13 | 1.2 | 0 | | | 0 |
| 27 | | 16 | 0 | 0 | 6.2 | 5.7 | 14 | 1.1 | 0 | | | 0 |
| 28 | | 23 | 0 | 0 | 6.2 | 5.4 | 14 | .96 | 0 | | | 0 |
| 29 | | 10 | 0 | 0 | --- | 5.0 | 14 | .77 | 0 | | | 0 |
| 30 | | 7.5 | 0 | 0 | --- | 5.2 | 14 | .68 | 0 | | | 0 |
| 31 | | --- | 0 | 0 | --- | 6.4 | --- | .52 | --- | | | --- |
| TOTAL | 0 | 163.14 | 36.94 | 6.56 | 59.36 | 130.67 | 696 | 166.83 | 2.85 | 0 | 0 | 1.86 |
| MEAN | 0 | 5.44 | 1.19 | .21 | 2.12 | 4.22 | 23.2 | 5.38 | .095 | 0 | 0 | .062 |
| MAX | 0 | 24 | 5.1 | 1.2 | 6.2 | 6.4 | 32 | 14 | .96 | 0 | 0 | 1.1 |
| MIN | 0 | 0 | 0 | 0 | 0 | .77 | 11 | .52 | 0 | 0 | 0 | 0 |
| AC-FT | 0 | 324 | 73 | 13 | 118 | 259 | 1380 | 331 | 5.7 | 0 | 0 | 3.7 |
| CAL YR 1984 | TOTAL | 1734.32 | MEAN | 4.74 | MAX | 34 | MIN | 0 | AC-Ft | 3440 | | |
| WTR YR 1985 | TOTAL | 1264.21 | MEAN | 3.46 | MAX | 32 | MIN | 0 | AC-Ft | 2510 | | |

SACRAMENTO RIVER BASIN

11433100 LONG CANYON CREEK NEAR FRENCH MEADOWS, CA

LOCATION.--Lat 39°01'16", long 120°30'53", in SE 1/4 NW 1/4 sec.34, T.14 N., R.13 E., Placer County, Hydrologic Unit 18020128, Eldorado National Forest, on right bank 75 ft downstream from North Fork Long Canyon, 6.5 mi south of French Meadows, and 18 mi east of Foresthill.

DRAINAGE AREA.--18.0 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 4,100 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Dec. 15, 16, Feb. 2, 7-10, Mar. 5-8, 26-29, due to ice effect; Sept. 16-30, due to construction of new control weir for station. Since February 1966, natural flow of stream affected by transbasin diversions 3 mi upstream from station through tunnels from South Fork and North Fork Long Canyon Creek diversion dams (stations 11433060, 11433080) to Middle Fork American River powerplant via tunnel from Hell Hole Reservoir (station 11428700). See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Gage-height record and 21 discharge measurements were provided by the Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--19 years (water years 1967-85), 34.4 ft³/s, 24,920 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 4,700 ft³/s, Jan. 13, 1980, gage height, 10.05 ft, from rating curve extended above 900 ft³/s on basis of slope-area measurement of peak flow; maximum gage height, 11.20 ft, Dec. 23, 1964; minimum daily discharge, 0.08 ft³/s, Sept. 27, 28, 1968.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 138 ft³/s, Nov. 27, gage height, 3.97 ft; minimum daily, 0.93 ft³/s, Sept. 4, 5.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|------|------|---------|---------|-------------|------|-------|------|------|-------|
| 1 | 2.4 | 2.8 | 25 | 12 | 11 | 25 | 37 | 17 | 11 | 3.4 | 1.7 | 1.0 |
| 2 | 1.6 | 12 | 24 | 12 | 11 | 25 | 50 | 17 | 12 | 3.3 | 1.7 | .95 |
| 3 | 1.5 | 24 | 22 | 12 | 11 | 23 | 55 | 16 | 12 | 3.3 | 1.6 | .94 |
| 4 | 1.4 | 9.1 | 20 | 12 | 11 | 23 | 55 | 16 | 11 | 3.4 | 1.6 | .93 |
| 5 | 1.4 | 5.6 | 20 | 12 | 11 | 22 | 54 | 16 | 11 | 3.0 | 1.5 | .93 |
| 6 | 1.4 | 18 | 18 | 13 | 11 | 20 | 52 | 15 | 11 | 2.9 | 1.5 | 1.0 |
| 7 | 1.5 | 19 | 17 | 15 | 10 | 19 | 50 | 15 | 10 | 2.8 | 1.4 | 1.1 |
| 8 | 1.5 | 18 | 17 | 14 | 9.8 | 21 | 47 | 15 | 10 | 2.7 | 1.4 | 2.2 |
| 9 | 1.5 | 11 | 16 | 14 | 9.8 | 22 | 45 | 14 | 9.9 | 2.6 | 1.4 | 2.8 |
| 10 | 1.4 | 12 | 19 | 14 | 13 | 24 | 42 | 14 | 9.6 | 2.6 | 1.4 | 2.1 |
| 11 | 4.3 | 24 | 19 | 14 | 14 | 25 | 38 | 14 | 9.2 | 2.7 | 1.4 | 1.7 |
| 12 | 2.1 | 17 | 20 | 13 | 14 | 25 | 35 | 13 | 8.7 | 2.6 | 1.3 | 1.5 |
| 13 | 1.9 | 42 | 19 | 13 | 14 | 24 | 34 | 13 | 8.1 | 2.4 | 1.3 | 1.4 |
| 14 | 1.8 | 28 | 19 | 13 | 17 | 25 | 33 | 13 | 7.6 | 2.3 | 1.3 | 1.4 |
| 15 | 4.7 | 18 | 19 | 13 | 20 | 27 | 32 | 13 | 7.2 | 2.2 | 1.3 | 1.3 |
| 16 | 4.5 | 16 | 17 | 13 | 23 | 27 | 30 | 13 | 6.8 | 2.2 | 1.2 | 1.4 |
| 17 | 3.0 | 15 | 17 | 14 | 24 | 28 | 29 | 13 | 6.4 | 2.1 | 1.2 | 1.8 |
| 18 | 2.9 | 17 | 17 | 14 | 25 | 29 | 27 | 12 | 5.9 | 2.1 | 1.3 | 1.9 |
| 19 | 5.1 | 15 | 16 | 14 | 26 | 29 | 26 | 12 | 5.6 | 2.1 | 1.3 | 1.8 |
| 20 | 3.9 | 14 | 16 | 14 | 26 | 30 | 25 | 12 | 5.3 | 2.1 | 1.2 | 1.8 |
| 21 | 3.3 | 14 | 15 | 14 | 25 | 30 | 25 | 12 | 5.0 | 2.1 | 1.2 | 1.8 |
| 22 | 3.1 | 13 | 15 | 14 | 25 | 29 | 25 | 12 | 4.8 | 2.1 | 1.1 | 1.8 |
| 23 | 2.9 | 12 | 14 | 14 | 25 | 29 | 23 | 12 | 4.6 | 2.0 | 1.1 | 1.8 |
| 24 | 2.7 | 29 | 15 | 13 | 25 | 29 | 22 | 12 | 4.4 | 1.9 | 1.1 | 1.8 |
| 25 | 2.6 | 23 | 15 | 13 | 26 | 28 | 21 | 11 | 4.2 | 1.8 | 1.1 | 1.7 |
| 26 | 2.9 | 18 | 14 | 14 | 26 | 26 | 20 | 11 | 4.0 | 1.8 | 1.0 | 1.7 |
| 27 | 3.4 | 40 | 14 | 13 | 26 | 25 | 19 | 11 | 3.8 | 1.8 | 1.0 | 1.6 |
| 28 | 3.0 | 78 | 13 | 13 | 25 | 24 | 19 | 11 | 3.7 | 1.7 | 1.0 | 1.6 |
| 29 | 3.9 | 41 | 13 | 12 | --- | 24 | 18 | 11 | 3.6 | 1.7 | 1.0 | 1.6 |
| 30 | 3.7 | 30 | 13 | 12 | --- | 24 | 18 | 11 | 3.5 | 1.7 | 1.2 | 1.6 |
| 31 | 3.0 | --- | 12 | 12 | --- | 28 | --- | 11 | --- | 1.7 | 1.2 | --- |
| TOTAL | 84.3 | 635.5 | 530 | 409 | 514.6 | 789 | 1006 | 408 | 219.9 | 73.1 | 40.0 | 46.95 |
| MEAN | 2.72 | 21.2 | 17.1 | 13.2 | 18.4 | 25.5 | 33.5 | 13.2 | 7.33 | 2.36 | 1.29 | 1.56 |
| MAX | 5.1 | 78 | 25 | 15 | 26 | 30 | 55 | 17 | 12 | 3.4 | 1.7 | 2.8 |
| MIN | 1.4 | 2.8 | 12 | 12 | 9.8 | 19 | 18 | 11 | 3.5 | 1.7 | 1.0 | .93 |
| AC-FT | 167 | 1260 | 1050 | 811 | 1020 | 1560 | 2000 | 809 | 436 | 145 | 79 | 93 |
| CAL YR 1984 | TOTAL | 6415.6 | MEAN | 17.5 | MAX 102 | MIN 1.3 | AC-FT 12730 | | | | | |
| WTR YR 1985 | TOTAL | 4756.35 | MEAN | 13.0 | MAX 78 | MIN .93 | AC-FT 9430 | | | | | |

11433260 NORTH FORK OF MIDDLE FORK AMERICAN RIVER NEAR FORESTHILL, CA

LOCATION.--Lat 39°01'27", long 120°43'03", in NE 1/4 NW 1/4 sec.35, T.14 N., R.11 E., Placer County, Hydrologic Unit 18020128, Tahoe National Forest, on right bank 1.0 mi downstream from El Dorado Canyon, and 4.8 mi east of Foresthill.

DRAINAGE AREA.--88.9 mi².

PERIOD OF RECORD.--July 1965 to September 1985 (discontinued).

GAGE.--Water-stage recorder. Elevation of gage is 1,300 ft above National Geodetic Vertical Datum 1929, from topographic map.

REMARKS.--No estimated daily discharges. No storage or diversion above station. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--20 years, 278 ft³/s, 201,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 30,100 ft³/s, Jan. 13, 1980, gage height, 17.00 ft from floodmarks from rating curve extended above 5,500 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 7.1 ft³/s, Sept. 9, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 2,070 ft³/s, Nov. 28, gage height, 7.09 ft; minimum daily, 19 ft³/s, Aug. 25-27.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|-------|------|------|------|-------|-------|------|-------|--------|------|------|
| 1 | 41 | 34 | 280 | 83 | 79 | 202 | 382 | 277 | 79 | 45 | 28 | 24 |
| 2 | 32 | 68 | 235 | 83 | 80 | 214 | 596 | 282 | 90 | 45 | 28 | 23 |
| 3 | 28 | 193 | 209 | 83 | 78 | 185 | 763 | 271 | 85 | 44 | 26 | 23 |
| 4 | 28 | 72 | 177 | 83 | 74 | 183 | 754 | 249 | 78 | 43 | 26 | 23 |
| 5 | 27 | 55 | 164 | 85 | 74 | 172 | 754 | 228 | 77 | 42 | 25 | 23 |
| 6 | 27 | 82 | 150 | 87 | 75 | 185 | 763 | 224 | 75 | 41 | 24 | 25 |
| 7 | 27 | 131 | 146 | 109 | 90 | 183 | 722 | 211 | 73 | 41 | 25 | 27 |
| 8 | 27 | 177 | 137 | 107 | 453 | 164 | 690 | 197 | 75 | 40 | 24 | 36 |
| 9 | 26 | 135 | 135 | 98 | 290 | 167 | 652 | 182 | 75 | 41 | 24 | 70 |
| 10 | 26 | 96 | 157 | 94 | 184 | 196 | 645 | 171 | 75 | 39 | 24 | 47 |
| 11 | 56 | 383 | 160 | 92 | 152 | 222 | 549 | 160 | 66 | 39 | 23 | 34 |
| 12 | 41 | 277 | 158 | 90 | 136 | 214 | 502 | 154 | 62 | 39 | 23 | 31 |
| 13 | 31 | 601 | 153 | 86 | 137 | 233 | 514 | 150 | 60 | 36 | 23 | 29 |
| 14 | 31 | 414 | 140 | 86 | 147 | 251 | 554 | 149 | 59 | 34 | 24 | 28 |
| 15 | 29 | 232 | 144 | 86 | 164 | 264 | 541 | 145 | 57 | 33 | 24 | 27 |
| 16 | 38 | 180 | 144 | 86 | 180 | 276 | 484 | 139 | 57 | 32 | 23 | 26 |
| 17 | 87 | 162 | 125 | 84 | 194 | 285 | 421 | 136 | 57 | 31 | 23 | 26 |
| 18 | 44 | 180 | 124 | 89 | 198 | 289 | 378 | 131 | 56 | 31 | 26 | 27 |
| 19 | 41 | 169 | 122 | 90 | 214 | 293 | 372 | 127 | 55 | 30 | 24 | 27 |
| 20 | 47 | 148 | 112 | 90 | 223 | 306 | 344 | 121 | 54 | 30 | 23 | 26 |
| 21 | 46 | 144 | 107 | 92 | 196 | 320 | 325 | 114 | 53 | 31 | 22 | 26 |
| 22 | 38 | 126 | 103 | 89 | 190 | 302 | 336 | 109 | 52 | 32 | 21 | 25 |
| 23 | 35 | 113 | 102 | 84 | 198 | 289 | 312 | 105 | 50 | 31 | 21 | 25 |
| 24 | 34 | 322 | 102 | 85 | 201 | 306 | 300 | 101 | 49 | 28 | 20 | 24 |
| 25 | 33 | 310 | 102 | 86 | 201 | 302 | 285 | 97 | 49 | 27 | 19 | 24 |
| 26 | 37 | 209 | 101 | 91 | 201 | 298 | 269 | 93 | 49 | 27 | 19 | 23 |
| 27 | 46 | 307 | 99 | 86 | 205 | 334 | 261 | 91 | 48 | 27 | 19 | 23 |
| 28 | 38 | 1300 | 91 | 90 | 206 | 329 | 273 | 86 | 47 | 26 | 20 | 23 |
| 29 | 47 | 504 | 91 | 88 | --- | 289 | 277 | 87 | 46 | 26 | 21 | 24 |
| 30 | 46 | 351 | 91 | 79 | --- | 281 | 267 | 82 | 45 | 26 | 27 | 24 |
| 31 | 38 | --- | 87 | 79 | --- | 302 | --- | 79 | --- | 27 | 26 | --- |
| TOTAL | 1172 | 7475 | 4248 | 2740 | 4820 | 7836 | 14285 | 4748 | 1853 | 1064 | 725 | 843 |
| MEAN | 37.8 | 249 | 137 | 88.4 | 172 | 253 | 476 | 153 | 61.8 | 34.3 | 23.4 | 28.1 |
| MAX | 87 | 1300 | 280 | 109 | 453 | 334 | 763 | 282 | 90 | 45 | 28 | 70 |
| MIN | 26 | 34 | 87 | 79 | 74 | 164 | 261 | 79 | 45 | 26 | 19 | 23 |
| AC-FT | 2320 | 14830 | 8430 | 5430 | 9560 | 15540 | 28330 | 9420 | 3680 | 2110 | 1440 | 1670 |
| CAL YR 1984 | TOTAL | 70370 | MEAN | 192 | MAX | 1300 | MIN | 22 | AC-FT | 139600 | | |
| WTR YR 1985 | TOTAL | 51809 | MEAN | 142 | MAX | 1300 | MIN | 19 | AC-FT | 102800 | | |

SACRAMENTO RIVER BASIN

11433300 MIDDLE FORK AMERICAN RIVER NEAR FORESTHILL, CA

LOCATION.--Lat 39°00'22", long 120°45'35", in NW 1/4 NW 1/4 sec.4, T.13 N., R.11E., Placer County, Hydrologic Unit 18020128, Tahoe National Forest, on right bank 1.6 mi downstream from Oxbow powerhouse, and 3.3 mi east of Foresthill. Prior to Aug. 28, 1985, at site 400 ft downstream.

DRAINAGE AREA.--524 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 1,070 ft above National Geodetic Vertical Datum of 1929, from topographic map. Oct. 22, 1965 to Aug. 28, 1985 at site 400 ft downstream at different datum. Prior to Oct. 22, 1965, at site 3.2 mi downstream at different datum.

REMARKS.--Flow regulated by French Meadows Reservoir, Hell Hole Reservoir, Loon Lake (stations 11427400, 11428700, 11429350), Stumpy Meadows Lake, usable capacity, 17,500 acre-ft, and Ralston and Oxbow powerplants. Robbs Peak powerplant (station 11429300) and Georgetown Divide ditch, capacity, about 60 ft³/s divert water out of basin above station. See schematic diagram of Middle Fork American and Rubicon River basins.

COOPERATION.--Records collected by Placer County Water Agency, under general supervision of the Geological Survey, in connection with a Federal Energy Regulatory Commission Project.

AVERAGE DISCHARGE.--27 years, 1,187 ft³/s, 860,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 310,000 ft³/s, Dec. 23, 1964, gage height, 69.0 ft from floodmarks, site and datum then in use, caused by overtopping of the partly constructed Hell Hole Dam on the Rubicon River, from rating curve extended above 28,000 ft³/s on basis of slope-area measurement at gage height 38.0 ft and slope-conveyance study at gage height 69.0 ft at site and datum then in use; next highest peak, 113,000 ft³/s, Feb. 1, 1963, gage height, 38.00 ft site and datum then in use; minimum, 35 ft³/s, Oct. 10-20, 1961.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,630 ft³/s, Nov. 28, gage height, 8.71 ft; minimum daily, 81 ft³/s, Oct. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|
| 1 | 869 | 422 | 1320 | 347 | 433 | 484 | 1220 | 743 | 490 | 505 | 746 | 737 |
| 2 | 739 | 550 | 1260 | 382 | 245 | 517 | 1610 | 650 | 494 | 643 | 797 | 656 |
| 3 | 781 | 1070 | 1230 | 354 | 251 | 457 | 1830 | 601 | 548 | 696 | 746 | 687 |
| 4 | 781 | 577 | 1220 | 261 | 389 | 469 | 1840 | 664 | 590 | 591 | 772 | 718 |
| 5 | 794 | 665 | 1230 | 263 | 449 | 484 | 1620 | 563 | 612 | 662 | 557 | 612 |
| 6 | 626 | 829 | 1200 | 292 | 367 | 554 | 1610 | 572 | 545 | 487 | 638 | 692 |
| 7 | 193 | 901 | 1200 | 506 | 494 | 558 | 1570 | 576 | 591 | 661 | 689 | 749 |
| 8 | 87 | 964 | 1190 | 411 | 1770 | 504 | 1710 | 510 | 530 | 750 | 609 | 724 |
| 9 | 86 | 891 | 1200 | 365 | 995 | 471 | 1530 | 570 | 701 | 781 | 773 | 678 |
| 10 | 86 | 750 | 1330 | 436 | 599 | 537 | 1560 | 555 | 618 | 488 | 778 | 783 |
| 11 | 110 | 1180 | 1310 | 469 | 482 | 667 | 1400 | 439 | 615 | 653 | 780 | 647 |
| 12 | 87 | 1140 | 1310 | 274 | 439 | 622 | 1460 | 456 | 774 | 796 | 757 | 746 |
| 13 | 81 | 1460 | 1160 | 313 | 416 | 651 | 1210 | 547 | 641 | 710 | 682 | 694 |
| 14 | 119 | 1140 | 1180 | 439 | 424 | 637 | 1430 | 522 | 699 | 704 | 677 | 654 |
| 15 | 116 | 1180 | 1270 | 475 | 458 | 694 | 1360 | 454 | 894 | 674 | 637 | 728 |
| 16 | 140 | 1040 | 1270 | 435 | 469 | 634 | 1260 | 457 | 884 | 741 | 768 | 689 |
| 17 | 304 | 997 | 1250 | 458 | 489 | 643 | 1160 | 540 | 696 | 654 | 807 | 780 |
| 18 | 181 | 1080 | 1250 | 405 | 507 | 719 | 1100 | 518 | 617 | 649 | 416 | 589 |
| 19 | 158 | 1020 | 945 | 318 | 506 | 719 | 1010 | 580 | 646 | 604 | 612 | 830 |
| 20 | 160 | 1000 | 766 | 264 | 526 | 746 | 914 | 565 | 749 | 548 | 712 | 686 |
| 21 | 168 | 952 | 731 | 429 | 486 | 737 | 908 | 396 | 582 | 734 | 730 | 788 |
| 22 | 116 | 961 | 525 | 426 | 474 | 809 | 934 | 448 | 558 | 675 | 752 | 764 |
| 23 | 88 | 911 | 551 | 437 | 482 | 721 | 870 | 600 | 399 | 779 | 678 | 644 |
| 24 | 100 | 1210 | 561 | 393 | 488 | 764 | 825 | 654 | 439 | 737 | 699 | 719 |
| 25 | 100 | 1210 | 549 | 438 | 491 | 809 | 763 | 511 | 506 | 658 | 686 | 606 |
| 26 | 101 | 1050 | 544 | 265 | 494 | 856 | 704 | 506 | 660 | 712 | 779 | 754 |
| 27 | 101 | 1180 | 563 | 256 | 488 | 1050 | 629 | 503 | 633 | 248 | 741 | 409 |
| 28 | 92 | 2770 | 586 | 450 | 494 | 1030 | 633 | 361 | 649 | 736 | 712 | 737 |
| 29 | 229 | 1540 | 452 | 416 | --- | 961 | 706 | 349 | 550 | 695 | 729 | 731 |
| 30 | 455 | 1400 | 446 | 409 | --- | 838 | 759 | 407 | 575 | 699 | 697 | 638 |
| 31 | 451 | --- | 416 | 370 | --- | 881 | --- | 397 | --- | 578 | 550 | --- |
| TOTAL | 8499 | 32040 | 30015 | 11756 | 14605 | 21223 | 36135 | 16214 | 18485 | 20248 | 21706 | 20869 |
| MEAN | 274 | 1068 | 968 | 379 | 522 | 685 | 1204 | 523 | 616 | 653 | 700 | 696 |
| MAX | 869 | 2770 | 1330 | 506 | 1770 | 1050 | 1840 | 743 | 894 | 796 | 807 | 830 |
| MIN | 81 | 422 | 416 | 256 | 245 | 457 | 629 | 349 | 399 | 248 | 416 | 409 |
| AC-FT | 16860 | 63550 | 59530 | 23320 | 28970 | 42100 | 71670 | 32160 | 36660 | 40160 | 43050 | 41390 |
| CAL YR 1984 | TOTAL | 466218 | MEAN | 1277 | MAX | 5050 | MIN | 81 | AC-FT | 924700 | | |
| WTR YR 1985 | TOTAL | 251795 | MEAN | 690 | MAX | 2770 | MIN | 81 | AC-FT | 499400 | | |

11433420 MAINE BAR CANYON CREEK NEAR GREENWOOD, CA

LOCATION.--Lat 38°55'34", long 120°56'51", in NW 1/4 NW 1/4 sec.2, T.12 N., R.9 E., El Dorado County, Hydrologic Unit 18020128, on right bank 2.8 mi northwest of Greenwood, and 4.5 mi northeast of Cool.

DRAINAGE AREA.--0.76 mi².

PERIOD OF RECORD.--March to September 1972 (discharge measurements only), October 1972 to September 1983, June 28, 1984 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 1,520 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Beginning June 18, 1984, low flow regulated by Indian Bow Lake.

AVERAGE DISCHARGE.--12 years, (water years 1973-83, 1985), 1.09 ft³/s, 790 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 263 ft³/s, Jan. 13, 1980, gage height, 2.35 ft; no flow for many days most years.

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

| Date | Time | Discharge (ft ³ /s) | Gage Height (ft) | Date | Time | Discharge (ft ³ /s) | Gage Height (ft) |
|---------|------|--------------------------------|------------------|---------|------|--------------------------------|------------------|
| Nov. 27 | 2315 | 56 | 1.49 | Mar. 10 | 1530 | 21 | 1.10 |
| Feb. 8 | 0845 | *77 | *1.64 | | | | |

No flow July 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|------|-------|-------|------|-------|-------|-------|------|------|------|------|------|
| 1 | .02 | .20 | .73 | .28 | .31 | .34 | .84 | .19 | .09 | .05 | .03 | .07 |
| 2 | .01 | .46 | .66 | .28 | .38 | .42 | .74 | .16 | .15 | .04 | .03 | .09 |
| 3 | .01 | .26 | .79 | .28 | .34 | .36 | .67 | .16 | .11 | .04 | .02 | .11 |
| 4 | .02 | .21 | .59 | .28 | .33 | .54 | .64 | .16 | .07 | .04 | .02 | .10 |
| 5 | .02 | .21 | .56 | .28 | .28 | .48 | .56 | .15 | .06 | .02 | .03 | .13 |
| 6 | .03 | .67 | .48 | .28 | .28 | 1.9 | .46 | .15 | .05 | .03 | .03 | .14 |
| 7 | .03 | .44 | .46 | .51 | 1.6 | 4.8 | .43 | .15 | .04 | .03 | .02 | .18 |
| 8 | .05 | 1.9 | .44 | .44 | 31 | 2.1 | .39 | .14 | .04 | .03 | .03 | .21 |
| 9 | .09 | .38 | .39 | .38 | 5.3 | 1.3 | .37 | .14 | .03 | .03 | .03 | .11 |
| 10 | .15 | .43 | 1.2 | .34 | 2.3 | 4.7 | .36 | .15 | .03 | .02 | .02 | .03 |
| 11 | .24 | 1.3 | .71 | .33 | 1.5 | 3.0 | .34 | .15 | .02 | .03 | .03 | .02 |
| 12 | .03 | .53 | .61 | .28 | 1.2 | 1.8 | .32 | .13 | .02 | .03 | .04 | .02 |
| 13 | .04 | 3.2 | .55 | .28 | .97 | 1.3 | .30 | .12 | .02 | .02 | .05 | .02 |
| 14 | .06 | .84 | .51 | .28 | .82 | 1.1 | .28 | .11 | .02 | .02 | .05 | .02 |
| 15 | .06 | .52 | .81 | .28 | .74 | .92 | .28 | .10 | .02 | .02 | .05 | .01 |
| 16 | .36 | .65 | 1.4 | .28 | .69 | .80 | .28 | .10 | .02 | .01 | .06 | .01 |
| 17 | .17 | .53 | 1.0 | .28 | .63 | .69 | .28 | .11 | .02 | .01 | .12 | .03 |
| 18 | .10 | .91 | .87 | .28 | .59 | .69 | .28 | .11 | .02 | .01 | .15 | .03 |
| 19 | .10 | .58 | .77 | .28 | .54 | .61 | .26 | .10 | .02 | .01 | .11 | .02 |
| 20 | .11 | .73 | .69 | .28 | .52 | .58 | .27 | .09 | .03 | .01 | .10 | .01 |
| 21 | .10 | 1.2 | .54 | .27 | .46 | .54 | .30 | .08 | .04 | .02 | .09 | .01 |
| 22 | .08 | .68 | .50 | .23 | .46 | .54 | .26 | .07 | .05 | .02 | .06 | .01 |
| 23 | .08 | .61 | .46 | .23 | .43 | .46 | .25 | .07 | .05 | .01 | .05 | .01 |
| 24 | .08 | 6.3 | .46 | .23 | .39 | .72 | .23 | .07 | .05 | .01 | .03 | .01 |
| 25 | .09 | 1.8 | .45 | .23 | .39 | .59 | .24 | .07 | .05 | .01 | .04 | .01 |
| 26 | .18 | .89 | .39 | .27 | .39 | 2.1 | .26 | .08 | .05 | 0 | .04 | .02 |
| 27 | .20 | 5.1 | .39 | .27 | .36 | 3.7 | .22 | .08 | .05 | .01 | .03 | .04 |
| 28 | .19 | 5.4 | .39 | .62 | .34 | 3.3 | .21 | .10 | .06 | .01 | .04 | .03 |
| 29 | .28 | 1.5 | .35 | .45 | --- | 1.8 | .21 | .10 | .05 | .02 | .05 | .04 |
| 30 | .22 | .95 | .28 | .37 | --- | 1.3 | .20 | .07 | .05 | .03 | .09 | .03 |
| 31 | .20 | --- | .28 | .34 | --- | 1.0 | --- | .10 | --- | .03 | .07 | --- |
| TOTAL | 3.40 | 39.38 | 18.71 | 9.71 | 53.54 | 44.48 | 10.73 | 3.56 | 1.38 | 0.67 | 1.61 | 1.57 |
| MEAN | .11 | 1.31 | .60 | .31 | 1.91 | 1.43 | .36 | .11 | .046 | .022 | .052 | .052 |
| MAX | .36 | 6.3 | 1.4 | .62 | .31 | 4.8 | .84 | .19 | .15 | .05 | .15 | .21 |
| MIN | .01 | .20 | .28 | .23 | .28 | .34 | .20 | .07 | .02 | 0 | .02 | .01 |
| AC-FT | 6.7 | 78 | 37 | 19 | 106 | 88 | 21 | 7.1 | 2.7 | 1.3 | 3.2 | 3.1 |

WTK YR 1985 TOTAL 188.74 MEAN .52 MAX 31 MIN 0 AC-FT 374

SACRAMENTO RIVER BASIN

11433500 MIDDLE FORK AMERICAN RIVER NEAR AUBURN, CA

LOCATION.--Lat 38°55'05", long 121°00'51", in NE 1/4 SW 1/4 sec.6, T.12 N., R.9 E., Placer County, Hydrologic Unit 18020128, on right bank at quarry, 1.4 mi upstream from mouth, and 3.3 mi northeast of Auburn.

DRAINAGE AREA.--614 mi².

PERIOD OF RECORD.--October 1911 to current year. Prior to October 1934, published as "near East Auburn."

REVISED RECORDS.--WSP 861: 1928. WSP 1315-A: 1913-15, 1919, 1921, 1923(M), 1929(M), 1930. WSP 1931: Drainage area.

GAGE.--Water-stage recorder and crest-stage gage. Datum of gage is 552.35 ft above National Geodetic Vertical Datum of 1929 (levels by Murray Engineers). Prior to December 1930, nonrecording gage near present site at different datum. December 1930 to Mar. 1, 1963, water-stage recorder at site 0.4 mi upstream at different datum.

REMARKS.--Estimated daily discharges: Jan. 17, 20, 26-30, July 1-5, 8, 29, Sept. 9, 18, 19. Records good, except those which are estimated, which are fair. Natural flow of stream affected by French Meadows Reservoir (station 11427400), Hell Hole Reservoir (station 11428700), Loon Lake (station 11429350), Stumpy Meadows Lake, usable capacity, 20,000 acre-ft, diversion dams on Rubicon and Little Rubicon Rivers, and Ralston and Oxbow powerplants. Robbins Peak powerplant (station 11429300) diverts water out of basin. See schematic diagram of Middle Fork American and Rubicon River basins.

AVERAGE DISCHARGE.--74 years, 1,342 ft³/s, 972,300 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 253,000 ft³/s, Dec. 23, 1964, gage height, 60.4 ft, from floodmarks, from rating curve extended above 69,000 ft³/s on basis of slope-area measurement of peak flow (caused by overtopping of the partly constructed Hell Hole Dam); next highest peak, 121,000 ft³/s, Feb. 1, 1963, gage height, 43.1 ft, from floodmarks, site and datum then in use; maximum gage height, 102.65 ft, Jan. 14, 1980, backwater from construction at Auburn Dam site; minimum discharge, 20 ft³/s, Sept. 6, 1931, Sept. 19, 1934.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,390 ft³/s, Feb. 8, gage height, 10.61 ft; minimum daily, 100 ft³/s, Oct. 13.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|--------|-------|-------|
| 1 | 857 | 422 | 1380 | 346 | 432 | 487 | 1160 | 721 | 563 | 412 | 577 | 756 |
| 2 | 905 | 433 | 1320 | 450 | 353 | 529 | 1460 | 705 | 539 | 604 | 735 | 661 |
| 3 | 690 | 1120 | 1290 | 312 | 247 | 482 | 1540 | 636 | 421 | 580 | 771 | 649 |
| 4 | 762 | 803 | 1260 | 322 | 339 | 481 | 1730 | 642 | 857 | 655 | 643 | 725 |
| 5 | 783 | 587 | 1290 | 270 | 396 | 472 | 1320 | 596 | 574 | 530 | 518 | 691 |
| 6 | 661 | 845 | 1230 | 283 | 362 | 593 | 1580 | 594 | 582 | 776 | 626 | 640 |
| 7 | 635 | 939 | 1220 | 395 | 442 | 733 | 1530 | 544 | 814 | 338 | 615 | 798 |
| 8 | 389 | 1110 | 1210 | 516 | 2910 | 630 | 1580 | 522 | 686 | 694 | 584 | 708 |
| 9 | 157 | 1050 | 1200 | 390 | 1650 | 571 | 1490 | 526 | 601 | 750 | 673 | 787 |
| 10 | 112 | 800 | 1270 | 374 | 837 | 649 | 1500 | 565 | 568 | 576 | 776 | 767 |
| 11 | 137 | 1160 | 1260 | 437 | 616 | 874 | 1360 | 487 | 613 | 532 | 662 | 728 |
| 12 | 127 | 1270 | 1240 | 422 | 528 | 781 | 1170 | 414 | 616 | 789 | 707 | 681 |
| 13 | 100 | 1550 | 1140 | 304 | 473 | 757 | 979 | 475 | 694 | 608 | 607 | 678 |
| 14 | 105 | 1450 | 1250 | 346 | 458 | 731 | 1250 | 524 | 667 | 706 | 670 | 726 |
| 15 | 131 | 1190 | 1250 | 522 | 476 | 737 | 1390 | 487 | 854 | 619 | 533 | 674 |
| 16 | 133 | 1160 | 1260 | 386 | 491 | 761 | 1210 | 450 | 907 | 761 | 719 | 710 |
| 17 | 271 | 1070 | 1230 | 433 | 504 | 715 | 1130 | 535 | 695 | 635 | 733 | 727 |
| 18 | 246 | 1140 | 1210 | 416 | 513 | 744 | 1080 | 506 | 602 | 677 | 630 | 722 |
| 19 | 173 | 1100 | 1180 | 409 | 529 | 781 | 1000 | 507 | 620 | 532 | 320 | 702 |
| 20 | 170 | 1050 | 617 | 302 | 531 | 759 | 918 | 515 | 632 | 491 | 653 | 666 |
| 21 | 178 | 1050 | 706 | 288 | 515 | 803 | 873 | 531 | 705 | 640 | 646 | 762 |
| 22 | 167 | 999 | 711 | 457 | 482 | 836 | 934 | 368 | 611 | 673 | 683 | 733 |
| 23 | 108 | 988 | 500 | 397 | 481 | 794 | 867 | 433 | 465 | 689 | 644 | 694 |
| 24 | 102 | 1300 | 553 | 453 | 490 | 755 | 825 | 768 | 262 | 701 | 629 | 625 |
| 25 | 106 | 1490 | 528 | 386 | 487 | 887 | 774 | 599 | 478 | 690 | 623 | 660 |
| 26 | 108 | 1170 | 588 | 378 | 495 | 901 | 735 | 521 | 567 | 623 | 674 | 677 |
| 27 | 113 | 1250 | 509 | 259 | 502 | 1450 | 647 | 500 | 617 | 505 | 701 | 554 |
| 28 | 106 | 3070 | 516 | 331 | 497 | 1480 | 634 | 359 | 602 | 342 | 628 | 523 |
| 29 | 107 | 1800 | 497 | 515 | --- | 1160 | 675 | 367 | 714 | 698 | 720 | 759 |
| 30 | 385 | 1530 | 584 | 376 | --- | 1080 | 719 | 358 | 522 | 664 | 694 | 618 |
| 31 | 431 | --- | 380 | 341 | --- | 982 | --- | 429 | --- | 599 | 615 | --- |
| TOTAL | 9455 | 34896 | 30379 | 11816 | 17036 | 24395 | 34060 | 16184 | 18648 | 19089 | 20009 | 20801 |
| MEAN | 305 | 1163 | 980 | 381 | 608 | 787 | 1135 | 522 | 622 | 616 | 645 | 693 |
| MAX | 905 | 3070 | 1380 | 522 | 2910 | 1480 | 1730 | 768 | 907 | 789 | 776 | 798 |
| MIN | 100 | 422 | 380 | 259 | 247 | 472 | 634 | 358 | 262 | 338 | 320 | 523 |
| AC-FT | 18750 | 69220 | 60260 | 23440 | 33790 | 48390 | 67560 | 32100 | 36990 | 37860 | 39690 | 41260 |
| CAL YR 1984 | TOTAL | 462053 | MEAN | 1262 | MAX | 5390 | MIN | 100 | AC-FT | 916500 | | |
| WTR YR 1985 | TOTAL | 256768 | MEAN | 703 | MAX | 3070 | MIN | 100 | AC-FT | 509300 | | |

11433800 NORTH FORK AMERICAN RIVER BELOW AUBURN DAMSITE, NEAR AUBURN, CA

LOCATION.--Lat 38°52'24", long 121°03'13", in SE 1/4 SW 1/4 sec.23, T.12 N., R.8 E., El Dorado County, Hydrologic Unit 18020128, on left bank 1,300 ft upstream from Knickerbocker Creek, 4,000 ft downstream from Auburn damsite, and 2.0 mi southeast of Auburn.

DRAINAGE AREA.--973 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WDR CA-80-4: 1973-75(M), 1978(M), 1979(M).

GAGE.--Water-stage recorder. Datum of gage is 400.00 ft above National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation). Prior to Oct. 27, 1983, at site 200 ft downstream on right bank at same datum.

REMARKS.--No estimated daily discharges. Records fair. Natural flow of stream affected by many reservoirs and diversions (see REMARKS for stations 11427000, 11433500).

AVERAGE DISCHARGE.--13 years, 2,262 ft³/s, 1,639,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 66,700 ft³/s, Jan. 14, 1980, gage height, 87.5 ft from floodmarks, affected by temporary storage at Auburn damsite; minimum daily, 51 ft³/s, July 12, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 8,990 ft³/s, Feb. 8, gage height, 68.91 ft; minimum daily, 171 ft³/s, Oct. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|-------|-------|-------|--------|-------|-------|---------|-------|-------|
| 1 | 933 | 548 | 2020 | 610 | 647 | 969 | 2170 | 1990 | 916 | 502 | 597 | 766 |
| 2 | 873 | 548 | 1860 | 688 | 594 | 1040 | 2950 | 2110 | 877 | 691 | 792 | 706 |
| 3 | 759 | 1820 | 1810 | 528 | 468 | 938 | 3440 | 2090 | 772 | 663 | 824 | 670 |
| 4 | 844 | 1270 | 1730 | 577 | 531 | 935 | 3500 | 1880 | 1010 | 735 | 692 | 763 |
| 5 | 843 | 796 | 1700 | 503 | 597 | 927 | 3450 | 1720 | 911 | 623 | 594 | 747 |
| 6 | 758 | 1040 | 1620 | 527 | 587 | 1100 | 3540 | 1740 | 934 | 901 | 658 | 659 |
| 7 | 719 | 1270 | 1580 | 629 | 663 | 1380 | 3460 | 1690 | 946 | 361 | 659 | 822 |
| 8 | 465 | 1610 | 1560 | 863 | 5340 | 1250 | 3450 | 1570 | 1080 | 751 | 677 | 755 |
| 9 | 230 | 1520 | 1540 | 700 | 3270 | 1150 | 3380 | 1450 | 941 | 809 | 645 | 886 |
| 10 | 171 | 1130 | 1680 | 651 | 1640 | 1330 | 3460 | 1420 | 850 | 683 | 820 | 856 |
| 11 | 229 | 1780 | 1710 | 690 | 1210 | 1760 | 3210 | 1240 | 886 | 583 | 707 | 791 |
| 12 | 235 | 2470 | 1660 | 697 | 1040 | 1510 | 2940 | 1140 | 1000 | 826 | 735 | 712 |
| 13 | 186 | 2580 | 1540 | 538 | 925 | 1440 | 3010 | 1230 | 948 | 683 | 657 | 727 |
| 14 | 172 | 2510 | 1610 | 578 | 896 | 1390 | 3240 | 1360 | 915 | 767 | 748 | 777 |
| 15 | 195 | 1770 | 1600 | 753 | 906 | 1380 | 3570 | 1380 | 1070 | 702 | 534 | 705 |
| 16 | 203 | 1630 | 1670 | 617 | 935 | 1400 | 3230 | 1280 | 1140 | 802 | 761 | 759 |
| 17 | 397 | 1520 | 1600 | 687 | 954 | 1360 | 2700 | 1360 | 896 | 697 | 781 | 756 |
| 18 | 395 | 1600 | 1560 | 665 | 960 | 1410 | 2380 | 1340 | 813 | 733 | 713 | 787 |
| 19 | 272 | 1570 | 1530 | 667 | 983 | 1460 | 2310 | 1350 | 816 | 572 | 326 | 758 |
| 20 | 262 | 1440 | 940 | 569 | 1010 | 1460 | 2050 | 1340 | 808 | 548 | 703 | 724 |
| 21 | 282 | 1520 | 1030 | 541 | 973 | 1520 | 1870 | 1300 | 884 | 697 | 697 | 801 |
| 22 | 270 | 1350 | 1030 | 718 | 909 | 1540 | 1910 | 1110 | 756 | 732 | 732 | 778 |
| 23 | 205 | 1340 | 789 | 659 | 898 | 1460 | 1860 | 1250 | 621 | 725 | 698 | 751 |
| 24 | 185 | 1870 | 826 | 696 | 912 | 1480 | 1870 | 1490 | 382 | 773 | 675 | 667 |
| 25 | 189 | 2410 | 840 | 614 | 928 | 1670 | 1730 | 1360 | 589 | 739 | 676 | 727 |
| 26 | 195 | 1740 | 864 | 640 | 950 | 1600 | 1610 | 1160 | 682 | 674 | 700 | 693 |
| 27 | 207 | 1730 | 793 | 508 | 972 | 2790 | 1460 | 1080 | 726 | 609 | 795 | 635 |
| 28 | 242 | 5560 | 752 | 552 | 979 | 2970 | 1600 | 861 | 705 | 334 | 597 | 535 |
| 29 | 244 | 3240 | 806 | 769 | --- | 2270 | 1790 | 846 | 812 | 740 | 756 | 800 |
| 30 | 512 | 2380 | 811 | 608 | --- | 2000 | 1790 | 792 | 615 | 705 | 723 | 669 |
| 31 | 584 | --- | 635 | 571 | --- | 1890 | --- | 848 | --- | 660 | 684 | --- |
| TOTAL | 12256 | 53562 | 41696 | 19613 | 31677 | 46779 | 78930 | 42777 | 25301 | 21020 | 21356 | 22182 |
| MEAN | 395 | 1785 | 1345 | 633 | 1131 | 1509 | 2631 | 1380 | 843 | 678 | 689 | 739 |
| MAX | 933 | 5560 | 2020 | 863 | 5340 | 2970 | 3570 | 2110 | 1140 | 901 | 824 | 886 |
| MIN | 171 | 548 | 635 | 503 | 468 | 927 | 1460 | 792 | 382 | 334 | 326 | 535 |
| AC-FT | 24310 | 106200 | 82700 | 38900 | 62830 | 92790 | 156600 | 84850 | 50180 | 41690 | 42360 | 44000 |
| CAL YR 1984 | TOTAL | 719278 | MEAN | 1965 | MAX | 9870 | MIN | 171 | AC-FT | 1427000 | | |
| WTR YR 1985 | TOTAL | 417149 | MEAN | 1143 | MAX | 5560 | MIN | 171 | AC-FT | 827400 | | |

SACRAMENTO RIVER BASIN

11433800 NORTH FORK AMERICAN RIVER BELOW AUBURN DAMSITE, NEAR AUBURN, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: October 1982 to September 1983, October 1984 to current year.

INSTRUMENTATION.--Temperature recorder since October 1982.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 25.0°C, Oct. 3, 1982; minimum recorded, 2.5°C, Feb. 5, 1985.

