Surface Water Supply of the United States, 1966-70

Part 11. Pacific Slope Basins in California Volume 3. Southern Central Valley Basins

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PREFACE

This report was prepared by the U.S. Geological Survey in cooperation with the State of California and other agencies, by personnel of the Water Resources Division, J. S. Cragwall, Jr., chief hydrologist, G. W. Whetstone, assistant chief for Scientific Publications and Data Management, under the general direction of G. A. Billingsley, chief, Reports Section, and C. B. Ham, chief, Data Reports Unit.

The data were collected and computed under supervision of L. R. Peterson, district chief, Water Resources Division, Menlo Park, Calif.

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PACIFIC SLOPE BASINS IN CALIFORNIA SOUTHERN CENTRAL VALLEY

SCOPE OF WORK

This report is one of a series of 37 reports presenting records of stage and discharge of streams, and of stage and contents of lakes and reservoirs in the United States during the 1966-70 water years; it contains the records for gaging stations and partial-record stations in the Pacific slope basins in California, Southern Central Valley.

Since 1888, when the U.S. Geological Survey first studied streamflow in relation to problems of irrigation, similar records have been obtained at more than 19,500 gaging stations in the 50 States. On September 30, 1970, the Geological Survey and cooperating organizations were maintaining 10,000 gaging stations. Partial-record stations for low flow or for floodflow have been operated at many other points.

COOPERATION

Many State, municipal, and private organizations have cooperated with the Geological Survey in this work by either furnishing or helping to collect data. Organizations that assisted in the collection of data through cooperative agreements with the Survey in California are as follows:

California Department of Water Resources; Calaveras County Water District;
Contra Costa County Flood Control and Water Conservation District; East Bay Municipal Utility District; Kings River Conservation District; Madera Irrigation District; Siskiyou County; Tehachapi-Cummings County Water District; Terra Bella Irrigation District; Turlock Irrigation District; and Woodbridge Irrigation District.

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

The following organizations aided in collecting records:

City of San Francisco; Kings River Water Association; Pacific Gas and elec-
tric Company; Southern California Edison Company; Kern County Land Company;
and the Madera, Merced, Modesto, Turlock, Oakdale-South San Joaquin, and Woodbridge Irrigation Districts.

Organizations that supplied data are acknowledged in station descriptions.

DIVISION OF WORK

The stream-gaging work was done by the Water Resources Division of the Geological Survey under the direction of personnel cited in the preface. The data for stations in California were collected and prepared for publication in the district office located at 855 Oak Grove Avenue, Menlo Park, California 94025.

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DEFINITION OF TERMS AND ABBREVIATIONS

Terms related to streamflow and other hydrologic data, as used in this report, are defined as follows:

ACRE-FOOT (AC-FT, ACRE-FT) is the quantity of water required to cover an acre to the depth of 1 foot and is equivalent to 43,560 cubic feet or about 326,000 gallons.

CFS-DAY is the volume of water represented by a flow of 1 cubic foot per second for 24 hours. It is equivalent to 86,400 cubic feet, approximately 1.9835 acre-feet, or about 646,000 gallons, and represents a runoff of approximately 0.0372 inch from 1 square mile.

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.

CUBIC FEET PER SECOND PER SQUARE MILE (CFSM) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

CUBIC FOOT PER SECOND (CFS) 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.

DISCHARGE is the volume of water in a stream which passes a given point in a unit of time.

DRAINAGE AREA of a stream above 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 river above the specified point. Figures of drainage area given herein include all closed basins, or noncontributing area, within the area unless otherwise noted.

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

GAGING STATION is a particular site on a stream, canal, lake, or reservoir where systematic observations of gage height or discharge are obtained. When used in connection with a discharge record, the term is applied herein only to those gaging stations where a continuous record of discharge is computed.

HYDROLOGIC BENCH-MARK STATION is one that provides hydrologic data for a basin in which the hydrologic regimes will likely be governed solely by natural conditions. Data collected at a bench-mark station may be used to separate effects of natural from manmade changes in other basins which have been developed and in which the physiography, climate, and geology are similar to those in the undeveloped bench-mark basin.

INTERNATIONAL HYDROLOG1CAL DECADE (1HD) RIVER STATIONS provide a general index of runoff and materials in the water balance (discharge of water, and dissolved and transported solids) of the world. In the United States, IHD Stations provide indices of runoff and of the general distribution of water in the principal river basins of the conterminous United States and Alaska.

EXPLANATION OF DATA 3

PARTIAL-RECORD STATION is a particular site where limited streamflow data are collected systematically over a period of years for use in hydrologic analyses.

RUNOFF IN INCHES (IN.) is the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

STAGE-DISCHARGE RELATION is the relation between gage height and the volume of water per unit of time flowing in a channel.

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

DOWNSTREAM ORDER AND STATION NUMBER

Beginning with the series of reports for the water year ending September 30, 1951, the order of listing gaging-station records is in a downstream direction along the main stream. All stations on a tributary entering upstream from a main-stream station are listed before that station. A station on a tributary that enters between two main-stream stations is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. The rank of any tributary on which a gaging station is situated with respect to the stream to which it is immediately tributary is indicated by an indention in a list of gaging stations. Each indention represents one rank. This downstream order and system of indention show which gaging stations are on tributaries between any two stations and the rank of the tributary on which each gaging station is situated.

The order of listing used before the publication of the 1951 report listed first all stations on the main stem from headwaters toward mouth, then all stations on the upper-most tributary to the main stem from the tributary's source to mouth, and then all stations from source to mouth of the uppermost tributary to the tributary.

As an added means of identification, each gaging station and partial-record station has been assigned a station number. These are in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and gaging 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 8-digit number for each station such as 11247000, which appears just to the left of the station name, includes the 2-digit part number "11" plus the 6-digit downstream order number "247000". The part numbers refer to the areas whose boundaries are outlined in Figure 1.

EXPLANATION OF DATA

The base data collected at gaging stations consist of records of stage and measure-ments of discharge of streams or canals, and stage, surface area, and contents of lakes or reservoirs. In addition, observations of factors affecting the stage-discharge relation or the stage-capacity relation, weather records, and other information are used to supplement base data in determining the daily flow or volume of water in storage. Records of stage are obtained from direct readings on a nonrecording gage or from a water-stage recorder that gives either a continuous graph of the fluctuations or a tape punched at 15-, 30-, or 60-minute intervals. Measurements of discharge are made with a current meter, using the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in standard textbooks, in Water-Supply Paper 888, and in U.S. Geological Survey Techniques of Water Resources Investigations, book 3, chapter A6. Surface areas of lakes or reservoirs are determined from instrument surveys using standard methods. The configuration of the reservoir bottom is determined by sounding at many points.

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

At some 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 dis-charge. The slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage; at these stations the rate of change in stage is used as a factor in computing discharge.

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

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

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

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

The data in this report generally comprise a description of the station and tabula-tions of daily and monthly figures. For gaging stations on streams or canals a table showing the daily discharge and monthly and yearly discharge is given. For gaging stations on lakes and reservoirs a monthly summary table of stage and contents or a table showing the daily contents is given. Tables of daily mean gage heights are included for some streamflow stations and for some reservoir stations. Records are published for the water year, which begins on October 1 and ends on September 30.

EXPLANATION OF DATA 5

The description of the gaging stations gives the location, drainage area, period of record, type and history of gages, average discharge, extremes of discharge or contents, general remarks, and notations of revisions of previously published records. The location of the gaging station and the drainage area are obtained from the most accurate maps available. River mileage, given under "LOCATION" for some stations, is that determined and used by the Corps of Engineers or other agencies. Periods for which there are published records for the present station or for stations generally equivalent to the present one are given under "PERIOD OF RECORD." The type of gage currently in use, the datum of the present gage above mean sea level, and a condensed history of the types, locations, and datums of previous gages used during the period of record are given under "GAGE." In references to datum of gage, the phrase "mean sea level" denotes "Sea Level Datum of 1929" as used by the Topographic Division of the Geological Survey unless otherwise qualified. The average discharge for the number of years indicated is given under "AVERAGE DISCHARGE"; it is not given for stations having fewer than 5 complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. In addition, the median of yearly mean discharges is given for stream-gaging stations having 10 or more complete years of record if the median differs from the average by more than 10 percent. Under "EXTREMES" are given, usually in tabular form, the maximum instantaneous discharge (or contents) and gage height for the current water years (1966-70); the minimum instantaneous discharge if there is little or no regulation (or minimum contents); the minimum daily discharge if there is extensive regulation (also the minimum instantaneous discharge if it is abnormally low); and the minimum gage height if it is also abnormally low. For stations for which peak discharges are published, all independent peaks above the selected base and the time of occurrence and corresponding gage heights are published in the first table under "EXTREMES." The base discharge, which is given in parentheses in the table heading, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for any canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man. Time of day is expressed in 24-hour local standard time; for example, 12:30 a.m. is 0030, 1:30 p.m. is 1330. The minimums for these stations are published in a separate table following the table of peaks. In the paragraph following the current data, the data given are for the periods listed in the "PERIOD OF RECORD" paragraph. Reliable information concerning major floods that have occurred outside the period of record is given in the last paragraph under "EXTREMES." Unless otherwise qualified, the maximum discharge (or contents) corresponds to the crest stage obtained by use of a water-stage recorder (graphic or digital), a crest-stage gage, or a non-recording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge (or contents), it is given separately. Information pertaining to the accuracy of the discharge records, to conditions which affect the natural flow at the gaging station, and to availability of Water-Quality records, is given under "REMARKS." For reservoir stations information on the dam forming the reservoir, the capacity, outlet works and spillway, and purpose and use of the reservoir is given under "REMARKS."

Previously published records of some stations have been found to be in error on the basis of data or information later obtained. Revisions of such records are usually published along with the current records in one of the annual or compilation reports. In order to make it easier to find such revised records, a paragraph headed "REVISIONS (WATER YEARS)" has been added to the description of all stations for which revised records have been published. Listed therein are all the reports in which revisions have been published, each followed by the water years for which figures are revised in that report. In listing the water years only one number is given; for instance, 1965 stands for the water year October 1, 1964, to September 30, 1965. If no daily, monthly, or annual figures of discharge are affected by the revision, the fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maxi-mum 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 revised figure was first published is given. It should be noted

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that for all stations for which cubic feet per second per square mile and runoff in inches are published, a revision of the drainage area necessitates corresponding revision of all figures based on the drainage area. Revised figures of cubic feet per second per square mile and runoff in inches resulting from a revision of the drainage area only are usually not published in the annual series of reports.

The daily table for stream-gaging stations gives the mean discharge for each day and is followed by monthly and yearly summaries. In the monthly summary below the daily table, the line headed "TOTAL" gives the sum of the daily figures. The line headed "MEAN" gives the average flow in cubic feet per second during the month. The lines headed "MAX" and "MIN" give the maximum and minimum daily discharges, respectively, for the month. Discharge for the month also may be expressed in 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, if the drainage area includes large noncontributing areas, or if the average annual rainfall over the drainage basin is usually less than 20 inches.

In the yearly summary below the monthly summary, the figures following "MAX" are the maximum daily discharges for the calendar and water years; likewise, those following "MIN" are the minimum daily discharges.

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

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

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

ACCURACY OF FIELD DATA AND COMPUTED RESULTS

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

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

PUBLICATIONS 7

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

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 reser-voir 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.

PUBLICATIONS

Through September 30, 1960, the records of discharge and stage of streams and contents and stage of lakes and reservoirs were published in an annual series of U.S. Geological Survey water-supply papers entitled "Surface Water Supply of the United States." Prior to 1951, there were 14 volumes in the series; one for each of the 14 parts whose boundaries coincided with certain natural drainage lines within the con-terminous United States. From 1951 to 1960, there were 20 volumes in the series, including one each for the States of Alaska (Part 15) and Hawaii (Part 16).

This report is one of the second series of water-supply papers to be published on a 5-year basis. The first series covered the 5-year period October 1, 1960, to September 30, 1965. This series covers the period October 1, 1965, to September 30, 1970. To meet interim requirements, streamflow and related data have been released by the Geological Survey in annual reports, beginning with the 1961 water year, by State. These reports are entitled, "Water Resources Data for (state), Part 1. Surface Water Records." Distribution of these reports is limited and primarily for local needs. Any revision or corrections found necessary to the records published in these annual State reports have been made and published herein without reference.

These two series of 5-year water supply papers consist of 37 volumes each. The boundaries of the various parts and volumes within the parts are indicated in the fol-lowing list and on the map in Figure 1.

Part 1. North Atlantic slope basins, in three volumes:
Vol. 1: Basins from Maine to Connecticut
Vol. 2: Basins from New York to Delaware
Vol. 3: Basins from Maryland to York River
Part 2. South Atlantic slope and eastern Gulf of Mexico basins, in three volumes: Vol. 1: Basins from James River to Savannah River
Vol. 2: Basins from Ogeechee River to Carrabelle River
Vol. 3: Basins from Apalachicola River to Pearl River
Part 3. Ohio River basin, in four volumes:
Vol. 1: Ohio River basin above Kanawha River
Vol. 2: Ohio River basin from Kanawha River to Louisville, Kentucky
Vol. 3: Ohio River basin from Louisville, Kentucky, to Wabash River
Vol. 4: Ohio River basin below Wabash River
Part 4. St. Lawrence River basin, in two volumes:
Vol. 1: Basins of streams tributary to Lakes Superior, Michigan, and Huron Vol. 2: St. Lawrence River basin below Lake Huron

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Part 5. Hudson Bay and Upper Mississippi River basins, in three volumes:
Vol. 1: Hudson Bay basin
Vol. 2: Upper Mississippi River basin above Keokuk, Iowa
Vol. 3: Upper Mississippi River basin below Keokuk, Iowa
Part 6. Missouri River basin, in four volumes:
Vol. 1: Missouri River basin above Williston, North Dakota
Vol. 2: Missouri River basin from Williston, North Dakota, to Sioux City, Iowa Vol. 3: Missouri River basin from Sioux City, Iowa, to Nebraska City, Nebraska Vol. 4: Missouri River basin below Nebraska City, Nebraska
Part 7. Lower Mississippi River basin, in two volumes:
Vol. 1: Lower Mississippi River basin except Arkansas River basin
Vol. 2: Arkansas River basin
Part 8. Western Gulf of Mexico basins, in two volumes:
Vol. 1: Basins from Mermentau River to Colorado River
Vol. 2: Basins from Lavaca River to Rio Grande
Part 9. Colorado River basin in three volumes:
Vol. 1: Colorado River basin above Green River
Vol. 2: Colorado River basin from Green River to Compact Point
Vol. 3: Lower Colorado River basin
Part 10. The Great Basin
Part 11. Pacific slope basins in California, in four volumes:
Vol. 1: Basins from Tijuana River to Santa Maria River
Vol. 2: Basins from Arroyo Grande to Oregon State line except Central Valley Vol. 3: Southern Central Valley basins
Vol. 4: Northern Central Valley basins
Part 12. Pacific slope basins in Washington, in two volumes:
Vol. 1: Pacific slope basins in Washington except Columbia River basin
Vol. 2: Upper Columbia River basin
Part 13. Snake River basin
Part 14. Pacific slope basins in Oregon and Lower Columbia River basin
Part 15. Alaska
Part 16. Hawaii and other Pacific areas

Water- supply papers and other publications of the Geological Survey containing data on the water resources of the United States may be purchased or consulted as follows:

1. Copies may be purchased from the Superintendent of Documents, Government Printing Office, Washington, D. C. 20402, who will, on application, furnish lists giving prices. A list of Geological Survey publications may also be obtained by applying to the Director, Geological Survey, National Center, Reston, Va. 22092.

2. Sets of the reports may be consulted in the libraries of the principal cities in
the United States.

3. Sets are available for consultation in the offices of the Water Resources Division
of the Geological Survey. Addresses of the offices in the area covered by this report are given on page 1.

Early records of the flow of streams in the United States are published in the reports listed below. In many of these reports records for years earlier than those indicated have been included for some streams. Most of these reports are out of print, but may be available for consultation in the district offices and in public libraries.

Streamflow data for the years 1884-1901, in reports of the Geological Survey
(A - Annual Report; B - Bulletin)

Report Character of data Year

10th A, pt. 2 Descriptive information only
llth A, pt. 2 Monthly discharge and descriptive information .... 1884-90.

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Streamflow data for the years 1884-1901, in reports of the Geological Survey Continued (A - Annual Report; B - Bulletin)

Report Character of data Year

12th A, pt, 2 Monthly discharge and descriptive information .... 1884-91. 13th A, pt. 3 .... do .... 1884-92. 14th A, pt. 2 Monthly discharge. .... 1888-93. B 131 . . . Descriptions, measurements, gage heights, and ratings .... 1893-94. 16th A, pt. 2 Descriptive information only.
B 140 . . . Descriptions, measurements, gage heights, ratings and 1895.
monthly discharge.
WSP 11 . . Gage heights. .... 1896. 18th A, pt. 4 Descriptions, measurements, ratings, and monthly discharge 1895-96.
WSP 15 . . Descriptions, measurements, and gage heights of streams 1897.
east of the Mississippi River, and Missouri River and tributaries above Kansas River.
WSP 16 . . Descriptions, measurements, and gage heights of streams 1897.
west of the Mississippi River, except Missouri River and tributaries above Kansas River.
19th A, pt. 4 Descriptions, measurements, ratings and monthly discharge . 1897. WSP 27 . . Measurements, ratings, and gage heights of streams east of 1898. the Mississippi River, and Missouri River and tributaries. WSP 28 . . Measurements, ratings, and gage heights of streams west of 1898. the Mississippi River, except Missouri River and tribu-taries.

20th A, pt. 4 Monthly discharge. .... 1898. WSP 35 to 39 Descriptions, measurements, gage heights, and ratings .... 1899. 21st A, pt. 4 Monthly discharge. .... 1899. WSP 47 to 52 Descriptions, measurements, gage heights, and ratings .... 1900. 22nd A, pt. 4 Monthly discharge. .... 1900. WSP 65, 66. Descriptions, measurements, gage heights, and ratings .... 1901. WSP 75. .. Monthly discharge. .... 1901.

Reports on surface water supply containing records from 1878 to date for drainage basins in this report are listed below. The data for any particular gaging station will, in general, be found in the reports covering the years during which the station was maintained.

Number of water-supply papers containing results of stream measurements
in Pacific slope basins in California, Southern Central Valley, 1878-1965

Year WSP Year WSP Year WSP Year WSP Year WSP

1878-1911. .299 1922. . 551 1932. . 736 1942. . 961 1952. . 1245
1912. . . . .331 1923. . 571 1933. . 751 1943. . 981 1953. . 1285
1913. . . . .361 1924. . 591 1934. . 766 1944. .1011 1954. . 1345
1914. . . . .391 1925. . 611 1935. . 791 1945. .1041 1955. . 1395
1915. . . . .411 1926. . 631 1936. . 811 1946. .1061 1956. . 1445
1916. . . . .441 1927. . 651 1937. . 831 1947. .1091 1957. . 1515
1917. . . . .461 1928. . 671 1938. . 861 1948. .1121 1958. . 1565
1918. . . . .481 1929. . 691 1939. . 881 1949. .1151 1959. . 1635
1919-20. . .511 1930. . 706 1940. . 901 1950. .1181 1960. . 1715
1921. . . . .531 1931. . 721 1941. . 931 1951. .1215 1961-65 . 1930

Records for the area covered by this report have been compiled through September 1950 and for the period October 1950 to September 1960 and published in Water-Supply Papers 1315-A and 1735, respectively. These reports contain a summary of monthly and

OTHER DATA AVAILABLE 11

annual discharges for all previously published records as well as some records not contained in the annual series of water-supply papers. All records were reexamined and revised where warranted. Estimates of discharge were made to fill short gaps when-ever practical.

The reports listed in the foregoing tables contain the customary records of discharge collected during the systematic operation of gaging stations. Detailed information on the stage and discharge of many streams during major floods has been included in special reports on these floods published by the Geological Survey. The more recent of these special reports also contain other pertinent hydrologic information and analyses and compilations of data relating to earlier notable floods. The following list gives the numbers and titles of these reports:

WSP Title

771. ..... Floods in the United States, magnitude and frequency.
847. ..... Maximum discharges at stream-measurement stations through September 1938.
1137-F. . . . Flood of November-December 1950 in Central Valley basin, California. 1260-D. . . . Floods of 1952 in California.
1650 ..... Floods of December 1955-January 1956 in the far Western States. 1660-B. . . . Summary of floods in the United States during 1958.
1685 ..... Magnitude and frequency of floods in the United States.
1686 ..... Magnitude and frequency of floods in the United States.
1830-A. . . . Floods of January-February 1963 in California and Nevada.
1866 ..... Floods of December 1964 and January 1965 in the far Western States. 1970-D. . . . Summary of floods in the United States during 1966.
2030 ..... Summary of floods in the United States during 1969.

Reports giving records of chemical quality and temperature of surface water and suspended-sediment loads of streams in the area covered by this volume for the water years 1941-70 are listed below:

Numbers of water-supply papers containing water-quality records in the
Pacific Slope basins in California, Southern Central Valley, 1941-70

Year WSP Year WSP Year WSP Year WSP Year WSP

1941. ... 942 1947. . . 1102 1953. . . 1293 1959. . . 1645 1965. . . . 1965
1942. ... 950 1948. . . 1133 1954. . . 1353 1960. . . 1745 1966. . . . 1995
1943. ... 970 1949. . . 1163 1955. . . 1403 1961. . . 1885 1967. . . .2015
1944. . . 1022 1950. . . 1189 1956. . . 1453 1962. . . 19"45 1968. . . .2099
1945. . . 1030 1951. . . 1200 1957. . . 1523 1963. . . 1951 1969. . . . 2149
1946. . . 1050 1952. . . 1253 1958. . . 1574 1964. . . 1958 1970. . . .2159

OTHER DATA AVAILABLE

Information of a more detailed nature than that published for most of the gaging stations such as discharge measurements, gage-height records, and rating tables is on file in the district offices. Also most gaging-station records are available in computer-usable form and many statistical analyses have been made.

Water-quality records also are collected at or near some gaging stations. Data are obtained on the chemical quality of the stream water, on water temperature, and on sediment. Under "Remarks" of the station description, reference is made to water-quality records collected on a regular basis for the station. Results of the data collected are published in annual water-supply papers entitled "Quality of Surface Waters of the

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United States" and in annual reports issued by States beginning with 1964 water year; the state reports are entitled, "Water Resources Data for (state), Part 2. Water Quality Records."

Information on the availability of unpublished data, statistical analyses, or quality of water records, may be obtained from the district offices listed on page 1.

RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER
THAN THE GEOLOGICAL SURVEY

Records of discharge not published by the Geological Survey were collected at many additional sites by many other Federal, State, County, City, and local agencies, and by private organizations. A listing of stream-gaging stations and the agencies operat-ing them are contained in a publication by the California Department of Water Resources, Bulletin 157, Index of Stream-Gaging Stations in and Adjacent to California, 1970, and in publications by the Office of Water Data Coordination, Water Resources Division, U.S. Geological Survey, National Center, Reston, Virginia22092. Information on records available on specific sites can be obtained upon request.

GAGING-STATION RECORDS

BUENA VISTA LAKE BASIN

11185300 GOLDEN TROUT CREEK NEAR CARTAGO, CALIF.

in SW!<NW!< sec.10, T.18 S. , R.34 E., Tulare County, Inyo :ago.

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8,940 ft (from topographic map). Prior to Oct. 1, 1969, water-

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1967

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Discharge
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Oct. 1-4, Nov. 23, 24, 1966, Jan. 2-20, 1967.

REMARKS.--Re
station.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND,

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BUENA VISTA LAKE BASIN

11185300 GOLDEN TROUT CREEK NEAR CARTAGO, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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44
56
67

93

123
128
136

156

64

169
10

134
129
132
133
134

140
149
156
166

175
177
169
159
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154
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150
146
141

137

128

177
120

113
108
100
95
92

102
86
78
72

64
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66
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44

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36

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113
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3C

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76

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22

21

26

24.0
36
20

DISCHARGE, IN CUBIC

NOV DEC JAN

31

TOTAL
MEAN
MAX
MIN
AC-FT

FEB MAR APR

20
20
19
20
21

21
20
19
19
20

21
22
24

24

23
23
24
25

30
32
31
31

31
35
38

46

762
26.1
46

MAY

55
66
8
7
0

0
0
83
106
122

131
137
156

169

177
191
205
211

241
244
264
284

300
312
316

348
352

5,757
186
352

JUN

348
346
370
366
366

352
334
310
274
246

235
217
192

183

178
160
150
144

138
138
133
126

116
112
105

93

6,304
210
370

JUL

88
83
80
76
72

70
66
63
61
59

56
56
58

51

49
48
48
49

59
48
44
42

40
44
47

39
38

1,721
55.5
88

AUG

36
36
35
33
32

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33
31

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913
29.5
39

SEP

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""O" Isabella L A-o 01905
WO 570,000 ac

Slotago bog

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)'*60 ^

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Kom Divot No. 3
Powomouso

Oilbort dilck_^

)1170

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f*'1"1 Souln Fork Kom Divot
on 1954

)li95

EXPLANATION

O 1*"

Gaging station
Numfcars aro fhaso arvon in to

tattoo descriptions ,f *o r.port

a PoweiHotii*

Stream, opon H»»«, <" canal
thawing dirodfon of How

Ponwock, hjnnol, clotod Hum*,
ir pip* timing dirocNon of flow

» Lowell dikh
-» Thonai ditch

FIGURE 2 --Schematic diagram showing diversions and storage in Kern River basin.

BUENA VISTA LAKE BASIN

11185350 KERN RIVER NEAR QUAKING ASPEN CAMP, CALIF.

LOCATION.--Lat 36°08'04", long 118°25'49", in SWijStrt, sec.32, T.20 S., R.33 E., Tulare County, Sequoia National en Camp.

DRAINAGE AREA.--530 sq

PERIOD OF RECORD. --

AVERAGE

(362,

EXTREMES

Date
May 7,
May 19,

Dec. 6,
May 26,
June 30,

a Fro

Wtr yr
1966
1967
1968

DISCHARGE. -
000 acr

. --Maxi

1966
1966

1966
1967
1967

m out si

Date
Sept. 28
Oct. 1
Sept. 26

e-ft

mums

Time
0700
0700

1000
0130
0400

de h

- 30,
, 5,
- 29,

- 10 years

Datum of gage is 4,693 it »u

582 cfs (421,700 acre-ft per year) ; median of per year).

and minin

Disch.
1,340
*1,440

*9,360
3,420
5,420

igh watern

1966
10, 1966
1968

nums (discharge in cubic

harge (*) and peak disch

G.H. Date
4.96 Sept. 4, 1967
5.10
May 21, 1968
alO.89 May 29, 1968
7.45

8.90 Jan. 25, 1969

ark, 12.9 ft.

Annual minimum daily d

Discharge
122
122
143

feet

Time
1600

0800
0700

0930

ischa

per second

Disch.
1,320

1,490
*1,850

3,770

rge, water

Wtr yr
1969
1970

. gage

e (1,30

G.H.
5.14

5.37
5.84

7.64

years

Date
Oct. 1
Sept. 29

yearly mean discharges,

height in feet) .

Date
une 3, 1969
une 23, 1969
uly 14, 1969
ug. 11, 1969

une 2, 1970
une 22, 1970

1966-70

- 3, 6-12, 1968
, 30, 1970

rs 1966

Time
0400
0600
0400
0800

0600
0900

3isch.

'7,680
5,450
4,190
1,940

*2,360
1,370

G.H.
10.14
8.50
7.58
5.73

Period of record: Maximum discharge, 9,360 cfs Dec. 6, 1966 (gage height, 10.89 ft

of peak flow; minimum, 61 cfs Jan. 20, 1962.

Discharge
145
154

ell, 12.9 ft

REMARKS.--Records good. No regulation or diversion above station. Water-quality records for the water years 1966-70 are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

CAY

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3
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28
29
30
31

MAX
KIN

oc

2C
19

18
18

18

18
18

18
18

18
18
18
18
18

18

17
17

17
17

16
16
16

21
16

T

2

4
9
7
7
4

2
2

0
2

4
4
7
4
2

0

2
0

0

8
5
S

2
9

NOV

163

165
163
163

161

161
163

219

262
297
285
270
253

245

419
335

322

288

161

270 259 196 189 702

256 227 196 212 810

256 224 206 232 760

24B 22? 182 251 684

232 222 18 285 595

212 216 18 294 648 204 214 18 291 730

222 212 18 310 631 227 206 18 313 579

227 206 192 316 555

212 202 196 335 619

245 192 515

,030 658 451 299 145 ,080 631 414 372 141

,220 702 342 249 129

952 607 332 222 127

870 623 302 211 127

,080 694 258 189 127 ,170 716 252 186 124

,220 745 246 184 138

,110 563 249 171 127 ,120 523 258 163 127 ,150 503 258 160 124

,140 507 252 158 124

760 277 148

500

BUENA VISTA LAKE BASIN

11185350 KERN RIVER NEAR QUAKING ASPEN CAMP, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

1

3

5

6

8
9

11
12
13
14

16
17

19
20

21
22
23
24
25

26
27
28

30
31

MEAN

HIN

DAY

1

3
4

6
7

9
10

11
12
13

15

16
17
IB
19

21
22

24
25

26
27

29
30

MEAN

MIN
AC-FT

1

1

1

1

1
1

1
1
1
1

1

1
1
1

1
1

1

1

0

4

3

3
3

3
3
3

i
3
3

3
3

2
?

2
2

2
2

22 124 258 335 382 378 510 480 2,440 4,620

27 124 401 314 364 368 502 490 2,150 4,560

22 124 1,710 308 360 374 496 520 2,140 4,070

24 150 890 281 385 382 480 855 2,590 2,850

24 150 673 281 427 392 496 855 2,880 2,640
24 148 619 284 444 416 483 825 2,960 2.800 27 145 570 284 462 416 486 820 2,960 2,950
24 143 542 287 462 420 498 855 2,820 2.97C

27 205 444 350 399 582 500 2,530 3,110 2,240

24 J4! 4i 6 542 2,800 1,940

CT NOV DEC JAN FEB MAR APR MAY JUN JUL

30 264 323 264 262 323 418 855 ,460 375

» 267 313 259 256 323 415 805 835 36L

54 262 303 262 253 319 513 810 656 390

'1 297 30C 267 333 326 642 1,310 555 306

8 281 297 243 331 372 815 1,650 513 418
'6 330 290 243 411 880 1,540 463 452

3 294 300 262 287 327 S07 983 814 353

,860 740

,73C 800

,570 1,080

,130 628

,100 558
,090 530
,120 518
,120 506

880 554
850 526

673 546
696

AUG SEP

433 178

343 173
319 170

270 163

2(.4 161

251 158

23C 154

2C4 147
197 147

192 152
190 149
182 147
178 145

175 143
18C 143

175 143
173 145

?37 155

BUENA VISTA LAKE BASIN

11185350 KERN RIVER NEAR QUAKING ASPEN CAMP, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

NUV DEC JAN FEB MAR APR MAY JUN JUL

145
145
145

147

170
168
182

187

178
168

207 437
197 422 382 1,280 2,410 6,980 3,460 1,850 1,760

576
584

6
7

9
10

11
12

15

16
17
18
19
20

21
22

24
25

26
27
28
29
3C
31

TOTAL MEAN
WIN

145
145

145
145

145
145

225
212

185
182
180
175

70
68

63

61
61
61
70
73

164

145

185
182

182

182
185

178

212

?12
2C7

197

182

180
175

178

188

168

173 2C4

185 204

158 554

195 441

183 416

313 287 l'l30 2*220 6*360 3*050 1*25C 562

256 534 2,010 4,700 4,960 2,500 760 399

1,240 6,490 2,000 590

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

NOV DEC JAN FEB MAR APR MAY JUN JUL

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TOTAL
MEAN
MAX
MIN

382

365
359
356

351
345
340
331

323
323

331

402
399
368

351

331
328
328
326

320
314

306
301

10,552
340
402
29B

298

290
288
285

312
306

303

293

285
266
261

261
252
249

245
241

232
234

8,272
276
312
232

236

236
23B
241

232
234

234

226

224
222
222

275
254
254

270
238

226

240
2BO
207

224

198
188
180

220
218

234

256

672
451
362

326
317
340

285
672
180

256
254

252
256

288
285

270

270
273
258

254
252

301
247

263
275

283
280

278

306
320
328

320

348

453
261

417
441

507
524

632

501
465
444

423

387

393

671
376

545
584

629
646

702
832

,240
,450
,610

,360

,690

,010
405

1,770
1,530

,490
,470

896
BOO

744
844
947
1,030

1,220

1,210

BOO

2,110
685

643
657

688
820

1,010

716
664

622
587
559
562
584

538

465

379

1,180
340

280
280

268
266

249

245

261
270

268
258
252
241
230

226

214
210

210

232

317
209

193
188
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177

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154

BUENA VISTA LAKE BASIN

11185400 LITTLE KERN RIVER NEAR QUAKING ASPEN CAMP, CALIF.

LOCATION.--Lat 36°08'05", long 118°26'10", in SE'sSE's sec.31, T.20 S., R.33 E., Tulare County, on right bank 600 ft upstream from mouth and 5 miles east of Quaking Aspen Camp.

DRAINAGE AREA.--132 sq mi.

PERIOD OF RECORD.--August 1957 to September 1968, April to September 1969. Annual maximum, water year 1970.

GAGE.--Crest-stage gage. Datum of gage is 4,682 ft above mean sea level (right-profile survey). Prior to Oct. 1, 1969, water-stage recorder at present site and datum.

AVERAGE DISCHARGE.--11 years (1957-68), 110 cfs (79,640 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (400 cfs), water years 1966-68

Date Time Date
Nov. 23, 1965 0130

Nov. 28, 1966 1900
Dec. 3, 1966 0100

474
760

Date Time
Dec. 6, 1966 0600
Mar. 16, 1967 1800
May 24, 1967 2130
June 29, 1967 2000

Disch. G.H.
*13,100 a!2.60
838 4.98
1,270 5.57
1,110 5.38

May 5, 1968

Jan. 25, 1969

Jan. 16, 1970

From outside high watermark, 13.0 ft.

Annual minimum daily discharge, water years 1966-6

Discharge
8.0
9.5

Wtr yr Date
1966 Sept. 8, 9, 1965
1967 Oct. 1, 1966

Wtr yr Date
1968 Sept.11-13, 1967

sch.
283

,900 7.06

,390 5.57

charge

rge, 13,100 cfs Dec. 6, 1966 (gage height, 12.60 ft in gage well
extended above 1,200 cfs on basis of slope-area measurement of pt

13.0 ft
ak flow;

REMARKS.--R

REVISIONS.--WSP 1930: D

DISCHARGE! IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

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27
28
29
30
31

TOTAL
MEAN
MAX
MIN

AC-FT

OCT

21
20
19
19
19

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18
17
17
17

17
17
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17

19
19
19
19
18

17
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17
17

16
16
16
16
16
16

545
17.6
21
16
1,080

NOV

16
16
16
16
16

16
16
16
16
16

16
17
21
70
68

92
116
80
62
47

39
76
278
251
132

96
82
74
68
64

1,909
63.6
278
16
3,790

DEC

62
62
62
62
62

62
60
60
62
60

58
56
50
48
41

39
34
38
48
52

48
43
34
43
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39
39
38
50
76
64

1.591
51.3
76
34
3,160

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45
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1.622
52.3
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62
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60

58
58
60

44.9
62
34
2,490

64
60
58
58
60

64
70
78
82
100

114
120
122
128
128

130
118
120
122
124

124
126
132
132
124

122
128
143
164
180
203

113
203
58
6,940

230
263
281
284
272

266
275
272
266
257

230
214
198
198
211

233
251
239
211
190

183
176
171
183
211

239
245
248
245
257

233
284
171

13,880

269
287
287
297
304

308
304
290
260
245

227
216
216
222
216

214
214
219
214
203

193
186
178
168
159

154
143
134
124
118
110

215
308
110
13.250

JUN

106
102
98
92
90

88
100
94
90
88

84
78
78
74
70

67
63
63
61
61

54
51
48
45
42

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39
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37
37

69.3
106
37
4,120

JUL

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21.7
34
14
1,330

AUG

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24
31
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12
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10
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10
9.5
9.5
9.5
9.5

9.5
9.0
9.0
8.5
8.5

9.0
9.0
8.5
8.5
9.0
10

12.1
31
8.5
747

SEP

10
10
9.5
9.0
8.5

8.5
8.5
8.0
8.0
8.5

8.5
9.0
9.5
10
10

9.5
9.5
10
11
11

10
9.5
9.5
9.5
9.0

9.0
9.0
9.0
9.0
9.0

9.30
11
8.0
553

WTR YR 1966 TOTAL 27.506.5 MEAN 75.4 MAX 308 MIN 8.0 AC-FT 54,560

BUENA VISTA LAKE BASIN

11185400 LITTLE KERN RIVER NEAR QUAKING ASPEN CAMP, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

OCT NOV DEC JAN FEB MAR APR MAY JUN JUL

1
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30
31

TOTAL
MEAN
MAX
MIN

WTR YR

DAY

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30
31

MEAN
MAX
KIN

CAL YR
WTR YR

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10
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317.5
10.2
12
9.5

1967 TOTAL

OCT

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44
43
41
40

40
39
38
36

35
34
34
34
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31
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29
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27
26

26
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26
25

33.0
50
25

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10
10
10
10 3

11 7
25 2
26 1
22
18

17
17
16
15
16

16
17
16
15
102

56
32
22
19
18

17
20
156
142
65

31.5
156 7
10

114,370.5

DISCHARGE.

25
25
25
24
24

25
25
24
24

23
23
23
27
29

31
43
34
86
68

58
48
45
41
41

40
39
40
35
44

35.4
86
23

4B
127
312
100
. 110

. 880
. 160
,200
826
692

580
516
470
412
381

361
345
329
313

294
277
270
260
249

242
226
223
223
211
205

746
,880
48

202
193
184
184
181

172
167
167
161
150

142
140
140
137
137

137
137
134
134
132

193
175
158
144
169

161
161
158
158
208
220

162
220
132

184
172
169
169
175

184
190
193
199
214

229
235
238
235
217

211
205
208
205

193

190
190
193

181
178
184

197
238
169

MEAN 313 MAX 7,880

IN CUBIC

43
44
44
40
43

39
41
44
40

41
41
38
31
35

38
40
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40
39

37
38
39
41
47

48
50
49
48
42
39

41.3
50
31

FEET

36
34
31
32
33

35
37
38
40

40
40
39
46
51

58
54
50
47
44

47
50
51
51
52

51
52
50
48
47

44.2
58
31

PER SECOND

49
51
52
52
52

51
51
51
57

52
54
51
48
47

50
103
103
98
115

122
115
120
120
118

111
111
120
115
______

79.3
122
47

190
193
193
187
181

178
181
184
187
187

190
205
205
199
196

518
605
488
394

345

349
341
333

321
317
321
317
298
30$

8,810
284
605
178

MIN 9.5

284
280
288
280

277
277
266
263
266

274
274
277
280
280

280
280
280
270

280

280 .
270 ,
265 ,

275 ,
285 .
290
280
270

8,322 20.
277

291 1,
263

AC-FT 226,

, WATER YEAR OCTOBER

111
103
100
100
100

98
94
107
94

91
94
9
8
8

9
9
8
8
8

8
8
8
9
100

105
109
122
138
152
164

101
164
81

MIN 23

169
152
138
135
140

130
130
138
150

187
196
190
184
184

176
164
150
142
140

133
124
126
133
147

176
204
224
235
235

163
235
124

270
280
290
295

313
333
403
498
498

448
421
412
430
466

550
680
754
826

973

110
120
130

080
050
973
959
924

588
664
130
270

900

686
648
64B
658

653
702
748
790
808

820
838
802
784
796

820
772
814
844

910

898
898
917

898
886
892
924
959

24.287 13,
810
959
648
48,170 26,

1967 TO SEPTEMBER

239
235
226
226
242

226
210
201
196
201

207
207
184
171
164

169
179
201
226
239

235
207
184
171
169

184
201
207
210
198
184

299
203
242
164

176
171
169
164
1*7

128
122
120
111
103

98
94
93
87
86

83
79
75
72
66

62
61
60
58
57

52
51
50
48
45

2.788 1
92.9
176
45

917 42
850 32
820 30
75* 24

692 117
653 104
585 97
520 95
470 93

448 88
448 84
452 93
412 104
398 97

365 84
325 B2
305 BO
291 68

263 61

232 $8
226 64
220 6B

211 71
199 64

199 60 199 55
184 51
167 52

273 2.689

428 86.7
945 147
167 51
330 5,330

1968

44 25
44 20
41 19
36 16
35 14

39 14
38 13
43 16

44 16 39 14

35 12
32 12
32 12
32 14
31 15

31 14
29 16
26 16
25 16
25 16

25 17
24 19
24 20
23 17
21 15

21 15
23 19
29 17
32 15
50 12
32 14

,005 490
32.4 15.8
50 25
21 12

AC-FT 185,100

53
56
60
68
74

63
57
52
50
46

44
42
40
38
37

36
36
38
41

40

40
40
48

48
43
43
61
59

1,435
47.8
74
36
2,850

15
13
13
12
10

10
10
9.0
9.0
9.0

8.2
8.2
8.2
9.0
12

12
11
9.0
10
11

14
15
14
13
12

10
10
10
10
11

327.6
10.9
15
8.2
650

BUENA VISTA LAKE BASIN

11185400 LITTLE KERN RIVER NEAR QUAKING ASPEN CAMP, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, APRIL TO SEPTEMBER 1969

30
31

TOTAL
MEAN
MAX
H1N
AC-FT

756
7SO
709
692
762

709
610
60S
6*3
709

804

888
918
858
798

798
840
912
942
1,100

1,210
1,240
1,180
1,060
988

988
1,000
1,050
1,100
1,130
_

26,749 4
892
1,240

,160
,140
,090
,010
936

954
,020
,120
,200
.430

. 540
,480
,550
,400
. 280

. 390
,600
,550
,480
,470

,510
. 510
. 320
. 650
. 740

. 600
,580
,550
,770
,840
,980

. 850
.415
,980
605 936
53,060 86.980

2.110
2,010
1.840
1,780
1.650

1.580
1.480
1,330
1.100
995

930
900
888
942
942

1,000
967
912
918
936

930
912
942
960
882

786
738
692
654
638

______

33.244
1.108
2.110
638
65,940

621
600
590
570
550

540
520
505
485
465

446
438
460
456
415

384
362
362
354
338

354
338
314
294
276

258
272
266
252
238
224

12,547
405
621
224
24,890

214
205
193
184
175

157
149
138
133
163

184
144
US
119
117

110
108
104
95
89

85
83
80
78
76

72
70
68
67
64
64

3,716
120
214
64
7,370

62
60
59
59
57

57
59
56
54
51

48
47
47
47
46

46
44
44
43
43

44
43
41
40
39

38
38
36
36
38

1.422
47.4
6Z
36
2,820

22 BUENA VISTA LAKE BASIN

1118S600 PACKSADDLE CANYON CREEK NEAR FAIRVIEW, CALIF.

LOCATION.--Lat 35°56'40", long 118°28'30", in sec.12, T.23 S., R.32 E., Tulare County, on right bank 1.8 miles northeast of Fairview.

DRAINAGE AREA.--4.OS sq mi.

PERIOD OF RECORD.--October 1959 to September 1966. Annual maximums, water years 1967-70.

GAGE.--Crest-stage gage. Altitude of gage is 3,600 ft (from topographic map). Prior to Oct. 1, 1966, water-

AVERAGE DISCHARGE.--? years (1959-66), 0.18 cfs C130 acre-ft per year).

EXTREMES.--Maximums and minimums [discharge in cubic feet per second, gage height in feet) for the wate
1966

Wtr yr
1966
1967
1968
1969
1970

P

REMARKS

- 70 ai

Date
Nov.
Dec.

Apr.

Jan.

eriod
, froi

. --Rec

24, 1965
6, 1966
1, 1968
25, 1969
16, 1970

of record:
i slope-are;

Maximum
Discharge
3.4
660
. 30
245
12

Maximum discharge, 660 cf
i measurement; no flow for

Minimum d
G.H. Date
3.97 Most of time

4.73
12.65
6.86

s Dec. 6, 1966 Cgage height not determined,
most of each year.

ally
Disci

culvert washed

are available in files of the district office.

DISCHARGE, IN CUBIC FEET PER SECOND. HATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY OCT NCV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP

. 1C
. 10
. 10

MEAN
MAX
MIN

TOTAL
0
0
0 0 0 0 0 0 0 0 0 0 0

0 2.90
. 097
1.5

. 016

. 50

. 50

OOOOOCOO
0 0 0 0 0 0 0 0
0 0 0 0 0 0 0 0

»C-FT 0 5.8 1.0 0 0 0 0 0 0 0 0

BUENA VISTA LAKE BASIN

11186000 KERN RIVER NEAR KERNVILLE, CALIF.

DRAINAGE AREA.--846 sq mi. Area at site used Apr. 1, 1913, to Sept. 30, 1967, 848 sq mi.