EXTREMES FOR THE CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 24.0°C, July 28; minimum recorded, 2.5°C, Feb. 5.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DAY | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
|-------|---------|------|----------|------|----------|-----|---------|-----|----------|-----|-------|-----|
| | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | 16.5 | 14.0 | 13.5 | 11.5 | 9.0 | 8.5 | 5.0 | 4.0 | 5.5 | 3.5 | 10.5 | 9.0 |
| 2 | 17.0 | 14.0 | 13.0 | 12.5 | 8.5 | 8.5 | 5.0 | 4.0 | 6.0 | 4.0 | 9.5 | 8.5 |
| 3 | 17.5 | 15.0 | 13.0 | 12.5 | 9.0 | 8.5 | 5.0 | 4.0 | 5.0 | 4.5 | 9.5 | 7.5 |
| 4 | 17.0 | 15.0 | 13.5 | 12.5 | 9.0 | 8.5 | 5.0 | 3.5 | 5.5 | 4.0 | 8.5 | 7.0 |
| 5 | 17.0 | 14.5 | 13.5 | 11.5 | 9.5 | 8.5 | 5.0 | 4.5 | 5.0 | 2.5 | 8.0 | 7.0 |
| 6 | 17.5 | 15.0 | 13.0 | 12.0 | 9.0 | 8.5 | 6.0 | 5.0 | 5.5 | 3.5 | 7.0 | 6.5 |
| 7 | 17.5 | 15.5 | 13.0 | 12.0 | 9.0 | 8.0 | 6.0 | 5.5 | 5.5 | 4.5 | 7.5 | 6.5 |
| 8 | 18.0 | 15.5 | 12.5 | 11.5 | 9.0 | 8.0 | 6.5 | 5.5 | 6.0 | 5.5 | 8.0 | 6.0 |
| 9 | 19.0 | 16.0 | 12.0 | 10.5 | 9.0 | 8.5 | 6.0 | 5.5 | 7.0 | 5.0 | 8.5 | 6.0 |
| 10 | 18.5 | 16.0 | 11.0 | 10.0 | 9.5 | 9.0 | 6.5 | 5.5 | 7.0 | 5.5 | 8.0 | 6.5 |
| 11 | 18.0 | 16.5 | 12.0 | 11.0 | 9.5 | 9.0 | 6.0 | 5.0 | 6.5 | 5.5 | 8.0 | 6.5 |
| 12 | 18.0 | 16.0 | 11.5 | 10.5 | 9.0 | 8.5 | 6.0 | 5.0 | 7.5 | 6.0 | 9.0 | 7.0 |
| 13 | 17.5 | 16.5 | 11.0 | 10.0 | 8.5 | 7.5 | 5.5 | 4.0 | 8.0 | 6.0 | 8.0 | 7.0 |
| 14 | 17.5 | 15.5 | 10.5 | 10.0 | 7.5 | 6.5 | 5.5 | 4.0 | 8.0 | 6.0 | 10.0 | 8.0 |
| 15 | 16.5 | 14.0 | 10.0 | 9.5 | 7.5 | 7.5 | 5.5 | 4.5 | 8.5 | 6.5 | 10.5 | 8.5 |
| 16 | 14.5 | 13.5 | 10.5 | 10.0 | 7.5 | 7.0 | 6.0 | 5.0 | 9.0 | 7.0 | 10.5 | 8.5 |
| 17 | 15.0 | 12.5 | 10.5 | 9.5 | 7.0 | 6.0 | 5.5 | 4.0 | 9.0 | 7.0 | 10.5 | 9.0 |
| 18 | 13.5 | 12.0 | 11.0 | 10.0 | 6.5 | 6.0 | 6.0 | 4.5 | 9.5 | 7.0 | 10.0 | 9.5 |
| 19 | 14.5 | 13.0 | 10.5 | 9.5 | 7.0 | 6.5 | 6.0 | 4.5 | 9.5 | 7.5 | 10.0 | 9.5 |
| 20 | 15.5 | 13.5 | 10.0 | 9.5 | 6.5 | 6.0 | 6.0 | 4.5 | 9.5 | 7.5 | 10.5 | 9.0 |
| 21 | 14.5 | 13.0 | 10.5 | 9.5 | 6.5 | 5.5 | 5.5 | 5.0 | 9.5 | 7.0 | 11.5 | 9.5 |
| 22 | 14.5 | 12.5 | 10.0 | 9.5 | 6.0 | 5.0 | 6.0 | 5.0 | 10.0 | 7.0 | 11.0 | 9.5 |
| 23 | 15.0 | 12.0 | 10.0 | 9.5 | 6.0 | 4.5 | 6.0 | 4.0 | 10.0 | 7.0 | 11.5 | 9.0 |
| 24 | 15.5 | 12.5 | 10.0 | 9.0 | 5.5 | 5.0 | 6.0 | 5.0 | 10.0 | 7.5 | 10.5 | 9.5 |
| 25 | 15.5 | 13.0 | 9.5 | 8.5 | 5.5 | 5.0 | 6.0 | 5.0 | 10.5 | 8.0 | 10.5 | 8.5 |
| 26 | 14.0 | 13.5 | 8.5 | 7.5 | 5.5 | 4.5 | 6.5 | 5.5 | 10.5 | 8.0 | 8.5 | 7.5 |
| 27 | 14.0 | 12.5 | 9.0 | 8.5 | 5.5 | 4.5 | 7.0 | 5.5 | 11.0 | 8.5 | 8.0 | 7.0 |
| 28 | 13.5 | 12.5 | 9.0 | 8.5 | 6.0 | 4.5 | 6.0 | 5.5 | 10.5 | 8.5 | 8.0 | 6.5 |
| 29 | 14.0 | 13.0 | 8.5 | 8.0 | 5.5 | 5.0 | 6.5 | 5.5 | --- | --- | 9.0 | 6.5 |
| 30 | 14.0 | 13.0 | 8.5 | 7.0 | 5.5 | 5.0 | 6.0 | 5.0 | --- | --- | 9.5 | 6.5 |
| 31 | 13.5 | 13.0 | --- | --- | 5.5 | 5.0 | 5.5 | 4.0 | --- | --- | 10.0 | 8.0 |
| MONTH | 19.0 | 12.0 | 13.5 | 7.0 | 9.5 | 4.5 | 7.0 | 3.5 | 11.0 | 2.5 | 11.5 | 6.0 |

11433800 NORTH FORK AMERICAN RIVER BELOW AUBURN DAMSITE, NEAR AUBURN, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

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

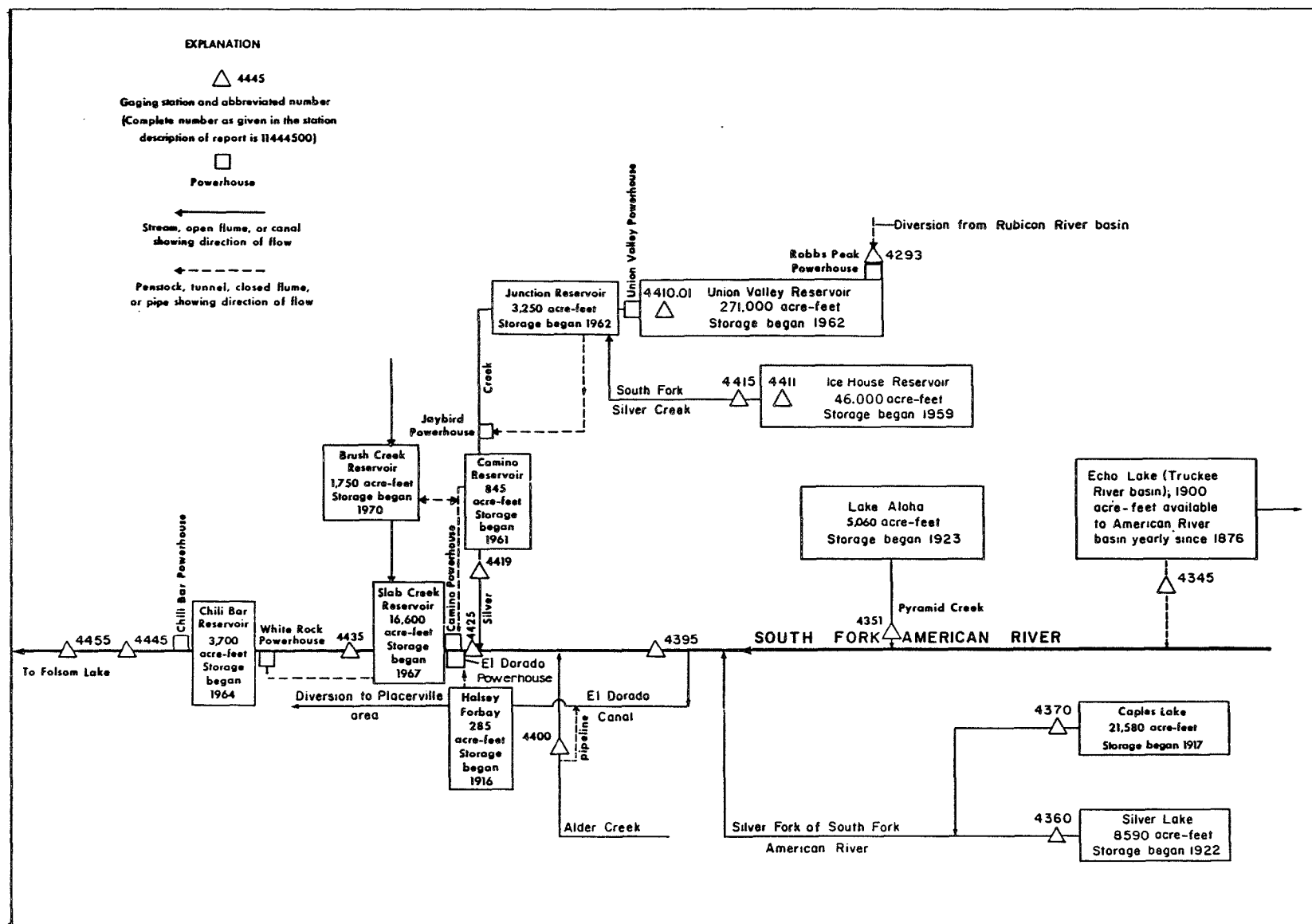


FIGURE 31. — Schematic diagram showing diversions and storage in South Fork American River basin.

11434500 ECHO LAKE CONDUIT NEAR PHILLIPS, CA

LOCATION.--Lat 38°49'52", long 120°02'12", in NW 1/4 NW 1/4 (revised) sec.6, T.11 N., R.18 E., El Dorado County, Hydrologic Unit 18020129, Eldorado National Forest, on right bank in Berkeley Municipal Camp, 0.5 mi downstream from intake, and 2.4 mi northeast of Phillips.

PERIOD OF RECORD.--August 1923 to current year. Prior to October 1974 diversion seasons only. Monthly discharge only for July 1933, published in WSP 1315-A. Published as Echo Lake flume near Vade prior to 1943 and as Echo Lake conduit near Vade for seasons 1944-53.

GAGE.--Water-stage recorder. Elevation of gage is 7,420 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to July 16, 1929, nonrecording gage at site 0.4 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Conduit diverts from Echo Lake, capacity, 1,900 acre-ft in Truckee River basin into South Fork American River basin for power and irrigation. See schematic diagram of South Fork American River basin.

AVERAGE DISCHARGE.--62 years, 2.27 ft³/s, 1,640 acre-ft/yr.

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

EXTREMES FOR PERIOD OF RECORD.--Maximum daily discharge, 33 ft³/s Sept. 10, 11, 1980; no flow most of each year.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------------|---------|-------|-----------|--------|-------|------------|-----|-----|-----|-----|-----|--------|
| 1 | 24 | 6.1 | | | | | | | | | | 0 |
| 2 | 24 | 6.4 | | | | | | | | | | 0 |
| 3 | 23 | 9.0 | | | | | | | | | | 0 |
| 4 | 23 | 14 | | | | | | | | | | 0 |
| 5 | 22 | 17 | | | | | | | | | | 0 |
| 6 | 21 | 18 | | | | | | | | | | 0 |
| 7 | 20 | 17 | | | | | | | | | | 0 |
| 8 | 19 | 18 | | | | | | | | | | 0 |
| 9 | 18 | 18 | | | | | | | | | | 0 |
| 10 | 16 | 18 | | | | | | | | | | 0 |
| 11 | 13 | 18 | | | | | | | | | | 0 |
| 12 | 14 | 19 | | | | | | | | | | 0 |
| 13 | 16 | 20 | | | | | | | | | | 0 |
| 14 | 15 | 9.4 | | | | | | | | | | 0 |
| 15 | 13 | 0 | | | | | | | | | | 0 |
| 16 | 13 | 0 | | | | | | | | | | 0 |
| 17 | 14 | 0 | | | | | | | | | | 0 |
| 18 | 13 | 0 | | | | | | | | | | 16 |
| 19 | 12 | 0 | | | | | | | | | | 30 |
| 20 | 11 | 0 | | | | | | | | | | 24 |
| 21 | 10 | 0 | | | | | | | | | | 16 |
| 22 | 10 | 0 | | | | | | | | | | 16 |
| 23 | 9.4 | 0 | | | | | | | | | | 7.5 |
| 24 | 8.2 | 0 | | | | | | | | | | .26 |
| 25 | 7.4 | 0 | | | | | | | | | | 11 |
| 26 | 8.1 | 0 | | | | | | | | | | 17 |
| 27 | 7.9 | 0 | | | | | | | | | | 18 |
| 28 | 7.4 | 0 | | | | | | | | | | 18 |
| 29 | 8.1 | 0 | | | | | | | | | | 18 |
| 30 | 6.8 | 0 | | | | | | | | | | 19 |
| 31 | 3.2 | --- | | | | | | | | | | --- |
| TOTAL | 430.5 | 207.9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 210.76 |
| MEAN | 13.9 | 6.93 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 7.03 |
| MAX | 24 | 20 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 30 |
| MIN | 3.2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| AC-FT | 854 | 412 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 418 |
| CAL YR 1984 TOTAL | 1052.40 | | MEAN 2.88 | MAX 32 | MIN 0 | AC-FT 2090 | | | | | | |
| WTR YR 1985 TOTAL | 849.16 | | MEAN 2.33 | MAX 30 | MIN 0 | AC-FT 1680 | | | | | | |

SACRAMENTO RIVER BASIN

11435100 PYRAMID CREEK AT TWIN BRIDGES, CA

LOCATION.--Lat 38°48'57", long 120°06'58", in NW 1/4 SW 1/4 sec.9, T.11 N., R.17 E., El Dorado County, Hydrologic Unit 18020129, Eldorado National Forest, on right bank 0.5 mi northeast of Twin Bridges, 2.2 mi west of Phillips, and 3.6 mi downstream from Lake Aloha.

DRAINAGE AREA.--8.76 mi².

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

GAGE.--Water-stage recorder. Elevation of gage is 6,320 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges for the following ice-affected periods: Dec. 14, 16-18, 29-31, Jan. 1-12, 23, 24, 27, 29-31, Feb. 1-6, 8-12, Mar. 8, 27-29. Flow regulated by Lake Aloha, capacity, 5,060 acre-ft. Lake of the Woods, Ropi Lake, and Toem Lake (unknown capacities) are also regulated at times. See schematic diagram of South Fork American River basin.

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

AVERAGE DISCHARGE.--15 years, 41.5 ft³/s, 30,070 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 858 ft³/s, June 26, 1971, gage height, 4.62 ft, from rating curve extended above 300 ft³/s; minimum daily, 0.07 ft³/s, Sept. 20-24, 1981.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 267 ft³/s, Nov. 2, gage height, 2.95 ft; minimum daily, 2.1 ft³/s, Sept. 5, 6.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|------|-------|-------|-------|------|------|-------|-------|-------|-------|
| 1 | 6.6 | 18 | 17 | 12 | 6.6 | 12 | 28 | 92 | 28 | 65 | 53 | 2.3 |
| 2 | 6.6 | 77 | 16 | 11 | 6.4 | 11 | 37 | 98 | 41 | 68 | 45 | 2.2 |
| 3 | 6.4 | 90 | 16 | 11 | 6.2 | 9.5 | 41 | 86 | 41 | 77 | 41 | 2.7 |
| 4 | 5.8 | 32 | 15 | 11 | 6.0 | 8.5 | 44 | 73 | 50 | 76 | 34 | 2.9 |
| 5 | 5.1 | 22 | 15 | 11 | 5.8 | 8.6 | 49 | 74 | 59 | 76 | 22 | 2.1 |
| 6 | 4.9 | 25 | 15 | 11 | 5.7 | 11 | 56 | 81 | 63 | 77 | 14 | 2.1 |
| 7 | 4.7 | 26 | 15 | 11 | 5.6 | 11 | 64 | 76 | 67 | 80 | 6.9 | 2.3 |
| 8 | 4.7 | 29 | 15 | 11 | 5.6 | 9.3 | 68 | 63 | 62 | 89 | 4.2 | 3.1 |
| 9 | 4.6 | 29 | 15 | 10 | 5.6 | 9.2 | 70 | 52 | 56 | 89 | 3.8 | 12 |
| 10 | 4.5 | 24 | 16 | 10 | 5.6 | 9.7 | 74 | 40 | 48 | 88 | 3.5 | 13 |
| 11 | 14 | 69 | 16 | 10 | 6.0 | 8.9 | 70 | 38 | 43 | 89 | 3.3 | 14 |
| 12 | 17 | 45 | 15 | 10 | 7.0 | 8.7 | 69 | 51 | 43 | 87 | 3.2 | 15 |
| 13 | 38 | 34 | 15 | 10 | 8.9 | 9.0 | 75 | 66 | 42 | 87 | 3.1 | 16 |
| 14 | 24 | 29 | 15 | 8.9 | 9.5 | 9.4 | 88 | 80 | 37 | 85 | 3.0 | 13 |
| 15 | 14 | 24 | 15 | 8.3 | 11 | 10 | 91 | 75 | 35 | 84 | 3.0 | 11 |
| 16 | 14 | 22 | 15 | 7.6 | 12 | 11 | 77 | 72 | 36 | 83 | 2.9 | 7.5 |
| 17 | 18 | 21 | 15 | 7.9 | 11 | 11 | 60 | 77 | 35 | 82 | 3.0 | 5.8 |
| 18 | 16 | 22 | 15 | 9.2 | 12 | 10 | 45 | 81 | 34 | 81 | 3.1 | 11 |
| 19 | 18 | 21 | 15 | 9.8 | 13 | 11 | 43 | 80 | 32 | 80 | 3.0 | 12 |
| 20 | 21 | 20 | 14 | 10 | 12 | 14 | 33 | 76 | 29 | 80 | 2.8 | 8.3 |
| 21 | 20 | 22 | 13 | 10 | 12 | 14 | 31 | 73 | 29 | 79 | 2.7 | 6.8 |
| 22 | 20 | 21 | 13 | 8.7 | 9.2 | 13 | 36 | 78 | 30 | 77 | 2.6 | 5.6 |
| 23 | 19 | 19 | 13 | 9.4 | 9.4 | 16 | 42 | 85 | 33 | 76 | 2.6 | 4.6 |
| 24 | 21 | 21 | 13 | 9.4 | 11 | 16 | 41 | 89 | 31 | 74 | 2.5 | 3.2 |
| 25 | 24 | 24 | 13 | 6.8 | 12 | 12 | 35 | 83 | 27 | 74 | 2.5 | 3.8 |
| 26 | 38 | 21 | 13 | 7.2 | 13 | 10 | 29 | 77 | 23 | 72 | 2.4 | 4.0 |
| 27 | 30 | 17 | 13 | 7.2 | 13 | 10 | 36 | 66 | 28 | 71 | 2.3 | 4.0 |
| 28 | 21 | 24 | 13 | 7.2 | 13 | 10 | 54 | 54 | 42 | 69 | 2.3 | 3.9 |
| 29 | 39 | 22 | 12 | 7.2 | --- | 11 | 59 | 46 | 45 | 65 | 2.3 | 4.0 |
| 30 | 28 | 18 | 12 | 7.0 | --- | 12 | 72 | 40 | 64 | 62 | 2.3 | 4.0 |
| 31 | 22 | --- | 12 | 6.8 | --- | 19 | --- | 40 | --- | 58 | 2.3 | --- |
| TOTAL | 529.9 | 888 | 445 | 287.6 | 254.1 | 345.8 | 1617 | 2162 | 1233 | 2400 | 284.6 | 202.2 |
| MEAN | 17.1 | 29.6 | 14.4 | 9.28 | 9.08 | 11.2 | 53.9 | 69.7 | 41.1 | 77.4 | 9.18 | 6.74 |
| MAX | 39 | 90 | 17 | 12 | 13 | 19 | 91 | 98 | 67 | 89 | 53 | 16 |
| MIN | 4.5 | 17 | 12 | 6.8 | 5.6 | 8.5 | 28 | 38 | 23 | 58 | 2.3 | 2.1 |
| AC-FT | 1050 | 1760 | 883 | 570 | 504 | 686 | 3210 | 4290 | 2450 | 4760 | 565 | 401 |
| CAL YR 1984 | TOTAL | 18272.9 | MEAN | 49.9 | MAX | 272 | MIN | 4.0 | AC-FT | 36240 | | |
| WTR YR 1985 | TOTAL | 10649.2 | MEAN | 29.2 | MAX | 98 | MIN | 2.1 | AC-FT | 21120 | | |

11436000 SILVER LAKE OUTLET NEAR KIRKWOOD, CA

LOCATION (REVISED).--Lat 38°40'18", long 120°07'19", in NE 1/4 SW 1/4 sec.32, T.10 N., R.17 E., El Dorado County, Hydrologic Unit 18020129, Eldorado National Forest, on right bank 1,000 ft downstream from Silver Lake Dam, and 3.5 mi southwest of Kirkwood.

DRAINAGE AREA.--15.2 mi².

PERIOD OF RECORD.--September 1922 to current year. Records for water year 1923 incomplete, yearly estimate published in WSP 1315-A.

REVISED RECORDS.--WDR CA-75-4: 1927(M), 1929(M), 1932(M), 1937-38(M), 1940-45(M), 1950-53(M), 1955-58(M), 1963(M), 1965(M), 1967(M), 1969-70(M), 1973(M).

GAGE.--Water-stage recorder. Datum of gage is 7,198.0 ft above National Geodetic Vertical Datum of 1929 (levels by Pacific Gas and Electric Co.).

REMARKS.--Estimated daily discharges for the following ice-affected periods: Feb. 8-10, Mar. 26-31. Flow regulated by Silver Lake 1,000 ft upstream, capacity, 3,840 acre-ft at spillway level and 8,590 acre-ft with 11 ft of flashboards; contents in Silver Lake were 4,454 acre-ft, Sept. 30, 1984, and 4,030 acre-ft, Sept. 30, 1985. Some water, in addition to that released through dam and over spillway, escapes from Silver Lake through porous rock formation and is measured at staff gage 0.25 mi east of station. For leakage from Silver Lake, refer to listed monthly figures below. See schematic diagram of South Fork American River basin.

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

AVERAGE DISCHARGE (adjusted for leakage from Silver Lake bypassing the gage).--63 years, 39.9 ft³/s, 28,910 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 1,100 ft³/s, Nov. 21, 1950, gage height, 6.03 ft, from rating curve extended above 430 ft³/s; no flow many days in February and March 1948, Jan. 13, 14, 1954, Nov. 3, 1959, to Feb. 5, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 209 ft³/s, May. 16, gage height, 3.08 ft; minimum daily, 0.14 ft³/s, Dec. 15.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|----------|---------|--------|-------|-------|--------|--------|--------|-------|---------|--------|
| 1 | 66 | 32 | 12 | 64 | 14 | 10 | 2.2 | 7.5 | 9.7 | 1.8 | .99 | 4.9 |
| 2 | 64 | 32 | 17 | 64 | 14 | 14 | 2.6 | 7.5 | 4.9 | 2.1 | 2.1 | 4.9 |
| 3 | 63 | 33 | 19 | 64 | 14 | 14 | 2.9 | 6.8 | 6.0 | 1.3 | 3.8 | 4.9 |
| 4 | 62 | 32 | 18 | 64 | 14 | 14 | 3.0 | 7.1 | 25 | .98 | 3.5 | 10 |
| 5 | 61 | 32 | 18 | 64 | 14 | 14 | 3.3 | 7.6 | 48 | 1.0 | 3.2 | 17 |
| 6 | 60 | 31 | 19 | 29 | 13 | 15 | 3.5 | 8.1 | 73 | .91 | 2.4 | 27 |
| 7 | 59 | 31 | 20 | 11 | 13 | 15 | 3.7 | 11 | 84 | .89 | 1.6 | 46 |
| 8 | 58 | 31 | 20 | 11 | 13 | 15 | 3.9 | 80 | 83 | 1.1 | 1.5 | 65 |
| 9 | 57 | 30 | 20 | 11 | 15 | 15 | 2.8 | 124 | 81 | 1.5 | 1.4 | 48 |
| 10 | 56 | 29 | 19 | 9.9 | 16 | 15 | 1.1 | 70 | 56 | 1.5 | 1.1 | 31 |
| 11 | 56 | 19 | 19 | 9.1 | 17 | 18 | 1.1 | 32 | 31 | 1.1 | 2.0 | 53 |
| 12 | 53 | 4.9 | 19 | 1.8 | 17 | 21 | 1.1 | 34 | 32 | .97 | 2.9 | 66 |
| 13 | 52 | 5.9 | 15 | .21 | 17 | 20 | 1.9 | 41 | 24 | .89 | 2.6 | 68 |
| 14 | 51 | 5.2 | .27 | 2.1 | 17 | 19 | 3.7 | 94 | 18 | .91 | 2.2 | 67 |
| 15 | 49 | 5.2 | .14 | 7.6 | 16 | 18 | 57 | 154 | 18 | .86 | 1.8 | 66 |
| 16 | 48 | 21 | 7.0 | 8.9 | 14 | 18 | 128 | 193 | 17 | 2.2 | 1.8 | 64 |
| 17 | 47 | 35 | 61 | 9.1 | 11 | 17 | 130 | 193 | 14 | 3.6 | 1.9 | 62 |
| 18 | 46 | 34 | 62 | 9.4 | 9.9 | 17 | 154 | 182 | 8.4 | 3.1 | 1.6 | 61 |
| 19 | 45 | 33 | 62 | 5.9 | 9.9 | 17 | 168 | 148 | 4.3 | 2.2 | 1.6 | 59 |
| 20 | 44 | 33 | 62 | 1.2 | 8.5 | 9.7 | 155 | 123 | 2.6 | 1.7 | 1.5 | 58 |
| 21 | 43 | 32 | 63 | 1.2 | 5.9 | 1.5 | 142 | 106 | 2.2 | 1.5 | 2.1 | 57 |
| 22 | 41 | 30 | 63 | 1.1 | 11 | 1.7 | 110 | 100 | 1.6 | 1.2 | 2.7 | 36 |
| 23 | 40 | 29 | 63 | 1.1 | 10 | 1.7 | 67 | 108 | 2.0 | 2.0 | 3.0 | 4.4 |
| 24 | 39 | 29 | 63 | 9.5 | 10 | 1.7 | 38 | 118 | 2.1 | 2.9 | 3.4 | 5.3 |
| 25 | 38 | 28 | 63 | 16 | 6.8 | 1.7 | 40 | 123 | 1.1 | 2.7 | 3.7 | 5.0 |
| 26 | 37 | 27 | 63 | 15 | 12 | 1.7 | 41 | 132 | 1.0 | 2.3 | 3.7 | 4.8 |
| 27 | 36 | 26 | 63 | 15 | 20 | 1.7 | 43 | 130 | .93 | 1.9 | 3.5 | 4.3 |
| 28 | 36 | 14 | 63 | 15 | 14 | 1.7 | 47 | 82 | .97 | 2.2 | 3.2 | 4.1 |
| 29 | 35 | 1.9 | 63 | 14 | --- | 1.8 | 51 | 36 | .92 | 2.6 | 2.7 | 3.9 |
| 30 | 34 | 5.5 | 63 | 14 | --- | 1.8 | 25 | 19 | .99 | 2.0 | 3.2 | 3.8 |
| 31 | 33 | --- | 64 | 14 | --- | 2.0 | --- | 18 | --- | 1.6 | 4.5 | --- |
| TOTAL | 1509 | 731.6 | 1183.41 | 563.11 | 367.0 | 334.7 | 1432.8 | 2495.6 | 653.71 | 53.51 | 77.19 | 1011.3 |
| MEAN | 48.7 | 24.4 | 38.2 | 18.2 | 13.1 | 10.8 | 47.8 | 80.5 | 21.8 | 1.73 | 2.49 | 33.7 |
| MAX | 66 | 35 | 64 | 64 | 20 | 21 | 168 | 193 | 84 | 3.6 | 4.5 | 68 |
| MIN | 33 | 1.9 | .14 | .21 | 5.9 | 1.5 | 1.1 | 6.8 | .92 | .86 | .99 | 3.8 |
| AC-FT | 2990 | 1450 | 2350 | 1120 | 728 | 664 | 2840 | 4950 | 1300 | 106 | 153 | 2010 |
| a | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 748 | 875 | 611 | 345 | 73 |
| CAL YR 1984 | TOTAL | 16831.15 | MEAN | 46.0 | MAX | 417 | MIN | .14 | AC-FT | 33380 | AC-FT a | 2540 |
| WTR YR 1985 | TOTAL | 10412.93 | MEAN | 28.5 | MAX | 193 | MIN | .14 | AC-FT | 20650 | AC-FT a | 2650 |

a Leakage, in acre-feet, from Silver Lake.

SACRAMENTO RIVER BASIN

11437000 CAPLES LAKE OUTLET NEAR KIRKWOOD, CA

LOCATION (REVISED).--Lat 38°42'31", long 120°03'02", in NW 1/4 SW 1/4 sec.18, T.10 N., R.18 E., Alpine County, Hydrologic Unit 18020129, Eldorado National Forest, on right bank 500 ft downstream from main dam and outlet gate of Caples Lake, and 1.3 mi east of Kirkwood.

DRAINAGE AREA.--13.5 mi².

PERIOD OF RECORD.--September 1922 to current year. Records for water year 1945 incomplete, yearly estimate published in WSP 1315-A. Prior to October 1969, published as Twin Lakes Outlet near Kirkwood.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder and concrete control below outlet gate, and water-stage recorder for channel below spillway. Elevation of gage is 7,730 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Flow regulated by Caples Lake 500 ft upstream, capacity, 19,750 acre-ft at spillway level and 21,580 acre-ft with 3 ft of flashboards; contents in Caples Lake were 14,906 acre-ft, Sept. 30, 1984, and 9,958 acre-ft, Sept. 30, 1985. Flow over Caples Lake spillway and leakage occurred June 3 to July 28, 24 acre-ft, and is included in the table below. No diversion upstream from station. See schematic diagram of South Fork American River basin.

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

AVERAGE DISCHARGE.--(including flow over Caples Lake spillway).--63 years, 37.8 ft³/s, 27,390 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum combined daily discharge for outlet and spillway, 669 ft³/s, June 3, 1969; minimum daily, 0.1 ft³/s, Mar. 25-31, 1944, Nov. 27, 28, 1956.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 134 ft³/s, Aug. 8, gage height, 2.62 ft; minimum daily, 2.4 ft³/s, Feb. 10.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|------|-------|-------|-------|-------|-------|-------|-------|------|--------|
| 1 | 78 | 59 | 48 | 54 | 5.9 | 5.6 | 6.3 | 5.3 | 5.3 | 6.5 | 63 | 120 |
| 2 | 80 | 59 | 52 | 46 | 5.9 | 5.6 | 6.4 | 5.3 | 5.4 | 6.5 | 74 | 119 |
| 3 | 95 | 31 | 59 | 36 | 5.9 | 5.6 | 6.5 | 5.2 | 5.4 | 6.6 | 79 | 119 |
| 4 | 94 | 34 | 62 | 34 | 45 | 5.6 | 6.6 | 5.2 | 5.4 | 6.6 | 82 | 112 |
| 5 | 92 | 60 | 62 | 34 | 58 | 5.6 | 6.8 | 5.3 | 5.4 | 6.5 | 91 | 103 |
| 6 | 79 | 60 | 64 | 34 | 41 | 5.7 | 7.1 | 5.3 | 5.7 | 6.5 | 103 | 93 |
| 7 | 29 | 45 | 69 | 33 | 41 | 5.7 | 7.3 | 5.3 | 5.7 | 6.4 | 111 | 73 |
| 8 | 29 | 22 | 69 | 33 | 41 | 5.7 | 7.7 | 5.3 | 5.8 | 6.4 | 117 | 51 |
| 9 | 60 | 19 | 68 | 33 | 23 | 5.7 | 6.7 | 5.2 | 5.8 | 6.4 | 119 | 21 |
| 10 | 87 | 29 | 68 | 33 | 2.4 | 5.7 | 4.9 | 5.1 | 5.8 | 6.4 | 118 | 5.6 |
| 11 | 63 | 17 | 68 | 33 | 3.8 | 5.7 | 5.1 | 5.1 | 6.0 | 6.4 | 119 | 5.4 |
| 12 | 63 | 4.6 | 68 | 29 | 5.6 | 5.7 | 5.3 | 5.1 | 6.1 | 6.4 | 122 | 12 |
| 13 | 63 | 4.7 | 75 | 25 | 5.6 | 5.7 | 5.5 | 5.2 | 6.1 | 6.4 | 123 | 17 |
| 14 | 63 | 4.6 | 91 | 24 | 5.6 | 5.7 | 5.7 | 5.2 | 6.1 | 14 | 123 | 17 |
| 15 | 62 | 4.6 | 102 | 24 | 5.6 | 5.7 | 5.4 | 5.1 | 6.6 | 20 | 122 | 17 |
| 16 | 62 | 10 | 101 | 14 | 5.5 | 5.7 | 5.1 | 5.0 | 9.1 | 24 | 121 | 17 |
| 17 | 62 | 25 | 100 | 5.9 | 5.6 | 5.6 | 5.1 | 5.1 | 8.4 | 26 | 123 | 17 |
| 18 | 62 | 30 | 91 | 5.9 | 5.6 | 5.6 | 4.9 | 5.1 | 7.8 | 25 | 125 | 17 |
| 19 | 62 | 37 | 78 | 5.9 | 5.5 | 5.7 | 4.7 | 5.1 | 7.5 | 30 | 124 | 17 |
| 20 | 61 | 43 | 78 | 5.9 | 5.4 | 5.9 | 4.6 | 5.1 | 6.3 | 35 | 123 | 17 |
| 21 | 61 | 43 | 77 | 5.9 | 5.4 | 5.9 | 4.8 | 5.2 | 6.4 | 35 | 121 | 17 |
| 22 | 61 | 42 | 77 | 5.8 | 5.4 | 5.9 | 4.8 | 5.1 | 6.5 | 35 | 119 | 12 |
| 23 | 61 | 53 | 77 | 5.9 | 5.4 | 5.9 | 5.0 | 5.0 | 6.5 | 35 | 119 | 5.1 |
| 24 | 61 | 65 | 77 | 5.9 | 5.4 | 5.9 | 5.0 | 5.1 | 6.5 | 34 | 118 | 5.1 |
| 25 | 61 | 65 | 77 | 5.9 | 5.4 | 5.9 | 5.1 | 5.1 | 6.9 | 39 | 118 | 5.1 |
| 26 | 61 | 75 | 66 | 5.9 | 5.5 | 5.9 | 4.9 | 5.2 | 6.6 | 42 | 121 | 5.1 |
| 27 | 60 | 66 | 56 | 5.9 | 5.6 | 6.0 | 5.0 | 5.2 | 6.5 | 41 | 124 | 5.1 |
| 28 | 60 | 48 | 56 | 5.9 | 5.6 | 6.0 | 5.2 | 5.2 | 6.5 | 41 | 123 | 5.1 |
| 29 | 60 | 48 | 55 | 5.9 | --- | 6.0 | 5.1 | 5.2 | 6.6 | 47 | 122 | 5.4 |
| 30 | 60 | 48 | 55 | 5.9 | --- | 6.1 | 5.2 | 5.2 | 6.6 | 51 | 121 | 5.6 |
| 31 | 60 | --- | 55 | 5.9 | --- | 6.1 | --- | 5.2 | --- | 56 | 121 | --- |
| TOTAL | 2012 | 1151.5 | 2201 | 607.4 | 366.6 | 179.1 | 167.8 | 160.3 | 191.3 | 714.0 | 3509 | 1040.6 |
| MEAN | 64.9 | 38.4 | 71.0 | 19.6 | 13.1 | 5.78 | 5.59 | 5.17 | 6.38 | 23.0 | 113 | 34.7 |
| MAX | 95 | 75 | 102 | 54 | 58 | 6.1 | 7.7 | 5.3 | 9.1 | 56 | 125 | 120 |
| MIN | 29 | 4.6 | 48 | 5.8 | 2.4 | 5.6 | 4.6 | 5.0 | 5.3 | 6.4 | 63 | 5.1 |
| AC-FT | 3990 | 2280 | 4370 | 1200 | 727 | 355 | 333 | 318 | 379 | 1420 | 6960 | 2060 |
| CAL YR 1984 | TOTAL | 21448.9 | MEAN | 58.6 | MAX | 445 | MIN | 4.6 | AC-FT | 42540 | | |
| WTR YR 1985 | TOTAL | 12300.6 | MEAN | 33.7 | MAX | 125 | MIN | 2.4 | AC-FT | 24400 | | |

11439500 SOUTH FORK AMERICAN RIVER NEAR KYBURZ, CA

LOCATION.--Lat 38°45'49", long 120°19'39", in SW 1/4 SW 1/4 sec.29, T.11 N., R.15 E., El Dorado County, Hydrologic Unit 18020129, Eldorado National Forest, on right bank 0.8 mi downstream from Silver Fork American River, and 1.9 mi southwest of Kyburz.

DRAINAGE AREA.--193 mi².

PERIOD OF RECORD.--August to December 1907, October 1922 to current year. Prior to October 1956, records for river and El Dorado Canal published separately; combined flow only, October 1956 to September 1960.

REVISED RECORDS.--WSP 1445: 1923(M), 1925(M), 1927(M), 1928 (river only), 1935-37(M). WSP 1515: 1928 (combined). WSP 1931: Drainage area.

GAGE.--Water-stage recorder on river; water-stage recorder for canal diversion. Elevation of gage is 3,840 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1962, at datum 1.00 ft higher.

REMARKS.--No estimated daily discharges. Low and medium flows regulated by four reservoirs since beginning of record, total capacity, 37,100 acre-ft. See schematic diagram of South Fork American River basin. For records of combined discharge of river and canal, see following page.

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

AVERAGE DISCHARGE.--River only: 63 years (water years 1923-85), 304 ft³/s, 220,200 acre-ft/yr.
Combined river and diversion: 63 years (water years 1923-85), 419 ft³/s, 303,600 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--River only: Maximum discharge, 17,400 ft³/s, Dec. 23, 1964, gage height, 10.92 ft, from rating curve extended above 6,300 ft³/s on basis of contracted-opening measurement at gage height 10.40 ft; minimum daily, 0.13 ft³/s, Nov. 26, 1977.
Combined flow: Maximum discharge, 17,500 ft³/s, Dec. 23, 1964; minimum daily, 10 ft³/s, Oct. 17, 19, 1929.

EXTREMES FOR CURRENT YEAR.--River only: Maximum discharge, 1,690 ft³/s, Apr. 14, gage height, 5.47 ft; minimum daily, 9.6 ft³/s, Sept. 17.
Combined flow: Maximum discharge, 1,820 ft³/s, Apr. 11; minimum daily, 37 ft³/s, Sept. 25.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|----------|------|------|------|------|-------|-------|-------|--------|------|--------|
| 1 | 64 | 47 | 50 | 53 | 56 | 54 | 201 | 977 | 188 | 52 | 51 | 45 |
| 2 | 42 | 113 | 51 | 52 | 54 | 54 | 355 | 1060 | 214 | 52 | 51 | 38 |
| 3 | 43 | 383 | 50 | 51 | 54 | 57 | 463 | 980 | 226 | 52 | 52 | 38 |
| 4 | 42 | 53 | 52 | 52 | 57 | 54 | 504 | 837 | 210 | 52 | 51 | 37 |
| 5 | 42 | 50 | 51 | 52 | 67 | 54 | 603 | 820 | 267 | 52 | 51 | 37 |
| 6 | 42 | 65 | 51 | 53 | 58 | 57 | 714 | 869 | 293 | 53 | 52 | 38 |
| 7 | 43 | 81 | 51 | 53 | 53 | 54 | 776 | 821 | 329 | 53 | 51 | 40 |
| 8 | 43 | 72 | 51 | 52 | 57 | 62 | 849 | 767 | 319 | 53 | 51 | 44 |
| 9 | 44 | 51 | 51 | 52 | 50 | 53 | 892 | 737 | 288 | 53 | 52 | 73 |
| 10 | 43 | 52 | 56 | 51 | 52 | 53 | 961 | 573 | 243 | 53 | 52 | 39 |
| 11 | 65 | 193 | 53 | 53 | 52 | 53 | 904 | 446 | 170 | 53 | 52 | 40 |
| 12 | 41 | 147 | 54 | 54 | 52 | 52 | 908 | 496 | 157 | 52 | 52 | 39 |
| 13 | 49 | 141 | 52 | 55 | 51 | 52 | 1050 | 579 | 139 | 52 | 52 | 39 |
| 14 | 50 | 64 | 58 | 55 | 51 | 52 | 1240 | 718 | 104 | 52 | 52 | 38 |
| 15 | 41 | 50 | 65 | 53 | 51 | 52 | 1270 | 783 | 80 | 52 | 52 | 27 |
| 16 | 44 | 50 | 62 | 52 | 51 | 52 | 1200 | 775 | 74 | 52 | 52 | 9.7 |
| 17 | 48 | 51 | 67 | 51 | 51 | 54 | 1020 | 795 | 67 | 52 | 52 | 9.6 |
| 18 | 43 | 55 | 103 | 51 | 51 | 58 | 817 | 809 | 53 | 52 | 52 | 18 |
| 19 | 43 | 51 | 59 | 51 | 52 | 54 | 812 | 788 | 51 | 52 | 52 | 41 |
| 20 | 47 | 52 | 54 | 51 | 51 | 72 | 687 | 717 | 51 | 52 | 52 | 38 |
| 21 | 45 | 53 | 52 | 51 | 52 | 80 | 601 | 644 | 50 | 52 | 52 | 38 |
| 22 | 43 | 50 | 55 | 51 | 54 | 73 | 563 | 650 | 49 | 52 | 51 | 37 |
| 23 | 42 | 52 | 51 | 53 | 54 | 80 | 598 | 673 | 52 | 52 | 52 | 52 |
| 24 | 43 | 91 | 50 | 55 | 54 | 117 | 598 | 691 | 52 | 52 | 52 | 41 |
| 25 | 44 | 77 | 50 | 54 | 53 | 85 | 538 | 653 | 52 | 52 | 52 | 35 |
| 26 | 54 | 66 | 51 | 53 | 54 | 63 | 455 | 607 | 52 | 51 | 52 | 42 |
| 27 | 71 | 124 | 53 | 54 | 58 | 57 | 486 | 544 | 52 | 51 | 52 | 47 |
| 28 | 44 | 141 | 53 | 53 | 57 | 66 | 690 | 445 | 52 | 51 | 53 | 47 |
| 29 | 53 | 67 | 54 | 54 | --- | 63 | 726 | 332 | 52 | 52 | 52 | 47 |
| 30 | 47 | 53 | 52 | 54 | --- | 66 | 806 | 252 | 52 | 52 | 53 | 47 |
| 31 | 43 | --- | 52 | 56 | --- | 121 | --- | 239 | --- | 51 | 53 | --- |
| TOTAL | 1448 | 2595 | 1714 | 1635 | 1507 | 1974 | 22287 | 21077 | 4038 | 1614 | 1608 | 1161.3 |
| MEAN | 46.7 | 86.5 | 55.3 | 52.7 | 53.8 | 63.7 | 743 | 680 | 135 | 52.1 | 51.9 | 38.7 |
| MAX | 71 | 383 | 103 | 56 | 67 | 121 | 1270 | 1060 | 329 | 53 | 53 | 73 |
| MIN | 41 | 47 | 50 | 51 | 50 | 52 | 201 | 239 | 49 | 51 | 51 | 9.6 |
| AC-FT | 2870 | 5150 | 3400 | 3240 | 2990 | 3920 | 44210 | 41810 | 8010 | 3200 | 3190 | 2300 |
| CAL YR 1984 | TOTAL | 156334.6 | MEAN | 427 | MAX | 2330 | MIN | 5.2 | AC-FT | 310100 | | |
| WTR YR 1985 | TOTAL | 62658.3 | MEAN | 172 | MAX | 1270 | MIN | 9.6 | AC-FT | 124300 | | |

SACRAMENTO RIVER BASIN

11439501 SOUTH FORK AMERICAN RIVER NEAR KYBURZ, CA--Continued

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF SOUTH FORK AMERICAN RIVER
AND EL DORADO CANAL NEAR KYBURZ, CA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|------|------|-------|-------|-------|-------|--------|------|------|
| 1 | 229 | 163 | 188 | 169 | 96 | 195 | 335 | 1120 | 346 | 148 | 145 | 149 |
| 2 | 192 | 232 | 186 | 167 | 97 | 195 | 483 | 1210 | 371 | 146 | 144 | 147 |
| 3 | 207 | 535 | 197 | 154 | 96 | 165 | 588 | 1130 | 383 | 155 | 154 | 148 |
| 4 | 206 | 196 | 195 | 150 | 95 | 169 | 627 | 983 | 368 | 153 | 147 | 149 |
| 5 | 201 | 195 | 195 | 149 | 128 | 163 | 722 | 966 | 426 | 150 | 142 | 146 |
| 6 | 206 | 217 | 190 | 152 | 142 | 153 | 834 | 1020 | 453 | 149 | 146 | 142 |
| 7 | 208 | 238 | 197 | 157 | 133 | 157 | 896 | 967 | 491 | 147 | 147 | 150 |
| 8 | 208 | 230 | 198 | 151 | 143 | 153 | 969 | 913 | 482 | 159 | 150 | 154 |
| 9 | 210 | 192 | 195 | 146 | 134 | 161 | 1020 | 883 | 450 | 158 | 154 | 217 |
| 10 | 206 | 196 | 205 | 139 | 135 | 162 | 1090 | 719 | 405 | 156 | 152 | 100 |
| 11 | 223 | 348 | 202 | 128 | 103 | 163 | 1030 | 592 | 333 | 159 | 150 | 120 |
| 12 | 178 | 302 | 202 | 119 | 98 | 159 | 1040 | 643 | 321 | 155 | 153 | 120 |
| 13 | 202 | 274 | 186 | 108 | 102 | 166 | 1180 | 725 | 304 | 150 | 156 | 139 |
| 14 | 206 | 213 | 194 | 103 | 107 | 169 | 1370 | 864 | 269 | 145 | 155 | 134 |
| 15 | 168 | 168 | 213 | 104 | 118 | 176 | 1410 | 930 | 248 | 150 | 154 | 132 |
| 16 | 179 | 154 | 208 | 114 | 130 | 185 | 1340 | 926 | 242 | 153 | 152 | 125 |
| 17 | 198 | 185 | 211 | 101 | 138 | 195 | 1150 | 946 | 235 | 157 | 154 | 118 |
| 18 | 173 | 205 | 237 | 105 | 141 | 204 | 951 | 960 | 215 | 156 | 161 | 116 |
| 19 | 184 | 195 | 204 | 111 | 157 | 198 | 950 | 939 | 197 | 153 | 157 | 147 |
| 20 | 196 | 202 | 192 | 106 | 168 | 217 | 826 | 868 | 178 | 158 | 155 | 142 |
| 21 | 188 | 203 | 188 | 108 | 140 | 227 | 740 | 795 | 167 | 161 | 153 | 124 |
| 22 | 174 | 194 | 186 | 100 | 152 | 218 | 702 | 801 | 156 | 159 | 152 | 116 |
| 23 | 172 | 188 | 185 | 91 | 154 | 220 | 737 | 826 | 153 | 154 | 150 | 73 |
| 24 | 166 | 241 | 183 | 93 | 162 | 257 | 737 | 845 | 146 | 151 | 149 | 48 |
| 25 | 177 | 228 | 180 | 109 | 172 | 224 | 681 | 807 | 136 | 151 | 147 | 37 |
| 26 | 197 | 205 | 178 | 108 | 176 | 200 | 599 | 761 | 124 | 163 | 147 | 44 |
| 27 | 220 | 273 | 157 | 100 | 200 | 191 | 630 | 698 | 124 | 153 | 153 | 49 |
| 28 | 176 | 287 | 154 | 105 | 204 | 198 | 833 | 599 | 133 | 148 | 152 | 49 |
| 29 | 204 | 210 | 161 | 98 | --- | 191 | 870 | 486 | 128 | 144 | 149 | 49 |
| 30 | 200 | 189 | 177 | 95 | --- | 188 | 951 | 406 | 144 | 149 | 148 | 49 |
| 31 | 179 | --- | 171 | 103 | --- | 235 | --- | 394 | --- | 145 | 149 | --- |
| TOTAL | 6033 | 6858 | 5915 | 3743 | 3821 | 5854 | 26291 | 25722 | 8128 | 4735 | 4677 | 3433 |
| MEAN | 195 | 229 | 191 | 121 | 136 | 189 | 876 | 830 | 271 | 153 | 151 | 114 |
| MAX | 229 | 535 | 237 | 169 | 204 | 257 | 1410 | 1210 | 491 | 163 | 161 | 217 |
| MIN | 166 | 154 | 154 | 91 | 95 | 153 | 335 | 394 | 124 | 144 | 142 | 37 |
| AC-FT | 11970 | 13600 | 11730 | 7420 | 7580 | 11610 | 52150 | 51020 | 16120 | 9390 | 9280 | 6810 |
| CAL YR 1984 | TOTAL | 194326 | MEAN | 531 | MAX | 2490 | MIN | 93 | AC-FT | 385400 | | |
| WTR YR 1985 | TOTAL | 105210 | MEAN | 288 | MAX | 1410 | MIN | 37 | AC-FT | 208700 | | |

11441001 UNION VALLEY RESERVOIR NEAR RIVERTON, CA

LOCATION.--Lat 38°51'49", long 120°26'15", in NW 1/4 NW 1/4 sec.29, T.12 N., R.14 E., El Dorado County, Hydrologic Unit 18020129, Eldorado National Forest, in valve control house near left bank at Union Valley Dam on Silver Creek, 0.7 mi upstream from Little Silver Creek, and 6.6 mi north of Riverton.

DRAINAGE AREA.--83.7 mi².

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

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Sacramento Municipal Utility District).

REMARKS.--Reservoir is formed by earthfill dam completed in December 1962. Storage began May 1962. Usable capacity, 270,300 acre-ft between elevations 4,645.0 ft, minimum operating level and 4,870.0 ft, top of radial spillway gates. Dead storage, 7,000 acre-ft. Reservoir receives water from the South Fork Rubicon River via Robbs Peak powerplant (station 11429300). Water is used for power development in the South Fork American River basin. Records, including extremes, represent total contents at 2400 hours. See schematic diagrams of Middle Fork American and Rubicon River basins and South Fork American River basin.

COOPERATION.--Capacity tables provided by Sacramento Municipal Utility District.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 279,100 acre-ft, July 9, 1974, elevation, 4,870.6 ft; minimum since reservoir first filled, 18,300 acre-ft, Jan. 13, 1977, elevation, 4,683.3 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 265,100 acre-ft, June 14-18, elevation, 4,865.8 ft; minimum, 148,600 acre-ft, Sept. 30, elevation, 4,817.0 ft.

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

| | | | |
|-------|--------|-------|---------|
| 4,680 | 17,000 | 4,780 | 90,000 |
| 4,700 | 25,000 | 4,800 | 118,900 |
| 4,720 | 35,300 | 4,820 | 154,400 |
| 4,740 | 48,800 | 4,840 | 197,400 |
| 4,760 | 66,800 | 4,870 | 277,300 |

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 178800 | 167700 | 193000 | 205100 | 192500 | 171900 | 172400 | 231900 | 259100 | 258500 | 216900 | 181000 |
| 2 | 178200 | 168800 | 193000 | 204400 | 191400 | 171900 | 173400 | 234300 | 259600 | 256500 | 215700 | 180100 |
| 3 | 177500 | 170200 | 193000 | 203900 | 190900 | 173000 | 174900 | 236200 | 260500 | 255400 | 214400 | 179000 |
| 4 | 176900 | 170500 | 193500 | 202900 | 189800 | 174100 | 176900 | 238100 | 261100 | 254600 | 213400 | 177700 |
| 5 | 176200 | 170700 | 193900 | 202200 | 188400 | 175600 | 179000 | 239400 | 261400 | 252900 | 212200 | 176400 |
| 6 | 175600 | 171100 | 194400 | 201900 | 187300 | 176600 | 181200 | 241000 | 261900 | 251800 | 210700 | 175100 |
| 7 | 175600 | 171700 | 194600 | 201700 | 186400 | 177700 | 183700 | 242700 | 262200 | 250900 | 209200 | 173600 |
| 8 | 174900 | 172600 | 195100 | 201500 | 185700 | 178400 | 186100 | 243500 | 262500 | 249500 | 207800 | 173200 |
| 9 | 174500 | 173000 | 195600 | 201200 | 184800 | 178000 | 188600 | 244300 | 263100 | 248200 | 207000 | 172400 |
| 10 | 174100 | 173400 | 196300 | 201000 | 184600 | 177700 | 191400 | 244600 | 263600 | 246800 | 207300 | 171300 |
| 11 | 173800 | 174900 | 197000 | 200500 | 183500 | 176600 | 193900 | 245100 | 264200 | 245400 | 208200 | 170200 |
| 12 | 173200 | 176000 | 197700 | 200300 | 182600 | 176200 | 196300 | 245400 | 264200 | 244300 | 206500 | 169200 |
| 13 | 172600 | 177300 | 198100 | 200000 | 181500 | 175800 | 199300 | 245900 | 264800 | 242700 | 205300 | 168400 |
| 14 | 172600 | 177700 | 198600 | 199800 | 180400 | 174700 | 202400 | 247300 | 265100 | 241600 | 204100 | 167300 |
| 15 | 171900 | 178400 | 199300 | 199800 | 179500 | 173800 | 205600 | 247900 | 265100 | 240200 | 202700 | 166300 |
| 16 | 171500 | 179300 | 199800 | 199800 | 178200 | 173000 | 208000 | 248700 | 265100 | 238900 | 201200 | 165000 |
| 17 | 171100 | 180100 | 200300 | 199300 | 178000 | 173200 | 210200 | 249500 | 265100 | 237800 | 199800 | 164000 |
| 18 | 170700 | 180800 | 200700 | 199300 | 178200 | 172800 | 211900 | 250400 | 265100 | 236500 | 198800 | 162800 |
| 19 | 170700 | 181900 | 201200 | 199100 | 177100 | 172400 | 213700 | 251200 | 264800 | 235400 | 197700 | 161800 |
| 20 | 170700 | 183000 | 201500 | 199100 | 176200 | 172100 | 214900 | 251800 | 264800 | 234000 | 196300 | 160400 |
| 21 | 170700 | 184100 | 201900 | 198800 | 175100 | 172100 | 216400 | 252300 | 264800 | 233000 | 194600 | 159400 |
| 22 | 170200 | 184600 | 202200 | 198400 | 174100 | 171700 | 217700 | 253200 | 264200 | 231700 | 193500 | 158800 |
| 23 | 169800 | 185000 | 202400 | 197900 | 173200 | 171700 | 219200 | 254300 | 264200 | 230300 | 192100 | 157800 |
| 24 | 169200 | 185900 | 202700 | 197200 | 173600 | 172600 | 220800 | 255400 | 263900 | 229000 | 190700 | 156600 |
| 25 | 169000 | 186400 | 202900 | 196500 | 173000 | 172400 | 222000 | 256200 | 263100 | 227700 | 189800 | 155400 |
| 26 | 168800 | 187300 | 203400 | 196000 | 172400 | 172400 | 223100 | 256500 | 262500 | 226200 | 188400 | 153800 |
| 27 | 168400 | 189100 | 203900 | 196000 | 171900 | 172400 | 224300 | 257100 | 261900 | 224300 | 187300 | 152500 |
| 28 | 168400 | 190900 | 204100 | 195300 | 171700 | 171900 | 226200 | 257700 | 261400 | 223300 | 185900 | 151100 |
| 29 | 168100 | 192300 | 204600 | 194900 | --- | 171700 | 228000 | 257900 | 259900 | 221500 | 184600 | 150200 |
| 30 | 167900 | 192500 | 204800 | 194400 | --- | 171700 | 229800 | 258500 | 260200 | 220000 | 183500 | 148600 |
| 31 | 167900 | --- | 205100 | 193700 | --- | 171900 | --- | 258800 | --- | 218500 | 182100 | --- |
| MAX | 178800 | 192500 | 205100 | 205100 | 192500 | 178400 | 229800 | 258800 | 265100 | 258500 | 216900 | 181000 |
| MIN | 167900 | 167700 | 193000 | 193700 | 171700 | 171700 | 172400 | 231900 | 259100 | 218500 | 182100 | 148600 |
| a | 4826.7 | 4837.9 | 4843.2 | 4838.4 | 4828.5 | 4828.6 | 4853.0 | 4863.6 | 4864.1 | 4848.6 | 4833.3 | 4817.0 |
| b | -11600 | +24600 | +12600 | -11400 | -22000 | +200 | +57900 | +29000 | +1400 | -41700 | -36400 | -33500 |

CAL YR 1984 b -35700
WTR YR 1985 b -30900

a Elevation, in feet, at end of month.
b Change in contents, in acre-feet.

SACRAMENTO RIVER BASIN

11441100 ICE HOUSE RESERVOIR NEAR KYBURZ, CA

LOCATION.--Lat 38°49'51", long 120°21'35", in SE 1/4 NW 1/4 sec.1, T.11 N., R.14 E., El Dorado County, Hydrologic Unit 18020129, Eldorado National Forest, in powerhouse intake structure near right bank, 0.5 mi north of Ice House Dam on South Fork Silver Creek, 5.2 mi northwest of Kyburz. Prior to July 15, 1985, at site 0.5 mi downstream at Ice House Dam at same datum.

DRAINAGE AREA.--27.2 mi².

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

REVISED RECORDS.--WSP 1931: 1960.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Sacramento Municipal Utility District). Prior to July 15, 1985, at site 0.5 mi downstream at Ice House Dam at same datum.

REMARKS.--Reservoir is formed by an earthfill dam. Storage began Dec. 15, 1959. Usable capacity, 45,800 acre-ft between elevations 5,327.5 ft, centerline of fishwater outlet, and 5,450.0 ft, top of spillway gates. Dead storage, 160 acre-ft. Reservoir is used to store water for power development. Reservoir is also forebay for Jones Fork powerplant which diverts up to 350 ft³/s to powerplant completed in April 1985, then to Union Valley Reservoir (station 11441001). Records, including extremes, represent total contents at 2400 hours. See schematic diagram of South Fork American River basin.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 46,400 acre-ft, June 27, 1971, elevation, 5,450.6 ft; minimum since reservoir first filled, 1,450 acre-ft, Dec. 8, 1983, elevation, 5,347.9 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 44,600 acre-ft, June 17-25, elevation, 5,448.2 ft; minimum, 17,700 acre-ft, Jan. 31 and Feb. 1, elevation, 5,400.2 ft.

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

| | | | |
|-------|-------|-------|--------|
| 5,345 | 1,080 | 5,400 | 17,600 |
| 5,350 | 1,760 | 5,420 | 27,400 |
| 5,360 | 3,840 | 5,440 | 39,200 |
| 5,380 | 9,600 | 5,451 | 46,700 |

RESERVOIR STORAGE (AC-FT), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 40600 | 36100 | 26800 | 22400 | 17700 | 19200 | 21800 | 33700 | 43000 | 44300 | 41100 | 34300 |
| 2 | 40400 | 36100 | 26600 | 22200 | 17800 | 19300 | 22000 | 34300 | 43100 | 44100 | 40900 | 34300 |
| 3 | 40200 | 36200 | 26500 | 22100 | 17800 | 19400 | 22200 | 35000 | 43300 | 43900 | 40700 | 34000 |
| 4 | 40100 | 36100 | 26400 | 21900 | 17800 | 19400 | 22400 | 35500 | 43300 | 43800 | 40700 | 33700 |
| 5 | 39900 | 36100 | 26200 | 21800 | 17800 | 19400 | 22700 | 36100 | 43400 | 43700 | 40400 | 33700 |
| 6 | 39800 | 36000 | 26100 | 21600 | 17900 | 19600 | 23000 | 36600 | 43600 | 43700 | 40200 | 33600 |
| 7 | 39600 | 36000 | 26000 | 21500 | 18000 | 19600 | 23400 | 37100 | 43700 | 43500 | 40000 | 33600 |
| 8 | 39400 | 36000 | 25800 | 21300 | 18100 | 19700 | 23900 | 37600 | 43900 | 43500 | 39800 | 33600 |
| 9 | 39200 | 35900 | 25800 | 21200 | 18100 | 19800 | 24400 | 37900 | 44100 | 43300 | 39500 | 33500 |
| 10 | 39100 | 35800 | 25600 | 21000 | 18100 | 19800 | 24800 | 38100 | 44200 | 43200 | 39200 | 33400 |
| 11 | 38900 | 35900 | 25500 | 20800 | 18200 | 19900 | 25200 | 38300 | 44300 | 43000 | 39000 | 33100 |
| 12 | 38800 | 35900 | 25400 | 20600 | 18300 | 20000 | 25800 | 38600 | 44400 | 42800 | 39000 | 32800 |
| 13 | 38700 | 35900 | 25200 | 20400 | 18300 | 20000 | 26300 | 39000 | 44400 | 42700 | 38700 | 32500 |
| 14 | 38500 | 35800 | 25100 | 20200 | 18400 | 20100 | 27000 | 39400 | 44400 | 42600 | 38400 | 32200 |
| 15 | 38400 | 35500 | 25000 | 20000 | 18400 | 20200 | 27700 | 39700 | 44400 | 42600 | 38100 | 32200 |
| 16 | 38300 | 34600 | 24800 | 19900 | 18400 | 20200 | 28200 | 40000 | 44500 | 42600 | 38000 | 31900 |
| 17 | 38200 | 34000 | 24800 | 19800 | 18500 | 20300 | 28600 | 40300 | 44600 | 42400 | 37700 | 31600 |
| 18 | 38100 | 33900 | 24600 | 19600 | 18500 | 20300 | 29000 | 40700 | 44600 | 42400 | 37700 | 31400 |
| 19 | 37900 | 33400 | 24400 | 19400 | 18500 | 20400 | 29300 | 41000 | 44600 | 42200 | 37400 | 31200 |
| 20 | 37800 | 32400 | 24300 | 19300 | 18600 | 20500 | 29500 | 41300 | 44600 | 42100 | 37200 | 30900 |
| 21 | 37600 | 31700 | 24200 | 19100 | 18700 | 20600 | 29800 | 41500 | 44600 | 42100 | 37000 | 30700 |
| 22 | 37400 | 31200 | 24000 | 19000 | 18800 | 20600 | 30100 | 41700 | 44600 | 42000 | 36800 | 30700 |
| 23 | 37300 | 30700 | 23800 | 18800 | 18800 | 20800 | 30400 | 41800 | 44600 | 42000 | 36600 | 30400 |
| 24 | 37200 | 30200 | 23700 | 18700 | 18900 | 20800 | 30800 | 41900 | 44600 | 41800 | 36300 | 30100 |
| 25 | 37000 | 29700 | 23500 | 18500 | 18900 | 21000 | 31000 | 42000 | 44600 | 41800 | 36300 | 29800 |
| 26 | 36800 | 29000 | 23400 | 18400 | 19000 | 21100 | 31300 | 42200 | 44500 | 41700 | 36000 | 29600 |
| 27 | 36700 | 28200 | 23200 | 18200 | 19100 | 21200 | 31700 | 42400 | 44500 | 41700 | 35700 | 29300 |
| 28 | 36600 | 27400 | 23000 | 18100 | 19100 | 21300 | 32100 | 42500 | 44400 | 41600 | 35400 | 29000 |
| 29 | 36500 | 27000 | 22900 | 17900 | --- | 21400 | 32600 | 42700 | 44400 | 41600 | 35000 | 28900 |
| 30 | 36300 | 26900 | 22800 | 17800 | --- | 21600 | 33100 | 42800 | 44400 | 41500 | 34700 | 28600 |
| 31 | 36200 | --- | 22600 | 17700 | --- | 21600 | --- | 42900 | --- | 41300 | 34400 | --- |
| MAX | 40600 | 36200 | 26800 | 22400 | 19100 | 21600 | 33100 | 42900 | 44600 | 44300 | 41100 | 34300 |
| MIN | 36200 | 26900 | 22600 | 17700 | 17700 | 19200 | 21800 | 33700 | 43000 | 41300 | 34400 | 28600 |
| a | 5435.3 | 5419.0 | 5410.4 | 5400.2 | 5403.4 | 5408.5 | 5430.4 | 5445.6 | 5447.9 | 5443.2 | 5432.5 | 5422.4 |
| b | -4500 | -9300 | -4300 | -4900 | +1400 | +2500 | +11500 | +9800 | +1500 | -3100 | -6900 | -5800 |

CAL YR 1984 b +14120

WTR YR 1985 b -12100

a Elevation, in feet, at end of month.

b Change in contents, in acre-feet.

11441500 SOUTH FORK SILVER CREEK NEAR ICE HOUSE, CA

LOCATION.--Lat 38°49'08", long 120°21'51", in NW 1/4 NW 1/4 sec.12, T.11 N., R.14 E., El Dorado County, Hydrologic Unit 18020129, Eldorado National Forest, on right bank 300 ft upstream from Peavine Creek, 0.4 mi downstream from Ice House Dam, and 4.8 mi northwest of Kyburz.

DRAINAGE AREA.--27.5 mi².

PERIOD OF RECORD.--October 1924 to current year.

REVISED RECORDS.--WSP 1395: 1928, 1938. WSP 1635: Drainage area at former site.

GAGE.--Water-stage recorder and concrete control. Elevation of gage is 5,290 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Oct. 1, 1959, at site 0.3 mi upstream at different datum.

REMARKS.--No estimated daily discharges. Records excellent. Flow regulated by Ice House Reservoir beginning in December 1959 (station 11441100). Diversion to Jones Fork powerplant starting April 1985, bypasses station and returns to Silver Creek at Union Valley Reservoir (station 11441001). See schematic diagram of South Fork American River basin.

AVERAGE DISCHARGE (prior to diversion to Jones Fork powerplant).--60 years (1925-84), 78.1 ft³/s, 56,850 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,940 ft³/s, Dec. 23, 1955, gage height, 6.71 ft site and datum then in use, from rating curve extended above 540 ft³/s on basis of slope-area measurement at gage height 6.69 ft; no flow Oct. 31 to Nov. 9, 1958. Maximum discharge since construction of Ice House Dam in 1959, 1,930 ft³/s, May 26, 1982, gage height, 5.74 ft, from rating curve extended above 730 ft³/s on basis of computation of flow over dam at gage height 5.66 ft; minimum daily, 1.2 ft³/s, Mar. 17-19, 1960.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 514 ft³/s, Nov. 19, 20, gage height, 4.49 ft; minimum daily, 2.9 ft³/s, Feb. 2, 3, Apr. 26-28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|------|------|-------|-------|-------|-------|-------|-------|------|------|
| 1 | 80 | 96 | 101 | 103 | 3.4 | 3.5 | 3.9 | 8.3 | 8.3 | 8.6 | 16 | 15 |
| 2 | 79 | 97 | 101 | 103 | 2.9 | 3.5 | 4.2 | 8.3 | 8.6 | 8.6 | 16 | 15 |
| 3 | 79 | 97 | 101 | 103 | 2.9 | 3.4 | 4.1 | 8.3 | 8.5 | 8.6 | 16 | 15 |
| 4 | 79 | 96 | 101 | 103 | 3.1 | 3.5 | 3.9 | 8.3 | 8.3 | 8.6 | 16 | 15 |
| 5 | 79 | 96 | 101 | 101 | 3.4 | 3.7 | 3.8 | 8.3 | 8.3 | 8.6 | 16 | 16 |
| 6 | 79 | 97 | 101 | 100 | 3.4 | 3.8 | 3.8 | 8.5 | 8.3 | 8.6 | 16 | 16 |
| 7 | 79 | 96 | 101 | 101 | 3.4 | 3.7 | 4.1 | 8.6 | 8.3 | 8.6 | 16 | 16 |
| 8 | 89 | 97 | 101 | 100 | 3.5 | 3.6 | 3.7 | 8.6 | 8.5 | 8.6 | 16 | 16 |
| 9 | 97 | 96 | 101 | 99 | 3.4 | 3.3 | 3.2 | 8.6 | 8.6 | 8.6 | 16 | 16 |
| 10 | 97 | 96 | 101 | 105 | 3.3 | 3.4 | 3.2 | 8.6 | 8.6 | 8.6 | 16 | 16 |
| 11 | 98 | 97 | 101 | 110 | 3.2 | 3.4 | 3.2 | 9.2 | 8.6 | 8.8 | 16 | 16 |
| 12 | 97 | 97 | 101 | 110 | 3.2 | 3.5 | 3.3 | 9.3 | 8.6 | 8.8 | 16 | 16 |
| 13 | 97 | 98 | 99 | 110 | 3.2 | 3.5 | 3.3 | 9.1 | 8.3 | 8.7 | 16 | 16 |
| 14 | 97 | 97 | 99 | 108 | 3.4 | 3.3 | 3.2 | 8.9 | 7.9 | 8.8 | 16 | 16 |
| 15 | 97 | 211 | 99 | 103 | 3.8 | 3.1 | 3.2 | 8.9 | 7.9 | 8.7 | 16 | 16 |
| 16 | 98 | 482 | 99 | 101 | 3.8 | 3.1 | 3.2 | 8.6 | 7.9 | 8.6 | 16 | 16 |
| 17 | 97 | 320 | 99 | 101 | 3.9 | 3.2 | 3.5 | 8.3 | 8.0 | 12 | 16 | 16 |
| 18 | 97 | 105 | 99 | 101 | 4.0 | 3.3 | 3.1 | 8.6 | 7.9 | 16 | 16 | 16 |
| 19 | 97 | 325 | 99 | 101 | 3.8 | 3.5 | 3.1 | 8.5 | 7.9 | 16 | 16 | 16 |
| 20 | 97 | 506 | 101 | 101 | 3.4 | 3.6 | 3.2 | 8.6 | 8.1 | 16 | 16 | 15 |
| 21 | 97 | 431 | 103 | 101 | 3.5 | 3.6 | 3.5 | 8.5 | 8.3 | 16 | 17 | 15 |
| 22 | 97 | 313 | 103 | 101 | 3.6 | 3.4 | 3.3 | 8.3 | 8.3 | 16 | 16 | 16 |
| 23 | 97 | 301 | 103 | 101 | 3.6 | 3.4 | 3.1 | 8.3 | 8.2 | 16 | 16 | 15 |
| 24 | 97 | 291 | 103 | 101 | 3.6 | 3.4 | 3.1 | 8.3 | 8.2 | 16 | 15 | 15 |
| 25 | 97 | 285 | 103 | 101 | 3.5 | 3.3 | 3.0 | 8.6 | 8.6 | 16 | 15 | 15 |
| 26 | 97 | 402 | 103 | 101 | 3.5 | 3.2 | 2.9 | 8.6 | 8.6 | 16 | 15 | 15 |
| 27 | 96 | 493 | 103 | 101 | 3.5 | 3.2 | 2.9 | 8.6 | 8.6 | 16 | 15 | 15 |
| 28 | 96 | 490 | 103 | 101 | 3.5 | 3.2 | 2.9 | 8.6 | 8.6 | 16 | 15 | 15 |
| 29 | 96 | 254 | 103 | 100 | --- | 3.2 | 6.0 | 8.5 | 8.6 | 16 | 15 | 15 |
| 30 | 96 | 101 | 103 | 99 | --- | 3.4 | 8.3 | 8.3 | 8.6 | 16 | 15 | 15 |
| 31 | 96 | --- | 103 | 61 | --- | 3.7 | --- | 8.3 | --- | 16 | 15 | --- |
| TOTAL | 2871 | 6663 | 3139 | 3132 | 96.70 | 105.9 | 109.2 | 265.3 | 250.0 | 374.4 | 489 | 466 |
| MEAN | 92.6 | 222 | 101 | 101 | 3.45 | 3.42 | 3.64 | 8.56 | 8.33 | 12.1 | 15.8 | 15.5 |
| MAX | 98 | 506 | 103 | 110 | 4.0 | 3.8 | 8.3 | 9.3 | 8.6 | 16 | 17 | 16 |
| MIN | 79 | 96 | 99 | 61 | 2.9 | 3.1 | 2.9 | 8.3 | 7.9 | 8.6 | 15 | 15 |
| AC-FT | 5690 | 13220 | 6230 | 6210 | 192 | 210 | 217 | 526 | 496 | 743 | 970 | 924 |
| a | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 781 | 851 | 2280 | 5470 | 5250 |
| CAL YR 1984 | TOTAL | 26192.2 | MEAN | 71.6 | MAX | 506 | MIN | 1.3 | AC-FT | 51950 | | |
| WTR YR 1985 | TOTAL | 17961.5 | MEAN | 49.2 | MAX | 506 | MIN | 2.9 | AC-FT | 35630 | | |

a Diversion, in acre-feet, to Jones Fork powerplant, provided by Sacramento Municipal Utility District.

11441900 SILVER CREEK BELOW CAMINO DIVERSION DAM, CA

LOCATION.--Lat 38°49'26", long 120°32'18", on line between secs.4 and 5, T.11 N., R.13 E., El Dorado County, Hydrologic Unit 18020129, Eldorado National Forest, on right bank 300 ft downstream from Round Tent Canyon, 0.4 mi downstream from diversion dam, and 5 mi northeast of Pollock Pines.

DRAINAGE AREA.--171 mi².

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

GAGE.--Water-stage recorder. Datum of gage is 2,754.06 ft above National Geodetic Vertical Datum of 1929 (Sacramento Municipal Utility District bench mark).

REMARKS.--No estimated daily discharges. Records good above 10 ft³/s and fair below. Flow is regulated by Ice House Reservoir (station 11441100) since 1959, Union Valley Reservoir, (station 11441001) since 1962, Junction and Camino reservoirs, and diversions to Camino powerplant since 1961. See schematic diagram of South Fork American River basin.

AVERAGE DISCHARGE (unadjusted).--25 years, 95.5 ft³/s, 69,190 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 19,300 ft³/s, Jan. 31, 1963, gage height, 11.28 ft in gage well, 11.9 ft from floodmarks, from rating curve extended above 4,700 ft³/s on basis of slope-area measurement of peak flow; minimum daily, 1.0 ft³/s, Nov. 1, 1980.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 53 ft³/s, Nov. 27, gage height, 3.17 ft; minimum daily, 9.3 ft³/s, Dec. 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|---------|-------|------|------|------|------|------|-------|-------|------|------|
| 1 | 22 | 16 | 21 | 16 | 16 | 22 | 28 | 14 | 17 | 17 | 16 | 18 |
| 2 | 21 | 13 | 20 | 15 | 15 | 22 | 33 | 15 | 18 | 17 | 15 | 18 |
| 3 | 21 | 14 | 18 | 15 | 15 | 19 | 36 | 16 | 18 | 16 | 16 | 17 |
| 4 | 21 | 12 | 14 | 15 | 15 | 21 | 37 | 16 | 16 | 16 | 18 | 16 |
| 5 | 22 | 11 | 10 | 15 | 14 | 20 | 36 | 16 | 12 | 16 | 18 | 16 |
| 6 | 21 | 11 | 10 | 15 | 14 | 20 | 34 | 16 | 11 | 16 | 18 | 17 |
| 7 | 21 | 13 | 10 | 17 | 15 | 20 | 32 | 16 | 16 | 16 | 18 | 17 |
| 8 | 21 | 19 | 9.7 | 16 | 31 | 19 | 30 | 16 | 16 | 18 | 17 | 18 |
| 9 | 21 | 15 | 9.3 | 16 | 24 | 19 | 29 | 16 | 16 | 18 | 16 | 18 |
| 10 | 21 | 16 | 13 | 16 | 21 | 21 | 27 | 17 | 16 | 17 | 15 | 17 |
| 11 | 22 | 22 | 13 | 16 | 20 | 22 | 23 | 17 | 15 | 17 | 15 | 16 |
| 12 | 22 | 17 | 14 | 16 | 20 | 23 | 22 | 18 | 14 | 16 | 15 | 16 |
| 13 | 22 | 37 | 15 | 16 | 20 | 23 | 21 | 16 | 14 | 16 | 16 | 17 |
| 14 | 22 | 25 | 13 | 15 | 21 | 24 | 20 | 14 | 14 | 17 | 17 | 17 |
| 15 | 22 | 16 | 12 | 15 | 22 | 24 | 19 | 15 | 14 | 17 | 17 | 17 |
| 16 | 23 | 13 | 12 | 15 | 23 | 23 | 18 | 17 | 14 | 16 | 17 | 17 |
| 17 | 23 | 15 | 11 | 15 | 24 | 24 | 17 | 19 | 14 | 18 | 17 | 16 |
| 18 | 22 | 16 | 10 | 15 | 24 | 25 | 17 | 21 | 14 | 19 | 16 | 17 |
| 19 | 22 | 15 | 9.9 | 15 | 25 | 25 | 16 | 21 | 16 | 16 | 16 | 18 |
| 20 | 21 | 14 | 9.5 | 15 | 24 | 25 | 16 | 18 | 17 | 17 | 18 | 18 |
| 21 | 21 | 14 | 16 | 15 | 23 | 24 | 16 | 18 | 16 | 17 | 18 | 19 |
| 22 | 22 | 13 | 21 | 15 | 22 | 23 | 16 | 18 | 16 | 16 | 18 | 19 |
| 23 | 21 | 13 | 21 | 15 | 22 | 23 | 15 | 19 | 16 | 16 | 18 | 19 |
| 24 | 22 | 19 | 22 | 16 | 22 | 24 | 15 | 18 | 16 | 16 | 18 | 18 |
| 25 | 22 | 17 | 21 | 16 | 22 | 23 | 14 | 18 | 16 | 16 | 17 | 18 |
| 26 | 22 | 17 | 19 | 16 | 21 | 24 | 14 | 18 | 15 | 16 | 17 | 18 |
| 27 | 22 | 25 | 15 | 16 | 22 | 24 | 13 | 17 | 15 | 16 | 18 | 18 |
| 28 | 22 | 43 | 16 | 16 | 22 | 23 | 14 | 17 | 16 | 17 | 18 | 18 |
| 29 | 22 | 31 | 16 | 15 | --- | 21 | 15 | 17 | 16 | 18 | 17 | 18 |
| 30 | 22 | 25 | 16 | 15 | --- | 22 | 15 | 17 | 16 | 16 | 17 | 19 |
| 31 | 22 | --- | 16 | 16 | --- | 25 | --- | 17 | --- | 16 | 18 | --- |
| TOTAL | 673 | 547 | 453.4 | 480 | 579 | 697 | 658 | 528 | 460 | 516 | 525 | 525 |
| MEAN | 21.7 | 18.2 | 14.6 | 15.5 | 20.7 | 22.5 | 21.9 | 17.0 | 15.3 | 16.6 | 16.9 | 17.5 |
| MAX | 23 | 43 | 22 | 17 | 31 | 25 | 37 | 21 | 18 | 19 | 18 | 19 |
| MIN | 21 | 11 | 9.3 | 15 | 14 | 19 | 13 | 14 | 11 | 16 | 15 | 16 |
| AC-FT | 1330 | 1080 | 899 | 952 | 1150 | 1380 | 1310 | 1050 | 912 | 1020 | 1040 | 1040 |
| CAL YR 1984 | TOTAL | 13176.1 | MEAN | 36.0 | MAX | 1470 | MIN | 3.8 | AC-FT | 26130 | | |
| WTR YR 1985 | TOTAL | 6641.4 | MEAN | 18.2 | MAX | 43 | MIN | 9.3 | AC-FT | 13170 | | |

11442500 SOUTH FORK AMERICAN RIVER BELOW SILVER CREEK, NEAR POLLOCK PINES, CA

LOCATION.--Lat 38°47'37", long 120°37'02", in NE 1/4 NE 1/4 sec.22, T.11 N., R.12 E., El Dorado County, Hydrologic Unit 18020129, Eldorado National Forest, on right bank 350 ft upstream from El Dorado powerplant, 2.4 mi downstream from Silver Creek, and 2.8 mi northwest of Pollock Pines.

DRAINAGE AREA.--449 mi².

PERIOD OF RECORD.--August to December 1923 (published as "below Silver Creek"), November 1969 to current year.

GAGE.--Water-stage recorder. Datum of gage is 1,862.79 ft above National Geodetic Vertical Datum of 1929. (Pacific Gas and Electric Co. bench mark.) Aug. 11 to Dec. 16, 1923, nonrecording gage at same site at different datum.

REMARKS.--Estimated daily discharges: Nov. 24 to Dec. 18 and Jan. 26 to Feb. 18. Records good except periods of estimated daily record, which are fair. There are two diversions to Camino Powerplant and El Dorado powerplant which bypass this station. Refer to listed monthly figures below. Flow regulated by storage, diversions, and powerplants. See schematic diagram of South Fork American River basin.

AVERAGE DISCHARGE (unadjusted).--15 years, 543 ft³/s, 393,400 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 29,500 ft³/s, Jan. 13, 1980, gage height, 17.83 ft, from rating curve extended above 13,000 ft³/s; minimum daily, 9.6 ft³/s, Oct. 19, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 1,900 ft³/s, Apr. 15, gage height, 8.45 ft; minimum daily, 35 ft³/s, Sept. 18.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 113 | 85 | 118 | 103 | 105 | 160 | 417 | 1050 | 267 | 88 | 81 | 81 |
| 2 | 94 | 94 | 102 | 107 | 105 | 162 | 606 | 1150 | 256 | 88 | 78 | 71 |
| 3 | 84 | 440 | 102 | 103 | 108 | 148 | 762 | 1130 | 317 | 86 | 79 | 68 |
| 4 | 82 | 156 | 102 | 102 | 118 | 154 | 791 | 969 | 273 | 87 | 81 | 67 |
| 5 | 82 | 84 | 101 | 102 | 123 | 148 | 847 | 903 | 310 | 87 | 82 | 65 |
| 6 | 82 | 103 | 96 | 103 | 112 | 156 | 978 | 965 | 338 | 85 | 81 | 64 |
| 7 | 82 | 138 | 95 | 127 | 112 | 160 | 1010 | 937 | 386 | 85 | 81 | 68 |
| 8 | 82 | 237 | 95 | 124 | 200 | 144 | 1080 | 870 | 392 | 86 | 81 | 81 |
| 9 | 82 | 146 | 96 | 117 | 182 | 162 | 1110 | 860 | 359 | 87 | 81 | 138 |
| 10 | 82 | 112 | 104 | 116 | 168 | 178 | 1170 | 719 | 323 | 87 | 80 | 99 |
| 11 | 123 | 188 | 108 | 112 | 160 | 203 | 1140 | 541 | 247 | 87 | 78 | 75 |
| 12 | 103 | 308 | 105 | 110 | 159 | 188 | 1080 | 568 | 213 | 87 | 79 | 71 |
| 13 | 84 | 415 | 108 | 112 | 165 | 193 | 1190 | 630 | 197 | 85 | 80 | 70 |
| 14 | 98 | 266 | 120 | 111 | 165 | 198 | 1400 | 755 | 161 | 84 | 80 | 69 |
| 15 | 84 | 151 | 129 | 109 | 165 | 195 | 1460 | 867 | 136 | 84 | 81 | 68 |
| 16 | 97 | 124 | 126 | 107 | 165 | 195 | 1430 | 846 | 120 | 83 | 81 | 55 |
| 17 | 135 | 120 | 140 | 106 | 168 | 195 | 1230 | 859 | 115 | 84 | 82 | 37 |
| 18 | 92 | 127 | 210 | 104 | 168 | 208 | 988 | 876 | 102 | 85 | 85 | 35 |
| 19 | 91 | 121 | 147 | 104 | 169 | 201 | 983 | 880 | 91 | 85 | 81 | 48 |
| 20 | 92 | 112 | 109 | 104 | 172 | 202 | 865 | 815 | 92 | 83 | 83 | 70 |
| 21 | 90 | 117 | 106 | 104 | 161 | 226 | 766 | 728 | 91 | 85 | 83 | 69 |
| 22 | 87 | 109 | 109 | 103 | 159 | 212 | 717 | 715 | 86 | 84 | 82 | 68 |
| 23 | 86 | 104 | 114 | 101 | 158 | 203 | 739 | 735 | 88 | 84 | 81 | 78 |
| 24 | 84 | 200 | 115 | 101 | 160 | 238 | 756 | 765 | 90 | 82 | 82 | 84 |
| 25 | 84 | 180 | 117 | 108 | 160 | 240 | 699 | 734 | 90 | 82 | 81 | 67 |
| 26 | 88 | 165 | 119 | 108 | 158 | 223 | 594 | 690 | 88 | 84 | 81 | 63 |
| 27 | 118 | 250 | 111 | 108 | 164 | 269 | 567 | 629 | 88 | 81 | 80 | 71 |
| 28 | 97 | 300 | 108 | 107 | 164 | 248 | 778 | 543 | 87 | 81 | 81 | 76 |
| 29 | 91 | 250 | 108 | 106 | --- | 229 | 872 | 420 | 88 | 81 | 81 | 77 |
| 30 | 100 | 160 | 109 | 105 | --- | 220 | 851 | 336 | 88 | 82 | 80 | 76 |
| 31 | 89 | --- | 105 | 105 | --- | 282 | --- | 311 | --- | 81 | 81 | --- |
| TOTAL | 2878 | 5362 | 3534 | 3339 | 4273 | 6140 | 27876 | 23796 | 5579 | 2620 | 2508 | 2129 |
| MEAN | 92.8 | 179 | 114 | 108 | 153 | 198 | 929 | 768 | 186 | 84.5 | 80.9 | 71.0 |
| MAX | 135 | 440 | 210 | 127 | 200 | 282 | 1460 | 1150 | 392 | 88 | 85 | 138 |
| MIN | 82 | 84 | 95 | 101 | 105 | 144 | 417 | 311 | 86 | 81 | 78 | 35 |
| AC-FT | 5710 | 10640 | 7010 | 6620 | 8480 | 12180 | 55290 | 47200 | 11070 | 5200 | 4970 | 4220 |
| a | 21990 | 21870 | 26450 | 31120 | 43050 | 28270 | 14970 | 13380 | 14870 | 47680 | 47200 | 44570 |
| b | 8440 | 8500 | 8340 | 4430 | 4920 | 8570 | 9140 | 8950 | 6690 | 4170 | 4010 | 3480 |

JAL YR 1984 TOTAL 201380 MEAN 550 MAX 3340 MIN 37 AC-FT 399400

WTR YR 1985 TOTAL 90034 MEAN 247 MAX 1460 MIN 35 AC-FT 178600

a Diversion, in acre-feet, to Camino powerplant, furnished by Sacramento Municipal Utility District.
b Diversion, in acre-feet, to El Dorado powerplant, furnished by Pacific Gas and Electric Company.

11443500 SOUTH FORK AMERICAN RIVER NEAR CAMINO, CA

LOCATION.--Lat 38°46'23", long 120°42'02", in NE 1/4 SW 1/4 sec.25, T.11 N., R.11 E., El Dorado County, Hydrologic Unit 18020129, on right bank 500 ft downstream from Slab Creek Dam, 500 ft upstream from Iowa Canyon Creek, and 2.8 mi northwest of Camino.

DRAINAGE AREA.--493 mi².

PERIOD OF RECORD.--October 1922 to current year. Monthly discharge only for October 1922, published in WSP 1315-A. Records for the river and the American River flume, published separately October 1922 to September 1956, October 1962 to December 1964 when flume was destroyed. Records of river and flume combined October 1956 to September 1962.

REVISED RECORDS.--WSP 931: 1928, 1938, 1940(M). WSP 1931: Drainage area at former site.

GAGE.--Water-stage recorder. Elevation of gage is 1,620 ft above National Geodetic Vertical Datum of 1929, from topographic map. See WSP 2131 for history of changes prior to Oct. 12, 1966.

REMARKS.--Estimated daily discharges: May 26 to June 13. Records good. Flow regulated by six reservoirs, total usable capacity, 347,000 acre-ft. Since 1967 diversion from Slab Creek Dam to White Rock powerplant bypasses this station. Echo Lake conduit (station 11434500) imports up to 1,900 acre-ft each year from Truckee River basin. Variable amounts of El Dorado Canal water, up to 40 ft³/s May to October, and about 7 ft³/s remainder of the year, diverted for irrigation and domestic use between Pollock Pines and Placerville. Water from Jenkinson Lake in North Fork Consumnes River basin diverted to Camino and substituted for flow from El Dorado Canal in some years. Since October 1962 water is imported from the Upper Rubicon River basin by way of Robbs Peak powerplant (station 11429300). See schematic diagram of South Fork American River basin.

AVERAGE DISCHARGE.--37 years (water years 1923-59, prior to extensive regulation and transbasin diversion in South Fork American River basin), 961 ft³/s, 695,700 acre-ft/yr, combined flow of South Fork American River and American River flume; 8 years (water years 1960-67, transition period prior to bypass to White Rock powerplant), 1,062 ft³/s, 769,400 acre-ft/yr; 18 years (water years 1968-85), 153 ft³/s, 110,800 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 49,800 ft³/s, Dec. 23, 1955, gage height, 32.6 ft, from floodmarks, site and datum then in use, from rating curve extended above 24,000 ft³/s, on basis of computation of peak flow over dam; minimum daily, 1.3 ft³/s, Aug. 24, 1931.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 97 ft³/s, Nov. 5, gage height, 5.96 ft; minimum daily, 36 ft³/s, several days in June and September.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|-------|------|------|------|------|------|------|-------|-------|------|------|
| 1 | 38 | 40 | 38 | 37 | 38 | 38 | 39 | 39 | 39 | 38 | 37 | 38 |
| 2 | 38 | 40 | 38 | 37 | 38 | 38 | 39 | 39 | 38 | 38 | 37 | 38 |
| 3 | 38 | 50 | 38 | 37 | 38 | 38 | 40 | 38 | 38 | 38 | 38 | 37 |
| 4 | 38 | 63 | 38 | 37 | 38 | 38 | 39 | 38 | 38 | 38 | 38 | 37 |
| 5 | 38 | 55 | 38 | 37 | 38 | 38 | 39 | 39 | 38 | 39 | 38 | 36 |
| 6 | 38 | 41 | 38 | 37 | 38 | 38 | 39 | 39 | 38 | 38 | 38 | 36 |
| 7 | 38 | 38 | 38 | 37 | 38 | 38 | 39 | 39 | 38 | 38 | 38 | 36 |
| 8 | 38 | 38 | 38 | 37 | 38 | 38 | 39 | 38 | 38 | 39 | 37 | 36 |
| 9 | 38 | 38 | 38 | 37 | 38 | 38 | 39 | 38 | 37 | 38 | 37 | 42 |
| 10 | 38 | 38 | 38 | 37 | 38 | 38 | 39 | 38 | 37 | 38 | 38 | 36 |
| 11 | 38 | 38 | 38 | 37 | 38 | 38 | 38 | 38 | 37 | 38 | 38 | 36 |
| 12 | 38 | 38 | 38 | 37 | 38 | 38 | 39 | 39 | 37 | 38 | 38 | 36 |
| 13 | 39 | 38 | 38 | 37 | 38 | 38 | 39 | 39 | 37 | 39 | 38 | 37 |
| 14 | 39 | 38 | 38 | 37 | 38 | 38 | 39 | 40 | 37 | 38 | 38 | 36 |
| 15 | 39 | 38 | 38 | 37 | 38 | 38 | 39 | 40 | 37 | 39 | 38 | 36 |
| 16 | 39 | 38 | 38 | 37 | 38 | 38 | 38 | 39 | 37 | 39 | 37 | 37 |
| 17 | 39 | 38 | 37 | 37 | 38 | 38 | 38 | 38 | 37 | 38 | 37 | 37 |
| 18 | 39 | 38 | 37 | 37 | 38 | 38 | 37 | 39 | 37 | 38 | 37 | 37 |
| 19 | 39 | 38 | 37 | 37 | 38 | 38 | 37 | 39 | 37 | 38 | 37 | 37 |
| 20 | 39 | 38 | 37 | 37 | 38 | 38 | 38 | 39 | 37 | 38 | 37 | 37 |
| 21 | 39 | 38 | 37 | 37 | 38 | 39 | 37 | 39 | 37 | 37 | 37 | 38 |
| 22 | 39 | 38 | 37 | 37 | 38 | 38 | 37 | 39 | 37 | 38 | 37 | 38 |
| 23 | 39 | 38 | 37 | 37 | 38 | 38 | 38 | 40 | 37 | 38 | 37 | 38 |
| 24 | 39 | 38 | 37 | 37 | 38 | 38 | 38 | 39 | 37 | 39 | 37 | 38 |
| 25 | 39 | 38 | 37 | 37 | 38 | 38 | 38 | 39 | 36 | 38 | 38 | 38 |
| 26 | 39 | 38 | 37 | 37 | 38 | 37 | 38 | 39 | 37 | 38 | 38 | 38 |
| 27 | 39 | 38 | 37 | 37 | 38 | 38 | 39 | 39 | 37 | 38 | 38 | 38 |
| 28 | 39 | 38 | 37 | 37 | 39 | 38 | 39 | 39 | 37 | 39 | 38 | 38 |
| 29 | 39 | 38 | 37 | 37 | --- | 38 | 39 | 39 | 37 | 38 | 38 | 37 |
| 30 | 39 | 38 | 37 | 37 | --- | 38 | 39 | 39 | 37 | 37 | 37 | 37 |
| 31 | 40 | --- | 37 | 38 | --- | 38 | --- | 39 | --- | 37 | 37 | --- |
| TOTAL | 1198 | 1201 | 1163 | 1148 | 1065 | 1178 | 1155 | 1205 | 1118 | 1182 | 1163 | 1116 |
| MEAN | 38.6 | 40.0 | 37.5 | 37.0 | 38.0 | 38.0 | 38.5 | 38.9 | 37.3 | 38.1 | 37.5 | 37.2 |
| MAX | 40 | 63 | 38 | 38 | 39 | 39 | 40 | 40 | 39 | 39 | 38 | 42 |
| MIN | 38 | 38 | 37 | 37 | 38 | 37 | 37 | 38 | 36 | 37 | 37 | 36 |
| AC-FT | 2380 | 2380 | 2310 | 2280 | 2110 | 2340 | 2290 | 2390 | 2220 | 2340 | 2310 | 2210 |
| CAL YR 1984 | TOTAL | 16379 | MEAN | 44.8 | MAX | 1450 | MIN | 33 | AC-FT | 32490 | | |
| WTR YR 1985 | TOTAL | 13892 | MEAN | 38.1 | MAX | 63 | MIN | 36 | AC-FT | 27550 | | |

11444500 SOUTH FORK AMERICAN RIVER NEAR PLACERVILLE, CA

LOCATION.--Lat 38°46'16", long 120°48'55", in NE 1/4 SW 1/4 sec.25, T.11 N., R.10 E., El Dorado County, Hydrologic Unit 18020129, on right bank 700 ft downstream from Chili Bar Dam, 0.5 mi upstream from Big Canyon, and 2.5 mi north of Placerville.

DRAINAGE AREA.--598 mi².

PERIOD OF RECORD.--August 1911 to July 1920, July 1964 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Estimated daily discharges: Oct. 30, 31, Nov. 5, 6, 10-20, 28, Dec. 5, 10, 22, 30, Jan. 6, Jan. 8 to Feb. 20, June 10-12. Water-stage recorder. Datum of gage is 931.05 ft above National Geodetic Vertical Datum of 1929 (levels by Pacific Gas and Electric Co.). Aug. 11, 1911, to July 31, 1920, nonrecording gage 0.6 mi downstream at different datum.