PERIOD OF RECORD.--January 1912 to September 1970. Records for water year 1912 incomplete, yearly estimate pub-lished in WSP 1315-A. Prior to October 19S3, records for river and canal published separately; combined flow only October 1953 to September 1960.

EXTREMES.--Maxi

Wtr yr

1966
1967
1968
1969
1970

From floodmarks.

urn discharges for the water years 1966-70 are contained in the following table:

Maximum Minimum daily

Combined
Date Disch.

9 Sept. 9,10,29,30 127
5 Oct. 1, 1966 128
5 Sept.23, 1968 167
6 Oct. 12, 1968 141
6 Sept.30, 1970 171

River
Date
May
Dec.
May
Jan.
Jan.

19,
6,
29,
25,
16,

1966
1966
1968
1969
1970

only
Disch.
1,010
60,000
1,540
24,000
5,080

G.H.
6.52
a22.77
6.30

8.84

Date
May
Dec.
May
Jan .
Jan .

Cot

19,
6,
29,
25,
16,

nbined

1966
1966
1968
1969
1970

Disch.
1,590
60,000
2,100

5,590

Date
Dec.
Sept
Mar.
Dec.
Jan.

R

17
. 29
10
16
7

iver only

, 1965
, 1967
, 1968
- 18, 1968
, Feb. 1,2

Period of record (river only): Maximum discharge, 60,000 cfs Dec. 6, 1966 (gage height, 22.77 ft, from floodmarks, site and datum then in use), from rating curve extended above 6,000 cfs on basis of computed flow over dam at gage height 17.SS ft (basic data for computation furnished by Southern California Edison Co.) and slope-area measurement of peak flow; no flow July 31 to Nov. 7, Nov. 12 to Dec. 7, 1924, Jan. 16 to Feb. 7, 1925.

Period of record (combined): Maximum discharge, 60,000 cfs Dec. 6, 1966; minimum daily 78 cfs Aug. 30, 31, Sept. 17, 19, 1924.

records of combined discharge of r
water years 1966-69 are published

and canal, see tables published herein,
eports of the Geological Survey.

Water-quality records fo

shed by Southern California Edison Co. in ecti ith

COOPERATION.--Gage-height record an
charge measurements for canal fu
Commission project.

REVISIONS (WATER YEARS).--WSP 1445: 1912, 1916(M). WSP 1930: 1914(M), 1918(M), drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL

:ord and 66 dis-
Federal Power

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25

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27
28
29
30
31

TOTAL
MEAN

MAX MIN
AC-FT

CAL YR
WTR YR

64
50
49
49
48

48
48
48
43
44

48
54
51
51
52

52
52
52
51
51

50
48
48
47
46

46
44
50
46
46
46

1,522
49.1
64
43
3,020

1965 TOTAL
1966 TOTAL

43
41
41
41
41

40
40
41
41
41

41
41
41
39
39

56
205
96
76
62

62
63
474
562
258

123
39
39
47
53

2,826
94.2
562
39
5,610

134,146
57,510

57
48
41
39
39

43
47
46
45
44

44
44
43
43
43

42
29
47
58
60

35
37
45
35
38

38
38
39
93
83
48

1,431
46.2
93
29
2,840

MEAN
MEAN

48
43
66
57
45

44
43
43
42
41

40
40
41
40
40

40
41
41
37
39

34
34
37
36
34

39
38
38
39
40
40

1,278
41.2
66
34
2,530

368 MAX
158 MAX

40
38
40
40
40

41
40
41
42
41

41
40
40
38
40

40
40
40
40
40

40
40
40
40
40

40
40
45

. . . . . .

1.127
40.3
45
38
2,240

2,420
930

62
66
68
70
75

74
74
70
70
70

70
70
69
68
68

69
68
69
72
70

68
65
69
69
66

66
69
70
78
114
179

2,305
74.4
179
62
4,570

MIN 24
MIN 29

394
388
458
515
491

479
509
533
551
515

416
350
280
264
264

315
410
410
355
244

199
175
148
162
332

365
440
473
479
500

11,214
37".
551
148

AC-FT 266
AC-FT 114

568
680
756
744
768

830
930
930
805
688

580
509
518
588
640

69
77
87
93
85

73
70
70
712
720

720
664
628
539
431
335

21.550
695
930
335

,100
,100

253
199
162
134
13B

155
194
357
209
152

152
180
251
398
292

226
201
177
209
234

170
10B
92
94
97

97
98
100
100
98

5,127
171
298
92

103
104
100
98
97

101
104
102
103
102

101
98
101
102
94

89
89
89
91
98

101
94
92
93
91

89
89
88
87
89
91

2,967
95.7
104
87

86
91
88
84
89

96
96
97
96
91

91
91
91
91
91

9*
96
92
92
91

91
91
91
91
91

109
125
121
120
120
120

3,004
96.9
125
84

100
76
76
98
109

111
109
107
10*
10*

10*
105
107
109
111

111
108
108
112
118

115
111
108
108
107

105
105
105
10*
10*

3.159
105
118
76

BUENA VISTA LAKE BASIN

11186000 KERN RIVER NEAR KERNVILLE, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

1
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s

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10

11
12
13
1*
15

16
17
18
19
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21
22
23
24
25

26
27
28
29
30
31

TOTAL MEAN
MAX

MIN AC-FT
CAL YR
WTR YR

OCT

105
108
80
52
52

52
52
52
51
49

50
50
51
51
51

51
51
53
54
53

55
54
54
54
53

54
54
54
54
54
54

1,762
56.8
108
49
3,490

1966 TOTAL
1967 TOTAL

NOV

50
44
44
4S
45 1

46
46
44
44

44
44
43
42
41

41
41
*1
41
46

42
40
41
41
41

41
41
48
147
38

1,397 7
46.6
147 3
38
2,770 15

132,033
434,238

DEC

37
49
526
27
,700

. 700
,540
,200
. 900

,600
,500
,400
,300
,250

,150
,100
. 100
,000
960

900
850
637
244
173

174
113
131
87
77
118

7.143
2.488
3.600
27
3.000

MEAN
MEAN

JAN

103
64
101
107
96

63
66
63
65

56
45
50
63
55

59
60
58
56
59

139
112
66
70
65

104
151
133
122
257
429

3.021
97.5
429
45
5,990

362
1.190

FEB

234
156
124
106
108

121
126
134
158

198
234
244
242
190

181
164
158
156
139

116
115
108
98
114

90
85
88

4.101
146
244
85
8,130

MAX 33.600
MAX 33,600

MAR

92
126
139
85
62

76
82
73
77

77
136
181
160
156

670
1.190
835
666
638

619
631
625
592
571

511
482
515

502 44 1
461

11.580
374
1.190
62
22.970

MIN 27
MIN 25

APR

434
432
382
432
442

376
382
362
351

380
382
402
431
<rfi?

482
432
476
480
507

518
543
483
582
562

591
659
593
560
482

14,029
468
659
351
27.830

AC-FT
AC-FT

MAY

482
520
563
664
651

710
869
1,080
1.490
1,790

1,440
1.260
1.220
1.250

1.860
2,180
2,510
2,960
3.340

4,400
4,680
4,980
5.000

5,040
4.920
4.640
4,460
4,160
3,910

78,339
2,527
5.040
482
155,400

261,900
861,300

JUN

3,250
2,700
2.560
2.560
2.550

2.550
2.600
3.060
3.300
3.500

3.650
3.820
3,840
3.640

4.020
3.780
3.800
3.300
3.760

4.900
4.800
4.820
5.020

5.200
5.200
5.080
5.480
6.100

116,900
3,897
6.100
2.550
231,900

JUL

6,220
6.020
6,060
5.660
5.280

4.460
4.440
3,950
3.340
3.050

2.820
3.050
3.270
3,440

3.430
3,430
2,640
2,450
2,290

2.050
1,870
1.830
1,870

1,900
1,740
1.620
1,780
1.930
1,660

99.230
3,201
6,220
1*620
196,800

AUG

1,520
1,410
1.360
1.260
1.180

1,100
970
810
726
734

686
662
670
726

686
626
590
509
470

442
411
376
425
492

590
453
352
271
214
203

21,598
697
1,520
203
42.840

SEP

241
341
394
428
662

452
327
247
194
146

104
76
57
61
80

80
78
91
159
159

100
81
88
102
88

83
81
52
25
61

5,138
171
662
25
10.190

NOTE. NO GAGE-HEIGHT RECORD DEC. 6-14.

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1966

NOV DEC JAN FEB MAR APR MAY JUN JUL

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24
25

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27
28
29
30
31

TOTAL MEAN
MAX
MIN

CAL YR
WTR YR

67
57
58
61
60

60
60
60
60
60

60
60
60
60
60

59
57
59
58
59

60
59
59
59
59

59
59
59
59
59
59

1,845
59.5
67
57

1967 TOTAL
1968 TOTAL

52
49
48
47
47

47
47
47
46
46

47
47
47
47
47

48
48
47
75
175

105
47
47

47

46
45

56
57

1.646
54.9
175
45

358,801
60,507

51
48
41
59
47

53
60
56
43
40

45
45
38
45
47

48
47
45
48
45

50
59
30

23

29
30

47
47
45

1.374
44.3
60
23

MEAN
MEAN

44
38
27
22
30

23
19
35
42
59

66
47
49
42
52

71
48
44
44
44

44
44
47

46

43
44

37
36
44

1,318
42.5
71
19

983 MAX
165 MAX

45
45
45
45
45

45
45
45
46
46

45
45
45
45
45

36
54
49
45
47

48
47
47

46

47
47

47
. . . . . .

1.331
45.9
54
36

6.220
1.320

46
47
47
46
47

46
45
55
25
15

33
44
60
80
83

83
83
83
81
76

76
76
76

75

76
77

77
94
159

2.064
66.6
159
15

MIN 23
MIN 15

200
175
138
127
131

117
117
120
132
134

250
308
310
302
300

295
242
169
149
124

117
122
124

129

210
358

586
646

6,771
226
646
117

AC-FT 711
AC-FT 120

710
750
685
610
705

618
558
498
446
466

530
558
502
385
343

334
397
550
830
1.030

1.060
900
690

538

680
938

1.320
1.210
1,030

21,607
697
1,320
334

,700
. 000

968
1.020
1,100
1.050
890

618
454
424
358
298

270
290
322
331
349

361
367
346
319
278

212
157
149
136
127

124
124
125
122
122

11.811
394
1.100
12?

120
122
122
120
122

120
118
118
120
120

120
117
117
117
118

107
97
97
93
96

94
94
93
88
90

90
90
91
94
94
97

3.296
106
122
88

94
93
94
96
94

94
94
94
93
93

93
93
91
91
93

100
102
104
110
107

107
108
108
100
94

94
94
93
93
93
91

2.998
96.7
110
91

80
70
70
70
72

72
72
74
74
107

185
185
183
181
181

179
179
177
199
250

188
169
167
169
171

173
192
188
188
181

4,446
148
250
70
a. 820

BUENA VISTA LAKE BASIN

11186000 KERN RIVER NEAR KERNVILLE, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 196B TO SEPTEMBER 1969

NOV DEC JAN FEB MAR APR MAY JUN ML

1
2
3
0
5

6
7
B
9
10

11
12
13
10
15

16
17
IB
19
20

21
22
23
20
25

26
27
26
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

NOTE

160
160
160
160
161

153
159
155
153
153

103
101
105
160
262

22B
210
190
66
66

61
61
59
60
56

55
57
57
56
56
50

3,859
120
262
50
7,650

1968 TOTAL
1969 TOTAL

53
51
OO
OO
OO

06
06
05
06
O7

07
05
OO
OO
00

01
02
03
02
02

02

02
42
00
OO

00
03
03
02
02

1.32B
00.3
53
01
2.630

62.096
630.272

02
01
02
01
00

01
00
01
00
39

00
36
37
37
37

36
36
36
36
00

00
06
OO
05
00

00
00
00
00
00
OO

1.267
00.9
06
36
2.510

MEAN
MEAN

STAGE-DISCHARGE RELATION

00
OO
44
00
44

00
00
00
OO
00

09
50
62
78
71

70
70
6B
2.600
2.160

2,910
1.020
BOO
2.320
10.000

7.100
3.650
1.550
1.280
760
559

02,067
1,370
10,000
OO
60,230

170 MAX
1.727 MAX

INDEFINITE

050
351
260
215
200

152
123
95
76
110

107
157
137
61
200

212
155
107
90
65

OS
09
05
201
200

225
195
260

. . . . .

0.736
169
050
05
9.OOO

1.320
10.000

JAN. 21

195
162
170
97
100

70
59
52
50
07

00
110
95
76
55

86
253
052
528
580

580
560
715
902
1.060

1.200
1,390
1,610
1,690
2,180
2.060

17.860
576
2.060
OO
35.030

MIN 15
MIN 36

TO FEB.

2.500
2.390
2.270
2.000
2.2BO

2.230
1.830
1.760
1,850
1,970

2,180
2,390
2,620
2,620
2,300

2,350
2.000
2.650
2.650
2.990

3.350
3.570
3.600
3,250
2,960

2,900
2,990
3.130
3.250
3.530

76.900
2.631
3.600
1.780
156.600

AC-FT
AC-FT

1.

3.570
3.590
3.500
3,320
3.0BO

3.200
3.370
3.670
0.120
5.170

5.410
5.010
5.610
5.850
5,720

5,800
6.050

6,560
6,710
6.760

6,910
7,130
6,890
7,220
7.600

7.860
7.9BO
7.780
8,260
8,610
9,100

182,090
5,870
9,100
3,060
361,200

123,200
1.250.000

9,600
9.500
9.600
9.020
9.000

8,710
8,370
7.830
6.890
5,720

5.190
0.930
O.7OO
5.080
5.620

6,000
5,330
0,660
5,200
5,580

5,560
5,660
6,020
5,850
5.360

3,660
3,730
3,600
3,500
3,520

183,930
6,131
9,600
3,500
364,800

3,600
3,620
3.590
3.090
3.350

. 290
. 200
. 220
. 100
. 120

. 050
. 010
. 290
. 600
. 070

2.830
2,700
2.780
2,630
2,870

2,890
2,770
2,740
2,070
2,270

1,970
1,830
1.770
1.870
1.760
1.820

87.870
2,835
3.620
1,770
174,300

1,780
1,610
1.520
1.000
1.310

1,090
920
836
785
970

1.080
1.170
936
836
760

700
735
635
500
456

396
308
318
305
305

278
200
202
170
108
125

23,358
753
1,780
125
46,330

111
102
108
102
86

70
89
87
102
87

85
84
79
78
81

81
80
79
80
81

84
82
82
83
81

81
80
80
80
80

2,565
85.5
111
70
5,090

OISCHAR6E, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

NOV OEC JAN FES MAR APR MAY JUN JUL

1
2
3
O
5

6
7
6
9
10

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13
10
15

16
17
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19
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21
22
23
20
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
HTR YR

66
53
52
52
52

52
52
52
50
50

53
53
50
56
56

90
113
69
60
58

58
56
58
58
58

56
57
59
62
62
61

1,850
59.7
113
52
3.670

1969 TOTAL
1970 TOTAL

52
03
02
02
02

06
53
05
00
06

09
46
6
5
6

6
O
05
O6
06

O6
05
OO
03
03

03
OO
03
03
03

1.351
45.0
53
42
2.680

628,484
93,295

03
03
02
02
02

03
03
03
02
42

49
OO
00
00
OO

4O
OO
OO
57
87

48
55
OO
OS
65

60
00
05
08
40
42

1,465
47.3
87
40
2,910

MEAN
MEAN

01
01
01
01
39

00
36
38
02
06

04
03
38
86
53

2,630
952
329
168
108

69
71
OO
203
117

57
55
39
42
02
38

5,635
182
2.630
36
11.180

1.722
256

36
36
00
38
38

38
41
03
OO
43

51
06
46
47
4O

06
07
04
54
52

08
06
06
OS
05

44
04
56
- - - .

. . . . . .

1.208
44.6
56
36
2.480

MAX 1O.OOO
MAX 2.630

79
75
73
77
80

81
81
82
82
84

81
Bl
81
86
87

82
60
80
76
73

74
76
60
99
132

176
188
150
108
ISO
128

3.014
97.2
188
73
5,980

MIN 40
MIN 36

9B
100
119
139
160

224
260
280
326
460

556
060
424
339
283

238
180
109
109
133

131
121
128
120
116

108
106
113
111
117

*211

556
98
12,570

AC-FT
AC-FT

121
169
273
328
372

488
440
488
600
730

625
556
536
665
986

1,260
1,480
1,640
1.600
1,460

1.300
1,420
1,700
2,080
2,020

1,550
1,570
1,640
1,690
1,670
1,810

33.327
1.075
2,080
121
66,100

1,247,000
185.100

,870
,870
,670
,600
,300

,270
,270
,200
,160
,030

812
680
615
512
000

384
492
576
690
842

914
904
938
806
760

675
790
600
Olft
310

27.476
916
1,870
310

54, son

250
200
210
200
200

258
235
360
492
790

650
368
268
196
154

133
110
100
98
102

95
94
93
94
93

94
94
93
92
92

207
790
92
12.720

95
95
90
95
94

94
93
94
92
94

93
92
92
95
92

92
90
89
93
95

95
90
96
95
95

95
94
95
95
95
102

94.0
102
89
5,780

90
79
74
76
81

80
78
73
74
70

67
67
67
70
76

77
74
75
78
78

78
78
76
77
85

75
73
73
73
71

75.4
90
67
4,490

26 BUENA VISTA LAKE BASIN

11186000 KERN RIVER NEAR KERNVILLE, CALIF.--CONTINUED

COMBINED DISCHARGE< IN CUBIC FEET PER SECOND, OF KERN RIVER AND KERN RIVER NO. 3 CANAL NEAR KERNVILLE, CALIF., WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

1
2
3
*

S

6
7
8
9
10

11
12
13
14
IS

16
17
18

1920

2122
332*
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

252
2*9
2*2
239
235

232
227
230
22*
221

216
21*
212
211
213

217
219
221
219
215

210
205
203
202
200

198
19*
196
195
196
195

6.702 10
216
252
19*
13.290 20

1965 TOTAL
1966 TOTAL

195
195
19*
195
195

193
192
190
191
192

192
193
20*
32*
323

367
558
*19
381
33*

310
332
823
91*
620

511
*71
*36
*13
387

. ***
3*6
91*
190
. 720

289.906
168.93*

373
36*
358
358
355

352
3*5
3*1
3**
3*7

331
332
312
310
290

272
25*
26*
298
31*

300
281
257
272
267

262
261
259
390
**5
385

9.693
319
**5
25*
19,620

MEAN
MEAN

3*9
332
358
355
3*3

335
330
335
330
325

32*
313
313
312
313

309
290
287
287
277

273
276
265
26*
269

279
261
2*6
257
266
252

9,325
301
358
2*6
18.500

79* MAX
463 MAX

266
2*5
267
266
273

350
310
282
262
298

2*2
280
269
258
262

262
265
267
266
267

276
287
298
301
292

290
282
290

7,773
278
350
2*2
15.420

3.020
1,510

297
288
271
278
306

301
312
330
337
372

*27
*59
468
495
495

507
*92
498
517
52*

521
528
555
562
537

529
551
601
653

76*

14,474
*67
76*
271
28.710

MIN 190
MIN 127

898
97*
1.050
1.100
1.070

1.060
1.090
1,120
1,1*0
1.100

996
931
862
8*3
8*0

896
990
992
909
826

780
75*
72*
738
809

9*5
1.020
1.050
1.060
1.080

28.6*7
955

1,1*0
72*
56.820

AC-FT 575
AC-FT 335

1.150
1.260
1.3*0
1.330
1.350

1,410
1.510
1.510
1.390
1,270

1,160
1,090
1,100
1,170
1.220

1,280
1,360
1.450
1,510
1.430

1,310
1,280
1,280
1,290
1.300

1.300

1,2*0
1,210
1,120
1,010
915

39,5*5
1.276
1.510
915
78,440

,000
. 100

833
780
7*3
715
720

735
778
8*0
788
735

731
762
832
880
873

805
785
759
793
818

755
691
630
57*
5*3

5*2
553
565
560
535

21.653
722
880
535
42,950

517
*92
*52
423
*07

39*
390
371
368
362

328
307
299
290
285

277
270
269
26*
257

26*
266
262
265
26*

259
253
2*6
2*1
2*9
276

9.867
318
517
2*1
19.570

269
3*0
387
355
333

29*
26*
2*6
236
220

211
203
197
19*
191

186
186
186
192
183

179
175
167
163
160

151
153
1*6
1*5
1*5
1*5

6.602
213
387
1*5
13.100

159
151
1*5
138
132

13*
133
131
127
127

128
129
131
133
135

135
132
131
135
1*1

138
13*
131
131
130

128
128
128
127
127

*.009
13*
159
127
7,960

COMBINED DISCHARGE, 3 CANAL NEAR KERNVILLE, CALIF.,

1
2
3
*

5

6

8
9
10

11
12

1*
15

16
17
18
19
20

22
23
2*
25

27
28
29
30
31

TOTAL
MEAN

MIN
AC-FT

CAL YR
KTR YR

128
131
138
138
138

137

1*0
138
133

135
136

137
137

139
1*0
1*2
1*0
138

1*0
139
1*0
139

139
1*0
1*0
1*0
1*0

4,876 6
138

128
8,480 12

1966 TOTAL
1967 TOTAL

1*1
1*0
1*0
1*1
1*2

1*3

195
18*
169

168
166

158
157

156 ise
158
158
309

21*
193
172
170

173
?60
712
398

. 103
203

1*0
. 110

235.
609.

309
338
1.0*0
438
12.000

33.600

3,5*0

1,900

,600
,500

,300
,250

,150
,100
,100
,000
960

850
830
790
750

680
660
660
650
6*0

83,583
2.696

309
165,800

857 MEAN
25* MEAN

630
600
600
600
590

565

550

5*0

530
520

5*7

5*7
5*7
5*1
53*
528

66*
61*
61*
57*

72*
705
695
830

18.892
609

520

37,*70

6*6
1,669

810 676
7*7 675
720 689
701 70*
711 667

71* 66*

728 660

803 755

809

752
737
729
728
710

723
719
700
728

66*
668
. . . . . .