REMARKS.--Flow regulated by storage, diversions, and powerplants. See schematic diagram of South Fork American River basin.

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

AVERAGE DISCHARGE.--(prior to extensive regulation and transbasin diversion).--9 years (water years 1912-20), 1,132 ft³/s, 820,100 acre-ft/yr; 21 years (water years 1965-85), 1,559 ft³/s, 1,129,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 47,300 ft³/s, Dec. 23, 1964, gage height, 17.4 ft, from floodmarks, from rating curve extended above 18,000 ft³/s, on basis of computations of flow over dam of maximum flow; minimum daily, 0.2 ft³/s, Nov. 12, 1964.

EXTREMES FOR CURRENT YEAR.--Maximum daily discharge, 3,420 ft³/s, Feb. 8; minimum daily, 250 ft³/s, Nov. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-----------|-------|-------|-------|-------|-------|---------|-------|-------|-------|
| 1 | 620 | 639 | 831 | 426 | 1350 | 1190 | 1190 | 1310 | 629 | 946 | 935 | 497 |
| 2 | 598 | 288 | 780 | 824 | 850 | 745 | 1020 | 1510 | 591 | 895 | 867 | 455 |
| 3 | 640 | 298 | 1100 | 919 | 780 | 671 | 1760 | 1830 | 614 | 849 | 906 | 886 |
| 4 | 756 | 471 | 807 | 823 | 1060 | 970 | 2170 | 1610 | 637 | 594 | 825 | 1140 |
| 5 | 830 | 380 | 920 | 821 | 1170 | 918 | 1910 | 1650 | 583 | 856 | 863 | 1120 |
| 6 | 643 | 300 | 1070 | 530 | 1180 | 830 | 1700 | 1710 | 704 | 865 | 832 | 957 |
| 7 | 558 | 559 | 954 | 1060 | 1000 | 963 | 1140 | 1850 | 478 | 1030 | 882 | 820 |
| 8 | 617 | 1390 | 923 | 1080 | 3420 | 784 | 1640 | 1330 | 474 | 540 | 970 | 745 |
| 9 | 644 | 1590 | 603 | 1050 | 2370 | 593 | 1870 | 1090 | 503 | 1120 | 1020 | 941 |
| 10 | 670 | 520 | 950 | 600 | 1900 | 633 | 2020 | 1030 | 621 | 879 | 894 | 1410 |
| 11 | 840 | 550 | 881 | 900 | 1610 | 1320 | 1960 | 865 | 730 | 1120 | 799 | 1170 |
| 12 | 647 | 250 | 973 | 970 | 1880 | 1310 | 1980 | 712 | 760 | 1130 | 866 | 955 |
| 13 | 687 | 1500 | 983 | 520 | 1850 | 1090 | 1850 | 1500 | 646 | 1030 | 787 | 1100 |
| 14 | 819 | 1760 | 839 | 900 | 1770 | 758 | 1140 | 1210 | 425 | 753 | 850 | 938 |
| 15 | 757 | 836 | 753 | 720 | 1390 | 826 | 2560 | 1310 | 565 | 1030 | 858 | 788 |
| 16 | 566 | 872 | 678 | 790 | 1190 | 1010 | 2520 | 1230 | 825 | 1030 | 920 | 953 |
| 17 | 801 | 957 | 886 | 700 | 800 | 574 | 2390 | 1220 | 539 | 1020 | 786 | 955 |
| 18 | 868 | 989 | 993 | 770 | 680 | 1070 | 1800 | 1190 | 497 | 1040 | 784 | 754 |
| 19 | 800 | 1120 | 979 | 760 | 1000 | 1200 | 1180 | 1180 | 495 | 1180 | 1070 | 779 |
| 20 | 808 | 912 | 1010 | 500 | 1170 | 1290 | 1040 | 1130 | 475 | 907 | 1030 | 983 |
| 21 | 617 | 865 | 878 | 750 | 977 | 1140 | 1240 | 1290 | 480 | 741 | 1070 | 856 |
| 22 | 664 | 623 | 790 | 460 | 924 | 1110 | 930 | 1520 | 482 | 927 | 1100 | 707 |
| 23 | 277 | 535 | 668 | 640 | 993 | 847 | 1270 | 865 | 444 | 1180 | 1080 | 683 |
| 24 | 267 | 1130 | 643 | 780 | 611 | 739 | 1110 | 1290 | 428 | 1220 | 887 | 985 |
| 25 | 473 | 760 | 716 | 620 | 1090 | 1200 | 1140 | 1120 | 586 | 1040 | 716 | 1050 |
| 26 | 621 | 1310 | 685 | 640 | 1370 | 1320 | 1100 | 1060 | 611 | 1050 | 798 | 679 |
| 27 | 557 | 1460 | 857 | 620 | 1210 | 1430 | 1140 | 988 | 648 | 1240 | 921 | 826 |
| 28 | 636 | 2130 | 833 | 510 | 1320 | 1520 | 1030 | 1160 | 724 | 678 | 1020 | 982 |
| 29 | 553 | 1520 | 873 | 950 | --- | 1590 | 1080 | 1120 | 703 | 1090 | 1000 | 707 |
| 30 | 550 | 1770 | 660 | 720 | --- | 921 | 1120 | 591 | 580 | 976 | 1000 | 841 |
| 31 | 638 | --- | 586 | 700 | --- | 989 | --- | 712 | --- | 897 | 1110 | --- |
| TOTAL | 20022 | 28284 | 26102 | 23053 | 36915 | 31551 | 46000 | 38183 | 17477 | 29853 | 28446 | 26662 |
| MEAN | 645 | 942 | 842 | 743 | 1318 | 1017 | 1533 | 1231 | 582 | 963 | 917 | 888 |
| MAX | 868 | 2130 | 1100 | 1080 | 3420 | 1590 | 2560 | 1850 | 825 | 1240 | 1110 | 1410 |
| MIN | 267 | 250 | 586 | 426 | 611 | 574 | 930 | 591 | 425 | 540 | 716 | 455 |
| AC-FT | 39710 | 56100 | 51770 | 45730 | 73220 | 62580 | 91240 | 75740 | 34670 | 59210 | 56420 | 52880 |
| CAL YR 1984 | TOTAL | 589172 | MEAN 1612 | MAX | 6350 | MIN | 250 | AC-FT | 1168600 | | | |
| WTR YR 1985 | TOTAL | 352548 | MEAN 965 | MAX | 3420 | MIN | 250 | AC-FT | 699300 | | | |

SACRAMENTO RIVER BASIN

11445500 SOUTH FORK AMERICAN RIVER NEAR LOTUS, CA

LOCATION.--Lat 38°49'07", long 120°56'45", in NW 1/4 SW 1/4 sec.11, T.11 N., R.9 E., El Dorado County, Hydrologic Unit 18020129, on left bank 0.4 mi downstream from Greenwood Creek, 2.4 mi northwest of Lotus, and 3.3 mi northwest of Coloma.

DRAINAGE AREA.--673 mi².

WATER-DISCHARGE RECORDS

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

REVISED RECORDS.--WSP 1931: Drainage area. WDR CA-75-4: 1964, 1966, 1970.

GAGE.--Water-stage recorder. Elevation of gage is 635 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records fair. Flow regulated by storage, diversions, and powerplants. See schematic diagram of South Fork American River basin.

AVERAGE DISCHARGE.--11 years (water years 1952-62, prior to extensive regulation and transbasin diversion), 1,109 ft³/s, 802,900 acre-ft/yr; 23 years (water years 1963-85), 1,584 ft³/s, 1,148,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 71,800 ft³/s, Dec. 23, 1955, gage height, 21.37 ft; minimum daily, 14 ft³/s on several days during July 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since 1862 and prior to beginning of record, 20.4 ft from floodmarks, Nov. 21, 1950, discharge, 64,500 ft³/s.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 7,270 ft³/s, Feb. 8, gage height, 9.51 ft ; minimum daily, 221 ft³/s, Nov. 12.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|-------|-------|-------|-------|-------|-------|---------|-------|-------|
| 1 | 614 | 596 | 902 | 438 | 1310 | 1330 | 1100 | 1180 | 606 | 893 | 914 | 614 |
| 2 | 585 | 253 | 726 | 946 | 835 | 828 | 1150 | 1330 | 581 | 876 | 871 | 470 |
| 3 | 654 | 237 | 1200 | 915 | 802 | 659 | 1450 | 1780 | 598 | 861 | 908 | 911 |
| 4 | 760 | 447 | 830 | 839 | 1010 | 873 | 2180 | 1550 | 616 | 590 | 831 | 1080 |
| 5 | 801 | 290 | 902 | 848 | 1140 | 923 | 1930 | 1670 | 560 | 775 | 863 | 1160 |
| 6 | 619 | 390 | 1010 | 517 | 1210 | 908 | 1770 | 1550 | 667 | 880 | 834 | 1070 |
| 7 | 537 | 551 | 1060 | 1140 | 1170 | 1050 | 1270 | 1790 | 514 | 864 | 886 | 871 |
| 8 | 573 | 1510 | 928 | 1080 | 3670 | 989 | 1390 | 1510 | 445 | 625 | 958 | 845 |
| 9 | 621 | 1570 | 641 | 1060 | 2500 | 709 | 1830 | 1050 | 409 | 1030 | 1010 | 873 |
| 10 | 623 | 491 | 870 | 629 | 1910 | 783 | 1980 | 1010 | 721 | 939 | 879 | 1190 |
| 11 | 819 | 521 | 919 | 871 | 1630 | 1260 | 1920 | 850 | 664 | 976 | 841 | 1510 |
| 12 | 691 | 221 | 951 | 1000 | 1900 | 1480 | 1930 | 644 | 726 | 1140 | 872 | 961 |
| 13 | 659 | 1400 | 1020 | 548 | 1840 | 1410 | 1830 | 1460 | 661 | 1040 | 844 | 1110 |
| 14 | 690 | 1950 | 946 | 875 | 1780 | 779 | 1220 | 1120 | 403 | 759 | 835 | 1050 |
| 15 | 829 | 934 | 826 | 719 | 1430 | 945 | 2320 | 1160 | 470 | 989 | 817 | 850 |
| 16 | 537 | 854 | 739 | 786 | 1180 | 882 | 2310 | 1240 | 748 | 1000 | 933 | 967 |
| 17 | 826 | 922 | 897 | 699 | 826 | 868 | 2310 | 1180 | 583 | 989 | 809 | 1000 |
| 18 | 838 | 868 | 1040 | 767 | 668 | 990 | 1940 | 1180 | 470 | 1030 | 808 | 825 |
| 19 | 760 | 1120 | 1000 | 751 | 1090 | 1360 | 1270 | 1130 | 435 | 1080 | 1030 | 843 |
| 20 | 814 | 935 | 1020 | 492 | 1120 | 1200 | 1110 | 1130 | 477 | 972 | 1070 | 965 |
| 21 | 554 | 947 | 933 | 737 | 974 | 1330 | 1100 | 1130 | 475 | 755 | 1090 | 988 |
| 22 | 617 | 758 | 705 | 473 | 936 | 1170 | 1080 | 1390 | 393 | 910 | 1110 | 786 |
| 23 | 457 | 548 | 694 | 640 | 968 | 902 | 1090 | 1040 | 482 | 1040 | 1090 | 720 |
| 24 | 298 | 1120 | 648 | 776 | 642 | 882 | 1210 | 1110 | 360 | 1160 | 988 | 935 |
| 25 | 470 | 977 | 738 | 621 | 1030 | 1130 | 1090 | 1180 | 536 | 1150 | 800 | 1080 |
| 26 | 580 | 1150 | 711 | 654 | 1120 | 1280 | 1110 | 1040 | 537 | 1030 | 789 | 817 |
| 27 | 578 | 1490 | 876 | 612 | 1310 | 1730 | 1070 | 963 | 632 | 1080 | 870 | 872 |
| 28 | 585 | 2090 | 840 | 554 | 1200 | 1710 | 1070 | 1090 | 624 | 878 | 1040 | 1000 |
| 29 | 523 | 1560 | 880 | 972 | --- | 1730 | 1040 | 1080 | 704 | 973 | 1040 | 776 |
| 30 | 519 | 1810 | 629 | 714 | --- | 1240 | 1080 | 606 | 563 | 1030 | 1020 | 901 |
| 31 | 608 | --- | 609 | 703 | --- | 1040 | --- | 654 | --- | 917 | 1090 | --- |
| TOTAL | 19639 | 28510 | 26690 | 23376 | 37201 | 34370 | 45150 | 36797 | 16660 | 29231 | 28740 | 28040 |
| MEAN | 634 | 950 | 861 | 754 | 1329 | 1109 | 1505 | 1187 | 555 | 943 | 927 | 935 |
| MAX | 838 | 2090 | 1200 | 1140 | 3670 | 1730 | 2320 | 1790 | 748 | 1160 | 1110 | 1510 |
| MIN | 298 | 221 | 609 | 438 | 642 | 659 | 1040 | 606 | 360 | 590 | 789 | 470 |
| AC-FT | 38950 | 56550 | 52940 | 46370 | 73790 | 68170 | 89560 | 72990 | 33050 | 57980 | 57010 | 55620 |
| CAL YR 1984 | TOTAL | 608261 | MEAN | 1662 | MAX | 6260 | MIN | 221 | AC-FT | 1206000 | | |
| WTR YR 1985 | TOTAL | 354404 | MEAN | 971 | MAX | 3670 | MIN | 221 | AC-FT | 703000 | | |

11445500 SOUTH FORK AMERICAN RIVER NEAR LOTUS, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1957-68, 1970 to current year.

CHEMICAL ANALYSES: Water years 1958-66, 1978 to November 1980. December 1983 to current year.

BIOLOGICAL DATA: Water years 1979-80.

WATER TEMPERATURES: Water years 1960-68, 1970 to current year.

SEDIMENT RECORDS: Water years 1975-62.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: December 1959 to September 1968, February 1970 to current year.

INSTRUMENTATION.--Temperature recorder December 1959 to September 1968, and since February 1970.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 29.5°C, July 20, 1968, Aug. 12, 22, 1977; minimum recorded, 1.0°C, several days in 1960 and 1962.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 22.5°C, June 24; minimum recorded, 2.5°C, Jan. 1-4, 13.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | TIME | STREAM- FLOW, INSTAN- TANEOUS (CFS) | SPE- CIFIC CON- DUC- TANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | BARO- METRIC PRES- SURE (MM OF HG) | OXYGEN, DIS- SOLVED (MG/L) | OXYGEN, DIS- SOLVED SATUR- ATION | HARD- NESS (MG/L AS CACO3) | HARD- NESS, NONCAR- BONATE (MG/L CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) |
|-----------|--|--|--|---|---|---|---|--|---|--|--|
| DEC 20... | 1000 | 340 | 32 | 6.3 | 4.0 | 750 | 12.6 | 98 | 17 | 0 | 4.1 |
| MAR 21... | 0915 | 519 | 48 | 6.4 | 7.0 | 750 | 12.2 | 102 | 16 | 0 | 4.0 |
| JUN 13... | 1030 | 354 | 40 | 5.4 | 17.0 | 745 | 9.2 | 97 | 13 | 10 | 3.5 |
| SEP 18... | 1045 | 467 | 26 | 6.5 | 12.0 | 740 | 10.3 | 98 | -- | -- | -- |
| DATE | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | BICAR- BONATE IT-FLD (MG/L AS HCO3) | ALKA- LINITY, CARBON- ATE IT-FLD (MG/L - CACO3) | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) |
| DEC 20... | 1.7 | 2.4 | 23 | .3 | .50 | -- | -- | 18 | 1.5 | 2.0 | <.10 |
| MAR 21... | 1.5 | 2.4 | 24 | .3 | .50 | -- | -- | 16 | 2.7 | 2.2 | <.10 |
| JUN 13... | 1.1 | 2.3 | 26 | .3 | .70 | 4.0 | 3.0 | 4 | 1.1 | 1.8 | <.10 |
| SEP 18... | -- | -- | -- | -- | -- | 15 | 12 | 12 | -- | -- | -- |
| DATE | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | SOLIDS, SUM OF CONSTITUENTS, DIS- SOLVED (MG/L) | SOLIDS, DIS- SOLVED (TONS PER AC-FT) | SOLIDS, DIS- SOLVED (TONS PER DAY) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) | PHOS- PHORUS, TOTAL (MG/L AS P) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) |
| DEC 20... | 9.9 | 31 | 33 | .04 | 28 | <.10 | .010 | .20 | .010 | <.010 | <.010 |
| MAR 21... | 10 | 37 | 33 | .05 | 52 | <.10 | <.010 | .30 | .010 | <.010 | <.010 |
| JUN 13... | 11 | 31 | 24 | .04 | 30 | <.10 | .010 | .20 | <.010 | <.010 | .020 |
| SEP 18... | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- | -- |

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

11445500 SOUTH FORK AMERICAN RIVER NEAR LOTUS, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

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

11446200 FOLSOM LAKE NEAR FOLSOM, CA

LOCATION.--Lat 38°42'29", long 121°09'22", in NW 1/4 NE 1/4 sec.24, T.10 N., R.7 E., Sacramento County, Hydrologic Unit 18020128, near center of dam on American River, 0.7 mi downstream from South Fork American River, and 2.3 mi northeast of Folsom.

DRAINAGE AREA.--1,861 mi².

PERIOD OF RECORD.--February 1955 to current year. Prior to October 1959, published as Folsom Reservoir near Folsom.

REVISED RECORDS.--WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by concrete gravity-type dam with rolled-earth-wing dams, auxiliary dams, and dikes, completed May 14, 1956; storage began Feb. 25, 1955. Total capacity, 1,010,300 acre-ft between elevations 205.5 ft invert of lower tier of river outlets and 466.0 ft gross pool elevation, all of which is available for release. Spillway design flood pool elevation, 475.4 ft, capacity, 1,120,200 acre-ft. Records, including extremes, represent usable contents at 2400 hours. See schematic diagram of South Fork American River basin.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,024,400 acre-ft, June 15, 1963, elevation, 467.23 ft; minimum since storage pool first filled, 140,600 acre-ft, Nov. 20, 21, 1977, elevation, 347.57 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 893,500 acre-ft, May 3, elevation, 455.52 ft; minimum, 587,400 acre-ft, Sept. 30, elevation, 424.50 ft.

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

| | | | |
|-----|---------|-----|-----------|
| 345 | 133,100 | 400 | 393,300 |
| 350 | 148,000 | 420 | 548,300 |
| 360 | 181,900 | 440 | 732,900 |
| 370 | 222,300 | 460 | 942,600 |
| 380 | 270,700 | 480 | 1,176,000 |
| 390 | 327,800 | | |

CONTENTS, IN ACRE-Feet, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|--------|--------|--------|--------|--------|---------|--------|--------|---------|---------|--------|--------|
| 1 | 679700 | 623900 | 629800 | 598700 | 593200 | 632500 | 743300 | 891700 | 877500 | 770700 | 663200 | 603600 |
| 2 | 678300 | 621600 | 626100 | 598700 | 593200 | 633700 | 750100 | 892300 | 875300 | 765000 | 658200 | 600600 |
| 3 | 676700 | 621600 | 623300 | 598700 | 593000 | 633900 | 757900 | 893500 | 872300 | 760600 | 654600 | 598400 |
| 4 | 675700 | 620800 | 619100 | 598800 | 592400 | 634400 | 767700 | 893500 | 870100 | 754800 | 653600 | 596500 |
| 5 | 674800 | 618900 | 614700 | 598700 | 592200 | 635600 | 776900 | 893300 | 867700 | 748600 | 652200 | 595200 |
| 6 | 673500 | 617700 | 610000 | 597900 | 592200 | 637400 | 786200 | 892900 | 865300 | 744400 | 651400 | 595000 |
| 7 | 671800 | 618100 | 606300 | 598500 | 592600 | 640700 | 794300 | 893000 | 863800 | 738800 | 650800 | 594800 |
| 8 | 669700 | 621900 | 601500 | 599300 | 616800 | 643200 | 801800 | 891600 | 862900 | 734700 | 650500 | 595100 |
| 9 | 667100 | 624700 | 600300 | 599800 | 628700 | 644500 | 810700 | 888700 | 861300 | 731600 | 649200 | 593700 |
| 10 | 664600 | 625100 | 601500 | 599000 | 634400 | 647300 | 819700 | 885800 | 860300 | 729600 | 645300 | 594700 |
| 11 | 664500 | 626700 | 601900 | 599000 | 637800 | 651500 | 827900 | 882400 | 859200 | 726900 | 640800 | 596500 |
| 12 | 664000 | 629200 | 601900 | 599500 | 641400 | 655500 | 834900 | 877900 | 856700 | 725000 | 636400 | 597000 |
| 13 | 662800 | 634000 | 601000 | 598900 | 644500 | 660100 | 840900 | 875200 | 853700 | 722000 | 632200 | 597800 |
| 14 | 661200 | 633500 | 601000 | 598100 | 647400 | 662900 | 846600 | 873600 | 850200 | 717900 | 627700 | 598500 |
| 15 | 660000 | 629300 | 601300 | 597900 | 649500 | 665900 | 854700 | 872800 | 847000 | 714100 | 624200 | 598700 |
| 16 | 658800 | 624500 | 601400 | 597800 | 650800 | 668600 | 861300 | 873900 | 843500 | 710000 | 623000 | 598700 |
| 17 | 657800 | 620000 | 601100 | 597300 | 649800 | 671700 | 866700 | 876100 | 839100 | 706400 | 622700 | 599800 |
| 18 | 657200 | 615600 | 601400 | 597400 | 648600 | 674600 | 871000 | 877900 | 833100 | 701900 | 621500 | 600000 |
| 19 | 655900 | 611200 | 601500 | 597600 | 647000 | 678400 | 873300 | 879500 | 826900 | 689100 | 620500 | 600000 |
| 20 | 654500 | 609700 | 600000 | 596900 | 646000 | 681900 | 874900 | 880600 | 820900 | 695300 | 620700 | 600100 |
| 21 | 652800 | 609500 | 598800 | 596200 | 644400 | 686100 | 875200 | 881200 | 816000 | 692800 | 621000 | 600900 |
| 22 | 650300 | 608600 | 599000 | 595300 | 642600 | 690200 | 876200 | 883400 | 810800 | 690700 | 620800 | 601300 |
| 23 | 647600 | 606200 | 598600 | 594700 | 640600 | 693300 | 877100 | 885000 | 805500 | 690400 | 621200 | 600400 |
| 24 | 644400 | 607100 | 597900 | 594600 | 638600 | 696400 | 879700 | 886100 | 799600 | 690600 | 620100 | 598700 |
| 25 | 641400 | 609700 | 598500 | 594400 | 636700 | 700100 | 882500 | 886000 | 795300 | 690900 | 618800 | 597400 |
| 26 | 638900 | 611200 | 599000 | 593900 | 635200 | 704800 | 885100 | 884800 | 791600 | 690000 | 616700 | 595900 |
| 27 | 636100 | 614700 | 599500 | 593100 | 634400 | 713500 | 887100 | 884000 | 788700 | 686800 | 614800 | 593900 |
| 28 | 632900 | 627500 | 599800 | 592300 | 633100 | 722500 | 889400 | 883400 | 786000 | 681900 | 612300 | 591400 |
| 29 | 630100 | 633300 | 600200 | 592600 | --- | 729200 | 890700 | 883000 | 782600 | 676400 | 610200 | 589600 |
| 30 | 627800 | 633100 | 600200 | 592500 | --- | 734500 | 891700 | 882300 | 776500 | 672700 | 608000 | 587400 |
| 31 | 625600 | --- | 599700 | 592200 | --- | 738600 | --- | 879800 | --- | 668700 | 606100 | --- |
| MAX | 679700 | 634000 | 629800 | 599800 | 650800 | 738600 | 891700 | 893500 | 877500 | 770700 | 663200 | 603600 |
| MIN | 625600 | 606200 | 597900 | 592200 | 592200 | 632500 | 743300 | 872800 | 776500 | 668700 | 606100 | 587400 |
| a | 428.73 | 429.55 | 425.87 | 425.04 | 429.55 | 440.58 | 455.35 | 454.25 | 444.36 | 433.36 | 426.58 | 424.50 |
| b | +55400 | +7500 | -33400 | -7500 | +40900 | +153100 | +11900 | -11900 | -103300 | -107800 | -62600 | -18700 |
| c | 2020 | 540 | 430 | 200 | 1400 | 1690 | 4480 | 5920 | 6920 | 6890 | 5140 | 3250 |

CAL YR 1984 b -77500

WTR YR 1985 b -93600

a Elevation, in feet NGVD, at end of month
b Change in contents, in acre-feet.
c Evaporation, in acre-feet.

SACRAMENTO RIVER BASIN

11446500 AMERICAN RIVER AT FAIR OAKS, CA

LOCATION.--Lat 38°38'08", long 121°13'36", in SE 1/4 NE 1/4 sec.17, T.9 N., R.7 E., Sacramento County, Hydrologic Unit 18020111, on right bank 2,100 ft downstream from Nimbus Dam, 2.4 mi east of Fair Oaks, 8.1 mi downstream from South Fork, and at mile 22.2.

DRAINAGE AREA.--1,888 mi².

PERIOD OF RECORD.--November 1904 to current year. Monthly discharge only for some periods, published in WSP 1315-A.

REVISED RECORDS.--WSP 1181: 1928(M). WSP 1515: 1907(M), 1910, 1931(M), 1943(M). WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 71.53 ft above National Geodetic Vertical Datum of 1929. See WSP 2131 for history of changes prior to July 15, 1970.

REMARKS.--Records good. Flow regulated by Folsom Lake beginning Feb. 25, 1955 (station 11446200). Some minor regulation of high flows by temporary pondage during period of construction January 1953 to February 1955. Diurnal fluctuations from Folsom powerplant re-regulated by Nimbus Reservoir, capacity, 2,800 acre-ft between normal operating elevations, 118.5 ft and 125.0 ft and by Nimbus powerplant. Many diversions above station for irrigation, municipal, and domestic water supply. Diversions of San Juan Suburban Water District, city of Folsom, city of Roseville, and State of California are made at Folsom Dam. Diversion to Folsom South Canal from Nimbus Reservoir started in June 1973. Some inflow from Bear and Yuba River basins.

AVERAGE DISCHARGE.--50 years (water years 1905-55, prior to regulation by Folsom Lake), 3,741 ft³/s, 2,708,000 acre-feet/yr; 30 years (water years 1956-85, unadjusted for storage or diversion), 3,953 ft³/s, 2,864,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 180,000 ft³/s, Nov. 21, 1950, gage height, 31.85 ft, site and datum then in use; minimum, 3.6 ft³/s, Aug. 16, 1924. Maximum discharge since construction of Folsom Dam in 1953, 115,000 ft³/s, Dec. 23-25, 1964, gage height, 27.65 ft, present datum; minimum, 86 ft³/s, Apr. 7, 1955.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 5,200 ft³/s, Dec. 7, gage height, 7.57 ft; minimum daily, 1230 ft³/s, Apr. 4-8.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|--------|---------|--------|--------|--------|-------|--------|--------|--------|---------|--------|--------|
| 1 | 2200 | 1960 | 5110 | 1770 | 1770 | 2810 | 1260 | 3120 | 2710 | 3920 | 3930 | 2540 |
| 2 | 2200 | 1960 | 5120 | 1770 | 1770 | 1700 | 1260 | 3260 | 2710 | 3990 | 3910 | 2580 |
| 3 | 2200 | 1960 | 5130 | 1770 | 1760 | 1690 | 1270 | 3260 | 2710 | 3970 | 3320 | 2530 |
| 4 | 2200 | 1960 | 5130 | 1780 | 1760 | 1690 | 1230 | 3260 | 2720 | 3940 | 2090 | 2530 |
| 5 | 2210 | 1960 | 5140 | 1750 | 1760 | 1730 | 1230 | 3270 | 2720 | 3900 | 1980 | 2440 |
| 6 | 2200 | 1950 | 5150 | 1760 | 1760 | 1750 | 1230 | 3290 | 2720 | 3430 | 1470 | 1720 |
| 7 | 2200 | 1710 | 5150 | 1790 | 1760 | 1750 | 1230 | 3480 | 2150 | 3400 | 1490 | 1760 |
| 8 | 2190 | 1710 | 5120 | 1730 | 1770 | 1750 | 1230 | 3780 | 2030 | 3320 | 1460 | 1750 |
| 9 | 2200 | 1710 | 3390 | 1730 | 1770 | 1740 | 1240 | 3780 | 2040 | 2970 | 1850 | 2440 |
| 10 | 2150 | 1710 | 3010 | 1750 | 1760 | 1740 | 1250 | 3770 | 2030 | 2660 | 3410 | 1710 |
| 11 | 1530 | 1710 | 3000 | 1740 | 1760 | 1800 | 1370 | 3780 | 2030 | 2440 | 3450 | 1690 |
| 12 | 1520 | 1710 | 3000 | 1740 | 1750 | 1730 | 1450 | 3770 | 2850 | 2530 | 3470 | 1680 |
| 13 | 1720 | 2380 | 3030 | 1740 | 1740 | 1260 | 1950 | 3780 | 3110 | 3210 | 3530 | 1670 |
| 14 | 1780 | 5070 | 3040 | 1740 | 1740 | 1260 | 1960 | 2940 | 3110 | 3210 | 3420 | 1660 |
| 15 | 1740 | 5060 | 3020 | 1740 | 1730 | 1260 | 1970 | 2720 | 3100 | 3360 | 2690 | 1670 |
| 16 | 1720 | 5070 | 3030 | 1750 | 1880 | 1260 | 2570 | 1690 | 3090 | 3450 | 2030 | 1670 |
| 17 | 1740 | 5060 | 3020 | 1750 | 2550 | 1260 | 2700 | 1530 | 3540 | 3440 | 2060 | 1390 |
| 18 | 1730 | 5050 | 3030 | 1750 | 2600 | 1260 | 2690 | 1520 | 4110 | 3480 | 2000 | 1670 |
| 19 | 1970 | 5070 | 3030 | 1760 | 3000 | 1260 | 2700 | 1560 | 4080 | 3220 | 1510 | 1650 |
| 20 | 1960 | 3410 | 3020 | 1750 | 3020 | 1270 | 2600 | 2010 | 3980 | 2850 | 1500 | 1660 |
| 21 | 1950 | 3130 | 2950 | 1750 | 3020 | 1270 | 2670 | 1800 | 3420 | 2530 | 1520 | 1700 |
| 22 | 2240 | 3110 | 2040 | 1770 | 3020 | 1260 | 2690 | 1510 | 3370 | 2280 | 1530 | 1700 |
| 23 | 2250 | 3110 | 2030 | 1760 | 3030 | 1250 | 2640 | 1510 | 3430 | 1510 | 1540 | 1690 |
| 24 | 2250 | 3120 | 1990 | 1770 | 3020 | 1250 | 1890 | 1840 | 3440 | 1490 | 2120 | 2440 |
| 25 | 2250 | 3120 | 1760 | 1760 | 3020 | 1250 | 1530 | 2510 | 2940 | 1490 | 2180 | 2500 |
| 26 | 2250 | 2650 | 1760 | 1760 | 3020 | 1250 | 1530 | 2530 | 2880 | 2040 | 2270 | 2490 |
| 27 | 2250 | 2590 | 1760 | 1760 | 3010 | 1280 | 1550 | 2460 | 2460 | 2990 | 2510 | 2500 |
| 28 | 2240 | 2600 | 1760 | 1760 | 3100 | 1260 | 1580 | 2010 | 2460 | 3470 | 2590 | 2510 |
| 29 | 2270 | 2930 | 1760 | 1760 | --- | 1270 | 2030 | 2010 | 2930 | 3840 | 2560 | 2500 |
| 30 | 2220 | 5130 | 1760 | 1760 | --- | 1270 | 2500 | 2030 | 3920 | 3200 | 2530 | 2460 |
| 31 | 1960 | --- | 1760 | 1770 | --- | 1260 | --- | 2690 | --- | 3230 | 2530 | --- |
| TOTAL | 63490 | 89670 | 99000 | 54440 | 63650 | 45840 | 55000 | 82470 | 88790 | 94760 | 74450 | 60900 |
| MEAN | 2048 | 2989 | 3194 | 1756 | 2273 | 1479 | 1833 | 2660 | 2960 | 3057 | 2402 | 2030 |
| MAX | 2270 | 5130 | 5150 | 1790 | 3100 | 2810 | 2700 | 3780 | 4110 | 3990 | 3930 | 2580 |
| MIN | 1520 | 1710 | 1760 | 1730 | 1730 | 1250 | 1230 | 1510 | 2030 | 1490 | 1460 | 1390 |
| AC-FT | 125900 | 177900 | 196400 | 108000 | 126200 | 90920 | 109100 | 163600 | 176100 | 188000 | 147700 | 120800 |
| CAL YR 1984 | TOTAL | 1426280 | MEAN | 3897 | MAX | 19600 | MIN | 930 | AC-FT | 2829000 | | |
| WTR YR 1985 | TOTAL | 872460 | MEAN | 2390 | MAX | 5150 | MIN | 1230 | AC-FT | 1731000 | | |

11447650 SACRAMENTO RIVER AT FREEPORT, CA
(National stream-quality accounting network station)

LOCATION.--Lat 38°27'15", long 121°29'54", T.7 N., R.4 E., Sacramento County, Hydrologic Unit 18020109, on left bank 630 ft downstream from drawbridge at Freeport, and 11 mi south of Sacramento.

DRAINAGE AREA.--Indeterminate.

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--January 1904 to July 1905 (gage heights only), June to November 1921, October 1948 to current year. Prior to October 1979, published as Sacramento River at Sacramento (station 11447500). Gage heights collected in the vicinity of "at Sacramento" gage November 1879 to May 1888, December 1890 to September 1963 are contained in reports of National Weather Service.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. Prior to Nov. 16, 1956, nonrecording gage and water-stage recorder at various sites in vicinity of I Street Bridge in Sacramento 13 mi upstream at datum of low-water mark of Oct. 23, 1856, 0.12 ft NGVD. Nov. 17, 1956, to Sept. 30, 1979, at site 1,000 ft upstream from I Street Bridge.

REMARKS.--No estimated daily discharges. Records good. Natural flow of stream affected by storage reservoirs, power development, diversions for irrigation, return flow from irrigated areas, and tide. Flood flows bypass station through Yolo Bypass (stations 11426000, 11453000). Flows are considered equivalent to those at I Street Bridge.

AVERAGE DISCHARGE.--37 years (water years 1949-85), 24,950 ft³/s, 17,815,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD (since 1949).--Maximum discharge, 104,000 ft³/s, Nov. 21, 1950, elevation, 30.14 ft site and datum then in use; minimum daily, 3,970 ft³/s, Oct. 15, 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum discharge known prior to Nov. 21, 1950, 103,000 ft³/s, Jan. 17, 1909, elevation, 29.6 ft site then in use at present datum, from reports of California Department of Water Resources.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 42,000 ft³/s, Nov. 30, elevation, 8.76 ft; maximum elevation, 8.94 ft Nov. 27 (tidal affect); minimum daily, 9,170 ft³/s, Apr. 28.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|--------|---------|---------|---------|---------|--------|--------|--------|--------|----------|--------|--------|
| 1 | 15800 | 13200 | 40500 | 20500 | 14300 | 15100 | 15700 | 10200 | 16200 | 15100 | 15600 | 12200 |
| 2 | 15700 | 12800 | 38300 | 20100 | 14300 | 14900 | 14800 | 10700 | 16200 | 15500 | 15800 | 12700 |
| 3 | 15200 | 14000 | 36900 | 19900 | 14600 | 13600 | 14200 | 11600 | 15600 | 15900 | 15300 | 13000 |
| 4 | 14500 | 13900 | 36400 | 19400 | 14700 | 13000 | 14200 | 12200 | 15700 | 16600 | 14100 | 12500 |
| 5 | 14000 | 14300 | 38100 | 18500 | 14500 | 13300 | 13900 | 12000 | 15100 | 16600 | 13700 | 12900 |
| 6 | 13800 | 14700 | 39100 | 17300 | 14900 | 13200 | 13300 | 12000 | 14900 | 15800 | 13400 | 12100 |
| 7 | 14300 | 14600 | 39000 | 17100 | 14500 | 14400 | 13300 | 12300 | 13500 | 15700 | 12700 | 12300 |
| 8 | 14100 | 14800 | 38200 | 17400 | 16900 | 16300 | 12900 | 12600 | 12600 | 15700 | 12800 | 12600 |
| 9 | 14400 | 15800 | 36500 | 17700 | 28300 | 16800 | 12700 | 13100 | 11700 | 15300 | 12600 | 13600 |
| 10 | 14000 | 16100 | 35100 | 18200 | 33500 | 17200 | 12800 | 13500 | 12100 | 15000 | 13600 | 14600 |
| 11 | 14100 | 17000 | 34900 | 18300 | 30200 | 17400 | 12400 | 14000 | 12300 | 14600 | 14600 | 15300 |
| 12 | 13100 | 17600 | 36300 | 18100 | 25400 | 18800 | 11700 | 14100 | 12400 | 14500 | 14300 | 16000 |
| 13 | 13300 | 22500 | 38400 | 17700 | 22200 | 18100 | 11600 | 14200 | 13400 | 15100 | 14600 | 15000 |
| 14 | 13800 | 29500 | 38400 | 17700 | 19500 | 16600 | 11300 | 13800 | 12600 | 15500 | 14400 | 14100 |
| 15 | 13600 | 34000 | 37200 | 17400 | 17500 | 15100 | 11000 | 13300 | 12000 | 16300 | 13700 | 13500 |
| 16 | 12500 | 34800 | 36700 | 17300 | 15900 | 13900 | 12700 | 12900 | 11400 | 16500 | 13100 | 12600 |
| 17 | 13300 | 33700 | 35800 | 16800 | 15700 | 13000 | 13900 | 15100 | 11600 | 17000 | 13400 | 11900 |
| 18 | 12600 | 33900 | 34700 | 16300 | 15800 | 12500 | 13300 | 15000 | 12700 | 17400 | 13500 | 12300 |
| 19 | 12500 | 34500 | 33200 | 16400 | 15600 | 12600 | 13800 | 14600 | 12500 | 17500 | 13600 | 11900 |
| 20 | 12600 | 33700 | 32100 | 16000 | 16000 | 12500 | 13600 | 13200 | 13100 | 17600 | 13500 | 11100 |
| 21 | 12400 | 32400 | 31100 | 15700 | 16500 | 12100 | 13100 | 13200 | 12700 | 17100 | 12900 | 10700 |
| 22 | 12400 | 32000 | 29400 | 15500 | 17300 | 11600 | 13300 | 12900 | 12900 | 17000 | 12600 | 10800 |
| 23 | 12400 | 32200 | 27800 | 15100 | 17600 | 11300 | 13200 | 12800 | 13300 | 17100 | 12700 | 10600 |
| 24 | 11900 | 31300 | 26700 | 14900 | 17500 | 11300 | 12100 | 12900 | 13400 | 17200 | 12700 | 10500 |
| 25 | 11500 | 33400 | 25000 | 14800 | 17200 | 11500 | 11100 | 13800 | 14200 | 16200 | 13200 | 9990 |
| 26 | 11100 | 37200 | 23900 | 14500 | 17300 | 10800 | 10500 | 14600 | 13500 | 16200 | 13100 | 9380 |
| 27 | 11800 | 36900 | 23300 | 14600 | 17200 | 12600 | 9800 | 14700 | 12700 | 15900 | 12500 | 9790 |
| 28 | 11900 | 37800 | 22700 | 14500 | 16700 | 14900 | 9170 | 14900 | 12100 | 15200 | 12300 | 10500 |
| 29 | 12200 | 38600 | 21900 | 14400 | --- | 16300 | 9610 | 15200 | 12500 | 16000 | 12100 | 10400 |
| 30 | 12600 | 41200 | 21100 | 14300 | --- | 16600 | 9880 | 15400 | 14400 | 15000 | 12100 | 10900 |
| 31 | 12900 | --- | 20600 | 14100 | --- | 16300 | --- | 15600 | --- | 15000 | 12400 | --- |
| TOTAL | 410300 | 788400 | 1009300 | 520500 | 511600 | 443600 | 374860 | 416400 | 399300 | 497100 | 416900 | 365760 |
| MEAN | 13240 | 26280 | 32560 | 16790 | 18270 | 14310 | 12500 | 13430 | 13310 | 16040 | 13450 | 12190 |
| MAX | 15800 | 41200 | 40500 | 20500 | 33500 | 18800 | 15700 | 15600 | 16200 | 17600 | 15800 | 16000 |
| MIN | 11100 | 12800 | 20600 | 14100 | 14300 | 10800 | 9170 | 10200 | 11400 | 14500 | 12100 | 9380 |
| AC-FT | 813800 | 1564000 | 2002000 | 1032000 | 1015000 | 879900 | 743500 | 825900 | 792000 | 986000 | 826900 | 725500 |
| CAL YR 1984 | TOTAL | 9130900 | MEAN | 24950 | MAX | 80000 | MIN | 10200 | AC-FT | 18110000 | | |
| WTR YR 1985 | TOTAL | 6154020 | MEAN | 16860 | MAX | 41200 | MIN | 9170 | AC-FT | 12210000 | | |

11447650 SACRAMENTO RIVER AT FREEPORT, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1959 to current year.

CHEMICAL ANALYSES: Water years 1959 to current year.

BIOLOGICAL DATA: Water years 1974-81.

WATER TEMPERATURES: Water years 1960 to current year.

SEDIMENT RECORDS: Water years 1957 to current year (prior to water year 1980 published as 11447500 Sacramento River at Sacramento).

TURBIDITY: Water years 1972-82. Prior to 1980 published as 11447500 Sacramento River at Sacramento.

PERIOD OF DAILY RECORD.--

CHEMICAL ANALYSES: June 1960 to June 1963.

SPECIFIC CONDUCTANCE: June 1960 to June 1963, February 1974 to July 1975.

WATER TEMPERATURES: June 1960 to current year.

SEDIMENT RECORDS: October 1956 to current year.

INSTRUMENTATION.--Temperature recorder since June 1960.

REMARKS.--Temperature recorder located on right bank 1.9 mi northwest of Freeport, and 7.4 mi southwest of State Capitol Building in Sacramento. Records of sediment discharge from 1957 to 1979 were obtained at Sacramento and are considered equivalent. Period of missing temperature record due to recorder malfunction.

EXTREMES FOR PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: Maximum recorded, 27.0°C, Sept. 8, 1977; minimum recorded, 4.5°C, Dec. 12-15, 1972.

SEDIMENT CONCENTRATION: Maximum daily mean, 1,960 mg/L, Dec. 24, 1964; minimum daily mean, 8 mg/L, Dec. 29, 30, 1976, several days during May and June 1981, and June 16, 1984.

SEDIMENT LOAD: Maximum daily, 525,000 tons, Dec. 24, 1964; minimum daily, 151 tons, Oct. 21, 22, 1977.

EXTREMES FOR CURRENT YEAR.--

WATER TEMPERATURES: Maximum recorded, 24.0°C, June 16; minimum recorded, 8.5°C, Feb. 9-13.

SEDIMENT CONCENTRATION: Maximum daily mean, 250 mg/L, Feb. 10; minimum daily mean, 9 mg/L, Jan. 21, Feb. 6, and May 4, 5.

SEDIMENT LOAD: Maximum daily, 22,600 tons, Feb. 10; minimum daily, 292 tons, May 5.

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | TIME | STREAM- FLOW, INSTAN- TANEOUS (CFS) | SPE- CIFIC CON- DUC- TANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | BARO- METRIC PRES- SURE (MM OF HG) | TUR- BID- ITY (NTU) | OXYGEN, DIS- SOLVED (MG/L) | OXYGEN, (PER- CENT SATUR- ATION) | COLI- FORM, FECAL, 0.7 UM-MF (COLS./ 100 ML) | STREP- TOCOCCI KF AGAR (COLS. PER 100 ML) | HARD- NESS (MG/L AS CACO3) |
|--------------|------|---|---|--------------------------------|-----------------------------|--|------------------------------|-------------------------------------|--|--|--|--|
| DEC 19... | 1105 | 33500 | 137 | 8.1 | 8.0 | 765 | 12 | 11.8 | 99 | 320 | 110 | 58 |
| MAR 20... | 1000 | 14500 | 179 | 7.3 | 13.5 | 770 | 6.0 | 10.4 | 99 | K5 | K4 | 71 |
| JUN 12... | 1300 | 12400 | 154 | 7.7 | 23.5 | 760 | 8.2 | 9.6 | 113 | K16 | K6 | 57 |

| DATE | HARD- NESS, NONCAR- BONATE (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | PERCENT SODIUM | SODIUM AD- SORP- TION RATIO | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | BICAR- BONATE IT-FLD (MG/L AS HCO3) | LINITY, CARBON- ATE IT-FLD (MG/L AS CACO3) | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) |
|--------------|---|--|--|--|-------------------|---|---|--|--|---|---|---|
| DEC 19... | 0 | 13 | 6.2 | 7.5 | 22 | .4 | 1.2 | 70 | 57 | 60 | 6.1 | 4.4 |
| MAR 20... | 2 | 15 | 8.1 | 11 | 25 | .6 | 1.3 | 84 | 68 | 69 | 12 | 8.4 |
| JUN 12... | 0 | 12 | 6.5 | 11 | 29 | .7 | 1.2 | 76 | 62 | 62 | 9.6 | 6.0 |

| DATE | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | SOLIDS, DIS- SOLVED (TONS PER AC-FT) | SOLIDS, DIS- SOLVED (TONS PER DAY) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN,AM- MONIA + ORGANIC TOTAL (MG/L AS N) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | PHOS- PHORUS, DIS- SOLVED (MG/L AS P) | PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) |
|--------------|--|---|--|---|---|---|---|---|--|--|--|--|
| DEC 19... | <.10 | 21 | 87 | 94 | .12 | 7870 | .15 | <.010 | .50 | .060 | .030 | .020 |
| MAR 20... | <.10 | 20 | 115 | 120 | .16 | 4500 | .15 | .030 | .40 | .060 | .020 | .020 |
| JUN 12... | <.10 | 18 | 87 | 100 | .12 | 2910 | <.10 | .020 | .40 | .090 | .060 | .050 |

See footnotes at end of table.

11447650 SACRAMENTO RIVER AT FREEPORT, CA--Continued

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | TIME | ALUM- INUM, DIS- SOLVED (UG/L AS AL) | ARSENIC DIS- SOLVED (UG/L AS AS) | BARIUM, DIS- SOLVED (UG/L AS BA) | BERYL- LIUM, DIS- SOLVED (UG/L AS BE) | CADMIUM DIS- SOLVED (UG/L AS CD) | CHRO- MIUM, DIS- SOLVED (UG/L AS CR) | COBALT, DIS- SOLVED (UG/L AS CO) | COPPER, DIS- SOLVED (UG/L AS CU) | IRON, DIS- SOLVED (UG/L AS FE) | LEAD, DIS- SOLVED (UG/L AS PB) |
|--------------|------|---|--|--|--|--|---|--|--|--|--|
| DEC 19... | 1105 | 30 | <1 | 28 | .8 | 1 | 6 | <3 | 2 | 34 | 4 |
| MAR 20... | 1000 | 10 | 1 | 30 | <.5 | <1 | <1 | <3 | 4 | 28 | -- |
| JUN 12... | 1300 | 10 | 1 | 32 | <.5 | <1 | <1 | <3 | 3 | 26 | <1 |

| DATE | LITHIUM DIS- SOLVED (UG/L AS LI) | MANGA- NESE, DIS- SOLVED (UG/L AS MN) | MERCURY DIS- SOLVED (UG/L AS HG) | MOLYB- DENUM, DIS- SOLVED (UG/L AS MO) | NICKEL, DIS- SOLVED (UG/L AS NI) | SELE- NIUM, DIS- SOLVED (UG/L AS SE) | SILVER, DIS- SOLVED (UG/L AS AG) | STRON- TIUM, DIS- SOLVED (UG/L AS SR) | VANA- DIUM, DIS- SOLVED (UG/L AS V) | ZINC, DIS- SOLVED (UG/L AS ZN) |
|--------------|--|--|--|---|--|---|--|--|--|--|
| DEC 19... | <4 | 5 | <.1 | <10 | <1 | <1 | <1 | 89 | <6 | 8 |
| MAR 20... | 7 | 9 | <.1 | <10 | 1 | <1 | <1 | 95 | <6 | 13 |
| JUN 12... | <4 | 3 | <.1 | <10 | <1 | <1 | 1 | 91 | <6 | <3 |

K Results based on colony count outside the acceptable range (non-ideal colony count).
 < Actual value is known to be less than the value shown.

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
|-------|---------|-----|----------|-----|----------|-----|---------|-----|----------|------|-------|------|
| DAY | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN | MAX | MIN |
| 1 | | | | | | | | | --- | --- | 12.5 | 12.0 |
| 2 | | | | | | | | | --- | --- | 12.0 | 11.5 |
| 3 | | | | | | | | | --- | --- | 11.5 | 11.0 |
| 4 | | | | | | | | | --- | --- | 11.0 | 11.0 |
| 5 | | | | | | | | | --- | --- | 11.0 | 10.0 |
| 6 | | | | | | | | | --- | --- | 10.0 | 9.5 |
| 7 | | | | | | | | | --- | --- | 9.5 | 9.5 |
| 8 | | | | | | | | | --- | --- | 10.0 | 9.5 |
| 9 | | | | | | | | | 8.5 | 8.5 | 10.0 | 9.5 |
| 10 | | | | | | | | | 8.5 | 8.5 | 10.5 | 10.0 |
| 11 | | | | | | | | | 8.5 | 8.5 | 10.5 | 10.5 |
| 12 | | | | | | | | | 8.5 | 8.5 | 11.0 | 10.5 |
| 13 | | | | | | | | | 9.5 | 8.5 | 11.5 | 10.5 |
| 14 | | | | | | | | | 10.0 | 9.5 | 12.5 | 11.5 |
| 15 | | | | | | | | | 10.5 | 10.0 | 13.0 | 12.5 |
| 16 | | | | | | | | | 11.0 | 10.5 | 13.5 | 13.0 |
| 17 | | | | | | | | | 11.5 | 11.0 | 13.5 | 13.0 |
| 18 | | | | | | | | | 12.0 | 11.5 | 13.5 | 13.0 |
| 19 | | | | | | | | | 12.0 | 11.5 | 13.5 | 13.5 |
| 20 | | | | | | | | | 12.0 | 11.5 | 14.0 | 13.5 |
| 21 | | | | | | | | | 11.5 | 11.0 | 13.5 | 13.5 |
| 22 | | | | | | | | | 11.5 | 11.0 | 14.0 | 13.5 |
| 23 | | | | | | | | | 11.5 | 11.0 | 14.0 | 13.5 |
| 24 | | | | | | | | | 12.0 | 11.5 | 14.0 | 13.5 |
| 25 | | | | | | | | | 12.0 | 11.5 | 14.0 | 13.0 |
| 26 | | | | | | | | | 12.5 | 12.0 | 13.0 | 12.0 |
| 27 | | | | | | | | | 12.5 | 12.0 | 12.0 | 11.5 |
| 28 | | | | | | | | | 12.5 | 12.0 | 11.5 | 11.0 |
| 29 | | | | | | | | | --- | --- | 11.5 | 11.0 |
| 30 | | | | | | | | | --- | --- | 11.5 | 11.0 |
| 31 | | | | | | | | | --- | --- | 13.0 | 11.5 |
| MONTH | | | | | | | | | --- | --- | 14.0 | 9.5 |

SACRAMENTO RIVER BASIN

11447650 SACRAMENTO RIVER AT FREEPORT, CA--Continued

TEMPERATURE (DEG. C) OF WATER, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

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

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DAY | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
|-------|-----------------------------------|------------------|-----------------------------------|------------------|-----------------------------------|------------------|-----------------------------------|------------------|-----------------------------------|------------------|-----------------------------------|------------------|
| | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) |
| 1 | 24 | 1020 | 14 | 499 | 158 | 17300 | 28 | 1550 | 15 | 579 | 22 | 897 |
| 2 | 23 | 975 | 12 | 415 | 123 | 12700 | 20 | 1090 | 14 | 541 | 24 | 966 |
| 3 | 21 | 862 | 12 | 454 | 88 | 8770 | 21 | 1130 | 13 | 512 | 18 | 661 |
| 4 | 15 | 587 | 13 | 488 | 88 | 9050 | 14 | 733 | 13 | 516 | 13 | 456 |
| 5 | 21 | 794 | 14 | 541 | 89 | 9160 | 13 | 649 | 11 | 431 | 11 | 395 |
| 6 | 20 | 745 | 15 | 595 | 90 | 9500 | 13 | 607 | 9 | 362 | 10 | 356 |
| 7 | 19 | 734 | 16 | 631 | 87 | 9160 | 12 | 554 | 15 | 587 | 10 | 389 |
| 8 | 18 | 685 | 15 | 599 | 74 | 7630 | 12 | 564 | 22 | 1000 | 17 | 748 |
| 9 | 17 | 661 | 13 | 555 | 60 | 5910 | 20 | 956 | 190 | 14500 | 25 | 1130 |
| 10 | 15 | 567 | 14 | 609 | 75 | 7110 | 15 | 737 | 250 | 22600 | 25 | 1160 |
| 11 | 18 | 685 | 20 | 918 | 90 | 8480 | 18 | 889 | 160 | 13000 | 26 | 1220 |
| 12 | 19 | 672 | 23 | 1090 | 105 | 10300 | 21 | 1030 | 77 | 5280 | 46 | 2330 |
| 13 | 20 | 718 | 55 | 3340 | 119 | 12300 | 20 | 956 | 57 | 3420 | 37 | 1810 |
| 14 | 21 | 782 | 119 | 9480 | 156 | 16200 | 19 | 908 | 39 | 2050 | 28 | 1250 |
| 15 | 21 | 771 | 180 | 16500 | 136 | 13700 | 18 | 846 | 20 | 945 | 24 | 978 |
| 16 | 16 | 540 | 200 | 18800 | 116 | 11500 | 17 | 794 | 19 | 816 | 20 | 751 |
| 17 | 17 | 610 | 175 | 15900 | 96 | 9280 | 15 | 680 | 19 | 805 | 22 | 772 |
| 18 | 18 | 612 | 92 | 8420 | 77 | 7210 | 12 | 528 | 16 | 683 | 25 | 844 |
| 19 | 19 | 641 | 88 | 8200 | 58 | 5200 | 11 | 487 | 12 | 505 | 18 | 612 |
| 20 | 19 | 646 | 84 | 7640 | 50 | 4330 | 10 | 432 | 17 | 734 | 17 | 574 |
| 21 | 18 | 603 | 80 | 7000 | 44 | 3690 | 9 | 382 | 19 | 846 | 16 | 523 |
| 22 | 12 | 402 | 80 | 6910 | 46 | 3650 | 10 | 419 | 22 | 1030 | 19 | 595 |
| 23 | 16 | 536 | 80 | 6960 | 42 | 3150 | 10 | 408 | 24 | 1140 | 22 | 671 |
| 24 | 16 | 514 | 68 | 5750 | 51 | 3680 | 10 | 402 | 33 | 1560 | 26 | 793 |
| 25 | 15 | 466 | 85 | 7670 | 47 | 3170 | 16 | 639 | 28 | 1300 | 29 | 900 |
| 26 | 16 | 480 | 132 | 13300 | 43 | 2770 | 15 | 587 | 24 | 1120 | 31 | 904 |
| 27 | 17 | 542 | 166 | 16500 | 41 | 2580 | 19 | 749 | 24 | 1110 | 34 | 1160 |
| 28 | 17 | 546 | 175 | 17900 | 36 | 2210 | 16 | 626 | 20 | 902 | 32 | 1290 |
| 29 | 18 | 593 | 184 | 19200 | 36 | 2130 | 13 | 505 | --- | --- | 44 | 1940 |
| 30 | 15 | 510 | 193 | 21500 | 35 | 1990 | 16 | 618 | --- | --- | 45 | 2020 |
| 31 | 16 | 557 | --- | --- | 35 | 1950 | 15 | 571 | --- | --- | 38 | 1670 |
| TOTAL | --- | 20056 | --- | 218364 | --- | 225760 | --- | 22026 | --- | 78874 | --- | 30765 |

11447650 SACRAMENTO RIVER AT FREEPORT, CA--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DAY | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) |
|-----------------------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 25 | 1060 | 16 | 441 | 35 | 1530 | 22 | 897 | 24 | 1010 | 40 | 1320 |
| 2 | 21 | 839 | 15 | 433 | 30 | 1310 | 26 | 1090 | 27 | 1150 | 13 | 446 |
| 3 | 20 | 767 | 14 | 438 | 26 | 1100 | 30 | 1290 | 23 | 950 | 14 | 491 |
| 4 | 19 | 728 | 9 | 296 | 25 | 1060 | 33 | 1480 | 22 | 838 | 15 | 506 |
| 5 | 19 | 713 | 9 | 292 | 24 | 978 | 33 | 1480 | 21 | 777 | 16 | 557 |
| 6 | 21 | 754 | 22 | 713 | 31 | 1250 | 33 | 1410 | 21 | 760 | 13 | 425 |
| 7 | 23 | 826 | 24 | 797 | 24 | 875 | 30 | 1270 | 21 | 720 | 18 | 598 |
| 8 | 25 | 871 | 26 | 885 | 26 | 885 | 29 | 1230 | 22 | 760 | 29 | 987 |
| 9 | 26 | 892 | 30 | 1060 | 27 | 853 | 34 | 1400 | 21 | 714 | 40 | 1470 |
| 10 | 26 | 899 | 32 | 1170 | 28 | 915 | 38 | 1540 | 21 | 771 | 50 | 1970 |
| 11 | 25 | 837 | 33 | 1250 | 21 | 697 | 33 | 1300 | 21 | 828 | 39 | 1610 |
| 12 | 25 | 790 | 34 | 1290 | 26 | 870 | 29 | 1140 | 21 | 811 | 66 | 2850 |
| 13 | 24 | 752 | 32 | 1230 | 21 | 760 | 29 | 1180 | 23 | 907 | 34 | 1380 |
| 14 | 24 | 732 | 28 | 1040 | 15 | 510 | 28 | 1170 | 23 | 894 | 30 | 1140 |
| 15 | 21 | 624 | 30 | 1080 | 15 | 486 | 28 | 1230 | 16 | 592 | 27 | 984 |
| 16 | 22 | 754 | 25 | 871 | 15 | 462 | 31 | 1380 | 27 | 955 | 20 | 680 |
| 17 | 20 | 751 | 31 | 1260 | 16 | 501 | 39 | 1790 | 25 | 904 | 22 | 707 |
| 18 | 18 | 646 | 31 | 1260 | 16 | 549 | 48 | 2260 | 22 | 802 | 37 | 1230 |
| 19 | 20 | 745 | 32 | 1260 | 15 | 506 | 30 | 1420 | 18 | 661 | 35 | 1120 |
| 20 | 24 | 881 | 33 | 1180 | 14 | 495 | 42 | 2000 | 18 | 656 | 30 | 899 |
| 21 | 27 | 955 | 26 | 927 | 20 | 686 | 37 | 1710 | 19 | 662 | 30 | 867 |
| 22 | 30 | 1080 | 20 | 697 | 20 | 697 | 49 | 2250 | 21 | 714 | 29 | 846 |
| 23 | 30 | 1070 | 29 | 1000 | 21 | 754 | 43 | 1990 | 24 | 823 | 29 | 830 |
| 24 | 30 | 980 | 33 | 1150 | 21 | 760 | 36 | 1670 | 23 | 789 | 17 | 482 |
| 25 | 30 | 899 | 38 | 1420 | 24 | 920 | 29 | 1270 | 21 | 748 | 15 | 405 |
| 26 | 28 | 794 | 42 | 1660 | 28 | 1020 | 35 | 1530 | 24 | 849 | 14 | 355 |
| 27 | 35 | 926 | 38 | 1510 | 24 | 823 | 30 | 1290 | 19 | 641 | 14 | 370 |
| 28 | 28 | 693 | 33 | 1330 | 18 | 588 | 31 | 1270 | 18 | 598 | 15 | 425 |
| 29 | 19 | 493 | 32 | 1310 | 21 | 709 | 32 | 1380 | 18 | 588 | 16 | 449 |
| 30 | 17 | 453 | 42 | 1750 | 22 | 855 | 26 | 1050 | 18 | 588 | 17 | 500 |
| 31 | --- | --- | 40 | 1680 | --- | --- | 19 | 770 | 21 | 703 | --- | --- |
| TOTAL | --- | 24204 | --- | 32680 | --- | 24404 | --- | 44137 | --- | 24163 | --- | 26899 |
| TOTAL LOAD FOR YEAR: 772332 TONS. | | | | | | | | | | | | |

PARTICLE-SIZE DISTRIBUTION OF SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
(NOT PREVIOUSLY PUBLISHED)

| DATE | TIME | STREAM- FLOW, INSTAN- TANEOUS (CFS) | TEMPER- ATURE (DEG C) | SEDI- MENT, SUS- PENDED (MG/L) | SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) | SED. SUSP. SIEVE DIAM. FINER THAN .062 MM |
|-----------|------|---|-----------------------------|--|--|---|
| FEB 09... | 1035 | 19500 | 10.5 | 30 | 1580 | 93 |
| MAR 06... | 1030 | 27700 | 11.0 | 23 | 1720 | 87 |
| JUN 13... | 1050 | 17900 | 19.0 | 20 | 967 | 94 |
| AUG 30... | 1215 | 18600 | 22.0 | 32 | 1610 | 94 |

SUSPENDED SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | TIME | STREAM- FLOW, INSTAN- TANEOUS (CFS) | TEMPER- ATURE (DEG C) | SEDI- MENT, DIS- CHARGE, SUS- PENDED (MG/L) | SEDI- MENT, DIS- CHARGE, SUS- PENDED (T/DAY) |
|-----------|------|---|-----------------------------|---|--|
| MAR 20... | 1030 | 14800 | 13.5 | 17 | 679 |
| JUN 12... | 1245 | 12400 | 23.5 | 32 | 1070 |
| SEP 12... | 1315 | 19100 | -- | 66 | 3400 |

SACRAMENTO RIVER BASIN

11449500 KELSEY CREEK NEAR KELSEYVILLE, CA

LOCATION.--Lat 38°55'39", long 122°50'33", in SE 1/4 SE 1/4 sec.34, T.13 N., R.9 W., Lake County, Hydrologic Unit 18020116, on left bank 1.6 mi downstream from Widow Creek, and 3.5 mi south of Kelseyville.

DRAINAGE AREA.--36.6 mi².

PERIOD OF RECORD.--October 1946 to current year.

REVISED RECORDS.--WSP 1285: 1947-48(M), 1950-52(P). WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 1,475.44 ft above National Geodetic Vertical Datum of 1929. Prior to July 16, 1955, at site 600 ft upstream at different datum.

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

AVERAGE DISCHARGE.--39 years, 76.0 ft³/s, 55,060 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,200 ft³/s, Jan. 26, 1983, gage height, 13.31 ft; maximum gage height, 13.48 ft, Jan. 5, 1965; minimum daily, 0.18 ft³/s, Aug. 15-23, 25, 1977.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 2,400 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|--------|------|-----------------------------------|---------------------|------|------|-----------------------------------|---------------------|
| Feb. 8 | 0445 | *2,850 | *9.59 | | | | |

Minimum daily, 1.6 ft³/s, several days during July and August.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|--------|------|------|------|------|------|-------|-------|------|------|-------|
| 1 | 4.6 | 8.5 | 63 | 26 | 15 | 21 | 67 | 17 | 9.8 | 2.6 | 1.9 | 1.7 |
| 2 | 4.8 | 25 | 80 | 25 | 15 | 21 | 58 | 16 | 9.8 | 2.7 | 2.0 | 1.7 |
| 3 | 4.7 | 26 | 93 | 24 | 14 | 21 | 52 | 16 | 9.8 | 2.3 | 1.8 | 1.7 |
| 4 | 4.8 | 12 | 61 | 23 | 14 | 21 | 48 | 16 | 9.5 | 2.3 | 1.7 | 1.8 |
| 5 | 4.8 | 9.6 | 58 | 23 | 14 | 24 | 44 | 15 | 9.5 | 2.3 | 1.6 | 1.9 |
| 6 | 4.8 | 15 | 48 | 22 | 14 | 33 | 41 | 15 | 8.9 | 2.1 | 1.6 | 2.0 |
| 7 | 4.9 | 14 | 43 | 31 | 139 | 45 | 38 | 14 | 8.3 | 2.0 | 1.7 | 2.4 |
| 8 | 5.0 | 30 | 39 | 33 | 1090 | 52 | 36 | 14 | 7.6 | 2.0 | 1.7 | 8.6 |
| 9 | 5.2 | 21 | 36 | 29 | 204 | 70 | 34 | 14 | 5.8 | 2.1 | 1.7 | 9.1 |
| 10 | 6.0 | 37 | 113 | 28 | 116 | 494 | 33 | 14 | 4.6 | 2.0 | 1.7 | 8.1 |
| 11 | 15 | 109 | 101 | 26 | 83 | 237 | 31 | 14 | 4.8 | 2.0 | 1.6 | 5.3 |
| 12 | 8.5 | 285 | 66 | 25 | 67 | 138 | 30 | 13 | 4.8 | 2.0 | 1.6 | 4.6 |
| 13 | 7.2 | 506 | 54 | 24 | 57 | 103 | 28 | 12 | 4.3 | 2.0 | 1.6 | 4.4 |
| 14 | 6.5 | 88 | 47 | 23 | 49 | 82 | 27 | 12 | 3.7 | 2.0 | 1.7 | 4.3 |
| 15 | 6.2 | 74 | 49 | 22 | 44 | 70 | 26 | 11 | 3.7 | 1.9 | 1.7 | 4.2 |
| 16 | 9.2 | 163 | 45 | 21 | 41 | 61 | 26 | 11 | 3.6 | 1.8 | 1.6 | 4.1 |
| 17 | 15 | 80 | 40 | 20 | 37 | 54 | 26 | 12 | 3.4 | 1.8 | 1.7 | 4.0 |
| 18 | 9.2 | 84 | 38 | 20 | 35 | 50 | 25 | 12 | 3.4 | 1.8 | 1.8 | 4.0 |
| 19 | 9.1 | 52 | 35 | 19 | 33 | 46 | 24 | 11 | 3.3 | 1.8 | 1.8 | 3.8 |
| 20 | 8.9 | 47 | 33 | 19 | 31 | 43 | 23 | 10 | 3.2 | 1.8 | 1.8 | 3.7 |
| 21 | 8.5 | 40 | 31 | 18 | 30 | 41 | 25 | 10 | 3.2 | 1.8 | 1.8 | 3.5 |
| 22 | 8.1 | 34 | 30 | 18 | 28 | 39 | 24 | 9.9 | 3.1 | 1.9 | 1.8 | 3.3 |
| 23 | 7.5 | 31 | 28 | 17 | 27 | 37 | 22 | 9.8 | 3.0 | 2.0 | 1.7 | 3.3 |
| 24 | 6.9 | 84 | 27 | 17 | 25 | 40 | 21 | 9.9 | 3.1 | 1.8 | 1.7 | 3.2 |
| 25 | 6.6 | 51 | 26 | 17 | 25 | 37 | 20 | 9.9 | 3.0 | 1.8 | 1.6 | 3.2 |
| 26 | 6.6 | 40 | 37 | 16 | 24 | 310 | 20 | 9.7 | 2.8 | 1.7 | 1.6 | 3.2 |
| 27 | 6.8 | 530 | 38 | 16 | 23 | 305 | 19 | 9.8 | 2.8 | 1.6 | 1.7 | 3.4 |
| 28 | 7.2 | 321 | 33 | 16 | 22 | 215 | 18 | 10 | 2.7 | 1.6 | 1.7 | 3.7 |
| 29 | 8.4 | 130 | 30 | 16 | --- | 131 | 18 | 11 | 2.7 | 1.6 | 1.7 | 3.7 |
| 30 | 8.7 | 83 | 29 | 15 | --- | 97 | 17 | 10 | 2.5 | 1.6 | 1.7 | 3.8 |
| 31 | 8.6 | --- | 28 | 15 | --- | 79 | --- | 10 | --- | 1.8 | 1.7 | --- |
| TOTAL | 228.3 | 3030.1 | 1479 | 664 | 2316 | 3017 | 921 | 379.0 | 150.7 | 60.5 | 53.0 | 115.7 |
| MEAN | 7.36 | 101 | 47.7 | 21.4 | 82.7 | 97.3 | 30.7 | 12.2 | 5.02 | 1.95 | 1.71 | 3.86 |
| MAX | 15 | 530 | 113 | 33 | 1090 | 494 | 67 | 17 | 9.8 | 2.7 | 2.0 | 9.1 |
| MIN | 4.6 | 8.5 | 26 | 15 | 14 | 21 | 17 | 9.7 | 2.5 | 1.6 | 1.6 | 1.7 |
| AC-FT | 453 | 6010 | 2930 | 1320 | 4590 | 5980 | 1830 | 752 | 299 | 120 | 105 | 229 |

| | | | | | | | | | | |
|-------------|-------|---------|------|------|-----|------|-----|-----|-------|-------|
| CAL YR 1984 | TOTAL | 15646.3 | MEAN | 42.7 | MAX | 530 | MIN | 3.5 | AC-FT | 31030 |
| WTR YR 1985 | TOTAL | 12414.3 | MEAN | 34.0 | MAX | 1090 | MIN | 1.6 | AC-FT | 24620 |

11450000 CLEAR LAKE AT LAKEPORT, CA

LOCATION.--Lat 39°02'21", long 122°54'44", in NE1/4NE1/4 sec.25, T.14 N., R.10 W., Lake County, Hydrologic Unit 18020116, in concrete block building at 410 Esplanada Street in Lakeport.

DRAINAGE AREA.--528 mi²

PERIOD OF RECORD.--1874-1900 (incomplete), January 1913 to April 1982, October 12, 1984 to September 1985.

GAGE.--Water-stage recorder. Datum of gage is 1,318.26 ft. above National Geodetic Vertical Datum of 1929. (California State Land Commission bench mark). Prior to July 8, 1947, nonrecording gage and July 8, 1947, to Mar. 17, 1949, at municipal wharf at foot of Third Street in Lakeport at datum 0.06 ft. lower. Mar. 18, 1949, to Sept. 30, 1967, at private pier at foot of Fourth Street at datum 0.06 ft. lower. Gage relocated at same datum Apr. 20, 1982 and published "at Clearlake" for 1982-84.

REMARKS.--This natural lake is regulated by gates on a dam at outlet, completed in 1915. Capacity between gage heights 0.00 and 7.56 ft, limits stipulated by court decree of 1920, about 319,000 acre-ft. Water is released down natural channel of Cache Creek from which it is diverted for irrigation (station 11451000).

EXTREMES FOR PERIOD OF RECORD.--Maximum gage height observed, 11.12 ft, Jan. 28, 1914; minimum observed, 3.50 ft, Sept. 24-27, 1920.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Mar. 4, 1983 reached a stage of 11.24 ft, present datum, from floodmarks.

EXTREMES FOR CURRENT YEAR.--Maximum daily mean gage height, during period October 12 to September 30, 6.20 ft, Apr. 14; minimum daily mean gage height, 1.69 ft, Sept. 28-30.

GAGE HEIGHT (FEET ABOVE DATUM), WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1 | --- | 1.75 | 3.26 | 3.91 | 4.11 | 4.82 | 6.03 | 6.09 | 5.22 | 4.13 | 2.99 | 2.18 |
| 2 | --- | 1.76 | 3.32 | 3.94 | 4.11 | 4.82 | 6.07 | 6.07 | 5.22 | 4.09 | 2.97 | 2.17 |
| 3 | --- | 1.77 | 3.37 | 3.95 | 4.12 | 4.83 | 6.09 | 6.04 | 5.18 | 4.05 | 2.94 | 2.16 |
| 4 | --- | 1.78 | 3.42 | 3.95 | 4.13 | 4.81 | 6.12 | 6.06 | 5.16 | 4.00 | 2.89 | 2.13 |
| 5 | --- | 1.78 | 3.46 | 3.96 | 4.13 | 4.84 | 6.13 | 6.05 | 5.14 | 3.95 | 2.84 | 2.08 |
| 6 | --- | 1.80 | 3.48 | 3.96 | 4.13 | 4.90 | 6.15 | 6.03 | 5.10 | 3.91 | 2.80 | 2.04 |
| 7 | --- | 1.81 | 3.50 | 3.99 | 4.15 | 4.93 | 6.16 | 6.00 | 5.06 | 3.86 | 2.73 | 2.02 |
| 8 | --- | 1.85 | 3.52 | 4.00 | 4.40 | 4.97 | 6.17 | 5.97 | 5.03 | 3.84 | 2.71 | 2.03 |
| 9 | --- | 1.87 | 3.54 | 3.98 | 4.55 | 4.98 | 6.18 | 5.93 | 4.99 | 3.84 | 2.68 | 2.05 |
| 10 | --- | 1.92 | 3.61 | 4.02 | 4.62 | 5.10 | 6.16 | 5.90 | 4.96 | 3.80 | 2.65 | 2.05 |
| 11 | --- | 2.02 | 3.64 | 4.03 | 4.68 | 5.20 | 6.17 | 5.88 | 4.92 | 3.77 | 2.63 | 2.00 |
| 12 | 1.85 | 2.08 | 3.63 | 4.03 | 4.71 | 5.28 | 6.18 | 5.87 | 4.87 | 3.73 | 2.59 | 1.97 |
| 13 | 1.84 | 2.25 | 3.69 | 4.04 | 4.74 | 5.32 | 6.19 | 5.85 | 4.83 | 3.72 | 2.57 | 1.97 |
| 14 | 1.80 | 2.32 | 3.71 | 4.06 | 4.76 | 5.35 | 6.20 | 5.83 | 4.77 | 3.71 | 2.56 | 1.91 |
| 15 | 1.80 | 2.36 | 3.71 | 4.06 | 4.78 | 5.37 | 6.17 | 5.82 | 4.75 | 3.69 | 2.54 | 1.90 |
| 16 | 1.82 | 2.49 | 3.73 | 4.07 | 4.80 | 5.39 | 6.15 | 5.77 | 4.73 | 3.65 | 2.53 | 1.88 |
| 17 | 1.81 | 2.55 | 3.74 | 4.08 | 4.81 | 5.40 | 6.17 | 5.75 | 4.70 | 3.61 | 2.52 | 1.84 |
| 18 | 1.80 | 2.60 | 3.74 | 4.08 | 4.82 | 5.42 | 6.14 | 5.71 | 4.67 | 3.57 | 2.49 | 1.84 |
| 19 | 1.82 | 2.64 | 3.75 | 4.08 | 4.81 | 5.43 | 6.12 | 5.69 | 4.63 | 3.54 | 2.46 | 1.82 |
| 20 | 1.82 | 2.65 | 3.77 | 4.08 | 4.82 | 5.42 | 6.12 | 5.66 | 4.60 | 3.51 | 2.45 | 1.79 |
| 21 | 1.82 | 2.69 | 3.79 | 4.09 | 4.84 | 5.41 | 6.12 | 5.63 | 4.55 | 3.44 | 2.43 | 1.79 |
| 22 | 1.82 | 2.71 | 3.79 | 4.09 | 4.85 | 5.41 | 6.12 | 5.60 | 4.50 | 3.40 | 2.42 | 1.77 |
| 23 | 1.83 | 2.73 | 3.80 | 4.09 | 4.86 | 5.42 | 6.12 | 5.57 | 4.47 | 3.37 | 2.40 | 1.76 |
| 24 | 1.82 | 2.76 | 3.82 | 4.09 | 4.86 | 5.42 | 6.10 | 5.53 | 4.43 | 3.37 | 2.38 | 1.75 |
| 25 | 1.81 | 2.80 | 3.81 | 4.09 | 4.86 | 5.41 | 6.07 | 5.51 | 4.39 | 3.32 | 2.37 | 1.74 |
| 26 | 1.77 | 2.81 | 3.85 | 4.10 | 4.87 | 5.49 | 6.09 | 5.49 | 4.35 | 3.26 | 2.35 | 1.73 |
| 27 | 1.76 | 2.89 | 3.86 | 4.10 | 4.87 | 5.66 | 6.10 | 5.44 | 4.32 | 3.23 | 2.33 | 1.71 |
| 28 | 1.75 | 3.08 | 3.88 | 4.11 | 4.87 | 5.75 | 6.09 | 5.38 | 4.26 | 3.19 | 2.30 | 1.69 |
| 29 | 1.75 | 3.15 | 3.90 | 4.12 | --- | 5.85 | 6.10 | 5.34 | 4.21 | 3.13 | 2.30 | 1.69 |
| 30 | 1.75 | 3.21 | 3.90 | 4.12 | --- | 5.92 | 6.10 | 5.32 | 4.15 | 3.07 | 2.25 | 1.69 |
| 31 | 1.75 | --- | 3.92 | 4.12 | --- | 5.98 | --- | 5.24 | --- | 3.04 | 2.23 | --- |
| MEAN | --- | 2.36 | 3.67 | 4.04 | 4.61 | 5.30 | 6.13 | 5.74 | 4.74 | 3.61 | 2.56 | 1.91 |
| MAX | --- | 3.21 | 3.92 | 4.12 | 4.87 | 5.98 | 6.20 | 6.09 | 5.22 | 4.13 | 2.99 | 2.18 |
| MIN | --- | 1.75 | 3.26 | 3.91 | 4.11 | 4.81 | 6.03 | 5.24 | 4.15 | 3.04 | 2.23 | 1.69 |

SACRAMENTO RIVER BASIN

11450150 CLEAR LAKE AT CLEARLAKE, CA

LOCATION.--Lat 38°57'24", long 122°38'30", in SE 1/4 NW 1/4 sec.28, T.13 N., R.7 W., Lake County, Hydrologic Unit 18020116, on private pier 300 ft southwest of intersection of Mullen and Lakeshore Drives in Clearlake.

DRAINAGE AREA.--528 mi².

PERIOD OF RECORD.--Apr. 20, 1982 to Sept. 30, 1984. Beginning Oct. 12, 1984, gage was relocated and published as 11450000 Clear Lake at Lakeport.

GAGE.--Water-stage recorder. Datum of gage is 1,318.21 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--This natural lake is regulated by gates on a dam at outlet, completed in 1929.

EXTREMES FOR PERIOD OF RECORD.--Maximum daily mean gage height, 11.18 ft, Mar. 4, 1983; minimum daily mean gage height, 1.86 ft, Sept. 28-29, 1984.

EXTREMES FOR WATER YEAR 1984 (Not previously published).--Maximum mean daily gage height, 7.83 ft, Dec. 31; minimum daily mean gage height, 1.86 ft, Sept. 28-29.

EXTREMES FOR WATER YEAR 1983 (Not previously published).--Maximum mean daily gage height, 11.18 ft, Mar. 4; minimum daily mean gage height, 2.18 ft, Oct. 21.

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1982 TO SEPTEMBER 1983
MEAN VALUES
(NOT PREVIOUSLY PUBLISHED)

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|------|------|------|------|------|------|-------|-------|------|------|------|------|------|
| 1 | 2.36 | 2.48 | 3.88 | 5.84 | 8.52 | 9.89 | 10.29 | 7.78 | 7.17 | 6.34 | 5.18 | 4.20 |
| 2 | 2.36 | 2.47 | 3.93 | 5.77 | 8.42 | 10.37 | 10.23 | 7.72 | 7.13 | 6.32 | 5.16 | 4.18 |
| 3 | 2.36 | 2.45 | 4.06 | 5.72 | 8.36 | 10.99 | 10.06 | 7.64 | 7.13 | 6.27 | 5.13 | 4.15 |
| 4 | 2.39 | 2.47 | 4.17 | 5.64 | 8.26 | 11.18 | 9.89 | 7.56 | 7.12 | 6.24 | 5.09 | 4.13 |
| 5 | 2.31 | 2.47 | 4.22 | 5.57 | 8.15 | 11.17 | 9.72 | 7.50 | 7.10 | 6.22 | 5.04 | 4.10 |
| 6 | 2.33 | 2.48 | 4.25 | 5.50 | 8.18 | 11.08 | 9.57 | 7.44 | 7.09 | 6.22 | 5.00 | 4.08 |
| 7 | 2.32 | 2.48 | 4.26 | 5.44 | 8.31 | 11.08 | 9.44 | 7.39 | 7.09 | 6.18 | 4.97 | 4.06 |
| 8 | 2.29 | 2.45 | 4.20 | 5.40 | 8.49 | 10.95 | 9.30 | 7.32 | 7.08 | 6.11 | 4.95 | 4.05 |
| 9 | 2.24 | 2.43 | 4.20 | 5.36 | 8.57 | 10.84 | 9.20 | 7.20 | 7.08 | 6.04 | 4.90 | 3.99 |
| 10 | 2.24 | 2.43 | 4.22 | 5.32 | 8.60 | 10.72 | 9.04 | 7.15 | 7.04 | 6.00 | 4.85 | 3.95 |
| 11 | 2.25 | 2.43 | 4.25 | 5.28 | 8.55 | 10.57 | 8.84 | 7.14 | 7.02 | 5.98 | 4.81 | 3.93 |
| 12 | 2.23 | 2.42 | 4.28 | 5.27 | 8.66 | 10.46 | 8.63 | 7.16 | 6.98 | 5.95 | 4.78 | 3.91 |
| 13 | 2.25 | 2.42 | 4.30 | 5.27 | 8.77 | 10.76 | 8.55 | 7.19 | 6.97 | 5.91 | 4.75 | 3.89 |
| 14 | 2.24 | 2.42 | 4.29 | 5.27 | 8.79 | 10.86 | 8.46 | 7.21 | 6.95 | 5.93 | 4.70 | 3.88 |
| 15 | 2.23 | 2.42 | 4.28 | 5.26 | 8.77 | 10.75 | 8.27 | 7.23 | 6.95 | 5.87 | 4.68 | 3.86 |
| 16 | 2.25 | 2.42 | 4.32 | 5.29 | 8.77 | 10.64 | 8.14 | 7.19 | 6.88 | 5.83 | 4.64 | 3.84 |
| 17 | 2.23 | 2.42 | 4.60 | 5.30 | 8.71 | 10.59 | 8.01 | 7.20 | 6.88 | 5.76 | 4.61 | 3.83 |
| 18 | 2.21 | 2.60 | 4.71 | 5.37 | 8.80 | 10.51 | 7.91 | 7.22 | 6.83 | 5.69 | 4.56 | 3.82 |
| 19 | 2.21 | 2.66 | 4.75 | 5.56 | 8.81 | 10.39 | 7.85 | 7.21 | 6.78 | 5.66 | 4.51 | 3.77 |
| 20 | 2.21 | 2.74 | 4.82 | 5.57 | 8.78 | 10.27 | 7.71 | 7.23 | 6.75 | 5.61 | 4.51 | 3.75 |
| 21 | 2.18 | 2.77 | 5.15 | 5.55 | 8.72 | 10.24 | 7.62 | 7.25 | 6.70 | 5.57 | 4.47 | 3.75 |
| 22 | 2.20 | 2.76 | 5.63 | 5.71 | 8.65 | 10.22 | 7.47 | 7.25 | 6.68 | 5.53 | 4.46 | 3.75 |
| 23 | 2.27 | 2.75 | 6.12 | 5.89 | 8.56 | 10.21 | 7.48 | 7.25 | 6.67 | 5.50 | 4.45 | 3.74 |
| 24 | 2.27 | 2.90 | 6.22 | 6.45 | 8.55 | 10.44 | 7.57 | 7.26 | 6.58 | 5.49 | 4.41 | 3.73 |
| 25 | 2.33 | 2.97 | 6.27 | 6.64 | 8.49 | 10.56 | 7.63 | 7.26 | 6.57 | 5.46 | 4.38 | 3.71 |
| 26 | 2.44 | 2.94 | 6.25 | 7.09 | 8.60 | 10.51 | 7.57 | 7.26 | 6.57 | 5.40 | 4.35 | 3.72 |
| 27 | 2.40 | 2.97 | 6.19 | 8.07 | 8.76 | 10.57 | 7.55 | 7.24 | 6.50 | 5.37 | 4.33 | 3.70 |
| 28 | 2.39 | 3.07 | 6.15 | 8.32 | 9.04 | 10.57 | 7.67 | 7.24 | 6.47 | 5.34 | 4.30 | 3.67 |
| 29 | 2.39 | 3.29 | 6.08 | 8.56 | --- | 10.49 | 7.72 | 7.25 | 6.46 | 5.29 | 4.26 | 3.67 |
| 30 | 2.48 | 3.66 | 6.01 | 8.61 | --- | 10.41 | 7.76 | 7.26 | 6.41 | 5.25 | 4.19 | 3.64 |
| 31 | 2.50 | --- | 5.93 | 8.60 | --- | 10.38 | --- | 7.23 | --- | 5.22 | 4.19 | --- |
| MEAN | 2.30 | 2.65 | 4.90 | 6.08 | 8.59 | 10.69 | 8.51 | 7.30 | 6.85 | 5.79 | 4.66 | 3.88 |
| MAX | 2.50 | 3.66 | 6.27 | 8.61 | 9.04 | 11.18 | 10.29 | 7.78 | 7.17 | 6.34 | 5.18 | 4.20 |
| MIN | 2.18 | 2.42 | 3.88 | 5.26 | 8.15 | 9.89 | 7.47 | 7.14 | 6.41 | 5.22 | 4.19 | 3.64 |

11450150 CLEAR LAKE AT CLEARLAKE, CA--Continued

GAGE HEIGHT, IN FEET, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES
(NOT PREVIOUSLY PUBLISHED)

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1 | 3.68 | 3.54 | 5.28 | 7.81 | 5.76 | 7.23 | 7.66 | 7.16 | 6.14 | 4.89 | 3.55 | 2.50 |
| 2 | 3.70 | 3.56 | 5.23 | 7.76 | 5.73 | 7.25 | 7.65 | 7.14 | 6.12 | 4.87 | 3.50 | 2.47 |
| 3 | 3.68 | 3.55 | 5.31 | 7.69 | 5.77 | 7.26 | 7.65 | 7.13 | 6.07 | 4.83 | 3.45 | 2.44 |
| 4 | 3.67 | 3.56 | 5.30 | 7.61 | 5.78 | 7.25 | 7.65 | 7.14 | 6.02 | 4.79 | 3.41 | 2.42 |
| 5 | 3.67 | 3.54 | 5.24 | 7.52 | 5.80 | 7.27 | 7.65 | 7.08 | 5.95 | 4.75 | 3.37 | 2.43 |
| 6 | 3.66 | 3.55 | 5.20 | 7.41 | 5.80 | 7.29 | 7.67 | 7.01 | 5.93 | 4.72 | 3.31 | 2.39 |
| 7 | 3.65 | 3.56 | 5.18 | 7.32 | 5.81 | 7.30 | 7.64 | 6.98 | 5.91 | 4.68 | 3.27 | 2.33 |
| 8 | 3.64 | 3.49 | 5.21 | 7.22 | 5.82 | 7.32 | 7.68 | 6.98 | 5.84 | 4.64 | 3.24 | 2.31 |
| 9 | 3.64 | 3.49 | 5.53 | 7.11 | 5.87 | 7.34 | 7.59 | 6.98 | 5.86 | 4.57 | 3.21 | 2.29 |
| 10 | 3.62 | 3.75 | 5.86 | 7.03 | 5.89 | 7.36 | 7.65 | 6.94 | 5.76 | 4.51 | 3.19 | 2.28 |
| 11 | 3.62 | 4.11 | 6.25 | 6.92 | 5.88 | 7.36 | 7.61 | 6.89 | 5.75 | 4.46 | 3.14 | 2.26 |
| 12 | 3.62 | 4.19 | 6.47 | 6.82 | 5.92 | 7.37 | 7.58 | 6.87 | 5.67 | 4.42 | 3.10 | 2.21 |
| 13 | 3.65 | 4.34 | 6.58 | 6.70 | 6.10 | 7.41 | 7.56 | 6.88 | 5.62 | 4.38 | 3.05 | 2.18 |
| 14 | 3.58 | 4.43 | 6.64 | 6.59 | 6.24 | 7.48 | 7.54 | 6.92 | 5.59 | 4.35 | 3.00 | 2.16 |
| 15 | 3.58 | 4.43 | 6.60 | 6.48 | 6.38 | 7.60 | 7.55 | 6.78 | 5.57 | 4.31 | 2.98 | 2.15 |
| 16 | 3.57 | 4.51 | 6.56 | 6.45 | 6.64 | 7.66 | 7.55 | 6.71 | 5.54 | 4.25 | 2.95 | 2.11 |
| 17 | 3.56 | 4.83 | 6.53 | 6.37 | 6.73 | 7.75 | 7.51 | 6.69 | 5.51 | 4.21 | 2.91 | 2.09 |
| 18 | 3.54 | 4.98 | 6.47 | 6.26 | 6.81 | 7.74 | 7.45 | 6.65 | 5.48 | 4.17 | 2.88 | 2.08 |
| 19 | 3.53 | 5.11 | 6.42 | 6.17 | 6.87 | 7.75 | 7.52 | 6.63 | 5.45 | 4.12 | 2.84 | 2.07 |
| 20 | 3.52 | 5.31 | 6.36 | 6.07 | 6.92 | 7.80 | 7.45 | 6.62 | 5.43 | 4.10 | 2.80 | 2.08 |
| 21 | 3.52 | 5.30 | 6.24 | 6.01 | 7.03 | 7.81 | 7.43 | 6.59 | 5.31 | 4.03 | 2.77 | 2.03 |
| 22 | 3.51 | 5.22 | 6.13 | 5.93 | 7.02 | 7.77 | 7.42 | 6.54 | 5.26 | 3.91 | 2.75 | 2.02 |
| 23 | 3.51 | 5.16 | 6.04 | 5.85 | 7.05 | 7.78 | 7.41 | 6.54 | 5.22 | 3.89 | 2.72 | 1.99 |
| 24 | 3.49 | 5.37 | 6.25 | 5.76 | 7.14 | 7.77 | 7.43 | 6.50 | 5.19 | 3.88 | 2.69 | 1.93 |
| 25 | 3.48 | 5.53 | 6.97 | 5.69 | 7.12 | 7.78 | 7.38 | 6.45 | 5.16 | 3.84 | 2.61 | 1.91 |
| 26 | 3.47 | 5.54 | 7.41 | 5.66 | 7.13 | 7.78 | 7.30 | 6.37 | 5.15 | 3.78 | 2.61 | 1.89 |
| 27 | 3.47 | 5.51 | 7.62 | 5.67 | 7.14 | 7.69 | 7.25 | 6.33 | 5.09 | 3.73 | 2.59 | 1.87 |
| 28 | 3.47 | 5.46 | 7.65 | 5.69 | 7.18 | 7.72 | 7.24 | 6.30 | 5.06 | 3.69 | 2.57 | 1.86 |
| 29 | 3.44 | 5.38 | 7.64 | 5.71 | 7.21 | 7.67 | 7.23 | 6.27 | 5.01 | 3.63 | 2.57 | 1.86 |
| 30 | 3.48 | 5.29 | 7.76 | 5.71 | --- | 7.67 | 7.19 | 6.25 | 4.93 | 3.61 | 2.57 | 1.88 |
| 31 | 3.50 | --- | 7.83 | 5.74 | --- | 7.71 | --- | 6.19 | --- | 3.57 | 2.53 | --- |
| MEAN | 3.57 | 4.52 | 6.31 | 6.54 | 6.43 | 7.55 | 7.50 | 6.73 | 5.55 | 4.24 | 2.97 | 2.15 |
| MAX | 3.70 | 5.54 | 7.83 | 7.81 | 7.21 | 7.81 | 7.68 | 7.16 | 6.14 | 4.89 | 3.55 | 2.50 |
| MIN | 3.44 | 3.49 | 5.18 | 5.66 | 5.73 | 7.23 | 7.19 | 6.19 | 4.93 | 3.57 | 2.53 | 1.86 |

SACRAMENTO RIVER BASIN

11451000 CACHE CREEK NEAR LOWER LAKE, CA

LOCATION.--Lat 38°55'27", long 122°33'53", in sec.6, T.12 N., R.6 W., Lake County, Hydrologic Unit 18020116, on left bank 500 ft downstream from Clear Lake Dam, 1.9 mi downstream from Copsey Creek, and 2.5 mi northeast of Lower Lake.

DRAINAGE AREA.--528 mi².

PERIOD OF RECORD.--May 1944 to current year.

GAGE.--Water-stage recorder and rain gage. Datum of gage is 1,280.34 ft above National Geodetic Vertical Datum of 1929.

REMARKS.--No estimated daily discharges. Records good. Flow completely regulated by Clear Lake (station 11450000) 500 ft upstream.