,280
. 800
,450
,300
. 250

. 230
,230
,210
. 190

,100
,130
,120

,100

20.537 30,316
733 978

66* 657
40.740 60,130

MAX 33.600 MIN

MAX 33(600 MIN

1,050
1,050
1,000
1.050
1.0*0

1.020

1.000

1.000

1.100
1.050
1,080
1,100
1,120

1,100
1,200
1,180

1.2SO
1.200
1,180

33,490
1,083

970
64,440

127 AC-FT
128 AC-FT

1.100

1,1*0
1,170
1.250
1.250

1,310

1.700

8,480
2.780
3.110
3.560
3.9*0

5,280
5.54C
5,600

5,520
5,2*0
5,060

97,020
3,130

1,100
192,400

467,
1,208,

3,8*0
3,300
3,160
3,160
3.150

3.150

3.660

4,620
4,380
4.400
4.900
4,360

5,400
5,420
5,620

5,800
5,680
6.080

135,890
*,530

3,150
269,500

eoo
000

6,820
6.620
6,660
6,160
5,880

5,060

4,550

4,040
4,030
3,440
3,050
2,860

2,470
2,430
2.470

2.3*0
2.220
2.380

117,7*0
3,798

2,220
233,500

2.120
2,100
1,950
1.850
1,770

1,700

1,400
1,320

1,320

1.280
1,210
1,180
1,100
1,060

975
1,020
1.090

1.050
956
875
813

40,180
1,29*

601
79,580

837
936
989

1,020
1,260

1.050

8*3
790

671

631
623

605
585
610
7*5
753

693
651
656
686
662

588
5*5
585
6*5

22,287
7*3

5*5
44,810

BUENA VISTA LAKE BASIN :

11186000 KERN RIVER NEAR KERNVILLE, CALIF.--CONTINUED

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF KERN RIVER AND KERN RIVER NO. 3 CANAL NEAR KERNVILLE, CALIF., HATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

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2
3
it
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14
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16
17
18
19
20

21
22
23
24
25

26
27
2B
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
HTR Yd

634
594
561
539
515

502
4B6

458
449

40
30
23
17
05

400
396
391
3B4
3B1

380
378
375
370
363

360
358
354
351
350

13,254 11
428
634
344

339
339
33B
336
335

337
337
333
330
326

325
321
31B
327
346

366
443
398
51B
599

524
449
425
415
40B

400
382
388
362
445

,509
384
599
31B
26,290 22,830

1967 TOTAL
1968 TOTAL

COMBINED DISCHARGE

DAY

1
2
3
4
5

6
7

a
9
10

11
12

131*
15

16
17

19
20

21
22
23
2*
25

26
2T
28
29
30
31

TOTAL

MAX

AC-FT

OCT

160
160
160
160
161

153
159
155
153
153

143
141
145
160
282

228
210
190
180
215

207
201
199
195
191

187
185
183
183
205
212

5,616 6
181
282
141
11,140 12

5S2,
195,

, IN

NOV

203
200
210
236
219

207
198
194
193
198

199
196
200
194
234

265
242
237
240
229

219
214
216
219
211

1 AQ 1BV
191
194
1BB
195

,330
211
265
188
,560

386
412
442
420
427

403
403
40B
394
387

387
389
340
291
368

384
377
385
389
372

366
411
410
399
39B

406
401
401
397
380
377

12,110
391
442
291

24,020

165 MEAN
768 MEAN

CUBIC FEET

DEC

19B
192
189
195
191

193
194
192
18B
190

219
189
190
217
291

285
22B
203
216
207

176
1B7
234
254
291

269
222
271
266
254
265

6,856
221
291
176
13,600

371
370
351
341
351

341
335
344
349
373

391
365
361
350
372

399
360
351
353
351

353
35B
363
363
369

369
372
339
330

388

11,131
359
399
330
22,080

1,513
535

35B
377
375
372
369

363
363
361
373
419

376
376
371
361
351

356
534
601
525
557

614
591
594
601
590

569
560
584
571

556
535
517
509
513

SOB
504
616
573
539

526
531
530
509
497

515
518
492
477
465

465
482
473
485
499

52B
542
566
620
673

13,412 16,508
462
614
351

533
745
465
26,600 32,740

MAX 6,820 MIN 291

791 1,270
764 1,310
716 1,250
697 1,170
707 1,270

6BO 1,180
671 1,120

713 1,010
724 1,020

841 1,090
899 1,120
899 1,060
891 937
888 896

B82 «88
B31 950
756 1,100
735 1,380
710 1,580

6B1 1,620
644 1,460
655 1,250
653 1,120
676 1,190

774 1,240
919 1,490
1.070 1,730

1,150 1,880 1,210 1,770
1,590

23,917 39,001
797 1,258
1,210 1,880
644 8BB
47,440 77,360

AC-FT 1,095,000

1,530
1,580
1,660
1,610
1,450

1,180
1,010

910
849

B21
841
876
883
901

921
934
913
8B7
B46

7B3
725
708
700
6B5

651
621
608
591
542

28,194
940
1,660
542

55,920

499
474
<fS7
448
433

438
431

530
503

464
436
409
395
385

377
374
357
340
344

327
321
313
305
298

310
337
352
425

531

12,537
404
531
298
24,870

500
475
387
390
365

343
328

338
318

305
290
278
275
265

261
255
250
257
235

231
232
228
212
198

193
201
205
194
185
183

8,737 5
282
500
183

17,330 10

187
168
183
180
177

173
170
170
170
175

185
IBS
1B3
181
1B1

179
179
177
199
250

1BB
169
167
169
171

173
192
188
IBS
181

,458
1B2
250
167
,830

MAX 1,880 MIN 167 AC-FT 38B.300

PER SECOND, OF KERN
WATER

JAN

257
244
244
246
256

267
274
281
277
267

250
257
300
500
420

372
243
351
3,040
2,610

3,360
1,870
1,250
2,770
14,400

7,100
3,700
2,020
1,790
1,340
1,140

51,696
1,668
14,400
243
102,500

YEAR OCTOBER

FE8

1,040
936
B54
803
7B6

74B
669
680
690
710

730
765
750
69 B
B60

823
779
771
716
669

640
639
617
B17
B36

839
812
B86

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21,563 3

1,040

RIVER AND KERN RIVER NO. 3 CANAL NEAR KERNVILLE, CALIF., 1968 TO SEPTEMBER 1969

MAR

810
792
788
717
700

683
651
628
626
624

599
654
640
604
609

6B1
B52

,150
,200

,190
,150
,310
,500
,670

,810
,990
,220
,480
,780
,060

,238

,060
617 cno.,,,
42,770 71,880

APR MAY

3,100 4.1BO
3,000 4,200
2,860 ,110
2,650 ,930
2,890 ,680

2,820 ,800
2,430 ,970
2,390 ,270
2,470 ,720
2,570 ,770

2,780 ,010
3,000 ,010
3,240 ,410
3,230 ,450
2,950 ,320

2,960 ,400
3,040 ,650

3,250 ,310
3,600 ,380

3,950 7,510
4,170 7,730
4,200 7,490
3,850 7,820
3,560 8,200

3,590 8,580
3,730 8,380
3,850 8,880
4,130 9,210

JUN

10,200
10,100
10,200
9,620
9,600

9,320
8,970
8,440
7,490
6,320

5,790
5,530
5,330
6,070
6,220

6,600
5,920

5,840
6,180

6,060
6,260
6,610
6,450
5,960

4,320
4,230
4,090
4,120

97,060 200,730 201,770

4,200 9,740 10,200

192,500 398,100 400,200

JUL

4,200
4,220
4,190
4,100
3,960

3,900
3,840
3,830
3,750
3,730

3,660
3,620
3,900
4,230
3.700

3,450
3,320

3,460
3,500

3,520
3,400
3.370
3.100
2,900

2,600
2,460
2,400
2,500
2.410
2.450

107,070

4,230

212,400

AUG

2,410
2,240
2,150
2,070
1,920

1,700
1,540
1,470
1,420
1,600

2,110
1,800
1,560
1,460
1,380

1,320
1,360
1,260
1,170
1,080

1,010
948
928
925
924

858
820
792
760
737

42,618 17
1,375
2,410
737
84,530 34

SEP

722
712
719
712
696

677
696
691
706
65B

629
611
587
575
563

553
546
536
523
521

530
511
498
489
479

471
465
459
452
467

,454
582
722
452
,620

CAL YR 1968 TOTAL 177,697 MEAN 486 MAX 1,880 MIN 141 AC-FT 352,500
WTR YR 1969 TOTAL 795,001 MEAN 2,178 MAX 14,400 MIN 141 AC-FT 1.577,000

28 BUENA VISTA LAKE BASIN

11186000 KERN RIVER NEAR KERNVILLE, CALIF.--CONTINUED

COMBINE! DISCHARGE, IN CUBIC FEET PER SECOND, OF KERN RIVER AND KERN RIVER NO. 3 CANAL NEAR KERNVILLE, CALIF., WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

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IB
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23
2*
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28
29
30
31

TOTAL
MEAN
MAX
WIN
AC-FT

CAL YR
NTR YR

458
452
444
442
441

440
435
426
420
414

406
402
402
404
409

496
537
487
467
459

439
435
430
431
428

420
414
412
406
402

13.454 11
434
537
396

26,690 22

1969 TOTAL
1970 TOTAL

391
387
384
379
377

397
453
425
418
410

425
421
409
401
399

411
391
365
371
376

370
364
354
346
344

344
343
327
322
332

436 11
381
453
322
,680 22

812,289
247,819

329
333
325
318
315

327
326
325
319
305

311
327
330
325
316

314
308
311
342
565

434
543
411
384
454

554
397
332
320
353

,200
361
565
305
,220

MEAN
MEAN

337
326
313
301
293

313
320
318
343
478

426
402
391
461
539

3,160
1,470
90B
752
692

652
657
625
781
684

623
629
589
546
523
488

19,340
624
3,160
293
38,360

2,225
679

506
479
473
467
462

456
457
459
468
493

576
543
529
542
511

498
505
471
461
451

480
453
456
452
446

442
440
470

13,446
480
576
440
26,670

MAX 14,400
MAX 3,160

553
587
523
509
538

544
555
562
559
576

541
538
541
588
615

631
650
653
624
607

608
624
645
672
716

789
797
755
74*
735
693

19,272
622
797
509
38,230

MIN
MIN

665
672
692
709
727

790
832
854
907
1,040

1,140
1.050
1,000
918
864

B19
764
726
726
705

701
663
653
646
668

715
716
667
641
684

23,354
778
1,140
641
46,320

243 AC-FT
171 AC-FT

693
743
845
899
943

1,060
1,010
1,060
1,170
1,300

1,200
1,140
1,140
1,270
1,580

1,870
2,080
2,240
2,200
2,060

1,940
2,020
2,290
2,670
2,620

2,140
2,170
2,240
2,290
2,260
2,380

51,523
1,662
2,670
693
102,200

1,611,
491.

2,460
2,470
2.270
2.190
1.930

1.870
1.860
1.830
1.750
1,620

1.400
1,270
1.200
1,100
988

972
1.080
1,170
1.280
1,430

1,500
1,530
1,530
1,400
1,350

1,270
1,380
1,190
1.010
903

45.203
1,507
2,470
903
89,660

000
500

843
798
804
795
799

853
829
958
1,090
1,390

1,250
963
864
791
749

729
703
678
674
693

667
628
590
551
538

542
551
528
496
477
455

23,276
751
1.390
455
46.170

430
405
393
384
378

374
365
364
348
337

328
325
338
349
340

339
335
325
316
304

295
284
278
272
267

263
263
286
305
286
270

10,146
327
430
263
20,120

258
256
246
239
231

230
228
221
214
210

206
205
205
206
205

202
198
195
191
191

191
190
188
185
185

183
181
191
177
171

6,169
206
258
171

12,240

BUENA VISTA LAKE BASIN

11186340 SALMON CREEK TRIBUTARY B NEAR FAIRVIEW, CALIF.

LOCATION.--Lat 35 0 54'06", long 118°23'04", in SEWs sec.26, T.23 S., R.33 E., Tulare County, Sequoia National

10.3 miles north of Kernville.

DRAINAGE AREA.--0.46 sq mi.

PERIOD OF RECORD.--October 1962 to September 1969 (discontinued). December 1960 to September 1962 (incomplete) in files of U.S. Forest Service.

GAGE.--Water-stage recorder and sharp-crested 120° V-notch weir. Altitude of gage is 7,360 ft (from topographic map).

AVERAGE DISCHARGE.--? years (1962-69), 0.242 cfs (175 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet) for the water years 1966-69 are contained in the following table:

Wtr yr Date
1966 Apr. 3, 1966
1967 Dec. 6, 1966
1968 May 4, 1968
1969 May 24, 1969

Discharge G.H.
. 60 .45
a22.1 1.93
. 71 .48
5.83 1.12

Minimum daily
Date
Aug. 21-23, Sept. 26, 1966 .002
Many days .003
Sept. 4-6, 20-23, 1968 .004
Many days .003

Sept. 26, 1966.

able in files of the district office.

DISCHARGE! IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

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31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

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. 006
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. 006

. 244
. 008
. 01
. 004
. 5

1965 TOTAL
1966 TOTAL

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. 570

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. 006
1.1

78.234
15.566

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MEAN

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2.08 MIN
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2.28

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4.5

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17

AC-FT 155
AC-FT 31

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JUN

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BUENA VISTA LAKE BASIN

11186340 SALMON CREEK TRIBUTARY B NEAR FAIRVIEW, CALIF.--CONTINUED

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EAN

AY

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OTAL

AX
IN
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DISCHARGE.

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DISCHARGE,

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993

IN CUBIC

DEC

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FEET

JAN

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FEET

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PER SECOND,

FEB

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YEAR OCTOBER 19

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BUENA VISTA LAKE BASIN

11186340 SALMON CREEK TRIBUTARY B NEAR FAIRVIEW, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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WTR YR 1969 TOTAL 259.135 MEAN .710 MAX 5.45 MIN .003 AC-FT 514

BUENA VISTA LAKE BASIN

11186360 SALMON CREEK TRIBUTARY C NEAR FAIRVIEW, CALIF.

DRAINAGE AREA.--0.30 Sq

PERIOD OF RECORD.--October 1962 to Septe in files of U.S. Forest Service.

GAGE.--Water-stage recorder
map).

AVERAGE DISCHARGE.--? ye

and sharp-c

ber 1969 (discontinued). December 1960 to September 1962 (incomplete)

sted 120° V-notch weir. Altitude of gage is 7,200 ft (from topographic

(1962-69), 0.173 cfs (125 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet) for the water 1966-69 are contained in the following table:

Minimum daily
Wtr yr
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1967
1968
1969

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WTR YR

Date
Nov. 24, 1965
Dec. 6, 1966
May 2, 1968
June 1, 1969

Bl floodmarks

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21 to May 6

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23-27, 1966.

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BUENA VISTA LAKE BASIN

11186360 SALMON CREEK TRIBUTARY C NEAR FAIRVIEW, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PEW SECOND", HATER "YEAR OCTOBER 1966 TO SEPTEMBER 1967

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WTR YR 1968 TOTAL 29.18 MEAN .080 MAX .24

BUENA VISTA LAKE BASIN

11186360 SALMON CREEK TRIBUTARY C NEAR FAIRVIEW, CALIF.--CONTINUED

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TOTAL
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YEAR OCTOBER 1968 TO

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EPTEME

JUN

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02 .62
20 .78

3B .71

5B .60

87 .54

19 48. 43
68 1.61
97 3.97

ER 1969

JUL

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BUENA VISTA LAKE BASIN 35

11186380 SALMON CREEK TRIBUTARY E NEAR FAIRVIEW, CALIF.

LOCATION.--Lat 35°54'15", long 118°23'46", in NW?sNW?s sec.26, T.23 S., R.33 E., Tulare County, Sequoia National Forest, on left bank 0.2 mile upstream from junction with Salmon Creek, 5.7 miles east of Fairview, and
10.5 miles north of Kernville.

DRAINAGE AREA.--0.23 sq mi.

PERIOD OF RECORD.--October 1962 to September 1969 (discontinued). July 1961 to September 1962 in files of
U.S. Forest Service.

GAGE.--Water-stage recorder and sharp-crested 120° V-notch weir. Altitude of gage is 7,200 ft (from topographic map).

AVERAGE DISCHARGE.--? years (1962-69), 0.105 cfs (76 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet) for the water years 1966-69 are contained in the following table:

Wtr yr Date
1966 Nov. 24, 1965
1967 Dec. 6, 1966
1968 Apr. 28, 1968
1969 May 12, 1969

Discharge G.H.
. 10 .22

. 20
3.38

Date

Minimum daily

Aug. 25, 26, Sept. 20-23, 1966
Oct. 5, 6, 10-14, 1966
Sept. 6-13, 1968
Oct. 2-12, 22-29, 1968

Discharge
. 001
. 001
. 004
. 004

REMARKS.--Records good except those for period of no gage-height record, Dec. 6, 1966, to Jan. 17, 1967, which

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

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TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

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1965 TOTAL
1966 TOTAL

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27.628
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AC-FT 54.8
AC-FT 8.3

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BUENA VISTA LAKE BASIN

11186380 SALMON CREEK TRIBUTARY E NEAR FAIRVIEK, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1966 TD SEPTEMBER 1967

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OTAL
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IN

WTR YR

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MEAN
MAX
PIN
AC-FT

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1967 TOTAL 81.618

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008 .11 .05 .04 .18 01 .10 .05 .04 .18 03 .10 .05 .04 .18 008 .09 .05 .04 .18

0 .08 .04 .04 .17

. 40 .07 .04 .03 .15
. 72 .07 .04 .03 .15

. 51 .06 .04 .03 .15
. 42 .06 .04 .03 .15
. 36 .06 .04 .03 .15
. 32 .05 .04 .C4 .17

. 26 .05 .04 .09 .17
. 24 .05 .04 .13 .17
. 22 .05 .04 .11 .17
. 21 .05 .04 .11 .17
. 19 .05 .04 .11 .17

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. 16 .05 .04 .15 .18
. 16 .05 .04 .17 .18

. 15 .05 .04 .17 .18
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. 14 .05 .04 .18 .18

. 436 1.94 1.17 2.89 5.11 2

. 18 .82 .14 .05 .05
. 18 .78 .14 .05 .04
. 18 .71 .13 .04 .03
. 18 .64 .13 .03 .03

. 24 .57 .11 .03 .03

. 91 .48 .10 .03 .02
. 95 .42 .10 .03 .02

. 91 .40 .09 .03 .02
. 82 .37 .11 .03 .02
. 82 .37 .10 .03 .02
. 86 .35 .09 .03 .02

23 .30 .09 .04 .02
. 34 .30 .08 .04 .02
. 23 .28 .08 .05 .03
. 39 .26 .08 .05 .03
. 45 .26 .07 .05 .02

. 51 .20 .06 .05 .03
. 62 .20 .06 .05 .03
. 51 .20 .06 .05 .02

. 29 .18 .06 .05 .02
. 18 .17 .05 .05 .02
. 09 .17 .05 .05 .02
. 99 .15 .05 .05 .02
. 91 .14 .05 .05 .02

. 98 11.15 2.71 1.29 .73

10.0 .11 .05 .18 .18 1.62 .82 .14 .05 .05
. 008 .05 .04 .03 .15 .18 .14 .05 .03 .02

MEAN .224 MAX 10.0 MIN .001 AC-FT 162

IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER

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. 01 .C2 .02 .03 .14
. 01 .02 .01 .03 .14

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. 01 .12 .03 .03 .14
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. 01 .02 .04 .03 .14
. 01 .02 .04 .03 .15

. 01 .02 .04 .04 .17
. 01 .02 .C4 .05 .18
. 01 .02 .04 .05 .20
. 01 .02 .04 .06 .20
. 01 .C2 .07 .20

. 01 .02 .04 .08 .20
. 01 .01 .Cl .03 .08
. 6 1.0 1.5 2.2 7.7

1967 TO SEPTEMBER 1968

. 20 .09 .02 .01 .008
. 20 .09 .02 .01 .008
. 20 .08 .02 .01 .008

. 20 .08 .02 .01 .006

. 20 .07 .02 .01 .004
. 20 .07 .02 .008 .004
. 20 .06 .02 -01 .004
. 20 .06 .02 .01 .004

. 20 .05 .02 .01 .004
. 20 -05 .01 .01 .004
. 18 .05 .01 .01 .004
. 18 .05 .01 .01 .006
. 18 .05 .01 .01 .006

. 18 .05 .01 .01 .006
. 17 .04 .01 .01 .006
. 15 .03 .01 .01 .006

. 15 .03 .01 .01 .006

. 15 .03 .01 .006 .008

. 14 .03 .01 .006 .008
. 13 .03 .01 .006 .008
. 13 .03 .01 .006 .008

. 11 .03 .01 .006 .006
. 11 .03 .01 .006 .006
. 11 .03 .02 .006 .006
. 10 .03 .02 .006 .006
. 1C .03 .32 .008 .006

. 20 .09 .02 .01 .01
. 09 .03 .01 .006 .004
10 2.9 .9 .5 .4

BUENA VISTA LAKE BASIN

11186380 SALMON CREEK TRIBUTARY E NEAR FAIRVIEW, CALIF.--CONTINUED

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MEAN
MAX

AC-FT

WTR YR

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1969 TOTAL

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120.516

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MEAN .330

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MAX

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MIN .004

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1.62

39.5

AC-FT 239

1.75
1.75
1.6B
1.39
1.18

1.13
1.23
1.75

2.68

3.02

2.85

2.77
2.85

2.52
2.37

2.37
2.37
2.37
2.37
2.22

2.15

1.88
1.81

1.75

3.02

134

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1.68

41.8

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38 BUENA VISTA LAKE BASIN

11187000 KERN RIVER AT KERNVILLE, CALIF.

LOCATION.--Lat 35°45'34", long 118°25'12", in NEWs sec.15, T.25 S. , R.33 E., Kern County, on left bank 0.5 upstream from highway bridge at Kernville, 1.7 miles upstream from Caldwell Creek, 9.5 miles upstream from Isabella Dam, and 42 miles northeast of Bakersfield. October 1953 to Feb. 20, 1967, at site 0.6 mile

DRAINAGE AREA.--1,009 sq mi.

PERIOD OF RECORD.--January 1905 to December 1912, October 1953 to September 1970. Monthly discharge only for some periods, published in WSP 1315-A.

AVERAGE DISCHARGE.--24 years, 893 cfs (647,000 acre-ft per year); median of yearly mean discharges, 720 cfs (522,000 acre-ft per year).

EXTREMES.--Maximums minimums (discharge in cubic feet per second, gage height in feet),

lischarge (*) and peak discharges above base (2,000 cfs), water years 1966-70

Date
May 7,

Dec. 3,
Dec. 6,
Mar. 17,
May 10,
May 26,
July 1,

Time
1966 1400

1966 0800
1966
1967 0100
1967 0430
1967 0600
1967 0900

Disch. G.H.
*1,760 6.82

2,360 7.43
74,000 a!9.32
2,570 6.86
2,720 6.98
5,900 8.85
7,450 9.48

Date
May

Jan .
Jan.
Jan.
Feb.
Mar.
Apr .