AVERAGE DISCHARGE (unadjusted).--41 years, 381 ft³/s, 276,000 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 8,000 ft³/s, Feb. 24, 1958, gage height, 9.40 ft; no flow Nov. 8-20, 1977.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 728 ft³/s, June 11, gage height, 4.20 ft; minimum daily, 1.5 ft³/s, Feb. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|-------|-------|------|------|-------|-------|--------|-------|-------|--------|--------|
| 1 | 7.4 | 3.2 | 3.7 | 3.0 | 2.2 | 4.1 | 3.7 | 6.8 | 308 | 389 | 293 | 48 |
| 2 | 8.0 | 3.3 | 3.8 | 3.0 | 2.1 | 3.3 | 3.7 | 20 | 319 | 334 | 285 | 54 |
| 3 | 8.1 | 3.3 | 3.8 | 3.0 | 1.8 | 3.2 | 3.6 | 53 | 350 | 284 | 275 | 56 |
| 4 | 7.4 | 3.2 | 4.0 | 3.1 | 1.7 | 3.6 | 3.7 | 85 | 349 | 284 | 267 | 153 |
| 5 | 7.0 | 3.2 | 4.1 | 3.2 | 1.6 | 3.8 | 3.8 | 130 | 459 | 300 | 267 | 255 |
| 6 | 7.0 | 3.3 | 4.0 | 3.3 | 1.6 | 3.9 | 3.9 | 189 | 586 | 299 | 272 | 258 |
| 7 | 6.7 | 3.5 | 4.0 | 3.3 | 1.5 | 3.9 | 4.4 | 266 | 550 | 280 | 312 | 247 |
| 8 | 6.5 | 3.7 | 4.0 | 3.3 | 1.7 | 3.9 | 4.9 | 297 | 528 | 277 | 283 | 245 |
| 9 | 6.6 | 3.7 | 4.0 | 3.1 | 1.6 | 4.0 | 5.2 | 296 | 568 | 298 | 178 | 227 |
| 10 | 6.5 | 3.6 | 4.2 | 3.1 | 1.6 | 4.0 | 5.3 | 295 | 567 | 301 | 114 | 184 |
| 11 | 6.7 | 3.7 | 4.1 | 3.1 | 1.7 | 4.0 | 5.5 | 297 | 635 | 284 | 75 | 217 |
| 12 | 6.7 | 3.8 | 4.3 | 3.0 | 1.7 | 4.0 | 5.8 | 296 | 570 | 270 | 36 | 193 |
| 13 | 6.6 | 4.1 | 4.3 | 2.9 | 1.8 | 5.2 | 5.9 | 293 | 470 | 260 | 10 | 250 |
| 14 | 6.3 | 3.8 | 4.0 | 2.7 | 1.8 | 4.3 | 6.0 | 293 | 436 | 252 | 9.7 | 305 |
| 15 | 6.1 | 3.8 | 4.0 | 2.5 | 1.8 | 4.1 | 5.5 | 296 | 371 | 284 | 9.5 | 309 |
| 16 | 6.0 | 3.8 | 4.1 | 2.5 | 1.8 | 3.7 | 5.6 | 329 | 335 | 295 | 9.8 | 310 |
| 17 | 5.8 | 3.4 | 4.0 | 2.4 | 1.9 | 3.7 | 5.8 | 360 | 380 | 300 | 9.9 | 226 |
| 18 | 5.3 | 3.4 | 4.0 | 2.4 | 2.0 | 3.7 | 5.9 | 362 | 442 | 325 | 9.7 | 148 |
| 19 | 5.0 | 3.3 | 3.9 | 2.4 | 2.0 | 3.8 | 6.2 | 350 | 451 | 325 | 9.9 | 143 |
| 20 | 4.6 | 3.3 | 3.9 | 2.4 | 1.9 | 4.0 | 6.2 | 337 | 461 | 326 | 9.8 | 143 |
| 21 | 4.4 | 3.3 | 3.9 | 2.5 | 1.9 | 4.2 | 6.2 | 350 | 485 | 324 | 9.7 | 123 |
| 22 | 4.2 | 3.2 | 3.9 | 2.5 | 2.0 | 4.2 | 6.3 | 372 | 447 | 324 | 9.7 | 77 |
| 23 | 4.0 | 3.1 | 3.8 | 2.5 | 2.1 | 4.0 | 6.3 | 387 | 389 | 351 | 10 | 72 |
| 24 | 4.0 | 3.2 | 3.6 | 2.5 | 2.2 | 4.2 | 6.7 | 379 | 388 | 379 | 9.9 | 61 |
| 25 | 3.7 | 3.1 | 3.3 | 2.4 | 2.3 | 4.4 | 7.1 | 368 | 387 | 386 | 9.8 | 47 |
| 26 | 3.7 | 3.1 | 3.3 | 2.4 | 2.3 | 4.4 | 7.1 | 368 | 395 | 385 | 10 | 37 |
| 27 | 3.5 | 3.9 | 3.2 | 2.3 | 2.3 | 4.6 | 7.0 | 368 | 414 | 369 | 10 | 37 |
| 28 | 3.6 | 3.9 | 3.1 | 2.2 | 2.5 | 4.4 | 6.8 | 355 | 410 | 372 | 12 | 18 |
| 29 | 3.5 | 3.8 | 3.1 | 2.2 | --- | 4.4 | 6.7 | 324 | 390 | 376 | 9.0 | 6.3 |
| 30 | 3.4 | 3.8 | 3.1 | 2.2 | --- | 4.1 | 6.7 | 309 | 394 | 349 | 19 | 5.6 |
| 31 | 3.3 | --- | 3.0 | 2.2 | --- | 3.8 | --- | 318 | --- | 308 | 37 | --- |
| TOTAL | 171.6 | 104.8 | 117.5 | 83.6 | 53.4 | 124.9 | 167.5 | 8748.8 | 13234 | 9890 | 2881.4 | 4454.9 |
| MEAN | 5.54 | 3.49 | 3.79 | 2.70 | 1.91 | 4.03 | 5.58 | 282 | 441 | 319 | 92.9 | 148 |
| MAX | 8.1 | 4.1 | 4.3 | 3.3 | 2.5 | 5.2 | 7.1 | 387 | 635 | 389 | 312 | 310 |
| MIN | 3.3 | 3.1 | 3.0 | 2.2 | 1.5 | 3.2 | 3.6 | 6.8 | 308 | 252 | 9.0 | 5.6 |
| AC-FT | 340 | 208 | 233 | 166 | 106 | 248 | 332 | 17350 | 26250 | 19620 | 5720 | 8840 |
| a | 1.77 | 8.72 | 2.32 | .43 | 1.63 | 4.12 | .10 | 0 | 0 | 0 | .05 | .87 |

CAL YR 1984 TOTAL 149668.9 MEAN 409 MAX 3330 MIN 3.0 AC-FT 296900
WTR YR 1985 TOTAL 40032.4 MEAN 110 MAX 635 MIN 1.5 AC-FT 79400

a Precipitation, in inches

11451100 NORTH FORK CACHE CREEK AT HOUGH SPRINGS, NEAR CLEARLAKE OAKS, CA

LOCATION.--Lat 39°09'56", long 122°37'08", in SE 1/4 NW 1/4 sec.10, T.15 N., R.7 W., Lake County, Hydrologic Unit 18020116, on right bank 0.5 mi upstream from Spanish Creek, 0.9 mi upstream from Hough Springs, and 10 mi northeast of Clearlake Oaks.

DRAINAGE AREA.--60.2 mi².

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

GAGE.--Water-stage recorder and crest-stage gage Elevation of gage is 1,840 ft above National Geodetic Vertical Datum of 1929, from topographic map. Prior to Jan. 13, 1980 at datum 2.0 ft higher. Recording rain gage 4.7 mi northwest of gage. Elevation of rain gage is 2,050 ft above NGVD, from topographic map.

REMARKS.--Estimated daily discharges: July 1 to Aug. 8. Records good. No regulation or diversion above station.

AVERAGE DISCHARGE.--14 years, 109 ft³/s, 78,970 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 7,980 ft³/s, Jan. 16, 1974, gage height, 11.23 ft present datum, from floodmarks, from rating curve extended above 2,700 ft³/s, on basis of slope-area measurement of peak flow; no flow for many days in 1972, 1976-77.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,500 ft³/s and maximum (*):

| Date | Time | Discharge (ft ³ /s) | Gage height (ft) | Date | Time | Discharge (ft ³ /s) | Gage height (ft) |
|--------|------|--------------------------------|------------------|------|------|--------------------------------|------------------|
| Feb. 8 | 0330 | *2,590 | *7.04 | | | | |

Minimum daily, 0.20 ft³/s, several days.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|--------|------|------|------|------|------|------|-------|-------|------|-------|
| 1 | .70 | 2.6 | 137 | 44 | 25 | 39 | 238 | 28 | 11 | 1.7 | .22 | .20 |
| 2 | .78 | 13 | 140 | 42 | 25 | 38 | 207 | 27 | 11 | 1.5 | .21 | .25 |
| 3 | .85 | 21 | 165 | 40 | 25 | 37 | 167 | 25 | 11 | 1.4 | .21 | .82 |
| 4 | .85 | 7.1 | 133 | 39 | 24 | 36 | 137 | 25 | 10 | 1.3 | .21 | .64 |
| 5 | .85 | 5.4 | 149 | 39 | 24 | 38 | 118 | 24 | 9.2 | 1.2 | .20 | .54 |
| 6 | .85 | 6.4 | 125 | 39 | 23 | 41 | 102 | 24 | 8.5 | 1.1 | .20 | .45 |
| 7 | .88 | 9.8 | 108 | 56 | 206 | 43 | 90 | 23 | 8.2 | .96 | .20 | .64 |
| 8 | .94 | 40 | 97 | 59 | 1390 | 42 | 82 | 22 | 7.8 | .88 | .20 | 2.7 |
| 9 | .94 | 28 | 86 | 53 | 424 | 40 | 75 | 21 | 7.2 | .80 | .20 | 2.3 |
| 10 | 1.4 | 91 | 146 | 49 | 248 | 127 | 70 | 21 | 6.6 | .74 | .20 | 2.1 |
| 11 | 3.4 | 167 | 142 | 46 | 178 | 123 | 65 | 21 | 6.2 | .69 | .20 | 1.7 |
| 12 | 2.3 | 268 | 119 | 44 | 145 | 92 | 60 | 21 | 5.7 | .64 | .20 | 1.4 |
| 13 | 2.1 | 587 | 102 | 42 | 121 | 80 | 56 | 20 | 5.3 | .60 | .20 | 1.2 |
| 14 | 1.8 | 140 | 91 | 40 | 103 | 71 | 53 | 18 | 4.7 | .56 | .20 | 1.2 |
| 15 | 1.6 | 119 | 92 | 39 | 92 | 65 | 51 | 17 | 4.4 | .52 | .20 | 1.1 |
| 16 | 3.3 | 345 | 85 | 37 | 84 | 59 | 49 | 16 | 4.3 | .49 | .20 | 1.1 |
| 17 | 4.8 | 159 | 76 | 36 | 76 | 55 | 48 | 16 | 3.9 | .47 | .21 | 1.1 |
| 18 | 3.0 | 144 | 71 | 34 | 70 | 56 | 47 | 16 | 3.5 | .44 | .28 | 1.0 |
| 19 | 2.9 | 92 | 65 | 33 | 65 | 51 | 44 | 16 | 3.3 | .42 | .31 | .94 |
| 20 | 2.9 | 72 | 60 | 33 | 60 | 48 | 42 | 14 | 3.1 | .40 | .31 | .94 |
| 21 | 2.6 | 58 | 55 | 32 | 57 | 45 | 43 | 14 | 2.9 | .38 | .31 | .94 |
| 22 | 2.5 | 47 | 51 | 31 | 53 | 43 | 42 | 13 | 2.8 | .36 | .31 | .94 |
| 23 | 2.4 | 42 | 49 | 29 | 50 | 41 | 39 | 12 | 2.7 | .34 | .31 | .94 |
| 24 | 2.3 | 342 | 47 | 29 | 47 | 43 | 37 | 12 | 2.6 | .33 | .31 | .90 |
| 25 | 2.2 | 150 | 45 | 29 | 46 | 42 | 35 | 12 | 2.2 | .31 | .31 | .85 |
| 26 | 2.1 | 97 | 51 | 28 | 44 | 113 | 35 | 11 | 2.1 | .29 | .28 | .85 |
| 27 | 2.1 | 438 | 51 | 27 | 42 | 233 | 33 | 11 | 2.0 | .28 | .22 | .85 |
| 28 | 2.2 | 559 | 48 | 27 | 40 | 214 | 32 | 11 | 2.0 | .26 | .20 | .85 |
| 29 | 2.6 | 294 | 45 | 27 | --- | 193 | 30 | 11 | 1.8 | .25 | .20 | .85 |
| 30 | 2.6 | 188 | 44 | 26 | --- | 192 | 29 | 12 | 1.7 | .24 | .20 | .85 |
| 31 | 2.6 | --- | 44 | 25 | --- | 229 | --- | 11 | --- | .23 | .20 | --- |
| TOTAL | 63.34 | 4532.3 | 2719 | 1154 | 3787 | 2569 | 2156 | 545 | 157.7 | 20.08 | 7.21 | 31.14 |
| MEAN | 2.04 | 151 | 87.7 | 37.2 | 135 | 82.9 | 71.9 | 17.6 | 5.26 | .65 | .23 | 1.04 |
| MAX | 4.8 | 587 | 165 | 59 | 1390 | 233 | 238 | 28 | 11 | 1.7 | .31 | 2.7 |
| MIN | .70 | 2.6 | 44 | 25 | 23 | 36 | 29 | 11 | 1.7 | .23 | .20 | .20 |
| AC-FT | 126 | 8990 | 5390 | 2290 | 7510 | 5100 | 4280 | 1080 | 313 | 40 | 14 | 62 |
| a | 2.42 | 14.60 | 3.80 | 0.72 | 4.87 | 5.19 | 0.22 | 0.00 | 0.00 | 0.00 | 0.00 | 1.80 |

CAL YR 1984. TOTAL 26524.50 MEAN 72.5 MAX 587 MIN .57 AC-FT 52610
WTR YR 1985. TOTAL 17741.77 MEAN 48.6 MAX 1390 MIN .20 AC-FT 35190

a Precipitation, in inches.

SACRAMENTO RIVER BASIN

11451300 NORTH FORK CACHE CREEK NEAR CLEARLAKE OAKS, CA

LOCATION.--Lat 39°04'50", long 122°32'07", in SE 1/4 sec.4, T.14N., R.6 W., Lake County, Hydrologic Unit 18020116 on right bank 2500 ft downstream of Indian Valley Dam and 8 mi northeast of Clearlake Oaks.

DRAINAGE AREA.--121 mi².

PERIOD OF RECORD.--October 1983 to current year (low flow only).

GAGE.--Water-stage recorder. Elevation of gage is 1,320 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--No estimated daily discharges. Records good. No records computed above 250 ft³/s.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|------|------|------|-------|-------|-------|-----|-----|-----|-----|-----|------|
| 1 | 93 | 15 | 108 | 43 | 11 | 9.8 | 12 | --- | 246 | --- | 236 | 201 |
| 2 | 95 | 15 | 108 | 9.0 | 11 | 9.8 | 12 | --- | 247 | --- | 227 | 199 |
| 3 | 87 | 15 | 108 | 9.0 | 11 | 9.8 | 12 | --- | 250 | --- | 227 | 189 |
| 4 | 56 | 15 | 108 | 9.0 | 10 | 9.8 | 44 | --- | 250 | --- | 227 | 82 |
| 5 | 59 | 15 | 108 | 9.0 | 10 | 9.8 | 81 | --- | 175 | --- | 227 | 10 |
| 6 | 60 | 15 | 183 | 9.0 | 10 | 9.8 | 81 | --- | 122 | --- | 229 | 12 |
| 7 | 60 | 20 | 160 | 9.8 | 10 | 9.8 | 81 | --- | 123 | --- | 229 | 14 |
| 8 | 59 | 15 | 110 | 10 | 10 | 9.8 | 142 | --- | 121 | --- | --- | 14 |
| 9 | 58 | 15 | 110 | 12 | 10 | 9.8 | --- | --- | 121 | --- | --- | 14 |
| 10 | 50 | 15 | 110 | 10 | 10 | 10 | --- | --- | 123 | --- | --- | 14 |
| 11 | 33 | 15 | 110 | 8.2 | 10 | 10 | --- | --- | 123 | --- | --- | 14 |
| 12 | 24 | 15 | 110 | 9.4 | 10 | 10 | --- | --- | --- | --- | --- | 13 |
| 13 | 12 | 15 | 110 | 9.7 | 10 | 9.8 | --- | 246 | --- | --- | --- | 13 |
| 14 | 15 | 25 | 110 | 9.8 | 10 | 9.8 | --- | 243 | --- | --- | --- | 13 |
| 15 | 15 | 22 | 110 | 9.8 | 10 | 9.8 | --- | 242 | --- | --- | --- | 13 |
| 16 | 15 | 18 | 110 | 9.8 | 10 | 9.8 | --- | 241 | --- | --- | --- | 13 |
| 17 | 15 | 16 | 95 | 9.8 | 10 | 9.8 | --- | 241 | --- | --- | --- | 14 |
| 18 | 15 | 16 | 79 | 9.7 | 10 | 9.8 | --- | 242 | --- | --- | --- | 15 |
| 19 | 15 | 18 | 70 | 9.6 | 10 | 9.8 | --- | 244 | --- | --- | --- | 15 |
| 20 | 15 | 16 | 82 | 9.8 | 10 | 10 | --- | 244 | --- | --- | --- | 15 |
| 21 | 15 | 16 | 77 | 9.8 | 9.8 | 10 | --- | 245 | --- | --- | --- | 14 |
| 22 | 17 | 15 | 77 | 9.8 | 9.8 | 10 | --- | 246 | --- | --- | --- | 14 |
| 23 | 13 | 15 | 77 | 10 | 9.8 | 46 | --- | 245 | --- | --- | --- | 14 |
| 24 | 12 | 15 | 77 | 11 | 9.8 | 70 | --- | 244 | --- | 207 | --- | 14 |
| 25 | 13 | 15 | 76 | 11 | 9.8 | 84 | --- | 244 | --- | 220 | --- | 14 |
| 26 | 15 | 51 | 75 | 11 | 9.8 | 75 | --- | 246 | --- | 219 | --- | 14 |
| 27 | 15 | 101 | 75 | 11 | 9.8 | 9.5 | --- | 246 | --- | 218 | --- | 14 |
| 28 | 15 | 101 | 75 | 11 | 9.8 | 9.2 | --- | 246 | --- | 218 | --- | 14 |
| 29 | 15 | 117 | 75 | 11 | --- | 9.0 | --- | 246 | --- | 216 | --- | 14 |
| 30 | 15 | 109 | 75 | 11 | --- | 7.3 | --- | 246 | --- | 231 | 238 | 14 |
| 31 | 15 | --- | 75 | 11 | --- | 11 | --- | 247 | --- | 236 | 216 | --- |
| TOTAL | 1011 | 886 | 3033 | 343.0 | 281.4 | 537.8 | --- | --- | --- | --- | --- | 1027 |
| MEAN | 32.6 | 29.5 | 97.8 | 11.1 | 10.1 | 17.3 | --- | --- | --- | --- | --- | 34.2 |
| MAX | 95 | 117 | 183 | 43 | 11 | 84 | --- | --- | --- | --- | --- | 201 |
| MIN | 12 | 15 | 70 | 8.2 | 9.8 | 7.3 | --- | --- | --- | --- | --- | 10 |
| AC-PT | 2010 | 1760 | 6020 | 680 | 558 | 1070 | --- | --- | --- | --- | --- | 2040 |

11451760 CACHE CREEK ABOVE RUMSEY, CA

LOCATION.--Lat 38°54'47", long 122°54'47", in NW 1/4 SE 1/4 sec.2, T.12 N., Yolo County, Hydrologic Unit 18020110, on right bank 3.0 mi northwest of Rumsey and 0.4 mi downstream from highway bridge.

DRAINAGE AREA.--955 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1960 to September 1962, June 1965 to September 1973, October 1983 to current year. December 1975 to September 1982, published as "at Rumsey."

GAGE.--Water-stage recorder. Elevation of gage is 480 ft above National Geodetic Vertical Datum of 1929, from topographic map. December 1975 to September 1982 at site 3.0 mi downstream at different datum.

REMARKS.--Estimated daily discharges: Oct. 1-31 and Feb. 8. Records good except for periods of no gage height record, which are fair. Flow partly regulated by Clear Lake (station 11450000) beginning in 1915. Flow also regulated by Indian Valley Reservoir beginning in June 1974, capacity, 296,000 acre-ft.

COOPERATION.--Records provided by California Department of Water Resources and reviewed by Geological Survey, December 1975 to September 1982. Records collected in cooperation with Corps of Engineers beginning in October 1983.

AVERAGE DISCHARGE.--18 years (water years 1961-62, 1966-73, 1977-82, 1984-85), 719 ft³/s, 521,500 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 43,400 ft³/s, Jan. 24, 1970, gage height, 19.59 ft, from rating curve extended above 14,000 ft³/s on basis of slope-area measurement at gage height 21.42 ft; no flow many days in 1977.

EXTREMES OUTSIDE PERIOD OF RECORD.--Flood of Jan. 5, 1965, reached a stage of 21.42 ft from floodmarks, discharge, 59,000 ft³/s, by slope-area measurement.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,850 ft³/s, Feb. 8, gage height, 8.17 ft; minimum daily, 29 ft³/s, Sept. 30.

EXTREMES FOR 1984 WATER YEAR (Not Previously Published).--Maximum discharge, 20,700 ft³/s, Dec. 25, gage height, 15.10 ft; minimum daily, 111 ft³/s, Sept. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES
(NOT PREVIOUSLY PUBLISHED)

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| 1 | 224 | 330 | 2520 | 4680 | 195 | 413 | 287 | 632 | 786 | 800 | 613 | 313 |
| 2 | 196 | 337 | 2480 | 4500 | 179 | 411 | 283 | 658 | 818 | 799 | 589 | 288 |
| 3 | 190 | 301 | 4180 | 4290 | 166 | 406 | 278 | 631 | 815 | 794 | 516 | 243 |
| 4 | 186 | 228 | 2970 | 3930 | 167 | 396 | 296 | 629 | 810 | 773 | 490 | 218 |
| 5 | 201 | 253 | 2610 | 3820 | 163 | 388 | 297 | 661 | 783 | 749 | 488 | 206 |
| 6 | 204 | 261 | 2570 | 3670 | 159 | 374 | 526 | 684 | 781 | 825 | 487 | 203 |
| 7 | 208 | 251 | 3010 | 3450 | 155 | 276 | 558 | 682 | 732 | 807 | 488 | 203 |
| 8 | 200 | 216 | 3300 | 3390 | 157 | 268 | 566 | 648 | 684 | 767 | 491 | 203 |
| 9 | 199 | 300 | 6720 | 3330 | 159 | 264 | 561 | 658 | 594 | 747 | 505 | 213 |
| 10 | 199 | 1510 | 5090 | 3280 | 178 | 259 | 574 | 688 | 678 | 749 | 520 | 215 |
| 11 | 199 | 1220 | 6850 | 3170 | 174 | 256 | 589 | 713 | 668 | 745 | 515 | 213 |
| 12 | 206 | 961 | 5050 | 3120 | 202 | 261 | 609 | 670 | 688 | 746 | 502 | 194 |
| 13 | 205 | 1530 | 5970 | 3080 | 556 | 406 | 483 | 623 | 732 | 768 | 494 | 190 |
| 14 | 201 | 994 | 5850 | 3030 | 656 | 441 | 637 | 648 | 710 | 776 | 478 | 190 |
| 15 | 197 | 812 | 5570 | 2990 | 1030 | 549 | 696 | 672 | 712 | 745 | 433 | 177 |
| 16 | 197 | 839 | 4970 | 3050 | 1090 | 492 | 695 | 675 | 736 | 744 | 411 | 174 |
| 17 | 197 | 2570 | 4040 | 2900 | 793 | 953 | 690 | 687 | 763 | 744 | 371 | 155 |
| 18 | 208 | 858 | 3550 | 2830 | 1060 | 1500 | 696 | 661 | 797 | 743 | 362 | 148 |
| 19 | 237 | 912 | 3460 | 2820 | 1040 | 758 | 681 | 658 | 793 | 727 | 363 | 135 |
| 20 | 247 | 1230 | 3270 | 2770 | 897 | 775 | 652 | 654 | 794 | 752 | 384 | 123 |
| 21 | 247 | 2820 | 2910 | 2740 | 547 | 722 | 562 | 646 | 779 | 746 | 393 | 120 |
| 22 | 247 | 2750 | 2880 | 2690 | 339 | 705 | 558 | 600 | 774 | 728 | 394 | 126 |
| 23 | 250 | 2980 | 2940 | 2620 | 293 | 695 | 554 | 615 | 758 | 695 | 395 | 130 |
| 24 | 250 | 5370 | 9510 | 2480 | 275 | 713 | 580 | 689 | 712 | 673 | 393 | 130 |
| 25 | 262 | 3620 | 15100 | 1780 | 262 | 945 | 531 | 736 | 714 | 647 | 381 | 130 |
| 26 | 268 | 3330 | 6670 | 363 | 247 | 941 | 562 | 702 | 730 | 628 | 347 | 130 |
| 27 | 265 | 3300 | 7910 | 298 | 238 | 803 | 563 | 664 | 754 | 611 | 333 | 120 |
| 28 | 221 | 3270 | 9170 | 276 | 295 | 505 | 557 | 680 | 799 | 660 | 312 | 112 |
| 29 | 225 | 3180 | 8630 | 296 | 392 | 506 | 547 | 686 | 811 | 652 | 308 | 111 |
| 30 | 229 | 2980 | 7980 | 290 | --- | 470 | 578 | 747 | 800 | 619 | 325 | 120 |
| 31 | 235 | --- | 5290 | 213 | --- | 381 | --- | 785 | --- | 599 | 307 | --- |
| TOTAL | 6800 | 49513 | 163020 | 82146 | 12064 | 17232 | 16246 | 20782 | 22505 | 22558 | 13388 | 5233 |
| MEAN | 219 | 1650 | 5259 | 2650 | 416 | 556 | 542 | 670 | 750 | 728 | 432 | 174 |
| MAX | 268 | 5370 | 15100 | 4680 | 1090 | 1500 | 696 | 785 | 818 | 825 | 613 | 313 |
| MIN | 186 | 216 | 2480 | 213 | 155 | 256 | 278 | 600 | 594 | 599 | 307 | 111 |
| AC-FT | 13490 | 98210 | 323400 | 162900 | 23930 | 34180 | 32220 | 41220 | 44640 | 44740 | 26560 | 10380 |

WTR YR 1984 TOTAL 431487 MEAN 1179 MAX 15100 MIN 111 AC-FT 855900

SACRAMENTO RIVER BASIN

11451760 CACHE CREEK ABOVE RUMSEY, CA--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|------|------|------|-------|-------|-------|--------|-------|-------|
| 1 | 121 | 30 | 248 | 138 | 49 | 61 | 189 | 759 | 586 | 792 | 504 | 243 |
| 2 | 103 | 30 | 234 | 87 | 51 | 59 | 171 | 966 | 571 | 777 | 501 | 247 |
| 3 | 95 | 32 | 468 | 67 | 51 | 59 | 151 | 906 | 589 | 776 | 484 | 254 |
| 4 | 63 | 35 | 318 | 64 | 50 | 58 | 136 | 904 | 588 | 767 | 476 | 244 |
| 5 | 66 | 32 | 274 | 63 | 48 | 60 | 162 | 907 | 612 | 786 | 474 | 277 |
| 6 | 67 | 33 | 259 | 62 | 47 | 81 | 181 | 807 | 728 | 794 | 475 | 272 |
| 7 | 67 | 34 | 320 | 72 | 89 | 106 | 173 | 823 | 708 | 782 | 487 | 268 |
| 8 | 65 | 50 | 218 | 94 | 1970 | 90 | 167 | 782 | 651 | 764 | 530 | 266 |
| 9 | 65 | 56 | 205 | 82 | 471 | 81 | 260 | 732 | 674 | 780 | 504 | 267 |
| 10 | 56 | 43 | 378 | 78 | 244 | 169 | 386 | 719 | 714 | 798 | 484 | 236 |
| 11 | 40 | 99 | 332 | 70 | 179 | 305 | 486 | 671 | 704 | 790 | 457 | 212 |
| 12 | 31 | 102 | 262 | 65 | 149 | 165 | 571 | 600 | 862 | 776 | 442 | 227 |
| 13 | 31 | 413 | 233 | 64 | 132 | 126 | 592 | 578 | 852 | 765 | 465 | 216 |
| 14 | 31 | 190 | 218 | 62 | 118 | 109 | 607 | 569 | 920 | 752 | 444 | 303 |
| 15 | 31 | 116 | 214 | 61 | 107 | 98 | 600 | 565 | 933 | 747 | 415 | 308 |
| 16 | 31 | 310 | 216 | 59 | 101 | 90 | 578 | 579 | 895 | 722 | 400 | 312 |
| 17 | 31 | 214 | 204 | 58 | 96 | 84 | 556 | 634 | 862 | 692 | 378 | 159 |
| 18 | 31 | 136 | 173 | 56 | 90 | 84 | 551 | 638 | 793 | 693 | 364 | 199 |
| 19 | 31 | 106 | 164 | 56 | 85 | 85 | 544 | 630 | 781 | 693 | 358 | 170 |
| 20 | 31 | 89 | 156 | 56 | 80 | 78 | 546 | 603 | 794 | 686 | 338 | 166 |
| 21 | 30 | 85 | 157 | 56 | 77 | 73 | 582 | 607 | 807 | 666 | 351 | 157 |
| 22 | 30 | 70 | 146 | 56 | 72 | 70 | 604 | 634 | 851 | 643 | 351 | 117 |
| 23 | 30 | 62 | 144 | 55 | 69 | 69 | 598 | 656 | 831 | 618 | 351 | 92 |
| 24 | 30 | 123 | 144 | 54 | 67 | 98 | 605 | 664 | 804 | 584 | 332 | 85 |
| 25 | 30 | 173 | 143 | 54 | 66 | 121 | 618 | 643 | 770 | 563 | 306 | 76 |
| 26 | 30 | 108 | 147 | 53 | 64 | 214 | 610 | 642 | 774 | 583 | 303 | 63 |
| 27 | 30 | 628 | 154 | 52 | 63 | 545 | 600 | 644 | 798 | 563 | 299 | 55 |
| 28 | 30 | 1050 | 151 | 52 | 62 | 415 | 632 | 638 | 818 | 552 | 285 | 54 |
| 29 | 30 | 405 | 145 | 52 | --- | 271 | 651 | 604 | 791 | 564 | 285 | 44 |
| 30 | 30 | 292 | 142 | 52 | --- | 216 | 643 | 578 | 785 | 564 | 259 | 29 |
| 31 | 30 | --- | 140 | 50 | --- | 198 | --- | 577 | --- | 534 | 251 | --- |
| TOTAL | 1417 | 5146 | 6707 | 2000 | 4747 | 4338 | 13750 | 21259 | 22846 | 21566 | 12353 | 5618 |
| MEAN | 45.7 | 172 | 216 | 64.5 | 170 | 140 | 458 | 686 | 762 | 696 | 398 | 187 |
| MAX | 121 | 1050 | 468 | 138 | 1970 | 545 | 651 | 966 | 933 | 798 | 530 | 312 |
| MIN | 30 | 30 | 140 | 50 | 47 | 58 | 136 | 565 | 571 | 534 | 251 | 29 |
| AC-FT | 2810 | 10210 | 13300 | 3970 | 9420 | 8600 | 27270 | 42170 | 45320 | 42780 | 24500 | 11140 |
| CAL YR 1984 | TOTAL | 225424 | MEAN | 616 | MAX | 4680 | MIN | 30 | AC-FT | 447100 | | |
| WTR YR 1985 | TOTAL | 121747 | MEAN | 334 | MAX | 1970 | MIN | 29 | AC-FT | 241500 | | |

11451760 CACHE CREEK ABOVE RUMSEY, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1961-70, 1984 to current year.

WATER TEMPERATURES: Water years 1961-70, 1984 to current year.

SEDIMENT RECORDS: Water years 1961-63, 1967-70, 1984 to current year.

PERIOD OF DAILY RECORD.--

WATER TEMPERATURES: January 1960 to September 1970, December 1975 to September 1976.

SEDIMENT RECORDS: January 1960 to September 1963, June 1965 to September 1970, December 1975 to September 1976, November 1983 to current year (storm season only).

REMARKS.--Sediment samples were collected on most days were a water temperature is published.

EXTREMES FOR PERIOD OF RECORD.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 9,160 mg/L, Jan. 29, 1967; minimum daily mean, 1 mg/L, on many days during most years.

SEDIMENT LOAD: Maximum daily, 363,000 tons, Jan. 29, 1967; minimum daily, 0.01 ton, many days in 1960, 1961, and 1976.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,390 mg/L, Feb. 8; minimum daily mean, 1 mg/L, Feb. 27, 28, Mar. 1.

SEDIMENT LOAD: Maximum daily, 14,600 tons, Feb. 8; minimum daily, 0.16 ton, Mar. 1.

EXTREMES FOR 1984 WATER YEAR (Not previously published).--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,600 mg/L, Dec. 9; minimum daily mean, 1 mg/L, several days during February.

SEDIMENT LOAD: Maximum daily, 103,000 tons, Dec. 25; minimum daily, 0.42 ton, Feb. 7, 8.

TEMPERATURE (DEG. C) OF WATER, NOVEMBER 1983 TO MAY 1984
ONCE-DAILY
(NOT PREVIOUSLY PUBLISHED)

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-----|------|------|------|------|-----|------|------|-----|-----|-----|-----|
| 1 | | --- | --- | --- | --- | | --- | --- | | | | |
| 2 | | --- | --- | --- | --- | | --- | --- | | | | |
| 3 | | --- | --- | --- | --- | | --- | 13.0 | | | | |
| 4 | | --- | --- | --- | --- | | 15.5 | --- | | | | |
| 5 | | --- | --- | 11.0 | --- | | --- | --- | | | | |
| 6 | | --- | 11.5 | --- | --- | | --- | --- | | | | |
| 7 | | --- | --- | --- | --- | | --- | --- | | | | |
| 8 | | --- | --- | --- | --- | | --- | --- | | | | |
| 9 | | --- | --- | --- | 12.5 | | --- | --- | | | | |
| 10 | | --- | --- | --- | --- | | 14.0 | --- | | | | |
| 11 | | --- | --- | --- | --- | | --- | --- | | | | |
| 12 | | --- | --- | --- | --- | | --- | --- | | | | |
| 13 | | --- | --- | --- | --- | | --- | --- | | | | |
| 14 | | --- | --- | --- | --- | | --- | --- | | | | |
| 15 | | --- | --- | --- | --- | | --- | --- | | | | |
| 16 | | 13.0 | --- | --- | --- | | --- | --- | | | | |
| 17 | | 10.0 | --- | --- | --- | | --- | --- | | | | |
| 18 | | 11.0 | --- | --- | --- | | --- | --- | | | | |
| 19 | | --- | 11.0 | 9.0 | --- | | --- | --- | | | | |
| 20 | | --- | --- | --- | --- | | --- | --- | | | | |
| 21 | | --- | --- | --- | --- | | --- | --- | | | | |
| 22 | | --- | --- | --- | --- | | --- | --- | | | | |
| 23 | | 11.5 | --- | --- | --- | | --- | --- | | | | |
| 24 | | --- | --- | --- | --- | | --- | --- | | | | |
| 25 | | --- | --- | --- | --- | | --- | --- | | | | |
| 26 | | --- | --- | --- | --- | | --- | --- | | | | |
| 27 | | --- | 10.5 | --- | --- | | --- | --- | | | | |
| 28 | | --- | --- | --- | --- | | --- | --- | | | | |
| 29 | | --- | --- | --- | --- | | --- | --- | | | | |
| 30 | | --- | --- | --- | --- | | --- | --- | | | | |
| 31 | | --- | --- | --- | --- | | --- | --- | | | | |
| MONTH | | --- | --- | --- | --- | | --- | --- | | | | |

SACRAMENTO RIVER BASIN

11451760 CACHE CREEK ABOVE RUMSEY, CA--Continued

TEMPERATURE (DEG. C) OF WATER, NOVEMBER 1984 TO MAY 1985
ONCE-DAILY

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|
| 1 | | 16.0 | --- | --- | 3.5 | --- | 14.5 | 14.5 | | | | |
| 2 | | --- | --- | --- | --- | --- | --- | --- | | | | |
| 3 | | --- | --- | 3.5 | --- | --- | 21.0 | 15.5 | | | | |
| 4 | | --- | --- | 5.0 | 5.5 | --- | --- | --- | | | | |
| 5 | | --- | --- | --- | --- | 9.0 | 22.0 | --- | | | | |
| 6 | | --- | --- | --- | 4.0 | 7.0 | --- | 13.0 | | | | |
| 7 | | --- | --- | 10.0 | --- | --- | --- | --- | | | | |
| 8 | | --- | --- | --- | 9.0 | 6.0 | 15.5 | 18.5 | | | | |
| 9 | | --- | --- | 11.0 | --- | --- | --- | --- | | | | |
| 10 | | --- | --- | --- | --- | --- | 15.5 | 15.5 | | | | |
| 11 | | --- | --- | 7.0 | 6.0 | 9.0 | --- | --- | | | | |
| 12 | | --- | 10.0 | --- | --- | --- | 13.0 | --- | | | | |
| 13 | 12.5 | --- | --- | --- | --- | 9.5 | --- | 16.5 | | | | |
| 14 | --- | --- | 9.0 | 5.0 | --- | --- | --- | --- | | | | |
| 15 | --- | --- | --- | --- | 9.0 | 10.0 | 15.5 | 17.0 | | | | |
| 16 | --- | --- | --- | 8.0 | --- | --- | --- | --- | | | | |
| 17 | --- | --- | 8.5 | --- | --- | --- | 13.5 | 16.5 | | | | |
| 18 | --- | --- | --- | 7.0 | 11.5 | 11.5 | --- | --- | | | | |
| 19 | --- | --- | 7.5 | --- | --- | --- | 13.5 | --- | | | | |
| 20 | --- | 10.0 | --- | --- | --- | 12.5 | --- | 18.0 | | | | |
| 21 | --- | --- | 6.5 | 7.0 | --- | --- | --- | --- | | | | |
| 22 | --- | --- | --- | --- | --- | --- | 12.0 | 18.5 | | | | |
| 23 | --- | --- | --- | 5.0 | 14.0 | --- | --- | --- | | | | |
| 24 | --- | --- | 7.0 | --- | --- | --- | 13.0 | 19.0 | | | | |
| 25 | --- | --- | --- | 7.0 | 12.0 | 9.5 | --- | --- | | | | |
| 26 | --- | --- | 6.5 | --- | --- | --- | 14.0 | --- | | | | |
| 27 | --- | --- | --- | --- | 11.5 | 6.5 | --- | 20.0 | | | | |
| 28 | --- | --- | 5.0 | 6.5 | --- | 9.5 | --- | --- | | | | |
| 29 | --- | --- | --- | --- | --- | 9.5 | 14.5 | 14.5 | | | | |
| 30 | --- | --- | --- | 4.0 | --- | --- | --- | --- | | | | |
| 31 | --- | --- | 5.0 | --- | --- | --- | --- | 17.0 | | | | |
| MONTH | --- | --- | --- | --- | --- | --- | --- | --- | | | | |

SUSPENDED-SEDIMENT, NOVEMBER 1983 TO MAY 1984
(NOT PREVIOUSLY PUBLISHED)

| DAY | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) |
|-------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | | | 30 | 27 | 140 | 953 | 465 | 5880 | 5 | 2.6 | 21 | 23 |
| 2 | | | 32 | 29 | 145 | 971 | 435 | 5290 | 4 | 1.9 | 20 | 22 |
| 3 | | | 28 | 23 | 1540 | 20900 | 425 | 4920 | 3 | 1.3 | 22 | 24 |
| 4 | | | 15 | 9.2 | 460 | 3690 | 405 | 4300 | 3 | 1.4 | 24 | 26 |
| 5 | | | 18 | 12 | 170 | 1200 | 380 | 3920 | 2 | .88 | 26 | 27 |
| 6 | | | 19 | 13 | 140 | 971 | 355 | 3520 | 1 | .43 | 19 | 19 |
| 7 | | | 18 | 12 | 220 | 1790 | 335 | 3120 | 1 | .42 | 13 | 9.7 |
| 8 | | | 13 | 7.6 | 250 | 2230 | 310 | 2840 | 1 | .42 | 17 | 12 |
| 9 | | | 48 | 39 | 2600 | 47200 | 290 | 2610 | 1 | .43 | 22 | 16 |
| 10 | | | 366 | 1490 | 2440 | 33500 | 272 | 2410 | 1 | .48 | 16 | 11 |
| 11 | | | 1330 | 4380 | 2590 | 47900 | 246 | 2110 | 1 | .47 | 10 | 6.9 |
| 12 | | | 1120 | 2910 | 440 | 6000 | 222 | 1870 | 2 | 1.1 | 13 | 9.2 |
| 13 | | | 1600 | 6610 | 550 | 8870 | 198 | 1650 | 350 | 525 | 63 | 69 |
| 14 | | | 160 | 429 | 540 | 8530 | 180 | 1470 | 390 | 691 | 86 | 102 |
| 15 | | | 102 | 224 | 500 | 7520 | 178 | 1440 | 827 | 3750 | 75 | 111 |
| 16 | | | 108 | 245 | 430 | 5770 | 192 | 1580 | 770 | 2270 | 68 | 90 |
| 17 | | | 2200 | 22600 | 330 | 3600 | 170 | 1330 | 235 | 503 | 70 | 180 |
| 18 | | | 220 | 510 | 280 | 2680 | 154 | 1180 | 120 | 343 | 69 | 279 |
| 19 | | | 300 | 739 | 200 | 1870 | 165 | 1260 | 97 | 272 | 59 | 121 |
| 20 | | | 350 | 1160 | 250 | 2210 | 184 | 1380 | 89 | 216 | 53 | 111 |
| 21 | | | 300 | 2280 | 212 | 1670 | 151 | 1120 | 52 | 77 | 47 | 92 |
| 22 | | | 290 | 2150 | 205 | 1590 | 135 | 981 | 31 | 28 | 40 | 76 |
| 23 | | | 310 | 2490 | 215 | 1710 | 127 | 898 | 20 | 16 | 36 | 68 |
| 24 | | | 1910 | 35000 | 2570 | 66000 | 121 | 810 | 13 | 9.7 | 39 | 75 |
| 25 | | | 580 | 5670 | 2530 | 103000 | 112 | 538 | 11 | 7.8 | 54 | 138 |
| 26 | | | 250 | 2250 | 2560 | 46100 | 36 | 35 | 9 | 6.0 | 67 | 170 |
| 27 | | | 180 | 1600 | 800 | 17100 | 12 | 9.7 | 7 | 4.5 | 61 | 132 |
| 28 | | | 170 | 1500 | 895 | 22200 | 10 | 7.5 | 14 | 11 | 33 | 45 |
| 29 | | | 160 | 1370 | 830 | 19300 | 8 | 6.4 | 22 | 23 | 29 | 40 |
| 30 | | | 145 | 1170 | 755 | 16300 | 6 | 4.7 | --- | --- | 26 | 33 |
| 31 | | | --- | --- | 490 | 7000 | 5 | 2.9 | --- | --- | 22 | 23 |
| TOTAL | | | --- | 96948.8 | --- | 510325 | --- | 58493.2 | --- | 8764.83 | --- | 2160.8 |

11451760 CACHE CREEK ABOVE RUMSEY, CA--Continued

SUSPENDED-SEDIMENT, NOVEMBER 1983 TO MAY 1984
(NOT PREVIOUSLY PUBLISHED)

| DAY | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) |
|-------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 19 | 15 | 40 | 68 | | | | | | | | |
| 2 | 16 | 12 | 40 | 71 | | | | | | | | |
| 3 | 14 | 11 | 39 | 66 | | | | | | | | |
| 4 | 13 | 10 | 39 | 66 | | | | | | | | |
| 5 | 19 | 15 | 37 | 66 | | | | | | | | |
| 6 | 34 | 48 | 35 | 65 | | | | | | | | |
| 7 | 35 | 53 | 33 | 61 | | | | | | | | |
| 8 | 36 | 55 | 42 | 73 | | | | | | | | |
| 9 | 37 | 56 | 51 | 91 | | | | | | | | |
| 10 | 37 | 57 | 45 | 84 | | | | | | | | |
| 11 | 34 | 54 | 40 | 77 | | | | | | | | |
| 12 | 28 | 46 | 42 | 76 | | | | | | | | |
| 13 | 27 | 35 | 45 | 76 | | | | | | | | |
| 14 | 37 | 64 | 47 | 82 | | | | | | | | |
| 15 | 41 | 77 | 44 | 80 | | | | | | | | |
| 16 | 42 | 79 | 41 | 75 | | | | | | | | |
| 17 | 42 | 78 | 35 | 65 | | | | | | | | |
| 18 | 42 | 79 | 29 | 52 | | | | | | | | |
| 19 | 28 | 51 | 32 | 57 | | | | | | | | |
| 20 | 27 | 48 | 35 | 62 | | | | | | | | |
| 21 | 27 | 41 | 38 | 66 | | | | | | | | |
| 22 | 26 | 39 | 34 | 55 | | | | | | | | |
| 23 | 27 | 40 | 31 | 51 | | | | | | | | |
| 24 | 28 | 44 | 32 | 60 | | | | | | | | |
| 25 | 30 | 43 | 34 | 68 | | | | | | | | |
| 26 | 27 | 41 | 36 | 68 | | | | | | | | |
| 27 | 25 | 38 | 38 | 68 | | | | | | | | |
| 28 | 27 | 41 | 39 | 72 | | | | | | | | |
| 29 | 29 | 43 | 40 | 74 | | | | | | | | |
| 30 | 34 | 53 | 44 | 89 | | | | | | | | |
| 31 | --- | --- | 44 | 93 | | | | | | | | |
| TOTAL | --- | 1366 | --- | 2177 | | | | | | | | |

SUSPENDED-SEDIMENT, NOVEMBER 1984 TO MAY 1985

| DAY | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) |
|-------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | | | 11 | .89 | 54 | 36 | 3 | 1.1 | 3 | .40 | 1 | .16 |
| 2 | | | 11 | .89 | 68 | 43 | 3 | .70 | 3 | .41 | 2 | .32 |
| 3 | | | 11 | .95 | 188 | 248 | 3 | .54 | 3 | .41 | 3 | .48 |
| 4 | | | 11 | 1.0 | 70 | 60 | 2 | .35 | 3 | .41 | 4 | .63 |
| 5 | | | 11 | .95 | 20 | 15 | 2 | .34 | 3 | .39 | 5 | .81 |
| 6 | | | 7 | .62 | 21 | 15 | 2 | .33 | 2 | .25 | 5 | 1.1 |
| 7 | | | 9 | .83 | 23 | 20 | 6 | 1.2 | 256 | .62 | 6 | 1.7 |
| 8 | | | 34 | 4.6 | 25 | 15 | 10 | 2.5 | 2390 | 14600 | 6 | 1.5 |
| 9 | | | 35 | 5.3 | 27 | 15 | 9 | 2.0 | 600 | 763 | 6 | 1.3 |
| 10 | | | 33 | 3.8 | 29 | 30 | 6 | 1.3 | 200 | 132 | 394 | 357 |
| 11 | | | 55 | 15 | 31 | 28 | 4 | .76 | 50 | 24 | 1170 | 1030 |
| 12 | | | 76 | 21 | 28 | 20 | 3 | .53 | 30 | 12 | 330 | 147 |
| 13 | | | 243 | 335 | 18 | 11 | 2 | .35 | 25 | 8.9 | 70 | 24 |
| 14 | | | 165 | 85 | 8 | 4.7 | 2 | .33 | 20 | 6.4 | 43 | 13 |
| 15 | | | 143 | 45 | 8 | 4.6 | 3 | .49 | 18 | 5.2 | 32 | 8.5 |
| 16 | | | 316 | 311 | 7 | 4.1 | 4 | .64 | 16 | 4.4 | 28 | 6.8 |
| 17 | | | 290 | 168 | 7 | 3.9 | 3 | .47 | 12 | 3.1 | 24 | 5.4 |
| 18 | | | 175 | 64 | 4 | 1.9 | 3 | .45 | 8 | 1.9 | 20 | 4.5 |
| 19 | | | 110 | 31 | 2 | .89 | 3 | .45 | 8 | 1.8 | 19 | 4.4 |
| 20 | | | 60 | 14 | 4 | 1.7 | 4 | .60 | 7 | 1.5 | 18 | 3.8 |
| 21 | | | 77 | 18 | 6 | 2.5 | 4 | .60 | 7 | 1.5 | 20 | 3.9 |
| 22 | | | 100 | 19 | 4 | 1.6 | 4 | .60 | 7 | 1.4 | 22 | 4.2 |
| 23 | | | 82 | 14 | 3 | 1.2 | 4 | .59 | 7 | 1.3 | 24 | 4.5 |
| 24 | | | 77 | 26 | 2 | .78 | 4 | .58 | 5 | .90 | 26 | 6.9 |
| 25 | | | 40 | 19 | 2 | .77 | 4 | .58 | 3 | .53 | 29 | 9.5 |
| 26 | | | 14 | 4.1 | 3 | 1.2 | 3 | .43 | 2 | .35 | 217 | 178 |
| 27 | | | 1750 | 6240 | 2 | .83 | 3 | .42 | 1 | .17 | 567 | 1010 |
| 28 | | | 720 | 2040 | 2 | .82 | 3 | .42 | 1 | .17 | 170 | 190 |
| 29 | | | 283 | 309 | 2 | .78 | 2 | .28 | --- | --- | 100 | 73 |
| 30 | | | 80 | 63 | 3 | 1.2 | 2 | .28 | --- | --- | 75 | 44 |
| 31 | | | --- | --- | 4 | 1.5 | 2 | .27 | --- | --- | 50 | 27 |
| TOTAL | | | --- | 9860.93 | --- | 590.97 | --- | 20.48 | --- | 15634.79 | --- | 3163.40 |

SACRAMENTO RIVER BASIN

11451760 CACHE CREEK ABOVE RUMSEY, CA--Continued

SUSPENDED-SEDIMENT, NOVEMBER 1984 TO MAY 1985

| DAY | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) |
|-------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 25 | 13 | 79 | 162 | | | | | | | | |
| 2 | 23 | 11 | 81 | 211 | | | | | | | | |
| 3 | 21 | 8.6 | 83 | 203 | | | | | | | | |
| 4 | 23 | 8.4 | 87 | 212 | | | | | | | | |
| 5 | 25 | 11 | 91 | 223 | | | | | | | | |
| 6 | 26 | 13 | 88 | 192 | | | | | | | | |
| 7 | 27 | 13 | 84 | 187 | | | | | | | | |
| 8 | 29 | 13 | 77 | 163 | | | | | | | | |
| 9 | 68 | 48 | 64 | 126 | | | | | | | | |
| 10 | 140 | 146 | 53 | 103 | | | | | | | | |
| 11 | 173 | 227 | 49 | 89 | | | | | | | | |
| 12 | 176 | 271 | 46 | 75 | | | | | | | | |
| 13 | 158 | 253 | 45 | 70 | | | | | | | | |
| 14 | 126 | 207 | 47 | 72 | | | | | | | | |
| 15 | 90 | 146 | 49 | 75 | | | | | | | | |
| 16 | 60 | 94 | 52 | 81 | | | | | | | | |
| 17 | 45 | 68 | 79 | 135 | | | | | | | | |
| 18 | 45 | 67 | 77 | 133 | | | | | | | | |
| 19 | 45 | 66 | 74 | 126 | | | | | | | | |
| 20 | 45 | 66 | 64 | 104 | | | | | | | | |
| 21 | 45 | 71 | 57 | 93 | | | | | | | | |
| 22 | 46 | 75 | 52 | 89 | | | | | | | | |
| 23 | 48 | 78 | 52 | 92 | | | | | | | | |
| 24 | 52 | 85 | 52 | 93 | | | | | | | | |
| 25 | 46 | 77 | 50 | 87 | | | | | | | | |
| 26 | 38 | 63 | 48 | 83 | | | | | | | | |
| 27 | 42 | 68 | 46 | 80 | | | | | | | | |
| 28 | 57 | 97 | 44 | 76 | | | | | | | | |
| 29 | 70 | 123 | 43 | 70 | | | | | | | | |
| 30 | 76 | 132 | 42 | 66 | | | | | | | | |
| 31 | --- | --- | 41 | 64 | | | | | | | | |
| TOTAL | --- | 2619.0 | --- | 3635 | | | | | | | | |

SUMMARY OF WATER AND SEDIMENT DISCHARGE, NOVEMBER 1983 TO MAY 1984
(NOT PREVIOUSLY PUBLISHED)

| MONTH | WATER DISCHARGE CFS-DAYS | SUSPENDED SEDIMENT DISCHARGE TONS | BEDLOAD DISCHARGE TONS | TOTAL SEDIMENT DISCHARGE TONS |
|---------------|--------------------------------|--|------------------------------|--|
| NOVEMBER 1983 | 49513.00 | 96948.80 | 8140 | 105000 |
| DECEMBER..... | 163020.00 | 510325.00 | 70100 | 580000 |
| JANUARY 1984. | 82146.00 | 58493.20 | 16100 | 74600 |
| FEBRUARY..... | 12064.00 | 8764.83 | 359 | 9120 |
| MARCH..... | 17232.00 | 2160.80 | 527 | 2690 |
| APRIL..... | 16246.00 | 1366.00 | 371 | 1740 |
| MAY..... | 20782.00 | 2177.00 | 584 | 2760 |
| PERIOD..... | 361003.00 | 680235.63 | 96181 | 775910 |

SUMMARY OF WATER AND SEDIMENT DISCHARGE, NOVEMBER 1984 TO MAY 1985

| MONTH | WATER DISCHARGE CFS-DAYS | SUSPENDED SEDIMENT DISCHARGE TONS | BEDLOAD DISCHARGE TONS | TOTAL SEDIMENT DISCHARGE TONS |
|---------------|--------------------------------|--|------------------------------|--|
| NOVEMBER 1984 | 5146.00 | 8800.93 | 93 | 8890 |
| DECEMBER..... | 6707.00 | 544.97 | 43 | 588 |
| JANUARY 1985. | 2000.00 | 20.48 | 2 | 22 |
| FEBRUARY..... | 4747.00 | 15634.79 | 228 | 15900 |
| MARCH..... | 4338.00 | 3163.40 | 29 | 3190 |
| APRIL..... | 13750.00 | 2619.00 | 294 | 2910 |
| MAY..... | 21259.00 | 3635.00 | 648 | 4280 |
| PERIOD..... | 57947.00 | 34418.57 | 1337 | 35780 |

11451760 CACHE CREEK ABOVE RUMSEY, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
(NOT PREVIOUSLY PUBLISHED)

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | STREAM- FLOW, INSTAN- TANEOUS (CFS) | BED MAT. SIEVE DIAM. % FINER THAN .125 MM | BED MAT. SIEVE DIAM. % FINER THAN .250 MM | BED MAT. SIEVE DIAM. % FINER THAN .500 MM | BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM |
|--------------|------|-----------------------------|---|---|---|---|---|---|
| FEB 09... | 1030 | 12.5 | 3 | 163 | -- | 1 | 6 | 13 |
| DATE | | | | | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM |
| FEB 09... | | 19 | 26 | 40 | 56 | 71 | 92 | 100 |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | STREAM- FLOW, INSTAN- TANEOUS (CFS) | BED MAT. SIEVE DIAM. % FINER THAN .125 MM | BED MAT. SIEVE DIAM. % FINER THAN .250 MM | BED MAT. SIEVE DIAM. % FINER THAN .500 MM | BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM |
|--------------|------|-----------------------------|---|---|---|---|---|---|
| JAN 11... | 1330 | 7.0 | 3 | 71 | 0 | 1 | 6 | 14 |
| DATE | | | | | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM |
| JAN 11... | | 26 | 44 | 63 | 79 | 93 | 100 | -- |

11451950 CACHE CREEK NEAR BROOKS, CA

LOCATION.--Lat 38 44'15", long 122 07'24", in Canada de Capay Grant, Yolo County, Hydrologic Unit 18020110, on right bank 2.8 mi upstream from diversion dam, 1.1 mi east of Brooks, and 6.4 mi northwest of Esparto.

DRAINAGE AREA.--1,041 mi².

WATER-DISCHARGE RECORDS

PERIOD OF RECORD.--October 1983 to current year.

GAGE.--Water-stage recorder. Elevation of gage is 265 ft above National Geodetic Vertical Datum of 1929, from topographic map.

REMARKS.--Estimated daily discharges: Oct. 6-31. Records good except for period of no gage height record which is fair. Flow partially regulated by Clear Lake beginning in 1915 and by Indian Valley Reservoir beginning in 1974. About 3,700 acre-ft diverted annually between stations above Rumsey and near Brooks for irrigation of approximately 900 acres, from data provided by U.S. Soil Conservation Service.

COOPERATION.--Records collected in cooperation with Corps of Engineers.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 26,000 ft³/s, Dec. 25, 1983, gage height, 23.50 ft; minimum daily, 26 ft³/s, several days in October and November 1984.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,620 ft³/s, Feb. 8, gage height, 13.37 ft; minimum daily, 26 ft³/s, several days in October and November.

EXTREMES FOR 1984 WATER YEAR (Not previously published).--Maximum discharge, 26,000 ft³/s, Dec. 25, gage height, 23.50 ft; minimum daily, 90 ft³/s, Sept. 29.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
MEAN VALUES
(NOT PREVIOUSLY PUBLISHED)

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|------|
| 1 | 221 | 310 | 2590 | 5440 | 261 | 480 | 368 | 634 | 755 | 743 | 580 | 279 |
| 2 | 202 | 321 | 2500 | 5330 | 241 | 479 | 327 | 662 | 760 | 740 | 583 | 278 |
| 3 | 191 | 283 | 4750 | 5250 | 224 | 475 | 318 | 630 | 771 | 738 | 514 | 237 |
| 4 | 187 | 240 | 3600 | 4830 | 218 | 466 | 322 | 618 | 763 | 724 | 470 | 210 |
| 5 | 189 | 233 | 2790 | 4870 | 214 | 456 | 325 | 641 | 747 | 696 | 463 | 197 |
| 6 | 197 | 241 | 2600 | 4710 | 210 | 452 | 473 | 664 | 740 | 745 | 460 | 187 |
| 7 | 199 | 241 | 3160 | 4360 | 206 | 361 | 589 | 666 | 713 | 758 | 451 | 186 |
| 8 | 196 | 217 | 3510 | 4280 | 205 | 323 | 604 | 641 | 675 | 719 | 447 | 180 |
| 9 | 190 | 260 | 9830 | 4170 | 203 | 317 | 608 | 634 | 592 | 694 | 462 | 184 |
| 10 | 191 | 802 | 6180 | 4070 | 206 | 313 | 612 | 649 | 621 | 688 | 475 | 193 |
| 11 | 193 | 2200 | 9560 | 3950 | 217 | 307 | 623 | 689 | 642 | 687 | 477 | 191 |
| 12 | 198 | 1110 | 6010 | 3850 | 221 | 305 | 655 | 668 | 650 | 683 | 470 | 177 |
| 13 | 199 | 1710 | 7120 | 3790 | 303 | 381 | 529 | 618 | 689 | 699 | 461 | 171 |
| 14 | 195 | 1240 | 7130 | 3620 | 917 | 551 | 624 | 625 | 674 | 724 | 462 | 168 |
| 15 | 193 | 861 | 6720 | 3520 | 779 | 578 | 694 | 653 | 670 | 694 | 418 | 163 |
| 16 | 193 | 878 | 6110 | 3620 | 1420 | 629 | 711 | 657 | 680 | 693 | 396 | 155 |
| 17 | 193 | 2750 | 4740 | 3380 | 879 | 728 | 706 | 672 | 701 | 692 | 357 | 150 |
| 18 | 199 | 935 | 3990 | 3200 | 1000 | 1710 | 709 | 648 | 737 | 695 | 339 | 132 |
| 19 | 207 | 1010 | 3800 | 3160 | 1080 | 843 | 701 | 643 | 744 | 676 | 330 | 126 |
| 20 | 228 | 1250 | 3570 | 3060 | 1030 | 817 | 684 | 639 | 743 | 698 | 346 | 116 |
| 21 | 230 | 3100 | 3290 | 2990 | 687 | 776 | 605 | 638 | 733 | 701 | 359 | 107 |
| 22 | 231 | 2950 | 3100 | 2930 | 496 | 752 | 586 | 597 | 734 | 689 | 362 | 103 |
| 23 | 233 | 3350 | 3270 | 2880 | 388 | 741 | 582 | 583 | 724 | 660 | 362 | 99 |
| 24 | 235 | 6520 | 12200 | 2730 | 357 | 732 | 607 | 642 | 684 | 639 | 362 | 101 |
| 25 | 240 | 4580 | 22600 | 2390 | 337 | 915 | 565 | 692 | 675 | 617 | 356 | 101 |
| 26 | 253 | 3870 | 9870 | 617 | 319 | 947 | 585 | 683 | 685 | 605 | 334 | 102 |
| 27 | 250 | 3660 | 9480 | 446 | 306 | 918 | 589 | 649 | 698 | 575 | 316 | 104 |
| 28 | 226 | 3460 | 10900 | 348 | 325 | 589 | 584 | 658 | 740 | 616 | 299 | 100 |
| 29 | 216 | 3310 | 10300 | 368 | 415 | 574 | 567 | 655 | 754 | 620 | 284 | 90 |
| 30 | 218 | 3190 | 10000 | 357 | --- | 553 | 596 | 700 | 743 | 597 | 292 | 91 |
| 31 | 230 | --- | 6530 | 306 | --- | 454 | --- | 735 | --- | 569 | 291 | --- |
| TOTAL | 6523 | 55082 | 201800 | 98822 | 13664 | 18922 | 17048 | 20183 | 21237 | 21074 | 12578 | 4678 |
| MEAN | 210 | 1836 | 6510 | 3188 | 471 | 610 | 568 | 651 | 708 | 680 | 406 | 156 |
| MAX | 253 | 6520 | 22600 | 5440 | 1420 | 1710 | 711 | 735 | 771 | 758 | 583 | 279 |
| MIN | 187 | 217 | 2500 | 306 | 203 | 305 | 318 | 583 | 592 | 569 | 284 | 90 |
| AC-FT | 12940 | 109300 | 400300 | 196000 | 27100 | 37530 | 33810 | 40030 | 42120 | 41800 | 24950 | 9280 |

WTR YR 1984 TOTAL 491611 MEAN 1343 MAX 22600 MIN 90 AC-FT 975100

11451950 CACHE CREEK NEAR BROOKS, CA--Continued

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------------|-------|--------|-------|------|-------|-------|-------|-------|-------|--------|-------|-------|
| 1 | 82 | 26 | 277 | 146 | 51 | 95 | 220 | 718 | 581 | 767 | 498 | 242 |
| 2 | 99 | 26 | 252 | 130 | 51 | 94 | 204 | 1010 | 557 | 753 | 495 | 247 |
| 3 | 87 | 28 | 451 | 86 | 51 | 93 | 183 | 977 | 573 | 751 | 480 | 258 |
| 4 | 86 | 28 | 380 | 75 | 51 | 92 | 163 | 951 | 576 | 739 | 466 | 242 |
| 5 | 67 | 31 | 295 | 71 | 51 | 93 | 157 | 966 | 571 | 749 | 463 | 263 |
| 6 | 58 | 33 | 271 | 69 | 50 | 102 | 194 | 800 | 685 | 757 | 462 | 263 |
| 7 | 58 | 34 | 321 | 75 | 53 | 129 | 193 | 804 | 699 | 750 | 469 | 264 |
| 8 | 58 | 38 | 263 | 90 | 2510 | 134 | 188 | 786 | 645 | 733 | 514 | 267 |
| 9 | 56 | 50 | 225 | 94 | 897 | 118 | 228 | 740 | 648 | 743 | 509 | 265 |
| 10 | 42 | 54 | 321 | 84 | 429 | 123 | 352 | 726 | 693 | 765 | 489 | 251 |
| 11 | 32 | 68 | 381 | 79 | 282 | 369 | 500 | 697 | 646 | 769 | 468 | 217 |
| 12 | 27 | 115 | 288 | 73 | 231 | 249 | 565 | 632 | 823 | 753 | 441 | 231 |
| 13 | 27 | 276 | 253 | 69 | 200 | 177 | 613 | 600 | 784 | 740 | 467 | 211 |
| 14 | 27 | 301 | 234 | 67 | 181 | 149 | 633 | 584 | 851 | 727 | 447 | 264 |
| 15 | 27 | 153 | 228 | 66 | 168 | 134 | 631 | 571 | 863 | 727 | 428 | 299 |
| 16 | 27 | 232 | 228 | 64 | 155 | 123 | 619 | 574 | 830 | 707 | 404 | 306 |
| 17 | 27 | 303 | 219 | 62 | 148 | 114 | 597 | 627 | 795 | 680 | 380 | 304 |
| 18 | 27 | 167 | 200 | 60 | 138 | 112 | 589 | 637 | 759 | 674 | 363 | 235 |
| 19 | 27 | 140 | 182 | 59 | 130 | 112 | 577 | 641 | 745 | 675 | 354 | 181 |
| 20 | 27 | 108 | 173 | 59 | 124 | 106 | 569 | 613 | 754 | 670 | 334 | 174 |
| 21 | 26 | 102 | 169 | 59 | 119 | 101 | 600 | 606 | 761 | 662 | 335 | 166 |
| 22 | 26 | 88 | 160 | 58 | 113 | 97 | 631 | 630 | 805 | 642 | 340 | 155 |
| 23 | 26 | 76 | 156 | 57 | 108 | 94 | 624 | 644 | 801 | 617 | 342 | 94 |
| 24 | 26 | 79 | 153 | 56 | 105 | 95 | 628 | 659 | 782 | 588 | 333 | 88 |
| 25 | 26 | 174 | 152 | 56 | 104 | 138 | 649 | 635 | 747 | 554 | 308 | 79 |
| 26 | 26 | 132 | 153 | 54 | 101 | 185 | 649 | 631 | 739 | 574 | 290 | 68 |
| 27 | 26 | 212 | 161 | 54 | 99 | 661 | 634 | 630 | 757 | 563 | 285 | 55 |
| 28 | 26 | 1370 | 162 | 55 | 97 | 506 | 658 | 634 | 781 | 545 | 279 | 50 |
| 29 | 26 | 529 | 155 | 53 | --- | 345 | 683 | 609 | 765 | 554 | 271 | 48 |
| 30 | 26 | 338 | 150 | 53 | --- | 264 | 668 | 573 | 750 | 559 | 262 | 39 |
| 31 | 27 | --- | 148 | 52 | --- | 229 | --- | 566 | --- | 525 | 248 | --- |
| TOTAL | 1255 | 5311 | 7161 | 2185 | 6797 | 5433 | 14399 | 21471 | 21766 | 21012 | 12224 | 5826 |
| MEAN | 40.5 | 177 | 231 | 70.5 | 243 | 175 | 480 | 693 | 726 | 678 | 394 | 194 |
| MAX | 99 | 1370 | 451 | 146 | 2510 | 661 | 683 | 1010 | 863 | 769 | 514 | 306 |
| MIN | 26 | 26 | 148 | 52 | 50 | 92 | 157 | 566 | 557 | 525 | 248 | 39 |
| AC-FT | 2490 | 10530 | 14200 | 4330 | 13480 | 10780 | 28560 | 42590 | 43170 | 41680 | 24250 | 11560 |
| CAL YR 1984 | TOTAL | 241933 | MEAN | 661 | MAX | 5440 | MIN | 26 | AC-FT | 479900 | | |
| WTR YR 1985 | TOTAL | 124840 | MEAN | 342 | MAX | 2510 | MIN | 26 | AC-FT | 247600 | | |

SACRAMENTO RIVER BASIN

11451950 CACHE CREEK NEAR BROOKS, CA--Continued

WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1984 to current year.

WATER TEMPERATURES: Water years 1984 to current year.

SEDIMENT RECORDS: Water years 1984 to current year.

PERIOD OF DAILY RECORD.--

SEDIMENT RECORDS: November 1983 to current year (storm season only).

REMARKS.--Sediment samples were collected on most days where a water temperature is published.

EXTREMES FOR PERIOD OF DAILY RECORDS.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 3,010 mg/L, Dec. 9, 1983; minimum daily mean, 3 mg/L,

Feb. 8-12, 1984, Dec. 23-27, 1984.

SEDIMENT LOAD: Maximum daily, 165,000 tons, Dec. 25, 1983; minimum daily, 0.36 ton, Nov. 1, 1984.

EXTREMES FOR CURRENT YEAR.--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 2,590 mg/L, Feb. 8; minimum daily mean, 3 mg/L, Dec. 23-27.

SEDIMENT LOAD: Maximum daily, 22,100 tons, Feb. 8; minimum daily, 0.35 ton, Nov. 1.

EXTREMES FOR 1984 WATER YEAR (Not previously published).--

SEDIMENT CONCENTRATIONS: Maximum daily mean, 3,010 mg/L, Dec. 9; minimum daily mean, 3 mg/L, Feb. 8-12.

SEDIMENT LOAD: Maximum daily, 165,000 tons, Dec. 25; minimum daily, 1.6 tons, Feb. 9.

TEMPERATURE (DEG. C) OF WATER, NOVEMBER 1983 TO MAY 1984
(NOT PREVIOUSLY PUBLISHED)

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-----|------|------|------|------|------|------|------|-----|-----|-----|-----|
| 1 | | 16.0 | --- | 9.5 | --- | --- | --- | 16.0 | | | | |
| 2 | | --- | 11.0 | --- | --- | 15.5 | 18.0 | --- | | | | |
| 3 | | | 11.5 | 9.0 | 13.0 | --- | --- | 20.0 | | | | |
| 4 | | 15.5 | 9.5 | --- | --- | --- | --- | 17.0 | | | | |
| 5 | | --- | --- | --- | 9.5 | 15.0 | --- | --- | | | | |
| 6 | | 16.0 | 10.5 | 10.5 | --- | --- | 14.0 | 16.0 | | | | |
| 7 | | --- | --- | --- | 10.0 | 15.0 | --- | --- | | | | |
| 8 | | 11.0 | --- | --- | --- | --- | --- | 17.5 | | | | |
| 9 | | --- | 11.0 | --- | 13.0 | 12.5 | 15.5 | --- | | | | |
| 10 | | --- | --- | --- | 10.5 | --- | 15.0 | 22.5 | | | | |
| 11 | | 13.0 | 11.0 | --- | --- | --- | 17.5 | --- | | | | |
| 12 | | 12.5 | --- | --- | 10.0 | 18.0 | --- | --- | | | | |
| 13 | | 13.0 | 11.0 | 8.5 | --- | --- | 15.0 | --- | | | | |
| 14 | | 11.0 | --- | --- | 8.5 | 13.0 | --- | --- | | | | |
| 15 | | 12.0 | --- | 8.5 | --- | 12.5 | --- | 17.0 | | | | |
| 16 | | 13.0 | 12.0 | --- | --- | --- | 19.5 | --- | | | | |
| 17 | | --- | --- | 8.0 | 7.5 | 10.0 | --- | 23.0 | | | | |
| 18 | | 11.5 | 10.0 | --- | --- | --- | 16.0 | --- | | | | |
| 19 | | --- | 11.0 | 8.5 | 9.5 | --- | 17.0 | 18.5 | | | | |
| 20 | | 12.0 | 10.0 | 8.0 | --- | 14.0 | --- | --- | | | | |
| 21 | | --- | --- | --- | 10.5 | --- | 14.5 | --- | | | | |
| 22 | | 10.0 | --- | 9.0 | --- | --- | --- | 19.0 | | | | |
| 23 | | 11.5 | 8.0 | --- | --- | 14.0 | 22.0 | --- | | | | |
| 24 | | 11.5 | 7.0 | 10.5 | 9.5 | --- | --- | --- | | | | |
| 25 | | 10.0 | 8.5 | --- | --- | --- | 14.0 | 25.0 | | | | |
| 26 | | --- | --- | --- | --- | 18.5 | --- | --- | | | | |
| 27 | | --- | 10.5 | 9.0 | 13.0 | --- | 13.5 | --- | | | | |
| 28 | | --- | --- | --- | --- | 18.5 | --- | --- | | | | |
| 29 | | 10.5 | --- | 9.5 | 13.0 | --- | 15.5 | --- | | | | |
| 30 | | --- | 11.0 | --- | --- | --- | --- | --- | | | | |
| 31 | | --- | --- | 9.5 | --- | 13.0 | --- | 25.0 | | | | |
| MONTH | --- | --- | --- | --- | --- | --- | --- | --- | | | | |

11451950 CACHE CREEK NEAR BROOKS, CA--Continued

TEMPERATURE. (DEG. C) OF WATER, NOVEMBER 1984 TO APRIL 1985
ONCE-DAILY

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-----|------|------|-----|------|------|------|-----|-----|-----|-----|-----|
| 1 | | --- | --- | --- | --- | --- | --- | | | | | |
| 2 | | --- | --- | --- | --- | 12.5 | --- | | | | | |
| 3 | | --- | 9.0 | 4.0 | --- | --- | --- | | | | | |
| 4 | | --- | --- | --- | --- | --- | --- | | | | | |
| 5 | | --- | 10.5 | --- | --- | --- | --- | | | | | |
| 6 | | --- | --- | --- | --- | --- | --- | | | | | |
| 7 | | --- | --- | --- | 9.5 | --- | --- | | | | | |
| 8 | | --- | 8.5 | 9.0 | 10.0 | --- | --- | | | | | |
| 9 | | --- | --- | --- | 8.0 | --- | --- | | | | | |
| 10 | | --- | --- | --- | --- | --- | --- | | | | | |
| 11 | | --- | --- | --- | 8.0 | --- | --- | | | | | |
| 12 | | --- | 11.0 | --- | 8.5 | --- | --- | | | | | |
| 13 | | 15.0 | --- | --- | --- | --- | --- | | | | | |
| 14 | | 11.5 | 6.0 | --- | --- | --- | --- | | | | | |
| 15 | | --- | --- | --- | --- | --- | --- | | | | | |
| 16 | | --- | --- | --- | --- | --- | --- | | | | | |
| 17 | | 12.0 | 8.0 | --- | --- | --- | --- | | | | | |
| 18 | | --- | 5.5 | --- | --- | --- | --- | | | | | |
| 19 | | --- | 8.0 | --- | --- | --- | --- | | | | | |
| 20 | | 13.0 | --- | --- | --- | --- | --- | | | | | |
| 21 | | --- | --- | --- | --- | --- | --- | | | | | |
| 22 | | 13.0 | --- | --- | --- | --- | --- | | | | | |
| 23 | | --- | --- | --- | --- | --- | --- | | | | | |
| 24 | | --- | --- | --- | --- | --- | --- | | | | | |
| 25 | | --- | --- | --- | --- | --- | --- | | | | | |
| 26 | | --- | 7.5 | --- | --- | --- | 13.0 | | | | | |
| 27 | | --- | --- | --- | --- | 8.5 | --- | | | | | |
| 28 | | --- | --- | --- | --- | --- | --- | | | | | |
| 29 | | 11.5 | --- | --- | --- | --- | --- | | | | | |
| 30 | | 9.5 | 7.5 | --- | --- | --- | --- | | | | | |
| 31 | | --- | --- | --- | --- | --- | --- | | | | | |
| MONTH | | --- | --- | --- | --- | --- | --- | | | | | |

SUSPENDED-SEDIMENT, NOVEMBER 1983 TO MAY 1984
(NOT PREVIOUSLY PUBLISHED)

| DAY | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) |
|-------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | | | 8 | 6.7 | 334 | 2340 | 700 | 10300 | 7 | 4.9 | 16 | 21 |
| 2 | | | 9 | 7.8 | 317 | 2140 | 570 | 8200 | 6 | 3.9 | 10 | 13 |
| 3 | | | 10 | 7.6 | 1750 | 29200 | 455 | 6450 | 5 | 3.0 | 9 | 12 |
| 4 | | | 13 | 8.4 | 1030 | 10000 | 420 | 5480 | 5 | 2.9 | 9 | 11 |
| 5 | | | 17 | 11 | 456 | 3440 | 375 | 4930 | 5 | 2.9 | 9 | 11 |
| 6 | | | 23 | 15 | 338 | 2370 | 340 | 4320 | 4 | 2.3 | 8 | 9.8 |
| 7 | | | 17 | 11 | 652 | 5560 | 310 | 3650 | 4 | 2.2 | 7 | 6.8 |
| 8 | | | 14 | 8.2 | 870 | 8240 | 283 | 3270 | 3 | 1.7 | 7 | 6.1 |
| 9 | | | 14 | 9.8 | 3010 | 82400 | 257 | 2890 | 3 | 1.6 | 7 | 6.0 |
| 10 | | | 618 | 3780 | 1610 | 29300 | 230 | 2530 | 3 | 1.7 | 7 | 5.9 |
| 11 | | | 2840 | 24000 | 1880 | 49700 | 205 | 2190 | 3 | 1.8 | 8 | 6.6 |
| 12 | | | 290 | 869 | 1150 | 18700 | 200 | 2080 | 3 | 1.8 | 9 | 7.4 |
| 13 | | | 959 | 5310 | 1000 | 19200 | 189 | 1930 | 160 | 131 | 40 | 41 |
| 14 | | | 605 | 2030 | 936 | 18000 | 178 | 1740 | 560 | 1390 | 97 | 144 |
| 15 | | | 160 | 372 | 747 | 13600 | 166 | 1580 | 731 | 2080 | 92 | 144 |
| 16 | | | 114 | 270 | 670 | 11100 | 155 | 1510 | 840 | 3220 | 94 | 160 |
| 17 | | | 2080 | 26000 | 556 | 7120 | 152 | 1390 | 230 | 546 | 102 | 200 |
| 18 | | | 476 | 1200 | 469 | 5050 | 150 | 1300 | 180 | 486 | 77 | 356 |
| 19 | | | 376 | 1030 | 426 | 4370 | 155 | 1320 | 145 | 423 | 63 | 143 |
| 20 | | | 714 | 2410 | 390 | 3760 | 134 | 1110 | 102 | 284 | 56 | 124 |
| 21 | | | 706 | 5910 | 362 | 3220 | 123 | 993 | 75 | 139 | 54 | 113 |
| 22 | | | 584 | 4650 | 326 | 2730 | 113 | 894 | 54 | 72 | 52 | 106 |
| 23 | | | 508 | 4590 | 399 | 3520 | 108 | 840 | 34 | 36 | 50 | 100 |
| 24 | | | 2330 | 51200 | 1940 | 75400 | 101 | 744 | 15 | 14 | 57 | 113 |
| 25 | | | 1160 | 14300 | 2660 | 165000 | 95 | 613 | 12 | 11 | 65 | 161 |
| 26 | | | 596 | 6230 | 1320 | 35200 | 63 | 105 | 9 | 7.8 | 68 | 174 |
| 27 | | | 415 | 4100 | 1300 | 33300 | 20 | 24 | 7 | 5.8 | 52 | 129 |
| 28 | | | 379 | 3540 | 1400 | 41200 | 14 | 13 | 14 | 12 | 36 | 57 |
| 29 | | | 374 | 3340 | 1170 | 32500 | 9 | 8.9 | 22 | 25 | 31 | 48 |
| 30 | | | 362 | 3120 | 1130 | 30500 | 8 | 7.7 | --- | --- | 27 | 40 |
| 31 | | | --- | --- | 810 | 14300 | 8 | 6.6 | --- | --- | 23 | 28 |
| TOTAL | | | --- | 168336.5 | --- | 762460 | --- | 72419.2 | --- | 8913.3 | --- | 2497.6 |

11451950 CACHE CREEK NEAR BROOKS, CA--Continued

SUSPENDED-SEDIMENT, NOVEMBER 1983 TO MAY 1984
(NOT PREVIOUSLY PUBLISHED)

| DAY | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) |
|-------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 19 | 19 | 48 | 82 | | | | | | | | |
| 2 | 16 | 14 | 47 | 84 | | | | | | | | |
| 3 | 15 | 13 | 47 | 80 | | | | | | | | |
| 4 | 15 | 13 | 38 | 63 | | | | | | | | |
| 5 | 14 | 12 | 40 | 69 | | | | | | | | |
| 6 | 13 | 17 | 52 | 93 | | | | | | | | |
| 7 | 23 | 37 | 48 | 86 | | | | | | | | |
| 8 | 33 | 54 | 44 | 76 | | | | | | | | |
| 9 | 43 | 71 | 46 | 79 | | | | | | | | |
| 10 | 42 | 69 | 49 | 86 | | | | | | | | |
| 11 | 41 | 69 | 50 | 93 | | | | | | | | |
| 12 | 35 | 62 | 51 | 92 | | | | | | | | |
| 13 | 29 | 41 | 45 | 75 | | | | | | | | |
| 14 | 37 | 62 | 47 | 79 | | | | | | | | |
| 15 | 45 | 84 | 51 | 90 | | | | | | | | |
| 16 | 54 | 104 | 47 | 83 | | | | | | | | |
| 17 | 48 | 91 | 44 | 80 | | | | | | | | |
| 18 | 43 | 82 | 42 | 73 | | | | | | | | |
| 19 | 38 | 72 | 40 | 69 | | | | | | | | |
| 20 | 33 | 61 | 39 | 67 | | | | | | | | |
| 21 | 28 | 46 | 38 | 65 | | | | | | | | |
| 22 | 29 | 46 | 38 | 61 | | | | | | | | |
| 23 | 30 | 47 | 42 | 66 | | | | | | | | |
| 24 | 31 | 51 | 47 | 81 | | | | | | | | |
| 25 | 32 | 49 | 52 | 97 | | | | | | | | |
| 26 | 31 | 49 | 48 | 89 | | | | | | | | |
| 27 | 30 | 48 | 44 | 77 | | | | | | | | |
| 28 | 28 | 44 | 40 | 71 | | | | | | | | |
| 29 | 26 | 40 | 47 | 83 | | | | | | | | |
| 30 | 29 | 47 | 55 | 104 | | | | | | | | |
| 31 | --- | --- | 63 | 125 | | | | | | | | |
| TOTAL | --- | 1514 | --- | 2518 | | | | | | | | |

SUSPENDED-SEDIMENT, NOVEMBER 1984 TO MAY 1985

| DAY | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) |
|-------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|
| | OCTOBER | | NOVEMBER | | DECEMBER | | JANUARY | | FEBRUARY | | MARCH | |
| 1 | | | 5 | .35 | 35 | 26 | 6 | 2.4 | 7 | .96 | 8 | 2.1 |
| 2 | | | 6 | .42 | 23 | 16 | 5 | 1.8 | 7 | .96 | 7 | 1.8 |
| 3 | | | 7 | .53 | 157 | 220 | 4 | .93 | 7 | .96 | 7 | 1.8 |
| 4 | | | 8 | .60 | 107 | 110 | 3 | .61 | 7 | .96 | 7 | 1.7 |
| 5 | | | 10 | .84 | 49 | 39 | 4 | .77 | 7 | .96 | 8 | 2.0 |
| 6 | | | 9 | .80 | 36 | 26 | 6 | 1.1 | 7 | .95 | 9 | 2.5 |
| 7 | | | 8 | .73 | 22 | 19 | 7 | 1.4 | 10 | 1.4 | 10 | 3.5 |
| 8 | | | 7 | .72 | 12 | 8.5 | 8 | 1.9 | 2590 | 22100 | 10 | 3.6 |
| 9 | | | 6 | .81 | 17 | 10 | 8 | 2.0 | 400 | 969 | 9 | 2.9 |
| 10 | | | 5 | .73 | 85 | 99 | 7 | 1.6 | 132 | 153 | 28 | 9.3 |
| 11 | | | 10 | 1.8 | 160 | 165 | 7 | 1.5 | 53 | 40 | 125 | 125 |
| 12 | | | 33 | 10 | 62 | 48 | 7 | 1.4 | 25 | 16 | 70 | 47 |
| 13 | | | 313 | 404 | 20 | 14 | 7 | 1.3 | 24 | 13 | 32 | 15 |
| 14 | | | 335 | 272 | 8 | 5.1 | 7 | 1.3 | 23 | 11 | 14 | 5.6 |
| 15 | | | 135 | 56 | 7 | 4.3 | 7 | 1.2 | 22 | 10 | 9 | 3.3 |
| 16 | | | 228 | 205 | 6 | 3.7 | 7 | 1.2 | 21 | 8.8 | 8 | 2.7 |
| 17 | | | 365 | 299 | 5 | 3.0 | 7 | 1.2 | 20 | 8.0 | 8 | 2.5 |
| 18 | | | 227 | 102 | 4 | 2.2 | 7 | 1.1 | 19 | 7.1 | 8 | 2.4 |
| 19 | | | 137 | 52 | 4 | 2.0 | 7 | 1.1 | 18 | 6.3 | 8 | 2.4 |
| 20 | | | 80 | 23 | 4 | 1.9 | 7 | 1.1 | 17 | 5.7 | 8 | 2.3 |
| 21 | | | 55 | 15 | 4 | 1.8 | 7 | 1.1 | 16 | 5.1 | 7 | 1.9 |
| 22 | | | 43 | 10 | 4 | 1.7 | 7 | 1.1 | 15 | 4.6 | 6 | 1.6 |
| 23 | | | 37 | 7.6 | 3 | 1.3 | 7 | 1.1 | 14 | 4.1 | 6 | 1.5 |
| 24 | | | 33 | 7.0 | 3 | 1.2 | 7 | 1.1 | 13 | 3.7 | 6 | 1.5 |
| 25 | | | 46 | 22 | 3 | 1.2 | 7 | 1.1 | 12 | 3.4 | 8 | 3.0 |
| 26 | | | 35 | 12 | 3 | 1.2 | 7 | 1.0 | 11 | 3.0 | 44 | 22 |
| 27 | | | 452 | 454 | 3 | 1.3 | 7 | 1.0 | 10 | 2.7 | 418 | 842 |
| 28 | | | 1130 | 4910 | 4 | 1.7 | 7 | 1.0 | 9 | 2.4 | 225 | 318 |
| 29 | | | 218 | 311 | 5 | 2.1 | 7 | 1.0 | --- | --- | 108 | 101 |
| 30 | | | 93 | 85 | 6 | 2.4 | 7 | 1.0 | --- | --- | 29 | 21 |
| 31 | | | --- | --- | 6 | 2.4 | 7 | .98 | --- | --- | 14 | 8.7 |
| TOTAL | | | --- | 7264.93 | --- | 841.0 | --- | 38.39 | --- | 23384.05 | --- | 1561.6 |

11451950 CACHE CREEK NEAR BROOKS, CA--Continued

SUSPENDED-SEDIMENT, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DAY | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) | MEAN CONCEN- TRATION (MG/L) | LOADS (T/DAY) |
|-------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|--------------------------------------|------------------|
| | APRIL | | MAY | | JUNE | | JULY | | AUGUST | | SEPTEMBER | |
| 1 | 12 | 7.1 | 60 | 116 | | | | | | | | |
| 2 | 11 | 6.1 | 120 | 327 | | | | | | | | |
| 3 | 10 | 4.9 | 105 | 277 | | | | | | | | |
| 4 | 9 | 4.0 | 98 | 252 | | | | | | | | |
| 5 | 9 | 3.8 | 100 | 261 | | | | | | | | |
| 6 | 11 | 5.8 | 72 | 156 | | | | | | | | |
| 7 | 11 | 5.7 | 73 | 158 | | | | | | | | |
| 8 | 11 | 5.6 | 70 | 149 | | | | | | | | |
| 9 | 12 | 7.4 | 64 | 128 | | | | | | | | |
| 10 | 17 | 16 | 61 | 120 | | | | | | | | |
| 11 | 27 | 36 | 58 | 109 | | | | | | | | |
| 12 | 37 | 56 | 46 | 78 | | | | | | | | |
| 13 | 44 | 73 | 41 | 66 | | | | | | | | |
| 14 | 46 | 79 | 40 | 63 | | | | | | | | |
| 15 | 46 | 78 | 37 | 57 | | | | | | | | |
| 16 | 44 | 74 | 37 | 57 | | | | | | | | |
| 17 | 41 | 66 | 46 | 78 | | | | | | | | |
| 18 | 40 | 64 | 47 | 81 | | | | | | | | |
| 19 | 38 | 59 | 48 | 83 | | | | | | | | |
| 20 | 37 | 57 | 44 | 73 | | | | | | | | |
| 21 | 41 | 66 | 42 | 69 | | | | | | | | |
| 22 | 46 | 78 | 46 | 78 | | | | | | | | |
| 23 | 45 | 76 | 49 | 85 | | | | | | | | |
| 24 | 46 | 78 | 51 | 91 | | | | | | | | |
| 25 | 50 | 88 | 47 | 81 | | | | | | | | |
| 26 | 50 | 88 | 46 | 78 | | | | | | | | |
| 27 | 47 | 80 | 46 | 78 | | | | | | | | |
| 28 | 51 | 91 | 47 | 80 | | | | | | | | |
| 29 | 53 | 98 | 42 | 69 | | | | | | | | |
| 30 | 52 | 94 | 38 | 59 | | | | | | | | |
| 31 | --- | --- | 37 | 57 | | | | | | | | |
| TOTAL | --- | 1545.4 | --- | 3514 | | | | | | | | |

SUMMARY OF WATER AND SEDIMENT DISCHARGE, NOVEMBER 1983 TO MAY 1984
(NOT PREVIOUSLY PUBLISHED)

| MONTH | WATER DISCHARGE CFS-DAYS | SUSPENDED SEDIMENT DISCHARGE | BEDLOAD DISCHARGE TONS | TOTAL SEDIMENT DISCHARGE TONS |
|---------------|--------------------------------|------------------------------------|------------------------------|--|
| NOVEMBER 1983 | 55082.00 | 168336.50 | 6850 | 175000 |
| DECEMBER..... | 201800.00 | 766360.00 | 41400 | 808000 |
| JANUARY 1984. | 98822.00 | 72419.20 | 14600 | 87000 |
| FEBRUARY..... | 13664.00 | 9883.30 | 389 | 9370 |
| MARCH..... | 18922.00 | 2497.60 | 524 | 3020 |
| APRIL..... | 17048.00 | 1514.00 | 296 | 1810 |
| MAY..... | 20183.00 | 2518.00 | 432 | 2950 |
| PERIOD..... | 425521.00 | 1022628.60 | 64491 | 1087150 |

SUMMARY OF WATER AND SEDIMENT DISCHARGE, NOVEMBER 1984 TO MAY 1985

| MONTH | WATER DISCHARGE CFS-DAYS | SUSPENDED SEDIMENT DISCHARGE | BEDLOAD DISCHARGE TONS | TOTAL SEDIMENT DISCHARGE TONS |
|---------------|--------------------------------|------------------------------------|------------------------------|--|
| NOVEMBER 1984 | 5311.00 | 7264.93 | 31 | 7300 |
| DECEMBER..... | 7161.00 | 841.00 | 15 | 856 |
| JANUARY 1985. | 2185.00 | 38.39 | 0 | 38 |
| FEBRUARY..... | 6797.00 | 23384.05 | 97 | 23500 |
| MARCH..... | 5433.00 | 1561.60 | 13 | 1570 |
| APRIL..... | 14399.00 | 1545.40 | 92 | 1640 |
| MAY..... | 21471.00 | 3514.00 | 180 | 3690 |
| PERIOD..... | 62757.00 | 38149.37 | 428 | 38594 |

SACRAMENTO RIVER BASIN

11451950 CACHE CREEK NEAR BROOKS, CA--Continued

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1983 TO SEPTEMBER 1984
(NOT PREVIOUSLY PUBLISHED)

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | STREAM- FLOW, INSTAN- TANEOUS (CFS) | BED MAT. SIEVE DIAM. % FINER THAN .125 MM | BED MAT. SIEVE DIAM. % FINER THAN .250 MM | BED MAT. SIEVE DIAM. % FINER THAN .500 MM | BED MAT. SIEVE DIAM. % FINER THAN 1.00 MM |
|-------------------|------|-----------------------------|---|---|---|---|---|---|
| OCT 04... | 1200 | 18.0 | 5 | 184 | 1 | 3 | 10 | 15 |
| MAY 1984 08... | 1230 | 20.0 | 3 | 638 | -- | 1 | 3 | 7 |

| DATE | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM | BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM | BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM | BED MAT. SIEVE DIAM. % FINER THAN 128 MM |
|--------------|---|---|---|---|---|---|--|
| OCT 04... | 19 | 27 | 38 | 58 | 92 | 100 | -- |
| MAY 08... | 13 | 21 | 34 | 52 | 83 | 100 | -- |

PARTICLE-SIZE DISTRIBUTION OF SURFACE BED MATERIAL, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | TIME | TEMPER- ATURE (DEG C) | NUMBER OF SAM- PLING POINTS | STREAM- FLOW, INSTAN- TANEOUS (CFS) | BED MAT. | BED MAT. | BED MAT. | BED MAT. |
|--------------|---|---|---|---|---|---|--|--|
| | | | | | SIEVE DIAM. % FINER THAN .125 MM | SIEVE DIAM. % FINER THAN .250 MM | SIEVE DIAM. % FINER THAN .500 MM | SIEVE DIAM. % FINER THAN 1.00 MM |
| FEB 07... | 1045 | 9.5 | 2 | 51 | -- | -- | -- | -- |
| DATE | BED MAT. SIEVE DIAM. % FINER THAN 2.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 4.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 8.00 MM | BED MAT. SIEVE DIAM. % FINER THAN 16.0 MM | BED MAT. SIEVE DIAM. % FINER THAN 32.0 MM | BED MAT. SIEVE DIAM. % FINER THAN 64.0 MM | BED MAT. SIEVE DIAM. % FINER THAN 128 MM | |
| | FEB 07... | 1 | 2 | 5 | 15 | 45 | 76 | 100 |

11452500 CACHE CREEK AT YOLO, CA

LOCATION.--Lat 38°43'38", long 121°48'22", in Rio Jesus Maria Grant, Yolo County, Hydrologic Unit 18020129, on left bank 35 ft upstream from highway bridge, 0.5 mi south of Yolo, and 7.3 mi downstream from Moore Dam.