29, 1968

19, 1969
21, 1969
25, 1969
24, 1969
31, 1969
13, 1969

Time Disch.
1600 *2,060

1730
1100 *2
2330
2300
2300

,200
,860
,900
,550
,600
,330

G.H. Date
6.42 Apr. 22,
May 2,
9.3
8.63
14.00
6.63
7.98
7.93

une 1 ,
une 24,
uly 14,
ug. 11,

an. 16,
une 2,

Time
1969 2200
1969 0100
1969 1100
1969 1100
1969 0900
1969 1400

1970 1300
1970 1100

Disch.
5,760
5,280
11,200
6,860
5,220
2,320

*10,400
2,870

G.H.
8.77
8.50
10.85
9.25
8.20
6.20

10.57
6.65

From floodmarks at present site and datum; 22.2 ft, from floodir

Annual minimum daily discharge, wate

Wtr yr Date
1966 Sept. 4, 10, 1966
1967 Oct. 1, 1966
1968 Sept.11, 1968

Discharge
117
126
126

Wtr yr Date
1969 Oct. 1, 2, 12, 1968
1970 Sept.29, 1970

Discharge
162
164

Period of record: Maximum discharge, 74,000 cfs Dec. 6, 1966 (gage height, 19.32 ft, present site and datum, from floodmarks), from rating curve extended above 11,000 cfs on basis of slope-area measurement of peak flow; minimum, 74 cfs Oct. 27, 1954, Aug. 1, Oct. 4, 1961.
Maximum stage known from at least 1912 to December 1966, 18.4 ft, from floodmarks, Nov. 19, 1950, site and datum then in use (discharge, 38,700 cfs).

REMARKS.--Records good except those for period of no gage-height record Dec. 6, 1966, to Feb. 20, 1967, which are poor. Slight regulation at times by operation of Kern River No. 3 canal and powerplant. A few small diver-sions for irrigation above station. Gilbert irrigation ditch diverts up to 7 cfs around station during irri-gation season. Water-quality records for the water years 1966-70 are published in reports of the Geological Survey.

COOPERATION.--Forty-eight discharge measurements furnished by the Southern California Edison Co.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

1
2

4
5

6

9
9

11
12

1*
15

16
17

19
20

22
23

25

26
27
28
29
30

MAX
MIN

OCT NOV DEC JAN FES PAR APR MAY

219 192 387 383 327 407 ,180 1,500

211 355 320 316 348 635 826 1,350

197 498 296 288 344 700 1,080 1,240

JUN JUL AUG

766 359 222

715 320 197

778 267 170

772 352 174

715 255 1«0

552 252 147

556 240 143
570 234 141

SEP

151

118

118
120

126
128

128

132

136

130

130
128

124

117

BUENA VISTA LAKE BASIN

11187000 KERN RIVER AT KERNVILLE, CALIF.--CONTINUED

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN
MAX
MIN

CAL YR

DAY

1
2

34 '

5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN

OCT

126
128
152
145
138

138
138
138
134
130

128
130
132

138
138

136
138
138
138
138

136
136
136
134
134
134

136
152
126

NOV

134
136
132
132
132

134
170

194
180

177
174
170

158
303

395
231
200
167
167

156
165
218
766

210
766
132

1966 TOTAL 271,300

OCT

626
576
543

505

480

460
455

445
425
425
420
415

410
406
406
396
388

388
388
383
378
378

370
370
370
356
360
370

13,373
431
626
356

DEC

330
334
1.310
589
16,900

44,500
1C, 600

3,120
2.600

2,020

1,080
1.040

1.000
950
920
890
860

820
780
770
770

750

3,541
44,500
330

MEAN

JAN

710
705
700

675
660

630
620

600 1,

610
600

800
780
720
640
700

770

800
800

1,920

1,920 1,
600

743 MAX 4

DISCHARGE, IN CUBIC FEET PER

NOV DEC JAN

370 388 410
370 420 406

370

365
360
356
360
370

450
406
521
604

532
500
470
450

410
392
396
370
480

12,287
410
604
356

410

415

410
415
380
288
365

388
406
410
410

383
390
400
420

460
450
450
440
420
410

12,800
413
465
288

475
410

401

415
383
392
388

388
388
392
388

392
392
374
370

FEB

860
780
785

800
320

890
920

020

910
90C

888

866
871

871

840

120
780

4,500

SECOND

FEB

410
420

410

383

577
701
587

694
656
656
680

632
609
638
620

12,198 14,900
393 514
475 701
360 383

MAR

855
871

800
800

830
830

850

1,430
1.350

1.330 1

1,310]
1,280 I

1.220 1

1,200 1

1,180

1,980 I
800 1

MIN 117

APR

,120
. 100

. 120
,110

. 060

. 120
,150

MAY

1,240
1,270

1,410
1.520

2.400

1.910
1,850

JUN

3,310
3.2CO

3,170
3,400

4,110

4,440
4,460

JUL

6,650
6,680

5,080
5,040

3,660

3,660
3,890

,200

,260
. 220

. 290

,350
,060

AC-FT

l\nl

5,560
5,600

5,080

4,510

5,660
1,210

538,100

5,440
5,640

6,100

6,680
3,170

2,440
2,490

2.380

2.280

6,850 2
2,230

, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

MAR APR MAY JUN JUL

632 820 1,280 ,560 485
620 852 1,320 ,590 450

570

576
560
538

532
543
543
548

592
609
632

722

18,364 2
592
792
532

MIN 126

876

868
806
785

743
708
668
680

860
1,010
1.110

1,280

852
1,280
668

AC-FT

1,160

884
940
1,080
1,320

1,600
1,480
1,310
1,170

1,200
1,450
1,680

1,810

1,269
1,860
884

1,131,000
400,900

813
806

940
970
916
868
828

778
722
680
680

644
603
592

516

945
1,660
516

410

406

440
410
388

370
360
347
334
324

316
304
300
296

282
308
324

470
510

385
510
282
23,700 1

AUG SEP

,010 932
,94C 954

,680 1,020
,53C 855

,31u 710

,250 680
,22C 645
,230 625

, 18C 574

988 640
,060 635

835 58J

785

,130 1,240
785 542
,020 42,780

AUG SEP

51C 185
445 185
388 178
352 175
324 172

292 162

273 126
258 165
250 162

236 162
222 162
222 162
222 162
208 162

208 168
212 172
212 175
205 172
195 168

88 165
98 162
98 158

82 158

8,061 4,935
260 165
510 185
182 126
5,990 9,790

BUENA VISTA LAKE BASIN

11187000 KERN RIVER AT KERNVILLE, CALIF. --CONTINUED

DISCHARGEt IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

NDV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

DAY

162
162
165
168
168

165
165
165

168

165
162
168
208
300

222

212

188
188
188
188

188
185

182
201
208

5,884
190
300
162

OCT

195
188
198
222
205

201
198
201

201

201
205
215
208

300

258

225
220
210

212

201
2C5

223

188

DISCHARGE,

NOV

222
215
218
222
222

222
222
218

218

258
226
222
258

284

250

288
329

265

296
300

258

192

IN cue

DEC

276
276
280
28B

300
308

288

276
280
300

360

2,400

3,920
16,700

4,000

1,660
1,500

1,939

276

1C FEET

JAN

1,360 1,130
1,280 1,120
1,180 1,020
1,160 971

1,080 918
1,080 859

1,030 872

992 807
1,010 800
986 833

1,110 872
1,010 ,040

1,650 ,860

1,210 2,150

3,320

PER SECOND, WATER

3,680 4,980 10.900 4
3,680 4,680 10,500 4
3,220 4,370 10,000 4
3,420 3,780 9,870 4

2,710 4,280 8,920 3
2,530 4,860 8,400 3

2,670 6,140 6,380 3

3,010 6,340 5,720 3
3,480 6,140 5,660 3
3,860 6,600 5,240 4

3,190 6,520 6,500 3

3,810 8,400 5,880 2

3,860 8,680 4,730 2

4,680 9,690 4,300 2

219,300 414,900 405,500 218

YEAR OCTOBER 1969 TO SEPTEMBER

. 420
,330
,230
,090

,920
,910

,810

,650
,600
,010

,440

,560

,580

,900

,500

,540
. 450

. 300
. 160
,060
,980

,570
,460
,410
,480

. 140
,860
,560

. 310

,090

. 030

918

911
866
826
800
781
755

,100 85,100

1970

73
71
71
71
70

71
71
69
68

64
61
59
57
54

531
506

469

460

416

410
410
410
410
425

16.837
561

410
33.400

444
442

420
414

410

416
410

5CO
581

488

438
432
432

416
416

394 339 326 520 625 713 388 339 311 525 605 728

422 318 ?,260 545 739 814

84 417 727 510 708 692

48 341 665 580 818 711

831
895

,020

,110

,200

,980

,280

,560 777

,370 770
,180 784

,760 810

,210 991

,050 807

987 709

,170 496
972 462

387

359
350

342

325
315

308

327

321

246

?66
281

250

233
220

219
218

202
200

196

196

189
180

169

165
164

MAX
PIN

581
400

482
344

BUENA VISTA LAKE BASIN 41

11187500 BOREL CANAL BELOW ISABELLA DAM, CALIF.

LOCATION.--Lat 35°38'32", long 118°28'09", in NE>* sec.30, T.26 S. , R.33 E., Kern County, on right bank 500 ft downstream from Isabella Dam and 3 miles upstream from point where canal crosses Erskine Creek.

PERIOD OF RECORD.--January 1910 to September 1914, October 1925 to September 1970. Monthly discharge only for some periods, published in WSP 1315-A. Published as Kern River Power Co.'s Canal at or near Kernville 1910-14. Published as "at Tlllie Creek" 1925-51.

GAGE.--Water-stage recorder and concrete ogee-shaped control. Altitude of gage is 2,540 ft (from topographic map). Prior to Apr. 29, 1952, at site 4 miles upstream at different datum.

AVERAGE DISCHARGE.--49 years, 372 cfs (269,500 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 634 cfs Mar. 13, 14, 1952; no flow at times in each
year.

REMARKS.--Records excellent. Canal diverts from right bank of Kern River 5.5 miles above Isabella Dam, and above South Fork Kern River. When capacity of Isabella Lake is above 110,000 acre-ft, the diversion is at the dam. Canal is used to supply Borel powerplant of Southern California Edison Co., 6 miles below station, at which point water is returned to Kern River. Water-quality records for the water years 1966-70 are published in reports of the Geological Survey.

COOPERATION.--Water-stage recorder graph and 125 discharge measurements furnished by Southern California Edison Co., in connection with a Federal Power Commission project.

DISCHARGE. IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

1
2
3
4

6

8
9

11
12

14
15

16
17

19
20

21
22

24
25

26
27

29
30

MAX
M1N

OCT

554
553
555
553

553
552

551
552

553
554

552

553

553

552

553

552
553

551

NOV

541
522
503
4B4

332

331
341

332
353

560

561

560
560

295

558 397 569

327 355 317 562

572 567 497 500 549 173

BUENA VISTA LAKE BASIN

11187500 BOREL

DISCHARGEt IN CUBIC FEET

NOV DEC JAN

CANAL BELOW ISABELLA DAM, CALIF . --CONTINUED

PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

1
2
3
4

6
7
a
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MAX
MIN

DAY

1
2
3
4
5

6
7
a
9
10

11
12
13

15

16

17ia
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN
MAX
MIN

CAL YR

120
120

141
130

141
137
134

133
135
137

138

141
143

142

141
142
142
141
141

140
139
138
137

143
120

OCT

535
538
534
537
535

534
538

534

537
539
539
539

537

544

541

0
0

0
0
0
0
0

386

0

1967 TOTAL

138
141

140
138

202
2C5
185

179
178
175

169

169
170

226

417
256

196
188

179
185
210
404

138

DISCHARGE

NOV

0
0
0
0
0

0
0

541

544
544
543

353 542 0 572 593 572 58f
315 542 0 572 593 572 57S

421 542 0 562 565 570 58
371 535 0 564 562 572 58

350 526 0 564 558 572 58

416 526 0 563 556 574 58

470 526 0 563 556 574 58

548 526 111 563 558 574 58

548 526 0 564 557 556 58

548 526 572 592 575 558 58

550 417 566 591 574 582 58

548 300 595 574 5B4 58

307 0 0 562 556 556 57

587 558 484
586 558 484
475 558 484
527 558 484

574 556 486

576 536 345

576 539 486

577 537 485
577 539 489

576 537 487
576 537 486
580 536 490
580 536 487
> 578 535 514

576 531 537
566 537 533

) 568 504 534
) 569 484 534

. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DEC JAN FEB MAR APR MAY JUN JUL AUG SEP

557 499 500 580 570 542 49

541 485 549 579 562 542 48

541 481 574 577 557 542 48
540 473 569 580 559 529 48

1 542 536 287
1 542 534 309
2 542 534 321

3 543 533 299
3 541 165 271

511 453 503 581 556 521 481 545 540 248

488 500 562 588 556 516 475 558 541 205

558

519
481
517

407

0

179,221.

551 512 577 572 544 492 528 556 320 213

518 501 554 574 557 515 455 552 462 219

380 449 500 561 542 483 20 540 165 166

00 MEAN 491 MAX 595 MIN 0 AC-FT 355,500

BUENA VISTA LAKE BASIN

11187500 BOREL CANAL BELOW ISABELLA DAM, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECDNOt WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

1
2
3
4

6
7
8
9

11
12

14
15

16
17

19
20

21
22
23
24

27

29
30

MEAN
MAX
MIN

CAL YR

1
2
3

5

6
7

9
10

12
13

15

17
IB

20

21
22
23
24
25

26
27

29
30

MEAN
MAX
MIN

CAL YR

201
205
191
231
212

179
180
186
187

176
175

37
0

0
0

0
0

0
0
0
0

0

0
0

80.8
231
0

1968 TOTAL

533
532

530

530

528

527
527

527

527
527

533
538
537
535
537

535

537

531
538
527

1969 TOTAL

0
0
0
0
0

0

0
0

0
0

228
266

309
320

301
275

267
266
266
264

225

224
221

320
0

146,583

DISCHARGE,

536
536

546

537
540

540
540

536
468
546

546

545

550

193,635

DEC

220

209

223

0

0
0

0
0

0
208

256

241
201
205
267

309

318
334

353
0

MEAN 401

IN CUBIC

520
485

427

399
394

415
416

560
560
559

562

MEAN 531

316

325

347

333
315

432
426

425
418

547

439
408
407
407

500

507
502

547

MAX

FEET

558
559

371

406
332

524
524

553
559
559

561

MAX

514

496

520
558

558
562

582

584
584
584
578

561

584

588 MIN

PER SECOND

555
556

551
552

545

475

556

592 MIN

561

568

567

565
566

568

567
572
566
553

555

563
566

572

0 AC-FT 2

, WATER YEAR

531
539

541

542

551

557

22 AC-FT

568

566

580

580
580

580
580

583
583
583
581

583

583
583

583

90,700

OCTOBER

556
558

546

546

560

384,100

583
583
583

592

592

589
583

583
583
583
583

583

583
583

592

1969

547
548

525

544

548

JUN

583
583
583

567

569

569
569

569
569

569

569
569

583

TO SEPTEMBER

543
548

480

0

570

559

560

523
578
0

JUL

552
544
545

544

529

508

510
510

157
538

551

554
552

557
22

1970

558
558

558

545

544

554

553

546

545

541

550
559
541

AUG

554
552
554

56C

552

551
551

550

549
549

544
542

541

543
540

562
404

54?
541

546

545
544

544

545

546

542

541
542

499
30

550

513
551
30

SEP

550
547
547

553

554

547
545

537

537
538

538

521
516

530

486
425

556
425

550
551

552

552
549

551

502

549

481

489
497
517

415
402

386
375

14,993
500
552
375

BUENA VISTA LAKE BASIN

11188200 SOUTH FORK KERN RIVER NEAR OLANCHA, CALIF.

DRAINAGE AREA.--146 sq mi.

PERIOD OF RECORD.--October 1956 to Septembe

GAGE.--Crest-stage gage. Altitude of gage is 7,840 ft (from topograph

AVERAGE DISCHARGE. --11 years (1956-67), 53.9 cfs (39,020 acre-ft per y EXTREMES. --Maximums and minimums (discharge in cubic feet per second,

Annual maximum discharge (*) and peak discharges above base (150 April 1969 to September 1970

Date Time Disch. G.H. Date Time Disch.
Mar. 19, 1966 1800 210 2.98 Mar. 27, 1967 2300 327
Apr. 4, 1966 0430 *308 3.38 May 22, 1967 0200 *1,590
July 14, 1967 0100 255
Dec. 6, 1966 2000 1,010 4.98

Wtr yr Dat
1966 Aug
1967 Oct

Perio
0.10 cfs

REVISIONS. -

DAY

I
2
3
4
^

b
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

Ann

e

27,
1,

d of
July

- WSP

OCT

12
12
12
11
11

11
11
11
11
11

11
11
12
12
12

12
12
13
12
12

11
11
11
11
11

11
12
12
12
12
12

MEAN 11.5
MAX H
WIN

CAL YR 1965

11

ual minimum

28, 1966
1966

record: Ma
20 to Aug.

1930: Drai

DISCHARGE

13
13
12
13
13

12
12
12
12
12

12
13
16
21
24

29
27
37
30
26

27
3C
75
32
2C

18
21
25
3C
33

75
12

TOTAL 19,509.6

daily dis

ximum disc
3, 1961.

nage area.

, IN CUBIC

32
30
30
30
32

31
29
29
27
27

26
25
24
23
20

18

20
20
19

19
19
18
18
17

17
17
17
16
16
IS

32
15

MEAN 53

Sept. 5, 1967 0400 180

charg

harge

FEET

14
14
15
15
15

16
16
17
17
17

17
17
17
17
17

16

16
16
16

16
16
15
15
16

16
17
18
19
19

19
14

. 5

e, October 1966 to September

Discharge
4.2
7.8

ic map). Prior to Oct. 1,

ear),

gage height in feet) .

cfs) , October 1966 to

G.H. Date
3.68 May 10, 1969
5.87
3.21 Mar. 27, 1970
2.84

1967, April to Septe

Sept

Tim

mber

Wtr yr Date
1969 Se

, 2,360 cfs May 10, 1969 (ga

pt. 28-30,

ge height.

1969

6.66 ft);

PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER

17
17
18
18
18

18
18
17
17
18

19
20
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24 233
22 260
20 258
22 255
24 229

28 210
30 208
32 199
35 186
60 168

90 153
10 145
40 136
50 129
50 125

57 123

76 117
80 111
70 102

50 100
57 96
52 89
41 88
21 88

25 88
43 86
52 83
62 81
78 80

26 206 260
17 20 80

MAX 418 WIN 7.0 AC-FT 38

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mini

1966

JUL

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11
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9.7
9.4

8.8
8.1
8.1
11
12

9.4
8.1
7.5
7.3
7.0

6.8
6.2
6.0
5.7
5.5

5.5
5.7
6.8
6.5
6.0

5.5
5.2
5.0
5.0
6.8
8.4

12
5.0

1969, water-

ember 1967,

e Disch.
2,360

*351

1969

Dis

mum daily,

AUG

7.5
11
18
17
15

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8.1
7.0
6.5
5.7

5.0
4.8
4.6
4.6
4.4

4.4
4.4
6.5
5.7
5.5

5.2
5.2
5.0
4.6
4.4

4.4
4.2
4.2
4.4
4.6
4.8

18
4.2
410

G.H.
6.66

3.47

charge
22

SEP

5.7
6.0
5.7
5.5
5.2

5.5
5.2
5.0
5.0
5.0

5.2
5.2
5.5
6.0
6.0

6.2
6.2
6.8
7.5
8.4

8.1
7.3
14
12
8.8

8.1
7.8
7.5
7.5
7.5

6.85
14
5.0
407

BUENA VISTA LAKE BASIN

11188200 SOUTH FORK KERN RIVER NEAR OLANCHA, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

1
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TOTAL
MEAN
MAX
HIM

WTR YR

DAY

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a
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19
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30
31

TOTAL
MEAN
HAX
KIN
AC-FT

OCT

7.8
8.1
8.1
8.1
8.4

8.8
8.8
8.8
8.4
8.4

8.4
8.4
8.4
8.1
8.1

8.8
8.1
9.1
9.1
9.1

9.4
9.1
9.1
9.1
9.1

9.1
9.1
9.1
9.1
9.1

9.4
7.8

1967 TOTAL

OCT

NOV

9.4
9.1
9.4
9.4
8.8

9.4
11
12
13
13

12
11
11
11
11

11
10
9.4
9.1
23

26
15
10
9.2
8.9

8.9
10
16
84
34

84
8.8

60,214

NOV

DEC

25
24
24
17
42

613
664
440
311
258

199
157
128
111
102

94
88
78
69
64

64
56
47
46
43

42
36
35
34
33
32

17

. 7 MEAN 165

DISCHARGE, IN

32
31
31
31
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29

29
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33
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44
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43
41

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42
43

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MAX 1,360

CUBIC FEET PER

44
44
43
42
42

42
43
44
44
45

52
96

105
193
241
236
241

268
292
314
317
295

278
292
332
255
248

42

MIN 1.

SECOND

204
186
182
180
162

170
162
157
159
162

182
184

172
176
178
159
166

155
146
145
143
136

150
168
168
155
148

136

B AC-FT

, APRIL TO

565
560
540

580

470
460
500
550

610
660
TOO
650
610

600
640
670
705
785

922
1,050

928

934

1,220
1,380

1,380
460

152
168
IBS
241
278

300
400
514
685
655

600
715

870
990
1,040
1,160
1,240

1,320
1,360
1,280
1,190
1,130

1,130
1,070
978
894
835

152

32,870
119,400

SEPTEMBER

1,450
1.460
1,350

1,420
1,710
1,980
2,090

2,010
1,820
1,980
1,940

1,800
1,880
1,890
1,840
1,820

1,800
1,610

1,630

1,590

1,330
1,290

2,090
1,040

JUN

680
605
562
538
518

502
490
482
470
463

396
379

379
359
341
353
372

326
305
292
282
270

262
250
243
236
229

680
229

1969

JUN

1,210
1,120
1,050

780
728
682
642

587
571
547
527

571
559
492
460
439

418
408

378

J57

310
298

1,210
298

JUL

224
215
208
195
193

197
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178
162
150

141

215
190

195
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152
134
121

109
101
94
92
89

82
81
78
87
107
83

148
224
78

JUL

282
268
258

222
212
203
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185
179
188
188

160
150
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145
140

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126

106

99

122
116
108

282
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AUG

74
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51.1
74
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AUG

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138
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32
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138
31

SEP

51
63
65
99
143

81
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52
46
41

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69
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50.3
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SEP

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BUENA VISTA LAKE BASIN

11189500 SOUTH FORK KERN RIVER NEAR ONYX, CALIF.

LOCATION (REVISED).--Lat 35°44'22", long 118°10'33", in Sift sec.24, T.25 S., R.35 E., Kern County, on left bank 0.8 mile north of State Highway 178, 1.6 miles upstream from Canebrake Creek, and 5 miles northeast of Onyx.