DRAINAGE AREA.--1,139 mi².

PERIOD OF RECORD.--January 1903 to current year. Records for water year 1903 incomplete, yearly estimate published in WSP 1315-A.

REVISED RECORDS.--WSP 1315-A: 1914(M). WSP 1345: 1906. WSP 1445: 1955. WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929. See WSP 2131 for history of changes prior to Apr. 25, 1969. Apr. 25, 1969, to July 1976, at site 765 ft upstream at same datum.

REMARKS.--Estimated daily discharges for no gage-height record Sept. 1-11. Records good except for period of no gage-height record, which is fair. Some regulation by Clear Lake (station 11450000) beginning in 1915 and Indian Valley Reservoir beginning in 1974, capacity, 296,000 acre-ft. Diversions for irrigation of about 30,000 acres between Capay and Yolo, from data furnished by Clear Lake Water Co.

AVERAGE DISCHARGE.--83 years, 544 ft³/s, 394,100 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 41,400 ft³/s, Feb. 25, 1958, gage height, 85.35 ft present datum; maximum stage observed, 88.44 ft present datum, Mar. 10, 1904; no flow at times in each year.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 4,470 ft³/s, Feb. 8, gage height, 58.76 ft; minimum daily, 7.7 ft³/s, July 9.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|------|-------|-------|------|-------|------|------|------|------|-------|------|-------|
| 1 | 18 | 28 | 314 | 142 | 60 | 73 | 141 | 29 | 20 | 19 | 23 | 15 |
| 2 | 19 | 22 | 272 | 140 | 59 | 46 | 117 | 29 | 29 | 29 | 24 | 14 |
| 3 | 19 | 16 | 344 | 116 | 58 | 34 | 83 | 85 | 36 | 33 | 23 | 14 |
| 4 | 19 | 14 | 474 | 92 | 58 | 31 | 57 | 66 | 39 | 30 | 25 | 16 |
| 5 | 20 | 14 | 334 | 86 | 57 | 31 | 38 | 61 | 33 | 18 | 33 | 15 |
| 6 | 18 | 14 | 291 | 82 | 57 | 35 | 29 | 79 | 33 | 16 | 36 | 15 |
| 7 | 16 | 14 | 291 | 90 | 58 | 38 | 34 | 56 | 25 | 21 | 31 | 14 |
| 8 | 18 | 20 | 318 | 92 | 2070 | 42 | 42 | 48 | 23 | 17 | 28 | 14 |
| 9 | 21 | 15 | 234 | 104 | 1400 | 83 | 33 | 48 | 21 | 7.7 | 26 | 13 |
| 10 | 23 | 18 | 243 | 96 | 468 | 90 | 30 | 46 | 23 | 10 | 29 | 14 |
| 11 | 31 | 23 | 418 | 91 | 292 | 181 | 33 | 51 | 21 | 22 | 29 | 17 |
| 12 | 34 | 25 | 339 | 88 | 218 | 252 | 32 | 53 | 18 | 34 | 27 | 29 |
| 13 | 32 | 104 | 275 | 82 | 178 | 138 | 36 | 45 | 31 | 40 | 23 | 24 |
| 14 | 27 | 357 | 245 | 80 | 156 | 97 | 32 | 43 | 37 | 27 | 18 | 36 |
| 15 | 22 | 188 | 233 | 78 | 140 | 79 | 25 | 52 | 43 | 15 | 18 | 57 |
| 16 | 23 | 176 | 227 | 77 | 129 | 67 | 35 | 29 | 45 | 14 | 22 | 105 |
| 17 | 26 | 311 | 224 | 75 | 118 | 57 | 39 | 29 | 27 | 16 | 28 | 92 |
| 18 | 24 | 219 | 213 | 74 | 111 | 53 | 37 | 30 | 23 | 13 | 39 | 92 |
| 19 | 23 | 143 | 191 | 71 | 104 | 45 | 38 | 24 | 21 | 13 | 39 | 57 |
| 20 | 20 | 130 | 175 | 70 | 98 | 40 | 34 | 25 | 18 | 17 | 40 | 47 |
| 21 | 21 | 113 | 166 | 69 | 93 | 39 | 33 | 33 | 14 | 26 | 35 | 44 |
| 22 | 21 | 100 | 165 | 67 | 89 | 32 | 43 | 35 | 22 | 26 | 33 | 44 |
| 23 | 21 | 88 | 156 | 66 | 85 | 27 | 44 | 32 | 32 | 17 | 31 | 41 |
| 24 | 21 | 93 | 153 | 65 | 81 | 25 | 40 | 24 | 39 | 17 | 30 | 17 |
| 25 | 23 | 102 | 152 | 64 | 73 | 23 | 40 | 21 | 35 | 14 | 25 | 15 |
| 26 | 25 | 151 | 151 | 65 | 74 | 30 | 37 | 22 | 25 | 18 | 22 | 10 |
| 27 | 26 | 130 | 154 | 63 | 75 | 372 | 37 | 24 | 19 | 24 | 22 | 10 |
| 28 | 26 | 1340 | 157 | 62 | 72 | 439 | 38 | 21 | 16 | 24 | 30 | 9.8 |
| 29 | 25 | 717 | 152 | 61 | --- | 341 | 38 | 25 | 14 | 23 | 26 | 9.7 |
| 30 | 26 | 416 | 147 | 60 | --- | 207 | 37 | 23 | 13 | 24 | 18 | 11 |
| 31 | 27 | --- | 144 | 60 | --- | 162 | --- | 18 | --- | 26 | 15 | --- |
| TOTAL | 715 | 5101 | 7352 | 2528 | 6531 | 3209 | 1332 | 1206 | 795 | 650.7 | 848 | 911.5 |
| MEAN | 23.1 | 170 | 237 | 81.5 | 233 | 104 | 44.4 | 38.9 | 26.5 | 21.0 | 27.4 | 30.4 |
| MAX | 34 | 1340 | 474 | 142 | 2070 | 439 | 141 | 85 | 45 | 40 | 40 | 105 |
| MIN | 16 | 14 | 144 | 60 | 57 | 23 | 25 | 18 | 13 | 7.7 | 15 | 9.7 |
| AC-FT | 1420 | 10120 | 14580 | 5010 | 12950 | 6370 | 2640 | 2390 | 1580 | 1290 | 1680 | 1810 |

CAL YR 1984 TOTAL 146392.3 MEAN 400 MAX 5640 MIN 9.1 AC-FT 290400
WTR YR 1985 TOTAL 31179.2 MEAN 85.4 MAX 2070 MIN 7.7 AC-FT 61840

SACRAMENTO RIVER BASIN

11453000 YOLO BYPASS NEAR WOODLAND, CA

LOCATION.--Lat 38°40'40", long 121°38'35", unsurveyed, Yolo County, Hydrologic Unit 18020109, on left bank 300 ft upstream from Sacramento and Woodland railroad bridge, 6 mi upstream from Sacramento Bypass, 6 mi downstream from Fremont weir, and 7 mi east of Woodland.

PERIOD OF RECORD.--October 1939 to September 1977, October 1977 to current year (high flows only). Monthly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 3.41 ft below National Geodetic Vertical Datum of 1929. Prior to Dec. 17, 1941, nonrecording gage, and Dec. 18-31, 1941, water-stage recorder, at datum 0.73 ft higher. Prior to Sept. 30, 1977, a supplementary water-stage recorder 6 mi downstream at different datum recorded low flow.

REMARKS.--No estimated daily discharges. Records poor. Flow is from Cache Creek and Knights Landing Ridge Cut plus floodwater passing over Fremont weir. Beginning October 1977, only flows above 1,000 ft³/s are computed.

AVERAGE DISCHARGE.--38 years (water years 1939-77), 3,765 ft³/s, 2,728,000 acre-ft/yr .

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 272,000 ft³/s Feb. 8, 1942, gage height, 32.00 ft; no flow at times in several years.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 3,680 ft³/s, Nov. 29, gage height, 19.40 ft.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-------|-----|------|------|-----|------|-----|-----|-----|-----|-----|-----|-----|
| 1 | | --- | 2890 | | --- | | | | | | | |
| 2 | | --- | 2370 | | --- | | | | | | | |
| 3 | | --- | 2130 | | --- | | | | | | | |
| 4 | | --- | 2390 | | --- | | | | | | | |
| 5 | | --- | 2900 | | --- | | | | | | | |
| 6 | | --- | 2840 | | --- | | | | | | | |
| 7 | | --- | 2560 | | --- | | | | | | | |
| 8 | | --- | 2220 | | --- | | | | | | | |
| 9 | | --- | 1880 | | 1580 | | | | | | | |
| 10 | | --- | 1530 | | 1110 | | | | | | | |
| 11 | | --- | 1510 | | --- | | | | | | | |
| 12 | | --- | 2110 | | --- | | | | | | | |
| 13 | | --- | 2260 | | --- | | | | | | | |
| 14 | | --- | 1850 | | --- | | | | | | | |
| 15 | | 1630 | 1360 | | --- | | | | | | | |
| 16 | | 2150 | 1140 | | --- | | | | | | | |
| 17 | | 2550 | --- | | --- | | | | | | | |
| 18 | | 2980 | --- | | --- | | | | | | | |
| 19 | | 3160 | --- | | --- | | | | | | | |
| 20 | | 3220 | --- | | --- | | | | | | | |
| 21 | | 3150 | --- | | --- | | | | | | | |
| 22 | | 3010 | --- | | --- | | | | | | | |
| 23 | | 2770 | --- | | --- | | | | | | | |
| 24 | | 2410 | --- | | --- | | | | | | | |
| 25 | | 2270 | --- | | --- | | | | | | | |
| 26 | | 2480 | --- | | --- | | | | | | | |
| 27 | | 2540 | --- | | --- | | | | | | | |
| 28 | | 2620 | --- | | --- | | | | | | | |
| 29 | | 3300 | --- | | --- | | | | | | | |
| 30 | | 3380 | --- | | --- | | | | | | | |
| 31 | | --- | --- | | --- | | | | | | | |
| TOTAL | | --- | --- | | --- | | | | | | | |
| MEAN | | --- | --- | | --- | | | | | | | |
| MAX | | --- | --- | | --- | | | | | | | |
| MIN | | --- | --- | | --- | | | | | | | |
| AC-FT | | --- | --- | | --- | | | | | | | |

LOCATION.--Lat 38°30'48", long 122°06'13", in SE 1/4 NW 1/4 sec.29, T.8 N., R.2 W., Napa County, Hydrologic Unit 18020117, near center of Monticello Dam on Putah Creek, 7.4 mi west of Winters.

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

REVISED RECORDS.--WSP 1735: 1958-60. WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is National Geodetic Vertical Datum of 1929 (levels by Bureau of Reclamation).

REMARKS.--Reservoir is formed by concrete arch-gravity dam completed November 1956. Usable capacity, 1,592,000 acre-ft between elevations 253.25 ft invert of outlet valves, and 440 ft crest of glory-hole spillway. Dead storage, 10,340 acre-ft. Water is released down Putah Creek and is diverted into Putah South diversion canal for irrigation of about 46,000 acres in the lower Sacramento Valley. Total diverted during current year was 208,700 acre-ft. Releases for irrigation began in May 1959. Records, including extremes, show total contents at 2400 hours.

COOPERATION.--Records provided by Bureau of Reclamation.

EXTREMES FOR PERIOD OF RECORD.--Maximum contents, 1,733,500 acre-ft, Mar. 2, 1983, elevation, 446.67 ft; minimum since irrigation pool first filled, 738,600 acre-ft, Nov. 20, 1977, elevation, 388.04 ft.

EXTREMES FOR CURRENT YEAR.--Maximum contents, 1,449,000 acre-ft, Apr. 9, elevation, 431.89 ft; minimum, 1,208,100 acre-ft, Sept. 30, elevation, 418.38 ft.

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

| | |
|-----|-----------|
| 380 | 632,400 |
| 390 | 765,700 |
| 400 | 911,200 |
| 410 | 1,068,100 |
| 420 | 1,236,000 |
| 430 | 1,414,200 |
| 450 | 1,799,900 |

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
INSTANTANEOUS OBSERVATIONS AT 2400

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 1 | 1341500 | 1326300 | 1364700 | 1376500 | 1379400 | 1423700 | 1447700 | 1428700 | 1382800 | 1334000 | 1279200 | 1236300 |
| 2 | 1340600 | 1325900 | 1365400 | 1376500 | 1379200 | 1423500 | 1448100 | 1427400 | 1381400 | 1332600 | 1277800 | 1234900 |
| 3 | 1339700 | 1326100 | 1368000 | 1376500 | 1379200 | 1423500 | 1448200 | 1426100 | 1379900 | 1330800 | 1276400 | 1233700 |
| 4 | 1339000 | 1325800 | 1369800 | 1376300 | 1379200 | 1423400 | 1448200 | 1425200 | 1378800 | 1329000 | 1275000 | 1232200 |
| 5 | 1338300 | 1325800 | 1370300 | 1376100 | 1379000 | 1423400 | 1448200 | 1424100 | 1377700 | 1327200 | 1273600 | 1230800 |
| 6 | 1337600 | 1325600 | 1370800 | 1376300 | 1378800 | 1424600 | 1448400 | 1422600 | 1376300 | 1325400 | 1272000 | 1229400 |
| 7 | 1336800 | 1325800 | 1371000 | 1377900 | 1382300 | 1425600 | 1448600 | 1420800 | 1374600 | 1323600 | 1270300 | 1228400 |
| 8 | 1336100 | 1325800 | 1371000 | 1378600 | 1413800 | 1426100 | 1448800 | 1419300 | 1373400 | 1321800 | 1268500 | 1227300 |
| 9 | 1335600 | 1325600 | 1371200 | 1379400 | 1417700 | 1426500 | 1449000 | 1417700 | 1371900 | 1319900 | 1266900 | 1226800 |
| 10 | 1335600 | 1325800 | 1373400 | 1379500 | 1419500 | 1428700 | 1448800 | 1416000 | 1370500 | 1318100 | 1265000 | 1225900 |
| 11 | 1335100 | 1326700 | 1374100 | 1379500 | 1420000 | 1430300 | 1448400 | 1414500 | 1369000 | 1316300 | 1263600 | 1224900 |
| 12 | 1334700 | 1330900 | 1374800 | 1379500 | 1421000 | 1430900 | 1447900 | 1413400 | 1367400 | 1314600 | 1262400 | 1224400 |
| 13 | 1334200 | 1335100 | 1375000 | 1379500 | 1421900 | 1431300 | 1447300 | 1411800 | 1365800 | 1312600 | 1261200 | 1223700 |
| 14 | 1333400 | 1335400 | 1375000 | 1379500 | 1422300 | 1431600 | 1447000 | 1410100 | 1364200 | 1310800 | 1260100 | 1222800 |
| 15 | 1334200 | 1336300 | 1375000 | 1379500 | 1423000 | 1432000 | 1446200 | 1408700 | 1362500 | 1309000 | 1259100 | 1222200 |
| 16 | 1332700 | 1341700 | 1375000 | 1379700 | 1423500 | 1432200 | 1445100 | 1407000 | 1360900 | 1307300 | 1257900 | 1221300 |
| 17 | 1332400 | 1342900 | 1375200 | 1379900 | 1424100 | 1432400 | 1444000 | 1405400 | 1359100 | 1305500 | 1256500 | 1220300 |
| 18 | 1331800 | 1343600 | 1375500 | 1379900 | 1424100 | 1432500 | 1443100 | 1403600 | 1357300 | 1303700 | 1255200 | 1218900 |
| 19 | 1331500 | 1344500 | 1375700 | 1380100 | 1424300 | 1433100 | 1442000 | 1402100 | 1355500 | 1302000 | 1254200 | 1217800 |
| 20 | 1331300 | 1345300 | 1376100 | 1380100 | 1424300 | 1433500 | 1441000 | 1400600 | 1353400 | 1300200 | 1253000 | 1216800 |
| 21 | 1330900 | 1345400 | 1376100 | 1380100 | 1424500 | 1433500 | 1440100 | 1399400 | 1351600 | 1298400 | 1251800 | 1216100 |
| 22 | 1330600 | 1345100 | 1376100 | 1380100 | 1424300 | 1433500 | 1439200 | 1397900 | 1349800 | 1296700 | 1250400 | 1215100 |
| 23 | 1330100 | 1345100 | 1376100 | 1379900 | 1424100 | 1433500 | 1438100 | 1396400 | 1348000 | 1294900 | 1249000 | 1214200 |
| 24 | 1329300 | 1346200 | 1375900 | 1379700 | 1424100 | 1433500 | 1437200 | 1395000 | 1346200 | 1293100 | 1247800 | 1213400 |
| 25 | 1328600 | 1346900 | 1376100 | 1379700 | 1424100 | 1433300 | 1435900 | 1393300 | 1344400 | 1291400 | 1246600 | 1212500 |
| 26 | 1328400 | 1347100 | 1376300 | 1379700 | 1424100 | 1437000 | 1434400 | 1391700 | 1342700 | 1289600 | 1245200 | 1 |

SACRAMENTO RIVER BASIN

11454000 PUTAH CREEK NEAR WINTERS, CA

LOCATION.--Lat 38°30'55", long 122°04'51", in NE 1/4 NE 1/4 sec.28, T.8 N., R.2 W., Yolo County, Hydrologic Unit 18020109, on left bank 1 mi downstream from Cold Canyon, 1.3 mi downstream from Monticello Dam, and 6 mi west of Winters.

DRAINAGE AREA.--574 mi².

PERIOD OF RECORD.--July 1930 to current year.

REVISED RECORDS.--WSP 901: 1937-38(M). WSP 1285: 1932(M), 1935-36(M), 1940(M), 1942-43(M), 1951, 1952(M). WSP 1565: 1957. WSP 1931: Drainage area.

GAGE.--Water-stage recorder. Datum of gage is 160.75 ft above National Geodetic Vertical Datum of 1929 (river-profile survey). June 28, 1930, to Feb. 29, 1940, at datum about 1 ft higher.

REMARKS.--No estimated daily discharges. Records good. Flow regulated by Lake Berryessa (station 11453900) beginning January 1957.

AVERAGE DISCHARGE.--26 years (water year 1931-56) prior to storage, 477 ft³/s, 345,600 acre-ft/yr; 29 years (water years 1957-85) 607 ft³/s, 439,800 acre-ft/yr, adjusted for change in contents and evaporation from Lake Berryessa; unadjusted flow for same period was 444 ft³/s, 321,700 acre-ft/yr.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 81,000 ft³/s, Feb. 27, 1940, gage height, 30.5 ft present datum, from rating curve extended above 30,000 ft³/s; no flow Sept. 6-15, 1950, July 26 to Sept. 1, Sept. 6-9, 1955. Maximum discharge since construction of Monticello Dam in 1957, 18,700 ft³/s, Mar. 2, 1983, gage height, 19.55 ft; minimum daily, 6.1 ft³/s, Dec. 19, 1967.

EXTREMES OUTSIDE PERIOD OF RECORD.--Maximum stage known since at least 1905, that of Feb. 27, 1940, on basis of records for station at Winters.

EXTREMES FOR CURRENT YEAR.--Maximum discharge, 853 ft³/s, July 12, gage height, 8.38 ft; minimum daily, 13 ft³/s, Mar. 7.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985
MEAN VALUES

| DAY | OCT | NOV | DEC | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | | |
|-------------|-------|--------|------|------|-----|------|-------|-------|-------|--------|-------|--------|-------|--------|
| 1 | 348 | 123 | 98 | 108 | 112 | 188 | 98 | 578 | 590 | 696 | 613 | 541 | | |
| 2 | 357 | 140 | 81 | 108 | 107 | 93 | 98 | 530 | 548 | 712 | 604 | 526 | | |
| 3 | 348 | 90 | 49 | 108 | 91 | 93 | 96 | 550 | 556 | 764 | 628 | 526 | | |
| 4 | 338 | 78 | 50 | 106 | 91 | 129 | 141 | 603 | 569 | 770 | 616 | 514 | | |
| 5 | 312 | 109 | 75 | 108 | 108 | 123 | 146 | 620 | 569 | 757 | 605 | 506 | | |
| 6 | 281 | 147 | 110 | 108 | 108 | 49 | 120 | 658 | 593 | 737 | 622 | 474 | | |
| 7 | 269 | 78 | 111 | 108 | 111 | 13 | 124 | 644 | 653 | 719 | 674 | 433 | | |
| 8 | 269 | 88 | 111 | 95 | 158 | 54 | 145 | 689 | 701 | 713 | 678 | 415 | | |
| 9 | 284 | 102 | 89 | 84 | 74 | 95 | 191 | 717 | 695 | 756 | 648 | 415 | | |
| 10 | 276 | 102 | 49 | 87 | 204 | 97 | 223 | 718 | 690 | 810 | 618 | 374 | | |
| 11 | 236 | 92 | 101 | 78 | 103 | 170 | 276 | 718 | 718 | 812 | 590 | 298 | | |
| 12 | 202 | 80 | 138 | 83 | 116 | 136 | 306 | 708 | 709 | 828 | 602 | 273 | | |
| 13 | 191 | 76 | 112 | 90 | 128 | 96 | 347 | 702 | 699 | 839 | 640 | 295 | | |
| 14 | 167 | 76 | 102 | 99 | 79 | 96 | 370 | 710 | 722 | 778 | 654 | 309 | | |
| 15 | 139 | 88 | 107 | 115 | 79 | 95 | 392 | 762 | 693 | 723 | 654 | 306 | | |
| 16 | 123 | 86 | 107 | 107 | 89 | 95 | 468 | 767 | 694 | 678 | 625 | 320 | | |
| 17 | 103 | 76 | 106 | 108 | 107 | 95 | 520 | 754 | 751 | 726 | 597 | 361 | | |
| 18 | 102 | 76 | 106 | 108 | 107 | 96 | 520 | 742 | 775 | 771 | 557 | 417 | | |
| 19 | 102 | 75 | 105 | 130 | 106 | 95 | 520 | 697 | 781 | 774 | 529 | 405 | | |
| 20 | 86 | 84 | 102 | 108 | 106 | 82 | 519 | 669 | 760 | 735 | 528 | 407 | | |
| 21 | 85 | 99 | 106 | 108 | 106 | 69 | 520 | 666 | 711 | 704 | 543 | 406 | | |
| 22 | 108 | 99 | 107 | 108 | 106 | 69 | 495 | 654 | 700 | 691 | 572 | 361 | | |
| 23 | 134 | 99 | 114 | 122 | 106 | 83 | 493 | 704 | 672 | 668 | 572 | 368 | | |
| 24 | 131 | 99 | 117 | 131 | 106 | 95 | 535 | 742 | 672 | 667 | 561 | 382 | | |
| 25 | 127 | 99 | 108 | 117 | 106 | 142 | 560 | 711 | 678 | 685 | 542 | 382 | | |
| 26 | 91 | 100 | 108 | 117 | 106 | 103 | 599 | 674 | 715 | 712 | 568 | 367 | | |
| 27 | 101 | 96 | 108 | 117 | 106 | 86 | 626 | 637 | 753 | 719 | 590 | 358 | | |
| 28 | 101 | 70 | 108 | 117 | 310 | 90 | 603 | 639 | 767 | 689 | 579 | 348 | | |
| 29 | 101 | 136 | 108 | 117 | --- | 99 | 573 | 631 | 753 | 666 | 579 | 343 | | |
| 30 | 144 | 137 | 108 | 117 | --- | 98 | 583 | 592 | 714 | 635 | 563 | 339 | | |
| 31 | 142 | --- | 108 | 75 | --- | 98 | --- | 596 | --- | 634 | 558 | --- | | |
| TOTAL | 5798 | 2900 | 3109 | 3294 | --- | 3022 | 11207 | 20782 | 20601 | 22568 | 18509 | 11771 | | |
| MEAN | 187 | 96.7 | 100 | 106 | --- | 97.5 | 374 | 670 | 687 | 728 | 597 | 392 | | |
| MAX | 357 | 147 | 138 | 131 | --- | 188 | 626 | 767 | 781 | 839 | 678 | 541 | | |
| MIN | 85 | 70 | 49 | 75 | --- | 13 | 96 | 530 | 548 | 634 | 528 | 270 | | |
| AC-FT | 11500 | 5750 | 6170 | 6530 | --- | 5990 | 22230 | 41220 | 40860 | 44760 | 36710 | 23350 | | |
| CAL YR 1984 | TOTAL | 208025 | MEAN | 568 | MAX | 4280 | MIN | 49 | AC-FT | 412600 | MEAN | a 1286 | AC-FT | 207400 |
| WTR YR 1985 | TOTAL | 126797 | MEAN | 347 | MAX | 839 | MIN | 13 | AC-FT | 251500 | MEAN | a 257 | AC-FT | 186000 |

a Adjusted for change in contents and evaporation from Lake Berryessa.

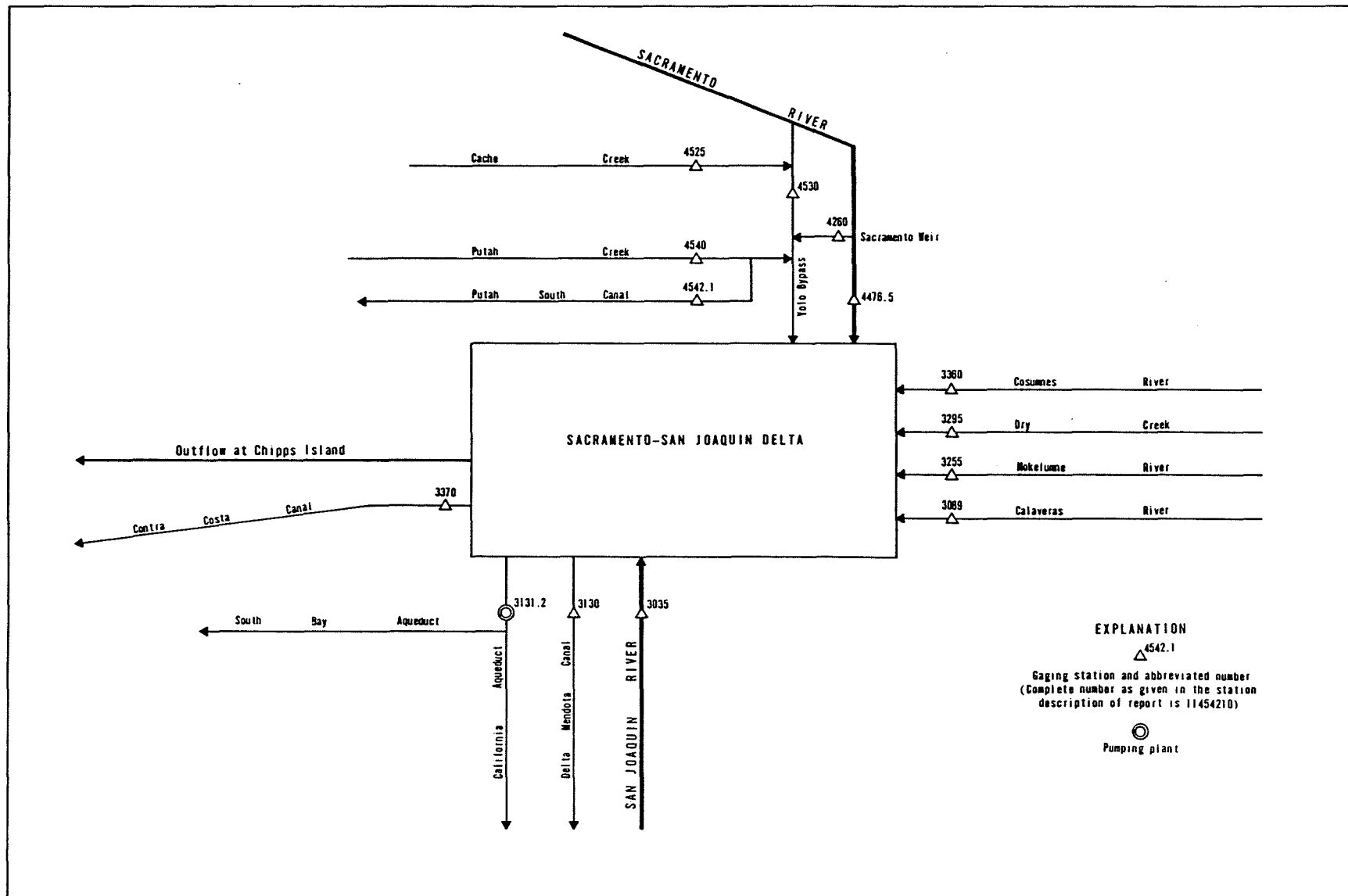


FIGURE 32. - Schematic diagram showing principal inflows and diversions, Sacramento-San Joaquin Delta.

SACRAMENTO-SAN JOAQUIN DELTA, INFLOWS AND DIVERSIONS

LOCATION.--See schematic diagram of inflows and diversions, Sacramento-San Joaquin Delta.

DRAINAGE AREA.--Total drainage area of inflow streams tabulated below is 39,511 mi².

PERIOD OF RECORD.--October 1971 to current year. Data for periods prior to October 1971 can be obtained from published records for stations tabulated below.

COOPERATION.--Records for Delta-Mendota, Contra Costa, and Putah South Canals provided by Bureau of Reclamation, California Aqueduct by California Department of Water Resources.

SUMMARY OF PRINCIPAL INFLOWS AND DIVERSIONS IN THE
SACRAMENTO-SAN JOAQUIN DELTA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| Inflows, in thousands of acre-feet | | | | | | | | | | | | |
|--|-------|-------|-------|-------|-------|---------------|-------|-------|-------|-------|-------|---------------|
| Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Month Apr. | May | June | July | Aug. | Sept. | Water Year |
| 11303500 SAN JOAQUIN RIVER NEAR VERNALIS | | | | | | | | | | | | |
| 234.5 | 167.9 | 293.4 | 249.9 | 180.0 | 168.2 | 146.8 | 131.1 | 104.0 | 157.3 | 159.9 | 114.5 | 2108 |
| 11308900 CALAVERAS RIVER BELOW NEW HOGAN DAM | | | | | | | | | | | | |
| 4.05 | 2.44 | 2.05 | 2.04 | 1.79 | 3.01 | 7.59 | 13.42 | 14.34 | 16.26 | 16.23 | 10.04 | 93.3 |
| 11325500 MOKELUMNE RIVER AT WOODBRIDGE | | | | | | | | | | | | |
| 36.63 | 40.21 | 46.22 | 14.52 | 4.72 | 3.23 | 5.94 | 6.03 | 4.04 | 3.38 | 3.34 | 5.06 | 173.6 |
| 11329500 DRY CREEK NEAR GALT | | | | | | | | | | | | |
| 0.11 | 6.76 | 6.51 | 2.47 | 10.15 | 12.78 | 3.86 | .42 | .32 | .24 | .02 | .02 | 43.7 |
| 11335000 COSUMNES RIVER AT MICHIGAN BAR | | | | | | | | | | | | |
| 4.23 | 17.46 | 13.96 | 8.76 | 25.35 | 33.81 | 36.53 | 15.49 | 4.06 | 1.24 | .68 | 1.44 | 163.0 |
| 11426000 SACRAMENTO WEIR SPILL | | | | | | | | | | | | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 11447650 SACRAMENTO RIVER AT FREEPORT | | | | | | | | | | | | |
| 813.8 | 1564 | 2002 | 1032 | 1015 | 879.9 | 743.5 | 825.9 | 792.0 | 986.0 | 826.9 | 725.5 | 12210 |
| 11453000 YOLO BYPASS NEAR WOODLAND ¹ | | | | | | | | | | | | |
| 86.52 | 67.32 | 0 | 5.34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 159.2 |
| 11454000 PUTAH CREEK NEAR WINTERS | | | | | | | | | | | | |
| 11.50 | 5.75 | 6.17 | 6.53 | 6.42 | 5.99 | 22.23 | 41.22 | 40.86 | 44.76 | 36.71 | 23.35 | 251.5 |
| TOTAL | | | | | | | | | | | | |
| 1191 | 1872 | 2370 | 1322 | 1243 | 1107 | 966.5 | 1034 | 959.6 | 1209 | 1044 | 879.9 | 15198 |
| Diversion, in thousands of acre-feet | | | | | | | | | | | | |
| Oct. | Nov. | Dec. | Jan. | Feb. | Mar. | Month Apr. | May | June | July | Aug. | Sept. | Water Year |
| 11313000 DELTA-MENDOTA CANAL | | | | | | | | | | | | |
| 222.2 | 231.7 | 243.3 | 237.2 | 224.3 | 242.8 | 232.1 | 183.9 | 178.5 | 281.2 | 269.0 | 243.7 | 2790 |
| 11313120 CALIFORNIA AQUEDUCT (DELTA PUMPING PLANT) | | | | | | | | | | | | |
| 114.9 | 238.2 | 273.1 | 115.6 | 199.5 | 278.0 | 196.8 | 184.0 | 195.5 | 282.8 | 338.3 | 265.6 | 2682 |
| 11337000 CONTRA COSTA CANAL | | | | | | | | | | | | |
| 9.19 | 6.12 | 3.50 | 4.84 | 5.39 | 7.90 | 8.77 | 13.43 | 13.71 | 15.73 | 13.99 | 10.38 | 113.0 |
| 11454210 PUTAH SOUTH CANAL | | | | | | | | | | | | |
| 9.48 | 3.64 | 3.69 | 4.07 | 3.94 | 4.12 | 18.15 | 35.67 | 35.33 | 38.36 | 31.81 | 20.44 | 208.7 |
| TOTAL | | | | | | | | | | | | |
| 355.8 | 479.7 | 523.6 | 361.7 | 433.1 | 532.8 | 455.8 | 417.0 | 423.0 | 618.1 | 653.1 | 540.1 | 5794 |

¹Flow not computed below 1,000 ft³/s.

NOTE.--Minor inflow streams and diversions are not included.

Water-quality partial-record stations are particular sites where chemical-quality, biological and/or sediment data are collected systematically over a period of years for use in hydrologic analyses. These data are collected usually less than quarterly. Samples collected at sites other than gaging stations and partial-record stations to give better areal coverage in a river basin are referred to as miscellaneous sites.

HOOKER CR AT DRAPER RD, CA (LAT 40 22 06 LONG 122 18 49)

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | TIME | STREAM- FLOW, INSTAN- TANEOUS (CFS) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | OXYGEN, DIS- SOLVED (MG/L) | HARD- NESS (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) |
|--------------|------|--|---|---|---|---|--|---|--|--|---|
| OCT 03... | 1010 | 5.5 | 104 | 7.2 | 12.5 | 8.8 | 46 | 9.7 | 5.3 | 5.9 | 1.0 |
| DATE | TIME | ALKA- LITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) |
| OCT 03... | 53 | 4.4 | 1.8 | <0.1 | 20 | 79 | 80 | <0.01 | <0.10 | <0.10 | |
| DATE | TIME | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) | NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) | PHOS- PHORUS, TOTAL (MG/L AS P) | PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P) | PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) | BORON, DIS- SOLVED (UG/L AS B) | IRON, DIS- SOLVED (UG/L AS FE) | CARBON, ORGANIC TOTAL (MG/L AS C) |
| OCT 03... | 0.03 | 0.06 | 0.24 | 0.3 | 0.02 | 0.01 | <0.01 | 40 | 20 | 0.8 | |

TRIBUTARY AT HOLIDAY RANCH, CA (LAT 40 22 26 LONG 122 17 05)

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | TIME | STREAM- FLOW, INSTAN- TANEOUS (CFS) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | OXYGEN, DIS- SOLVED (MG/L) | HARD- NESS (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) |
|--------------|---|--|---|---|--|---|--|---|--|--|
| OCT 03... | 0915 | 6.2 | 101 | 7.3 | 15.0 | 8.8 | 45 | 9.3 | 5.2 | 5.2 |
| DATE | POTAS- SIUM, DIS- SOLVED (MG/L AS K) | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) |
| OCT 03... | 1.0 | 51 | 4.2 | 1.7 | <0.1 | 19 | 75 | 76 | <0.01 | <0.10 |
| DATE | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) | PHOS- PHORUS, TOTAL (MG/L AS P) | PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P) | PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) | BORON, DIS- SOLVED (UG/L AS B) | IRON, DIS- SOLVED (UG/L AS FE) | CARBON, ORGANIC TOTAL (MG/L AS C) |
| OCT 03... | <0.10 | 0.02 | <0.01 | 0.2 | 0.06 | 0.03 | 0.01 | 30 | 35 | 1.2 |

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

COTTONWOOD CREEK BELOW SOUTH FORK, CA (LAT 40 22 29 LONG 122 19 18)

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | TIME | STREAM- FLOW, INSTAN- TANEOUS (CFS) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | OXYGEN, DIS- SOLVED (MG/L) | HARD- NESS (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) |
|--------------|------|--|---|---|---|---|--|---|--|--|---|
| OCT 02... | 0805 | 38 | 259 | 7.7 | 18.5 | 7.3 | 120 | 25 | 13 | 9.7 | 1.2 |
| DATE | | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) |
| OCT 02... | 114 | 7.9 | 11 | 0.1 | 21 | 156 | 160 | <0.01 | <0.10 | <0.10 | |
| DATE | | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) | NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) | PHOS- PHORUS, TOTAL (MG/L AS P) | PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P) | PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) | BORON, DIS- SOLVED (UG/L AS B) | IRON, DIS- SOLVED (UG/L AS FE) | CARBON, ORGANIC TOTAL (MG/L AS C) |
| OCT 02... | 0.03 | 0.06 | 0.24 | 0.3 | 0.01 | <0.01 | <0.01 | 50 | 17 | 1.0 | |

TRIBUTARY ABOVE INTERSTATE 5, LB, CA (LAT 40 22 40 LONG 122 17 04)

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | TIME | STREAM- FLOW, INSTAN- TANEOUS (CFS) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | OXYGEN, DIS- SOLVED (MG/L) | HARD- NESS (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) |
|--------------|------|--|---|---|---|---|--|---|--|--|---|
| OCT 03... | 0800 | 2.8 | 108 | 8.7 | 14.0 | 9.4 | 46 | 9.8 | 5.2 | 5.6 | 1.8 |
| DATE | | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) |
| OCT 03... | 54 | 6.5 | 1.8 | <0.1 | 20 | 80 | 83 | <0.01 | <0.10 | <0.10 | |
| DATE | | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) | NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) | PHOS- PHORUS, TOTAL (MG/L AS P) | PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P) | PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) | BORON, DIS- SOLVED (UG/L AS B) | IRON, DIS- SOLVED (UG/L AS FE) | CARBON, ORGANIC TOTAL (MG/L AS C) |
| OCT 03... | 0.01 | 0.02 | 0.78 | 0.8 | 0.04 | 0.04 | 0.02 | 50 | 64 | 3.2 | |

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

COTTONWOOD CREEK ABOVE POWERLINES, CA (LAT 40 22 41 LONG 122 15 51)

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | TIME | STREAM- FLOW, INSTAN- TANEOUS (CFS) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | OXYGEN, DIS- SOLVED (MG/L) | HARD- NESS (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) |
|--------------|------|--|---|---|---|---|--|---|--|--|---|
| OCT 02... | 1330 | 114 | 178 | 8.0 | 21.0 | 11.0 | 79 | 17 | 8.8 | 7.2 | 1.2 |
| DATE | | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) |
| OCT 02... | 82 | | 6.0 | 4.9 | <0.1 | 21 | 111 | 120 | <0.01 | <0.10 | <0.10 |
| DATE | | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) | NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, TOTAL (MG/L AS P) | PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P) | PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) | BORON, DIS- SOLVED (UG/L AS B) | IRON, DIS- SOLVED (UG/L AS FE) | CARBON, ORGANIC TOTAL (MG/L AS C) |
| OCT 02... | 0.02 | 0.05 | 0.15 | 0.2 | 0.02 | 0.01 | 0.01 | 0.01 | 30 | 23 | 1.4 |

COTTONWOOD CREEK ABOVE MOUTH, CA (LAT 40 22 49 LONG 122 12 15)

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | TIME | STREAM- FLOW, INSTAN- TANEOUS (CFS) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | OXYGEN, DIS- SOLVED (MG/L) | HARD- NESS (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) |
|--------------|-------|--|---|---|---|---|--|---|--|--|---|
| OCT 02... | 1050 | 131 | 184 | 8.3 | 19.0 | 10.0 | 82 | 17 | 9.5 | 7.8 | 1.3 |
| DATE | | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SIO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) |
| OCT 02... | 86 | | 6.4 | 4.8 | <0.1 | 21 | 118 | 120 | <0.01 | <0.10 | <0.10 |
| DATE | | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) | NITRO- GEN,AM- MONIA + ORGANIC DIS- SOLVED (MG/L AS N) | PHOS- PHORUS, TOTAL (MG/L AS P) | PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P) | PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) | BORON, DIS- SOLVED (UG/L AS B) | IRON, DIS- SOLVED (UG/L AS FE) | CARBON, ORGANIC TOTAL (MG/L AS C) |
| OCT 02... | <0.01 | 0.02 | 0.28 | 0.3 | 0.02 | <0.01 | 0.01 | 0.01 | 50 | 26 | 1.1 |

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

DRY CREEK BELOW STEELE RANCH, CA (LAT 40 22 49 LONG 122 25 16)

WATER QUALITY DATA, WATER YEAR OCTOBER 1984 TO SEPTEMBER 1985

| DATE | TIME | STREAM- FLOW, INSTAN- TANEOUS (CFS) | SPE- CIFIC CON- DUCT- ANCE (US/CM) | PH (STAND- ARD UNITS) | TEMPER- ATURE (DEG C) | OXYGEN, DIS- SOLVED (MG/L) | HARD- NESS (MG/L AS CACO3) | CALCIUM DIS- SOLVED (MG/L AS CA) | MAGNE- SIUM, DIS- SOLVED (MG/L AS MG) | SODIUM, DIS- SOLVED (MG/L AS NA) | POTAS- SIUM, DIS- SOLVED (MG/L AS K) |
|--------------|-------|--|---|---|---|---|--|---|--|--|---|
| OCT 01... | 1245 | 41 | 254 | 8.6 | 20.0 | 11.0 | 120 | 25 | 13 | 10 | 1.3 |
| DATE | | ALKA- LINITY FIELD (MG/L AS CACO3) | SULFATE DIS- SOLVED (MG/L AS SO4) | CHLO- RIDE, DIS- SOLVED (MG/L AS CL) | FLUO- RIDE, DIS- SOLVED (MG/L AS F) | SILICA, DIS- SOLVED (MG/L AS SiO2) | SOLIDS, RESIDUE AT 180 DEG. C DIS- SOLVED (MG/L) | SOLIDS, SUM OF CONSTI- TUENTS, DIS- SOLVED (MG/L) | NITRO- GEN, NITRITE TOTAL (MG/L AS N) | NITRO- GEN, NO2+NO3 TOTAL (MG/L AS N) | NITRO- GEN, NO2+NO3 DIS- SOLVED (MG/L AS N) |
| OCT 01... | 113 | 113 | 7.7 | 10 | 0.1 | 19 | 162 | 150 | <0.01 | <0.10 | <0.10 |
| DATE | | NITRO- GEN, AMMONIA TOTAL (MG/L AS N) | NITRO- GEN, AMMONIA DIS- SOLVED (MG/L AS N) | NITRO- GEN, ORGANIC DIS- SOLVED (MG/L AS N) | NITRO- GEN,AM- MONIA + ORGANIC DIS. (MG/L AS N) | PHOS- PHORUS, TOTAL (MG/L AS P) | PHOS- PHORUS, ORTHO, TOTAL (MG/L AS P) | PHOS- PHORUS, ORTHO, DIS- SOLVED (MG/L AS P) | BORON, DIS- SOLVED (UG/L AS B) | IRON, DIS- SOLVED (UG/L AS FE) | CARBON, ORGANIC TOTAL (MG/L AS C) |
| OCT 01... | <0.01 | 0.03 | 0.37 | 0.4 | 0.02 | 0.01 | 0.02 | 30 | 10 | 1.2 | |

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FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM UNITS (SI)

The following factors may be used to convert the inch-pound units published herein to the International System of Units (SI). This report contains both the inch-pound and SI unit equivalents in the station manuscript descriptions.

| Multiply inch-pound units | By | To obtain SI units |
|--|--|---|
| <i>Length</i> | | |
| inches (in) | 2.54×10^1 2.54×10^{-2} | millimeters (mm) meters (m) |
| feet (ft) | 3.048×10^{-1} | meters (m) |
| miles (mi) | 1.609×10^0 | kilometers (km) |
| <i>Area</i> | | |
| acres | 4.047×10^3 4.047×10^{-1} | square meters (m ²) square hectometers (hm ²) |
| square miles (mi ²) | 4.047×10^{-3} 2.590×10^0 | square kilometers (km ²) square kilometers (km ²) |
| <i>Volume</i> | | |
| gallons (gal) | 3.785×10^0 3.785×10^0 | liters (L) cubic decimeters (dm ³) |
| million gallons | 3.785×10^{-3} 3.785×10^3 | cubic meters (m ³) cubic meters (m ³) |
| cubic feet (ft ³) | 3.785×10^{-3} 2.832×10^1 | cubic hectometers (hm ³) cubic decimeters (dm ³) |
| acre-feet (acre-ft) | 2.832×10^{-2} 1.233×10^3 | cubic meters (m ³) cubic meters (m ³) |
| | 1.233×10^{-3} 1.233×10^{-6} | cubic hectometers (hm ³) cubic kilometers (km ³) |
| <i>Flow</i> | | |
| cubic feet per second (ft ³ /s) | 2.832×10^1 2.832×10^1 | liters per second (L/s) cubic decimeters per second (dm ³ /s) |
| gallons per minute (gal/min) | 2.832×10^{-2} 6.309×10^{-2} | cubic meters per second (m ³ /s) liters per second (L/s) |
| | 6.309×10^{-2} 6.309×10^{-5} | cubic decimeters per second (dm ³ /s) cubic meters per second (m ³ /s) |
| million gallons per day | 4.381×10^1 4.381×10^{-2} | cubic decimeters per second (dm ³ /s) cubic meters per second (m ³ /s) |
| <i>Mass</i> | | |
| tons (short) | 9.072×10^{-1} | megagrams (Mg) or metric tons |

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