DRAINAGE AREA.--530 sq mi.

PERIOD OF RECORD.--Septembe
Yearly estimate for wate
WSP 1315-A.

1911 to August 1914, January 1919 to September 1942, October 1947 to September 1970.
year 1927 (incomplete) and monthly discharge only for some periods, published in

GAGE. --Water-stag
1914, nonrecor

e recorde

ding gage

r. Altit ude of gage is 2,900 ft (from topographic map). Sept. 12, 1911, to Aug.
23, 1919, to Apr. 17, 1936, water-stage recorder, at site 140 ft upstre

higher.

AVERAGE DISCHARGE. --46 years (1911-13, 1919-25, 1926-27, 1929-42, 1946-70), 116 cfs (84,040 acre-ft per yea median of yearly mean discharges, 81 cfs (58,700 acre-ft per year).

EXTREMES. --Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (180 cfs), water years 1966-70

Date Time Disch. G.H. Date Time Disch. G.H. Date Time Disch.
Nov. 17, 1965 0500 290 3.17 Sept. 9, 1967 2200 184 2.41 Feh. 24, 1969 2400 610
Nov. 24, 1965 1200 *351 3.34 May 11, 1969 0900 4,040
Mar. 20, 1966 1200 226 2.97 Mar. 1, 1968 1200 203 2.53 une 17, 1969 0200 1,290
Apr. 4, 1966 2030 335 3.30 Mar. 8, 1968 0700 218 2.60 uly 14, 1969 0800 430
Apr. 2, 1968 - *366 3.13 uly 21, 1969 2330 868
Dec. 3, 1966 0500 282 3.15 May 13, 1968 1900 250 2.74 uly 29, 1969 0430 372
Dec. 6, 1966 - *28,700 a!6.9 ug . 13, 1969 0500 182
Mar. 28, 1967 1200 617 3.71 Jan. 19, 1969 2200 974 4.18
May 9, 1967 1300 1,430 4.60 Jan. 21, 1969 0930 1,380 4.57 Jan. 16, 1970 1900 "782
May 23, 1967 1100 2,170 5.18 Jan. 25, 1969 0930 *9,200 a9.00 Feb. 11, 1970 1200 195
July 14, 1967 1500 373 3.12 Feb. 15, 1969 1830 320 3.00 Mar. 27, 1970 1200 465
Apr. 10, 1970 1700 386

a From f loodmarks .

Annual minimum daily discharge, water years 1966-70

Wtr yr Date Discharge Wtr yr Date Dis
1966 July 21, Aug. 20, 1966 1.3 1969 Oct. 9, 1968
1967 Oct. 9, 10, 1966 7.6 1970 Aug. 10, 1970
1968 Sept. 14, 1968 3.7

Period of record: Maximum discharge, 28,700 cfs Dec. 6, 1966 (gage height, 16.9 ft, from floodmarks, present datum), from rating curve extended above 3,300 cfs on basis of slope-area measurement of peak fl no flow for several days in 1929, 1934, 1960-61.

REMARKS. --Records good except those for period of no gage-height record Dec. 6, 1966, to Feb. 8, 1967, whic

capac

REVISE

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MEAN
MAX
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ity, 7 cfs).

S (WATER YEARS).--

OISCHARG

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IB 22
IB 22
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16.5
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14

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22

32

97

78

74
153
262
158

94
75
66
60
61

65.5
262
19

WSP 1151: 1948(M). WSP 1445: Drainage area.

E, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 1

65
61
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61

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72
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59 40

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44 50

46 48
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41 50
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48

50.1 47.3

41 39

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61

119

170
192

190
192
1B5
165

151
160
165
188
200

127

44

300

238

192

153

145
141

131
127
121
123

121
121
111
106
102

176

102

97

91

97

102

87
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0 SEPTEMBER 1966

JUN JUL AUG

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26 4.

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32 4.

31 5.

27 5.
24 5.

21 4.
22 2.
20 1.

IB 1.
18 1.
17 1.
14 2.
12 2.

11 3.
11 2.
10 2.
10 2.
8.6 2.

22.4 4.1

B.6 1.

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8.3
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9.9
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7.0
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5.1

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2.3
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1.5
1.3

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5.6
6.0
6.6

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4.8
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5.3

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G.H.
3.65
6. 54
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3.37
4.12
3.22
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3.96
2.45
3.41
3.19

charge
9.2
9.2

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SEP

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2.5
2.7
2.9

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1.9
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2.5

2.3
2.7
3.1
3.9
3.6

3.6
5.1
6.0
6.3
9.0

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11
10
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9.4

4.65
12
1.8

WTR YR 1966 TOTAL 19t570.6 MEAN 53.6 MAX 300 MIN 1.3 AC-FT 38,820

BUENA VISTA LAKE BASIN

11189500 SOUTH FORK KERN RIVER NEAR ONYX, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR MAY JUN JUL AUG

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4 B.
5 8.

6 B.
7 7.
8 8.

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14 7.

15 8.

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18 8.
19 8.
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21 8.
22 7.
23 9.
24 10
25 12

26 12
27 13
28 12

30 11

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C-FT 56C

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MEAN 52.7
MAX 75
MIN 4;

11 55

12 79
12 3,480

13 14.000
19 2,410
30 1,200

29 700

29 600

21 420
21 385

22 360
24 325
24 310
23 280
28 265

57 250

36 225
28 215
24 205

22 195
21 186
26 180

92 168

27.8 942
92 14,000

1,660 57,890

DISCHARGE, IN

49 59
48 44
48 50

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52 54
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92 70
102 70
164 52

137 55

105 74

87 83

82 87
74 85
74 84
71 85
79 77

72.4 66.1
164 87
48 36

15B

142

140
138
135

130

130

130
130

130
130
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132
140

168

144
152

166
180
170

200

155
400

9,510

CUBIC FEET

74
77
67

65

62
57

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70
66
65
65
70

73

68
71
72

72

73

73

75
75
65
62
68

69.2
83
57

200

166

170
176
180

200

198

228
198

198
198
200
202
192

180

188
185

176
171
171

189
230

10,470

PER SECOND

68
79
78

76

75
75

B2

87
82
83
82
80

79

121
118
131

153

152

174

178
178
182
184

112
184
68

178

173

178
178
180

190

195

176

238
366
40B
412
408

427

468
439

415

314
530

19,290

MIN 1.

, MATER

190
182
180

178

184
182

155

145
148
152
142
134

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115

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147
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156
272
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398

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370
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345

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423

22,810

3 AC-FT

YEAR OCTO

305
350
280

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1967

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142
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168
227
103

1,220

904

880
864
840

824

816
816

736

728
728
696
659
712

659

481
458

405

728
1.220

43,340 15

TO SEPTEMBER

96
94
89

81

82
88

108

84
75
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61
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51

44
42
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36
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62.0
108
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385

326

323
326
312

255

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228

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312
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271
236
212

193
179

142
131

130
137

247
385

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1968

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21.2
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123

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BUENA VISTA LAKE BASIN

11189500 SOUTH FORK KERN RIVER NEAR ONYX, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY

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MAX
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DAY

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MAX
MIN

OCT

12
12
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16

16
16
12
9.2
10

15
19
19
26
31

37
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27
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24
26
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37
9.2

OCT

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55

58
59
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56

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70
71
68
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62

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NOV

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31
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DISCHARGE,

NOV

62

62
62
61

83
81

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79
81

75

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65
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DEC

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JAN

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428

899
461
230

592

366

35

IN CUBIC FEET

DEC JAN

64 58

64
61
58

65

51

51
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58

63

99

102
110
106
94
89

110
85

50

61

110
50

54

48

57

77

89

184

174

168
159
ISO
ISO
136

122
120

91

92

46

FEB

270

188
176

186

229

207

188

184
186
180

288

162

MAX 4,680

PER SECOND,

FEB

100

89

92

91

98
108

114

99

83

92
89
99
102
98

97

83

282

236

192

190

288

383
448

896

176

MIN

WATER

MAR

123

130

116

129

136
133

48

74

172

168

186
226
278

392

358

320

116

MIN

120 2

090 2

1,080 3

1,280 3

1,350 2

2,270 2

I'.llo 2

2,870 2

896 2

,750

,170

,770

,180
,010

,910

,510

,420

,170

9.2 AC-FT 438,300

YEAR OCTOBER 1969 TO

APR MAY

258 192

302

317

330

327
341

248

216

222

211

180
182
194

216

172
188

172

9.2 AC-FT

192

192

188
186
182
186
192

172

171

169

163

158

150
142
141

134

124
115
110

,107

110

69,660

2 400

I 840

1,100

966
958

1,160

805

712

592

525

525

SEPTEMBER

JUN

106
98
96

90

87
85
80
76
78

71

74

71

65

57

54

47
40
37

36

35
36

1,988

35

490

410

317

369
317

262
248

290

203

188
184
214

233

,574

490
184

1970

JUL

37
35
33

36

36
35
34
36
41

42

34
32

30

23
22
23

23

26
25
23

23
22
25
26

935

20

188

141

134

121

127
118

107
108

100

88
86
84

81
78
75

75

3.536

188
74

AUG

22
23
18
14
13

12
12
10
9.6
9.2

15

17
17

18

26
19
15

13
12
14
12
10

10
10
12
18
22

47C.8

9.2
934

75

65

61

59
58
58
58
58

58
58
58

61

60
58
57

56
56
55

56

1,835
61.2
75
55

SEP

18
16
14
13
12

14
17
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18
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18
18

19
19
19
19
19

514

12
1,020

BUENA VISTA LAKE BASIN

11189700 KELSO CREEK NEAR WELDON, CALIF.

DRAINAGE AREA.--101 sq mi.

PERIOD OF RECORD. --August 1958 to De ember 1966 (discontinued).

left bank 0.5

;ber 1965 to

Wtr yr Date
1966 Dec. 30, 1965
1967 Dec. 6, 1966

a From floodmarks.

Discharge G.H.
14 2.73

5,800 all.7

Pate

Many days

Period of record: Maximum discharge, 5,800 cfs Dec. 6, 1966 fgage height, 11.7 ft, from floodmarks); mum, 0.50 cfs July 23, 1962.

REMARKS. --Re

DISCHARGE. IN CUBIC FEET PER SECONDt HATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
*

f

6
7
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9
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11
12
13
1*
15

16
17
18
19
20

21
22
23
2*
25

26
27
28
29
30
31

MEAN
MAX
MIN
AC-FT

.90 1.
. 90 1.
.90 1.
.90 1.
L.O 1.

L.O 1.
.90 I.
.90 1.
.90 1.
.90 1.

.90 I.
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.C 1.
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.97 1.1
1.0 1.
.90 1.
60 6

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1.2
1.1
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1.1

1.1

1.12 1
1.2
1.1
62

. 1
. 1
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11 1
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68

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1

. 70
.80
0 .80
D .70
0 .70

0 .80
0 .70
0 .7C
0 .70
0 .70

0 .70
0 .70
0 .80
0 .83
JO .80

30 .80
30 .80
30 .80 .8
30 .7C .8
30 .70 .8

30 .80 .8
30 .80 .8
0 .70 .8
0 .70 .8
0 .70 .9

0 .70 .9
0 .80 .9
0 .70 .9
0 .70 .9
0 .70 .9
C .7C

32 .74 .7
0 .80 .9

ro .70 .7

WTR YR 1966 TOTAL 375. 4C MEAN 1.03 MAX 4.1 MIN .70 AC-FT 745

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER TO

DAY OCT NO DEC BAY DCT NOV DEC DAY OCT
1 .90 . .90
2 .90 : . .90
3 .90 . 1.0
4 .90 . 1.0
5 .90
6 1.0 1.0
7 1.0 1.1
8 .90 1.0

TOTAL

AC-FT.. ....

9 .90 1.0 17
0 .90 1.0 18
.1 .0 1.0 19
2 .0 1.0 20
3 .0 .90 21
4 .0 .90 22
5 .0 .90 23
6 .0 .90 24

. 0
. 0
. 0
. 0
. 1
. 1
. 1
. 1

DECEMBER 1966

NOV DEC
. 90
. 90
. 90
. 90
. 90
. 90
. 90
. 90

DAY OCT NOV
25 . .90
26 . .90
27 .:. .90
28 .:. .90
29 . .90
30 . .90
31

. . . . 62 57

BUENA VISTA LAKE BASIN

11190500 ISABELLA LAKE NEAR LAKE ISABELLA, CALIF. (Formerly published as Isabella Reservoir near Isabella)

LOCATION.--Lat 35°38'46", long 118°28'41", in Stih sec.19, T.26 S., R.33 E., Kern County,

from Erskine Creek.

DRAINAGE AREA. --2, 074 sq mi.

Isabella.

GAGE. --Water-stage recorder

tained in

Wtr yr
1966
1967
1968
1969
1970

P
rese

REMARKS
regu

Date
June

July
Oct.

July

eriod
rvoir

the following

8, 1966
20, 1967
1, 1967
14, 1969
10, 1970

of record: Ma
first filled,

. --Lake is formed by
lation began Apr. 15
_ *i n«j ? Anc c: ft- f

. Datum of gage

table:

Contents
218,300
538,700
273,700
578,100
327,771

is at mean

Elevati
2,567.
2,602.
2,574.
2,606.
2,581.

ximum contents, 578,100 acre
169,093 acre-ft S

earthfill dam wi
, 1954. Usable c

sea le

on
05
71
61
21
21

- ft Ju

ept. 30, 1970 (el

th sidehill spill
apacity, 569,679

vel (le

Date
Sept
Nov.
Sept
Nov.

Sept

ly 14,
evation

way and
acre-ft

vels

. 30,
27,
. 30,
14,
. 30,

1969
, 2,

beti

by Corps of Engin

Minimum d

1966
1966
1968
Dec. 1-7, 1968
1970

(elevation, 2,606
559.40 ft) .

iliary earthfill d
veen elevations 2,

eers).

ally
Contents
89,180
81,940
122,200
119,400
169,093

. 21 ft); minii

am, completed
470.0 (invert

Ele
2,
2,
2,
2,
2,

num

in
of

near

vation
543.19
541.28
550.76
550.18
559.40

since

1954;
main
outlet) and 2,605.5 ft (spillway crest) above mean sea level. Dead storage, 326 acre-ft. Surcharge flood control storage, 271,800 acre-ft between ungated spillway crest and elevation 2,627.0 ft (maximum design spillway flood pool). Figures given herein represent total contents. Water is released to Kern River through tunnel in left abutment of main dam and to Borel Canal (see station 11187500) through concrete conduit in auxiliary dam.

COOPERATION. --Records
water year 1970.

REVISIONS.--WSP 1930: Drainage

Capacity table,

furnished by Corps of Engineers, and rounded to Geological Su standards except for

rs 1966-70 (elevation, in feet, and contents, in acre-feet)

2,500
2,505
2,510

5,850
8,862
13,091

CONTENTS, IN

DAY

1
2
3
4
5

6
7
a
9
10

11
12
13
14
15

16
17
IB
19
20

21
22
23
24
25

26
27
28
29
30
31

MAX HIN
It)
It)
(tt)

CAL
WTR

OCT

208,100
207,200
206,100
204,800
203,600

202,400
201,200
200,100
198,900
197,900

196,900

194,600
193,300
192,200

190,900
189,700
188,500

186,700

185,700
184,800
183,900
183,000
182,100

181,200
180,100
179,100
178,100
177,200
176,200

208,100
176,200
2,560.57 2
- 32,800
3,110

NOV

175,200
174,600
174,000
173,400
172,900

172,400
172,000
171,700
171,500
171,300

171,000

170,600
170,700
170,900

171,100
171,400
171,500

171,100

170,800
170,900
171,600
172,600
173,300

173,200
172,700
171,200
171,000
170,200

175,200
170,200
,559.58
- 6,000
1,093

YR 1965 MAX 288,900
YR 1966 MAX 218,300

DEC

170,100
170.000
170,000
170,000
169,900

169,900
169,900
169.900
170,000
170.000

170,000

169,900
169,900
169.700

169,600
169,500
169, 500

169.500

169.400
169.400
169,400
169.400
169.400

169,400
169,400
169,400
170,600
171,000
171.200

171,200
169.400
2,559.75
+1,000
645

2,515 18,895
2,520 26,430
2,530 47,317

ACRE-FEET, AT 2400

JAN

171,200
171,100
170,900
170,700
170.600

170.500
170,300
170,200
170,000
170,000

170.000

170,000
170,000
169,900

169,900
169,900
169,900
169,900
169,900

169,900
169,800
169,700
169,700
169.700

169.700
169.700
169,700
169,600
169,700
169,600

171,200
169,600
2,559.49
- 1,600
835

MIN 117,100
MIN 89,180

FEB

169,700
169,700
169,700
169,700
170,000

170,300
170,400
170,400
170,400
170,300

170.200

170.200
170.200
170,100

170.100
170.100
170.000
170,000
170,000

170,000
170,000
169,900
169.800
169,500

169,300
168,900
168,400

170,400
168,400
2,559.29
- 1,200
832

t +52,900
t -119,820

2,540
2,550
2,570

77,336
118,540
239,041

2,590 407
2,620 747

545
393

, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

MAR

168,000
167,600
167,100
166,500
165,800

165,200
164,500
163,600
162,900
162,200

161,600
160,800
160,100
159,400
158,600

157,800
157,100
156,300
155,800
155,300

154,800
154,400
154,200
154,100
154,100

154,100
154,100
154,200
154,400
154,600
155,000

168,000
154,100
2,556.98
- 13,400
1,556

APR

155,400
156,300
157,400
158,700
159,800

160,800
162,000
163,100
164,500
165,500

166,100
166,700
167,100
167,400
167,900

168,600
169,300
169,900
170,300
170,600

171,000
171,300
171,600
171,800
172,200

172,800
173,600
174,500
175,400
176,500

176,500
155,400
2,560.62
+21,500
2,625

MAY

177.600
178.800
180.300
181.700
183,200

184,700
186,400
188,300
189,600
190,800

192,000
193,000
194,000
195,500
196,900

198,300
199.800
201,500
203,400
205.100

206.500
207.700
209,000
210,200
211,500

212,700
213,900
215,200
216.200
216.900
217,400

217,400
177,600
2,566.92
+40,900
4,159

JUN

217,600
217,600
217,800
217,900
218,000

218,100
218,100
218.300
218.200
217.700

217,000
216,100
215,100
214,200
213,100

211,500
210,000
208,400
206,800
205,200

203,500
201,600
199,600
197,900
196,400

195,000
193,800
192,700
191,400
190,100

218,300
190,100
2,562.80
- 27,300
5,118

JUL

188,600
187,300
185,800
184.200
182, SOO

180,700
178,900
177,300
175,600
173,900

172,000
170,100
168,200
166,400
164,800

163,200
161,700
160,100
158,500
156,800

154,900
153,100
151,200
49,700
48,400

46,900
45,200
43,700
42.200
40,900
139,700

188,600
139,700
2,554.20
- 50,400
5,246

AUG

138,400
137,500
136,300
135,000
133,800

132,600
131,300
130,000
128,600
127,200

125,700
124,400
123,200
122,000
120,700

119,400
118,200
116,700
115,500
114,200

113,100
111,800
110,700
109,500
108.200

107,100
106,000
105,000
103,900
102,900
102,000

138,400
102,000
2,546.32
- 37,700
4,576

SEP

101,300
100,900
100,400
99,970
99,550

99,010
99,420
97,960
97,420
96,970

96,470
95,980
95,450
95,040
94,710

94,350
94,020
93,580
93,300
92,980

92,650
92,370
92,090
91,740
91,300

90,860
90,470
90,080
89,600
89,180

101,300
89,180
2,543.19
- 12,820
2,820

t ELEVATION, IN FEET, AT END OF MONTH, t CHANGE IN CONTENTS, IN ACRE-FEET.
tt EVAPORATION, IN ACRE-FEET.

BUENA VISTA LAKE BASIN

11190500 ISABELLA LAKE NEAR LAKE ISABELLA, CALIF.--CONTINUED

CONTENTS* IN ACRE-FEET, AT 2*00, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967 NOV DEC JAN FEB MAR APR MAY JUN JUL

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IB
19
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21
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25

26
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28
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30
31

MAX
MIN

(t)
(t)
(tt)

WTR

88,750
88,360
87,970
87,660
87,350

87,080
86,860
86,700
86,550
86,360

86,130
85,900
85,480
85,220
84,990

84,840
84,730
84,620
84,540
84,470

84,390
84,350
84,320
84,320
84,280

84,240
84,090
83,980
83,760
83,530
83,340

88,750
83,340
2,541.66 2
- 5,840
1,819

YR 1967 MAX

83,200
B3.050
82,900
82,710
82,530

82.460
82,420
82,420
82,420
82,380

82,340
82,310
82,310
82,270
82,230

82,160
82,120
82,120
82,090
82,160

82,120
82,090
82,050
82,010
81,980

81,980
81,940
82,050
82,640
82,790

83,200
81,940
,541.51 2
- 550 +
767

337,400
538,700

82,710
83,010
84,620
85,300
116,700

260,400
292,700
304,500
311,900
317,500

322,000
325,400
328,500
330,900
333,000

334,800
336,300
336,600
336,900
337,200

337,400
336,800
335,400
333,300
331,100

328,900
326,200
322,900
319,800
316,600
313,300

337,400
82,710
,579.50
230,500
929

MIN 81
MIN 81

309,700
306,300
302,300
297,500
293,100

288,300
283,400
278,700
274,300
270,500

266,900
263,700
260,300
257,100
253,900

250, BOO
247,800
244,600
241,600
238,700

236,500
235,400
234,200
233,500
232,400

231,000
229,800
228,500
227,800
228,100
229,600

309,700
227,800
2,568.68
- 83,700
969

,940 t
,940 J

231,700
233,300
234,800
236,200
237,500

238.800
240.200
241.600
242.800
244,300

245,800
247,400
249,000
250,800
252,200

253,600
254,600
255,100
255,600
255,800

255, BOO
255.800
255.500
255,200
254,700

254,400
254,200

253,800 '."".'.

255,800
231,700
2,572.01
+24,200
1,071

+142,100
+187,520

253,500
253,300
253,100
253,100
253,000

252,800
252,500
252,300
252,000
251,900

251,900
251,900
252,200
252,300
252,400

253,100
256,100
258,300
260,400
262,200

264,000
265,800
267,500
269,400
271,000

272,500
274,000
275,600
277,100
278,400
280,300

280,300
251,900
2,575.46
+26,500
1,875

281,800
283,000
284,200
285,700
287,100

288,300
289,600
291,000
292,200
293,400

294,700
296,100
297,500
298,500
299,600

300,400
301,000
301,400
301,100
300,600

300,300
300,000
299,500
299,100
298,500

297,900
297,500
297,100
296,300
295,300

301,400
281, BOO
2,577.33
+15,000
1,701

293,900
292,500
290,900
289,400
288,300

287,100
286,100
285,400
2B5,800
287,400

287,800
287,400
287,000
286,700
286,800

287,800
289,900
293,100
297,100
301,600

307,200
313,900
321,200
328,400
335,300

342,400
349,200
355,500
361,400
366,300
371,200

371,200
285,400
2,586.11
+75,900
3,932

374,300
376,800
378,900
380,800
382,600

384.400
386.400
388.800
391,900
395,700

399,700
404,100
408,800
413,500
418,100

423,200
425,800
428,200
431,400
433,400

435,800
438,400
441,000
443,900
446,900

449,800
455,300
461,200
467,700
474,800

474,800
374,300
2,596.75
+103,600
5,960

481,800
488,500
495,000
502,600
508,700

512,600
516,300
519,300
521,400

524,200
525,600
527,400
529,600
531,900

534,200
536,300
537,300
537,600
538,700

538.000
537,000
535,700
534,500
533,300

532,400
531,200
529,700
528,600
527,700
526,300

538,700
481,800
2,601.58
+51,500
8,805

524,400
522,200
519,800
517,100
513,900

501,600
506,900
503,000
499,100

489,300
484,200
478,700
473,100
467,400

461,600
455,300
448,700
442,000
435,300

428,500
421,700
414,900
408,000
401,800

396,700
391,400
386,100
381,300
377,000
372,800

524,400
372,800
2,586.29
- 153,500
8,058

368,400
365,000
361,300
357,900
354,500

351,000
347,300
343,300
339,500

331,700
328,500
325,200
322,100
319,200

315,900
313,000
310,200
307,400
304,700

301,900
299,100
296,500
293,900
291,400

288,700
286,000
283,000
279,900
276,700

368,400
276,700
2,575.00
- 96,100
4,573

t ELEVATION, IN FEET, AT END OF MONTH.
t CHANGE IN CONTENTS, IN ACRE-FEET,
tt EVAPORATION, IN ACRE-FEET.

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP

1 273,700 223, 400 200,600 199,900 200,100 203,200 206,300 224,500 256,400 223,700 166,500 127,500
2 270,500 222,600 200,300 199,800 200,100 203,200 207,500 225,500 257,700 221,800 164,900 127,200
3 267,200 221,600 200,300 199,800 200,100 203,100 208,100 226,500 259,000 220,000 163,400 126,900
4 263,700 220,500 200,100 199,700 200,100 202,900 208,800 227,400 260,100 218,300 161,800 126,600
5 260,400 219,400 200,100 199,700 200,000 202,400 209,400 228,300 261,000 216,500 160,100 126.200

6 257,200 218,500 199,900 199,700 199,600 201,900 210,100 229,300 261,200 214,800 158,200 125,900
7 254,100 217,400 199,900 199,700 199,700 202,400 210,800 230,200 260,700 212,900 156,400 125,700
8 250,900 216,400 199,900 199,700 199,600 202,800 211,400 231,000 260,200 211,000 155,400 125,400
9 247,700 215,200 199,900 199,700 199,700 202,800 211,900 231,600 259,400 209,000 152,400 125,100
10 244,400 213,800 199,800 199,900 199,700 202,900 212,300 232,200 258,500 206,900 150,500 124,900

11 2 1,700 211,900 199,800 200,300 199,800 203,000 212,900 233,100 257,300 204,900 48,600 124,600
12 2 1,400 210,200 199,800 200,100 199,700 203,100 213,500 233,800 256,000 202,700 46,500 124,400
13 2 0,900 208,800 199,400 200,200 199,500 203,100 214,800 234,700 254,500 200,700 44,500 124,200
14 2 0,400 207,800 199,300 200,200 199,300 203,400 215,600 235,400 253,100 198,500 42,500 124,100
15 2 0,000 206,700 199,400 200,200 199,100 203,700 216,200 236,100 251,900 196,400 41,100 123,900

16 239,500 206,000 199,500 200,300 198,800 20 ,100 216,500 236,700 250,800 194,400 139,400 123,900
17 238,900 205,300 199,700 200,300 199,300 20 ,400 217,200 237,500 249,400 192,500 137,800 123,800
IB 238,400 204,700 200,300 200,300 199,900 20 ,500 217,400 238,400 247,900 190,600 136,100 123,600
19 238,000 204,700 200,200 200,300 200,000 20 ,600 217,800 239,800 246,000 188,800 134,700 123,500
20 236,900 204,700 200,200 200,300 200,300 20 ,700 218,300 241,300 244,300 187,300 133,100 123,200

21 235,400 204,600 200,100 200,300 200,700 20 ,600 218,600 242,BOO 242,700 185,600 131,700 123,100
22 234,300 204,000 200,100 200,300 201,400 20 ,600 218,900 244,400 241,100 183,900 131,100 123,000
23 233,100 203,400 200,100 200,300 201,900 20 ,600 219,000 245,300 239,500 182,000 130,600 123,000
24 231,700 202,800 200,100 200,300 202,400 20 ,600 219,200 245,BOO 237,900 179,800 130,100 122,900
25 230,500 202,100 200,100 200,300 202,800 20 ,600 219,400 246,500 236,300 177,800 129,700 122,900

26 229,300 201,400 200,100 200,200 203,000 20 ,600 220,000 247,400 234,400 175,700 129,300 122,800
27 228,200 200,600 200,100 200,300 203,200 20 ,700 220,900 248,800 232,100 173,900 128,800 122.700
2B 227,100 200,100 200,100 200,200 203,200 204,800 221,700 250,500 229,800 172,100 128,400 122,600
29 226,100 200,100 200,100 200,100 203,200 205,000 222,700 252,200 227,500 170,700 128,100 122,400
30 225,200 200,500 200,000 200,100 205,100 223,600 253,900 225,500 169,200 127,900 122,200
31 224,300 - 199,900 200,100 - 205,400 - 255,200 167,900 127,700

MAX 273,700 223,400 200,600 200,300 203,200 205,400 223,600 255,200 261,200 223,700 166,500 127,500
MIN 224,300 200,100 199,300 199,700 198,BOO 201,900 206,300 224,500 225,500 167,900 127,700 122,200
(t) 2,567.93 2,564.40 2,564.32 2,564.35 2,564.81 2,565.15 2,567.82 2,572.20 2,568.09 2,559.20 2,551.88 2,550.76
U> -52,360 -23,890 -524 +197 +3,030 +2,250 +18,170
(tt) 3,577 1,598 745 801 930 1,380 2,511

CAL YR 1967 MAX 538,700 MIN 199,300 t -113,400
WTR YR 1968 MAX 273,700 MIN 122,200 t -154,500

t ELEVATION, IN FEET, AT END OF MONTH,
t CHANGE IN CONTENTS, IN ACRE-FEET.
tt EVAPORATION, IN ACRE-FEET.

BUENA VISTA LAKE BASIN

11190500 ISABELLA LAKE NEAR LAKE ISABELLA, CALIF.--CONTINUED

DAY

1
2
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7
8
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10

11
12
13
1*
IS

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MAX MIN

(t) (t) (ft)
CAL
WTR

t
t
tt

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
1*
IS

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MAX
MIN

(t)
(t)
< + t)

WTR

t
t

OCT

122,000
121.900
121,800
121.600
121.400

121.300
121.200
121.100
121.000
120.900

120.800
120.700
120.700
120.700
120,800

120.700
120,700
120.600
120,600
120,500

120,400
120,400
120,400
120,300
120,200

120,200
120,100
120,100
120,000
119,900
119,900

122,000
119,900
2,550.28
- 2,300

NOV DEC JAN

119,800
119,800
119,800
119,800
119.700

119.700
119.700
119.600
119.600
119.600

119.500
119,500
119,500
119,400
120,000

120,000
120,000
119,900
119,900
119,800

119,800
119,800
119,700
119,700
119,600

119,600
119,500
119,500
119,500
119,500

120.000
119,400
2,550.20

YR 1968 MAX 261,200
YR 1969 MAX 578,100

ELEVATION, IN FEET,
CHANGE IN CONTENTS,

119,400 124,400
119,400 124,400
119,400 124,400
119,400 124,400
119,400 124,400

119,400 124,400
119,400 124,400
119,700 124,400
120,100 124,400
120,600 124,300

121,200 124,300
121,600 124,300
122,000 124,600
122,600 124,600
123,300 125,100

124,100 125,100
124,100 125,000
124,100 125,500
124,000 131,800
124,000 137,800

124,000 146,300
124,000 152,700
124,000 155,600
124,200 165,300
124,300 208,400

124,400 230,200
124,400 239,600
124,400 244,900
124,500 248,200
124,500 250,400
124,500 251,900

124,500 251,900
119,400 124,300
2,551.23 2,571.76

MIN 119,400 t

AT END OF MONTH.
IN ACRE-FEET.

CONTENTS. IN ACRE-FEET

OCT

351,800
349,315
347,192
344,811
342,439

340,074
337. BOS
335,195
332,769
330,352

328,029
325,543
322,982
320,346
317,805

315,359
313,007
310,747
308,329
306,004

303,936
301,628
299,330
297,041
294.924

292.653
290,634
288,944
287,258
285,579
284.064

351,800
284,064
2,575.93

3,560

NOV

282,712
281,443
280,019
278,127
275,928

274,286
272,493
270,630
268,542
266,540

264,318
261,953
259,752
257, 487
255,083

252,989
251,277
249,423
247.209
244,860

242,814
240,706
239,041
238,536
236,305

234,086
231,879
229,895
228,202
226,376

282,712
226,376

1,966

YR 1970 MAX 351,800

ELEVATION, IN FEET,
CHANGE IN CONTENTS,

DEC JAN

225,186 225,326
224,976 225,256
224,906 225,046
224,767 224,767
224,767 224.697

224,697 224,627
224,627 224,697
224,537 224,767
224,557 225,256
224,488 225.955

224,418 226,516
224,418 226,796
224,418 226,796
224,488 227,007
224,557 227,850

224,557 238,103
224,557 243,033
224,557 244,713
224,557 245,593
225,326 246,106

225,326 246,621
225,815 247,062
225,745 247,357
225,605 247,799
225,605 248,389

226,235 248,463
226,235 248,610
226,025 249,054
225,885 248,980
225,675 248,832
225.535 248,832

226,235 249,054
224,418 224,627

981 927

MIN 169,093 t

AT END OF MONTH.
IN ACRE-FEET.
E-FEET.

FEB

253,200
254,400
255,300
256,000
256.800

258.500
259,200
259,900
260,700
260,600

259,600
258,800
257,900
256,600
256,100

255,500
254,300
253,000
251,900
250,300

248,800
247,000
246,200
246,800
252,000

254,700
255,800
256,400

260,700
246,200
2,572.35

+232,200

. AT 2400

FEB

249,128
249,349
249,497
249,719
249,942

250,164
250.312
250,535
250,683
251,277

251,872
252,244
252,691
253.288
253,586

253,810
254,035
254,334
254.483
254,483

254,783
255.008
255.232
255.532
255.757

255,983
256,058
256,734

256,734
249,128

+101,035
- 185,317

MAR

256,800
256,700
256,400
256,000
255,200

254,000
252,200
250,100
246,200
246,100

243,900
241,300
238,000
233,800
229,200

224,600
220,400
216,400

208,400

204,500
200,300
195,900
192,000
188,100

184,200
180,700
177,900
175,900
174,800
175,100

256,800
174,800
2,560.40

rEAR OCTOBER 1968 TO SEPTEMBER 1969

APR MAY JUN JUL

175.800
175.400
175.300
173.600
173.100

173.900
172.000
168.800
165.200
161,700

159,100
157,200
156,700
156,100
154,700

152,900
151,400
150,800

150,900

152,900
156,300
159,900
162,000
162,900

163,600
164.900

166,500
168,900
172,700

175,800
150,300
2,560.00

177.000
181,600
186,000
189,300
191,100

192,700
196,900
201,400
208,200
217,000

226,200
234,700
244,700
255,200
266,000

276,700
288,400
300,800

324,400

335,900
348,200
358,500
369,700
381,500

393,600
405.500
416.900
428.900
441,500
454,200

454, POO
177,000
2,594.74

467,600
480,800
493,200
503,800
512,400

520,100
526,700
532,400
536,000
537,600

538,100
539.100
539.700
540.900
542.800

545,500
546,800
548,000

552,500

555,400
558,700
562,200
565.800
568.100

568.900
569.100
569.700
569.400
569.700

569.700
467.600
2,605.47

570.700
573.900
575.200
576,200
576,600

577,100
577,200
577.400
577.400
577,300

577.000
576.400
577,000
578,100
577,400

576,500
575,000
573,500
572,300
571,100

570,000
570,200
568,900
567,000
565,100

562,700
560,700
558,600
556,500
554,200
551,500

578,100
551,500
2,603.86

AU6

551.200
546.600
545.800
542.200
538.300

534.200
531.500
528.700
524.000
519.300

515,700
512,000
507,400
503,700
499,400

495,600
491,600
487,500
483.200
478.900

474.300
469.800
465.200
460,600
456,200

451,400
447,300
443,400
439,400
435,500
431,600

551,200
431,600
2,592.48

SEP

427,900
424,400
420,800
417.200
413.800

410.800
407.700
404.700
401.800
399,100

396,600
394,200
391,800
389,200
386,700

384,100
381,600
379,000
376,400
373,900

371,600
369,600
367,300
365,300
363,400

361,100
358,900
356,700
355,200
354,400

427,900
354,400
2,584.25
- 77,200
5,912

, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

MAR

257,261
257,864
258,165
258,769
259,374

259,752
260,207
260,586
260,889
261,573

261,877
262,258
262,486
262.867
263,248

263,554
263.859
264,012
264,012
263,783

263,554
263,325
262.943
262,562
262.182

262,182
262,182
262,410
262,410
262.410
262,258

264,012
257.261

APR

261,725
261,041
260,359
259,904
259,450

258,996
258,920
259,072
259,147
259,298

259,828
260,283
260,738
261,117
261,573

261,801
262,029
262,105
262,258
262,258

262,258
262,182
262,105
262,029
262,029

262.105
262,334
262,486
262,562
262,867

262.867
258,920

MAY

263,325
263,706
264,088
264,547
265,083

265,619
266,310
267,002
267,848
269,160

270,088
271,017
272,027
273,194
274,989

277,262
279,624
282,474
285,020
287,098

289,024
291,037
293,463
296,470
299,166

301,464
303,523
305,921
308,412
311,165
314,182

314,182
263,325

JUN

317.214
320.176
322.300
323,920
324,774

325,201
325,543
326,142
327,514
327,771

327,342
327.085
326,742
326.399
325,714

324,945
324,176
323,578
323,067
322,896

322,726
322,556
322,130
321.450
320.770

320.091
319.328
318.735
317,890
316,876

327,771
316,876

JUL

315,949
315,022
314,098
313,090
311,917

310,496
308.912
307.497
306.087
305.093

304.101
302.698
301.053
299.494

297,857

295.981
294,355
292,815
291,199
289,587

287,820
285,818
283,666
281,443
279,388

277,498
275,380
273,194
270,785
268.234
265,849

315.949
265,849

AUG

263,477
261,041
258,618
255,983
253,288

250,460
247,799
245,006
242,014
239,186

236,449
233.586
230.956
228.343
225.815

223.442
221.083
218.945
216.612
214,224

212,054
209,963
207,883
205,947
204,088

202.237
200.396
198,890
197,650
196,415
195.184

263,477
195,184

SEP

193,828
192,477
191,196
189,600
188,519

187,378
186.303
185,232
184,227
183,413

182,725
181,915
181,044
180,175
179,185

178,383
177,583
176,723
175,866
175,133

174,524
173,916
173,127
172,521
171,796

171,254
170,772
170,171
169,691
169,093

193.828
169,093
2,559.40

4,598

BUENA VISTA LAKE BASIN

11191000 KERN RIVER BELOW ISABELLA DAM, CALIF.

LOCATION (REVISED).--Lat 35°38'21", long 118°29'02", in ShNWs sec.30, T.26 S., R.33 E., Kern County, on right bank 200 ft downstream from highway bridge, 0.6 mile downstream from Isabella Dam, and 1.6 miles southwest of town of Lake Isabella.

DRAINAGE AREA.--2,074 sq mi.

PERIOD OF RECORD.--April 1945 to September 1970. Prior to October 1952, published as "below Isabella dam site." level (levels by Corps of Engineers),
at different datum. Mar. 12, 1952, to

on to Borel Canal since

ond, gage height in feet) for the water years

Minimum daily

AVERAGE DISCHARGE.--25 years, 897 cfs (649,900 acre-ft per year), adjusted for di 1945 and for change in storage and evaporation from Isabella Lake since 1954.

EXTREMES.--Maximums and minimums (discharge in cubic feet per
1966-70 are contained in the following table:

Wtr y
1966
1967
1968
1969
1970

Date
June 20, 21, 1966
Aug. 17, 1967
Oct. 4, 1967
May 3, 1969
June 9, 1970

Discharge
1,100
4,170
1,940
7,300
2,130

G.H.
7.95
14.04
9.69
17.67
10.17

Date
Jan. 26-29, 1966
Dec. 4-13, 1966
Mar. 17, 18, 1968
Nov. 16, 17, 1968
Jan. 8, 1970

Discharge
4.2
5.0
4.0
2.3
. 20

1945-53 (prior to regulation by Isabella Lake): Maximum discharge, 39,000 cfs Nov. 19, 1950 (gage height, 28.6 ft, from floodmark, present site and datum), from rating curve extended above 1,100 cfs on basis of slope-area measurement of peak flow; minimum, 2.1 cfs (regulated by Borel Canal Nov. 27, 1951).
1954-70: Maximum discharge since construction of Isabella Dam in 1954, 7,300 cfs May 3, 1969 (gage height, 17.67 ft); no flow Oct. 29, 1954, Mar. 22, 1960.

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

REVISIONS (WATER YEARS).--WSP 1515: 1956. WSP 1930: Drainage area.

DISCHARGEi IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
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B
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11
12

1*

16
17

19
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21

23
24
25

26

28
29
30

MEAN

fin
AC-FT

AC-FTt

CAL YR
WTR YR

90 9
172
250
269
286

291
280
252
224
186

144
160

213

212
212

171
160

151

121
122 15
115 24

128 26

152 44
144 44
141 40

6.0
. 0 6.D
i.O 5.0
. 0 5.0
. 0 5.0

. 0 5.0
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5.0
5.0

5.0

5.0
5.0
5.0

183 85.1 5.06 4

90 6.0 5.0
11,260 5,060 311

1965 TOTAL 119,083.0 MEAN 32<

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33
35
52
74
116

147
190
230
249
292

316
354

423

442

332

371

239
180
163

143

124
. 2 144
. 4 185

85 5.29 ?43

. 2 4.3 33

MAX 1,420 MIN 3.0
1966 TOTAL 74,510.5 MEAN 204 MAX 1,090 MIN 4.2

195
139
131
144
150

163
144
98
81
135

179

232

73

193

171

115
133
138

131

85
64
55

143

55

66,650

AC-FT
AC-FT

96
120
114
93
79

74
73
85
84
50

16

5.2

5.2

17

10

90
109
108

96

13
27
35

53.3

5.2

81,550

236,200
147,800

99
117
91
78
102

128
175
188
292
455

543

872

,070

,090

,090

992
926
820

728

638
679
680

641

78

MEANt 972
MEANt 552

658
622
648
692
718

723
706
702
671
691

692

676

482

581

630

608
456
380

419

423
375
337

584

330

AC-FTt
AC-FTt

350
381
421
414
388

355
377
325
337
360

348
289

234

252

218

199

195
?13
249

247

274
295
271

289

195

703,400
399,600

148
151
108
94
124

171
190
179
167
166

170
179

183

184
195

228
216

215

227
251
271

309

298
243
217

201

94

11,950

t ADJUSTED FOR CHANGE IN CONTENTS AND EVAPORATION FROM ISABELLA LAKE AND FOR DIVERSION TO BOREL CANAL.

BUENA VISTA LAKE BASIN

11191000 KERN RIVER BELOW ISABELLA DAM, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
IB
19
20

21
22
23
24
25

26
27
28
29
30
31

OCT

179

161
140

131
96
75
75
78

94
120
122
95
74

63
60

31
13

13
13

13

27
60
92
96

96

MEAN 82.5
MAX 183
MIN 13
AC-FT 5,070
MEANt 155
AC-FTt 9,510

CAL YR 1966 TOT
WTR YR 1967 TOT

t ADJUSTED FOR

DAY OCT

1 790
2 790
3 820
4 850
5 690

6 720
7 680
8 660
9 680
10 670

11 1,300
12 217
13 217
14 173
15 145

16 145
17 135
18 122
19 122
20 480

21 531
22 528
23 931
24 1,070
25 1,060

26 1,060
27 1,110
28 935
29 935
30 910
31 848

MEAN
MAX
MIN

AC-FTt

978
1,850
122

35,120

81

7C
70

51
22
13
12
17

20
22
22
22
22

20
18

18
18

18
18

12

9.B
8.0
8.0
8.0

26.0
81
7.0
1,550
231
13,740

AL 88,
AL 515,

CHANGE

DISCH

NOV

848
899
950
950
950

950
950
685
447
676

789
685
598
411
400

338
271
238
238
281

341
338
338
338
338

338
338
161
5.0
5.0

503
950
5.0

31,890

35

12

31
7.9
8.6
B.O
5.8

5.C
5.D
5.0
6.0
7.0

7.0

651
651

711

,560
,800
,960
,900

2.130

2,130
5.0
38,310 1
4,863
299,000

768.6 MEAN
556.1 MEAN

IN CONTENT

SRGE, IN CUe

DEC

22
45
45
45
45

45
24
11
8.8
8.8

8.B

6.2
6.2
6.2

6.2
6.2
6.2
6.2
7.1

8.0
8.0
8.0
8.0
8.0

8.0
15
21
15
7.4

15.5

6.2

33,010

2,150

2,720

2,740
2,770
2,600

2,080
2.030

1,810

1,810

1,670

1,540

1,220

2,770
1,060
13,000

428

450

412
412

412
412

414

900

401

900
301
27,270

469

422
422

396

388

209

222

243

174
19,520

60,620 62,460 83,230

243 MAX 2,130 MIN 4.2
1,412 MAX 4,100 MIN 5.0

5 AND EVAPORATION FROM ISA

1C FEET PER SECOND, HATER

JAN FEB MAR

7.3 7.7 213
7.2 7.6 208
7.2 7.6 270
7.2 7.6 308
7.2 29 335

7.2 13 354
7.2 4.1 293
7.2 5.0 193
7.2 5.0 206
7.2 5.0 174

7.2 5.0 146

7.2
7.2
7.2

7.2
7.2
7.2
7.2
7.2

7.2
7.2
7.2
7.0
6.8

6.8
6.8
6.8
6.8
7.4

7.16

6.8

32,220

45
51
56

42
19
31
53
58

48
28
19
19
86

154
240
270
239

54.2

4.1

MAX 4,100

49
35
4.1

4.1
4.0
4.0
24
60

86
75
54
80
92

67
64
112
112
148

133

4.0

MIN 5.0

2B1 1,

181 2,

594 2,

1,220 2,

2,

181 I,
44,970 153,

730 2,700 2,

610 2,040 2.

580 3

690

280 2,520 2,440

240 3,750 1,690

2,

730 1,820 1,
200 158,400 142,

95,470 168,000 302,900 238

AC-FT 176,100 MEANt 897
AC-FT 1,023,000 MEANt 2,178

BELLA LAKE AND FOR DIVERSION TO

YEAR OCTOBER 1967 TO SEPTEMBER

APR MAY JUN

195 449 484
80 419 476
142 403 501
96 384 537
92 323 585

84
124

242

258
255
96
151
273

296
326
270
183

144

177
144

91
76
217

372

180

72

AC-FT 1,069

273
278

279

191
188
232
220
217

162

143
249

330

360
311

304
354
403

504

311

107

744
842

886

954
,030
,100
,130
,060

,080

,250
,330

,170

,500
,490

,150
,190
,190

988

995

476

000 MEANt 1,872

500 2,520

340 2,520 1,580
700 202,700 115,800

000 90,450 53,410

AC-FTt 649,700
AC-FTt 1,577,000

BOREL CANAL.

1968

JUL AU6 SEP

850 626 9.2
818 640 9.2
835 624 9.2
784 592 9.2
733 617 9.2

852 1,110 9.2
895 1,130 9.2

971 704 9.2

946 701 9.2
869 665 9.2
829 623 9.2
838 581 9.2
840 530 9.2

778 519 9.2

738 428 9.2
686 413 9.2

539 314 9.2

755
754

734
688

609

760

539

. 2 9.2
. 2 9.2
. 2 9.6

. 2 9.6
. 2 9.6

. 2 9.6
. 2 9.6

26 9.28

. 2 9.2
00 552

AC-FTt 1,355,000

t ADJUSTED FOR CHANGE IN CONTENTS AND EVAPORATION FROM ISABELLA LAKE AND FOR DIVERSION TO BOREL CANAL.

BUENA VISTA LAKE BASIN

206
206
206

11191000 KERN RIVER BELOW ISABELLA DAM, CALIF.--CONTINUED

, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DEC JAN FEB MAR APR MAY JUN JUL

)6 6.5 3.

?1 6.3 3.
>8 5.7 3.

'3 3.4 3.

?1 3.2 3.
'1 3.1 3.

?1 3.2 3.
'1 3.2 3.
>0 3.2 3.
3.3 3.2 3.

2.3 3.2 3.
2.3 3.1 3.

5.3 3.1 3.
5.2 3.1 4.

4.9 3.1 4."

4.7 3.1 8.
4.7 3.2 169

;

)

,350 2,470 5,300 4,380 6,010 3,200 3,23C

160- \«£ MIS 3"42°0 tTo ^S I'M

,CCQ

,830
,800

,600

,340

,340

,210
,160

,160

472 4,090 5,280 4,360 4,920 3,250 2,490

3,250 2.22C

TOTAL
MEAN
MAX

MEANt

237

205 L7B 5,687 9,717 8,161 3,838 1,528 746

HTR YR 1969 TOTAL 824,980.7 MEAN 2,260 MAX 6i440 MIN 2.3 AC-FT 1,636i000 MEANt 3,076 AC-FTt 2,227,000

t ADJUSTED FOR CHANGE IN CONTENTS AND EVAPORATION FROM ISABELLA LAKE AND FOR DIVERSION TO BOREL CANAL.

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

MEANt
AC-FTt

,080
,070
,070
,060
,090

,130
,130
,130
,130
,130

,130
,120
,150
,210
. 210

,210
,210
,210
,210
,180

,140
,180
,1BO
,160
,110

1,060
969
8BO
847
781
781

629 52
538 9

923
963

997

968
1,040
1,080

1,160
1.150
1.150
1,150
1,120

983
882
1,050

1,050

834 1
413

1,000
938

737

6.1
6.1

6.1
6.1

6.1

. 20
3.2
6.3

6.1
64
237
466
220

199
187
205

244

233
226

226
226

226

2.8
2.8

2.8 «
2.8 3

2.8 2

2.8 6
2.8 6
2.8 5

3.0 1
2.8 t
2.8 1C

2.8 <;
2.8 1C

2.7 6
2.7 «
2.7 <5

2.2 t

2.2 C
2.2 8

2.4 1
2.4 f

. 4 655
. 4 736

750
713

670

552

562
525
500

324
317
319

3 341

1 331
8 305

8 236
7 199

0 176

182
220

254
254

254

179

150
161
178

294
341
381

455

554
567

484
534

451

570
670

869
970

1,030

912

866
809
721

815
891
928

960

1,080
1.1CO

877
803

726

702
TIB

728
839

939

,100

. 120
,150
,130

915
875
867

912

1,010
1,040

993
1.050

1.050
i .01 n

958
968

1,080
1,120

1,120

1,180

1,180
1,150
1,080

921
865
841

811

674
684

1,100
838

307
?7B

267
296

288
217

212

226

12
14
28

55
19
10

9.7

8.6
7.3

9.0
11

10

,933 2,616.5
901 87.2
,200 310
278 6.5

502
30,880

701
38,950

CAL YR 1969 TOTAL 881,012.70 MEAN 2,414 MAX 6,440 MIN 3.0

369
22,690

AC-FT 1,747,000 MEANt 3,147 AC-FTt 2,278,000 AC-FT 369,200 MEANt 835 AC-FTt 604,200

t ADJUSTED FOR CHANGE IN CONTENTS AND EVAPORATION FROM ISABELLA LAKE AND FOR DIVERSION TO BOREL CANAL.

BUENA VISTA LAKE BASIN

11192500 KERN RIVER NEAR DEMOCRAT SPRINGS, CALIF.

LOCATION. --Lat 35 0 31'15", long 118°40'34", in NE>sSE>i sec. 6, T.28 S., R.31 E. , Kern County, on left bank 1.0 mile southwest of Democrat Springs and 2.1 miles upstream from Cow Creek.

DRAINAGE AREA. --2, 2 58 sq mi.

PERIOD OF RECORD.--July 1950 to September 1970. Prior to October 1954,
separately; combined flow only, October 1954 to September 1960.

cords for river and conduit published

GAGE. --Water-stage
(from topographi map).

Wtr yr
1966
1967
1968
1969
1970

Date
June
Dec.
Oct.
June
June

17
6
4
7
9

River

1966
1966
1967
1969
1970

^

only
Disch.
1,200
10,100
2,080
6,660
1,900

1ax

G
9
18
10
16
10

mum

H.
06
55
96
74
62

Date
June
Dec.
Oct.
June
June

Con

17,
6,
4,
7,
9,

ibinec

1966
1966
1967
1969
1970

i
Dis
1,
10,
2,
7,
2,

ch.
590
100
470
050
050

AVERAGE DISCHARGE. --River only, 20 years, 616 cfs (446,300 acre-ft per year), unadjusted. Combined flow of river and diversion, 20 years, 957 cfs (693,300 acre-ft per year), adjusted for storage.

EXTREMES. --Maximums and minimums (discharge in cubic feet per second, gage height in feet) for the water years 1966-70 are contained in the following table:

Minimum daily
River only Combined
Date Disch. Date Disch.
Feb. 22, 1966 2.3 Sept. 23, 1966 258
Several days 2 Oct. 25, 1966 154
Dec. 15, 1967 35 Sept. 24, 1968 170
Dec. 19-21, 1968 1.0 Dec. 17, 1968 10
Jan. 9, 1970 2.0 Jan. 9, 1970 369

1950-54 (river only, prior to regulation by Isabella Lake): Maximum discharge, 40,000 cfs Nov. 19, 1950 (gage height, 30.7 ft), from rating curve extended above 8,700 cfs on basis of computation of peak flow over dam (basic data for computation furnished by Southern California Edison Co.); minimum daily, 0.7 cfs
Nov. 17-19, 1951.
1950-54 (combined flow of river and conduit): Maximum discharge, 40,000 cfs Nov. 19, 1950; minimum daily, 123 cfs Sept. 22, 1951.
1954-70 (river only): Maximum discharge, 10,100 cfs Dec. 6, 1966 (gage height, 18.55 ft); minimum daily, 0.1 cfs Oct. 30 to Nov. 12, 1955.
1954-70 (combined flow of river and conduit): Maximum discharge, 10,100 cfs Dec. 6, 1966; minimum daily, 10 cfs Dec. 17, 1968.

REMARKS. --Records good. Kern River No. 1 conduit diverts up to about 420 cfs from left bank of Kern River in sec. 13, T.28 S., R. 30 E., for power development; water is returned to river 7 miles below station. Beginning in 1954, flow regulated by Isabella Lake 20 miles upstream (see station 11190500). Many diversions above station for irrigation. See schematic diagram of Kern River basin elsewhere in this report. For records of combined discharge of river and conduit, see table published herein.

COOPERATION. --Gage-height record and 62 discharge measurements for riv
measurements for conduit furnished by Southern California Edison Co., in connection with a Federal Power Com-

gage ight charge

REVISIONS. --WSP 1930: Drainage area.

DISCHARGE. IN CUBIC FEET PER SECOND. MATER YEAR OCTOBER 1965

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL MEAN
MAX
MIN
AC-FT

CAL YH
WTR YR

OCT

280
278
402
442
447

470
461
454
422
400

366
328
382
393
391

391
393
389
372
362

352
334
318
312
310

304
324
336
342
332
336

11.427 5,
369
470
278

NOV

340
218
158
134
117

99
26
. 6
. 8
. 0

. 0
. 0
. 0
. 0
. 0

13
192
194
189
189

190
194
195
231
424

417
490
585
588
588

823.4 2,
194
sea
6.0
22,670 11.550

1965 TOTAL
1966 TOTAL

180.300.
109.202.

DEC

329
195
187
134
130

109
76
76
75
78

79
66
79
56
56

56
49
11
4.
3.

3.
3.
3.
3.
3.

3.
3.
3.

210
206

337.0 2
75.4
329
3.2
4,640

4 MEAN
2 MEAN

JAN

195
187
184
187
187

186
184
182
182
163

98
82
78
52
49

51
SO
25
22
21

20
8.8
6.4
6.4
3.6

2.9
2.9
2.9
2.9
13
22

. 456.6
79.3
195
2.9
4.870

494
299

FEB

5.2
2.9
2.9
2.9
2.9

3.6
32
15
9.6
29

25
5.6
2.9
2.9
2.9

2.6
2.6
2.6
2.6
2.6

2.6
2.3
4.8
51
93

102
140
195

. . . . . .

749.0
26.8
195
2.3
1,490

MAX 1.360
MAX 1,170

MAR

226
235
239
258
288

336
356
411
426
449

492
502
552
579
603

612
606
609
568
475

565
515
468
369
372

352
336
328
324
368
382

13,221
426
612
226
26,220

MIN 3.2
MIN 2.3

APR

411
384
344
356
362

378
370
332
278
296

368
389
420
433
393

282
278
360
382
378

376
350
320
312
328

326
308
320
246
244

10,324
344
433
244
20,460

AC-FT
AC-FT

MAY

242
?94
290
278
246

240
237
248
251
248

194
175
166
78
58

67
135
175
179
173

141
144
221
230
257

?35
?26
146
136
156
157

6,023
194
294
58
11,950

357.600
216,600

TO SEPTEMBER 1966

JUN

1B2
237
231
203
202

233
271
310
338
465

S8B
684
844
897

1,000

1,110
1,170
1,100
1,150
1,150

1,150
1,130
1,060
1,020
908

620
757
690
741
754

21,395
713
1.170
182
42,440

JUL

750
702
705
754
785

806
795
B06
782
778

785
806
872
810
699

630
609
588
618
696

764
764
738
669
525

525
609
562
522
492
458

21,404
690
872
458
42,450

AUG

485
490
542
550
530

505
478
456
463
490

490
458
402
368
406

393
411
431
426
384

354
352
350
334
350

310
270
246
262
208
194

12,368
400
550
194
24,570

1,654
55.1
120

BUENA VISTA LAKE BASIN

11192500 KERN RIVER NEAR DEMOCRAT SPRINGS, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
4
5

6
7
6
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL MEAN
MAX

MIN AC-FT
CAL YR
MTR YR

16
2.0
2.0
2.0
2.0

12
2.0
2.0
2.0
10

26
15
12
5.0
2.0

2.0
7.0
4.0
4.0
5.0

7.0
6.0
6.0
6.0
6.0

19
20
15
4.0
4.0
3.0

230.0
7.42
26
2.0
456

1966 TOTAL
1967 TOTAL

4.0
5.0
17
2.0
2.0

2.0
19
10
10
2.0

10
6.0
3.0
6.0
6.0

3.0
4.0
4.0
6.0
61

102
50
50
34
31

10
20
30
74
56

639.0
21.3
102
2.0
1.270

119.
559,

54
4.0
67
60
531

4.440
1.040
270
94
82

60
87
88
155
172

172
266
830
833
846

885
1.100
1.360
1,640
1.630

1,680
1.960
2,060
2,110
1,990
2,310

28,916.0
933
4,440
4.0

2,310
2,350
2,410
2,860
2,860

2,870
2,680
2,940
2,670
2,330

2,250
2,190
2,150
2,020
1,970

1,960
1,960
2,000
1,870
1,800

1,720
1,490
1,270
1,320
1.260

1,360
1,390
1,410
1,020
937
918

60,965
1,967
2.940
918
57,350 121.000

399.8 MEAN
217.0 MEAN

327
1.533

128
116
71
60
113

68
57
52
51
50

50
50
48
46
50

59
234
486
519
578

618
660
750
820
795

775
745
690

8.759 17
313
820
46
17.370 34

MAX 4,440
MAX 4,440

680
690
660
610
600

630
622
630
620
591

563
584
563
554
603

582
486
431
406
395

431
431
406
391
405

502
810
819
785
492

496
492
463
411
407

418
417
414
409
436

456
441
469
592
710

800
877
,130
,390
,400

,490
,540
,520
. 520
,520

,580
. 640
,640
,660
,780

. 490 28.538
564
819
391

951
. 780
407

1,680
1,900
2,050

2,070

2,120
2,260
2,320
2,580
2,500

2,680
2,670
2,660
2,650
2.650

2,670
2,720
2,730
2,590
2.920

2.920
2,930
3,020
3.020
3.010

2.840
2.850
2,850
2,870
2,870
2,860

50,740
2.605
3,020
1.880
. 690 56.610 160.100

MIN 2.0 MIN 2.0 AC-FT

AC-FT

236,
1,109,

2.680
2,880
2,740

2,750

2,750
2,740
2,750
2,700
2,390

2,400
2,390
2.200
2,070
2,050

2,080
3,180
3.280
3.320
3,440

3,530
4,030
4.020
3.860
3.910

4.030
3,110
2,270
2,280
2,360

87,170
2.906
4,030
2,050
172.900

800
000

2,450
2,450
2,450

1,710

2,340
2,490
2,530
2,500
2,420

2,500
2,500
2,500
2,510
2.490

2.430
2,430
2,500
2,580
2,330

2,500
2,800
2,800
2,780
2,660

2.660
2.650
2,650
2,650
2,650
2.650

77,800
2.510
2.800
1.710
154,300

2,650 2,600
2,670 2,470
2,780 2,440

2,680 2.510

2,930 2,530
2,880 2,500
2,880 2,470
2,910 2,390
3,100 2,380

3.480 2,270
3,460 2.060
3,640 ,940
3,850 ,900
3,640 ,800

3.830 ,760
4,040 ,780
4,120 ,800
4,160 ,800
4.170 ,790

4,170 ,800
4,190 .790
4,200 ,700
4,200 ,700
4.090 ,700

3,440 ,700
3,400 ,700
3,390 ,700
3.020 ,100
2.660 ,900

106,500 61,450
3.435 2.048
4,200 2,600
2,650 1,700
211,200 121,900

NOTE. NO GAGE-HEIGHT RECORD OCT. 1 TO DEC. 5, JAN. 29 TO APR. 18.

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
4
5

6
7
6
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL MEAN
MAX

MIN AC-FT
CAL YR
WTR YR

1,900
1,900
1,890
2,030
1,790

1,640
1,830
1.760
1,820
1,800

1,520
476
487
387
328

310
344
277
286
570

667
676
674
684
675

676
686
553
556
539
476

30,407 15
981
2,030
277
60,310 31

1967 TOTAL
1968 TOTAL

575
504
556
555
554

552
549
526
604
782

936
830
767
584
579

534
58
32
33
63

72
98
95
00
98

495
492
444
139
162

,968
532
936
139
,670

580,781
180,843

205
223
223
216
210

210
183
176
161
146

133
131
119
65
35

41
47
109
187
172

172
164
168
177
180

181
186
187
193
191
183

4,974
160
223
35
9,870

MEAN
MEAN

163
142
131
132
122

121
115
96
85
79

124
174
146
106
106

127
166
172
150
119

120
123
124
126
142

174
168
153
153
144

4,167
134
174
79
8,270

1,591
494

142
139
142
150
193

220
210
176
158
144

167
187
226
244
256

235
196
195
247
268

273
243
228
223
283

354
404
452
424

6,779
234
452
139
13.450

MAX 4,200
MAX 2.030

415
380
431
475
545

919
903
788
799
774

744
708
654
633
588

573
568
565
562
603

651
657
576
561
314

286
258
300
297
319

17.228
556
919
258
34.170

MIN 35
MIN 35

465
248
324
279
272

249
250
287
349
391

395
424
316
285
406

422
456
426
368
319

320
307
327
342
323

2S5
239
340
389
442

10.215
341
465
239
20,260

AC-FT
AC-FT

510
532
500
495
452

391
395
400
420
413

348
331
368
352
348

317
248
276
373
398

426
358
463
458
422

387
436
454
542
576

12,989
419
600
248
25,760

1.152,000
358.700

565
545
565
591
636

681
764
894
970
974

1.000
1,090
1.160
1.230
1,160

1,140
1,220
1,310
1,400
1.390

1,280
1,140
1.110
1.170
1,170

1,230
1,320
1.330

1,310
1.170

31,515
1,051
1,400
545
62,510

1,020
970
998
974
894

911
1,010
1,070
1,070
1,140

1,130
1,060
1,010
1,010
1,030

960
918
922
883
757

684
738
785
925
922

918
858
841
852
744
738

28,742
927
1,140
684
57,010

747
764
764
711
723

794
897
925
820
838

838
813
750
729
648

666
585
555
532
540

570
268
98
57
73

56
57
56
55
54
53

16,036
517
925
53
31,810

72
66
69
42
59

50
52
77
51
67

56
65
57
65
61

62
63
57
60
60

55
58
59
51
58

63
62
64
6R
74

1,823
60.8
77
42
3.6?0

NOTE. NO GAGE-HEIGHT RECORD OCT. 11 TO NOV. 21, NOV. 29 TO FEE. 26, AUG. 22 TO SEPT. 30.

BUENA VISTA LAKE BASIN

11192500 KERN RIVER NEAR DEMOCRAT SPRINGS, CALIF.--CONTINUED

DISCHARGE! IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18

1920

2122
23

2425
26
27
88
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
XTR YR

OCT NOV

10
5.0
1.3
1.3
1.3

1.3
1.3
1.3
45
180

IBS
185
IBS
aoo
240

245
Z15
10
1.4
1.4

1*4
1.4
1.4
1.4
1.4

1.4
1.4
1.4
1.5

. 3

. 5
. 5
. 5
. 5

. 4
. 4
. 4
. 4
. 4

. 4
. 3
. 4
. 4
. 7

. 5
. 4
. 2
. 2
. 2

. 2
. 3
. 3
. 3
. 3

. 3
. 3
. 3
. 3

1.5 .j
1.5

1,731.3 41.1
55.8 1.37
Z45 1.7
1.3 1.2
3,430 8Z

1968 TOTAL 131,861 1969 TOTAL 882,282

DEC JAN

1.4 1.2
1.5 1.2
1.5 1.2
1.5 1.2
1.5 1.2

1.5 1.2
127 1.2
223 1.2
37 1.2
16 1.2

15 1.2
14 1.2
12 1.3
11 40
11 75

1Z 61
10 58
83 53
1.0 120
1.0 357

1.0 362
1.1 253
1.1 121
1.1 401
1.2 1.720

1.3 1,500
1.2 1,100
1.2 904
1.2 820
1.2 750
1.2 711

594.7 9,421.7
19.2 304
223 1.720
1.0 1.2
1,180 18,690

. 1 MEAN 360
. 8 MEAN 2,417

DISCHARGE, IN CUBIC FEET

DAY

12
3
4
5

6
7
8
9
10

11
12
13
14
IS

16
17
18
19
20

Zl
ZZ
23
Z4
zs

26
Z7
28
29
30
31

TOTAL MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

OCT NOV

1.200 B56
1,210 693
1,200 693
1,200 1,090
1,2ZO 1,110

1,270 1,200
1,260 1,110
1.260 1,100
1.260 1,210
1,260 1,230

1,270 1,350
1,260 1,350
1.270 1,330
1,350 1,330
1,350 1,320

1,360 1,230
1,350 1,160
1,350 1,060
1,350 1,230
1,340 1,240

1,260 1,240
1,340 1,230
1,330 1,180
1,320 Z69
1,250 1,180

1,220 1,190
1,140 1,190
1,040 1,170
1,030 967
950 914
942

38,412 33,422
1,239 1,114
1,360 1,350
94Z 269
76,190 66,290

1969 TOTAL 956,234
1970 TOTAL 238,757

DEC JAN

880 184
208 184
144 181
105 122
86 91

80 46
BO 5.0
79 2.1
69 2.0

65 2.3
61 31
49 195
47 186
46 196

48 523
60 468
65 398
65 370
100 406

189 402
192 402
192 400
192 400
194 395

195 395
189 400
184 398
187 393
184 393
182 371

4,485 7,944.3
145 256
880 523
46 2.0
8,900 15,760

. 7 MEAN 2,620
. 3 MEAN 654

FEB

6B4
666
627
624

702
654
615
600
775

1,540
1,570
1,540
1,660
1,800

1.B80
1,860
2,020
2,050
1,980

2,000
2,000
1,990
2,050
1,730

1,270
1,430
2,030

MAR

1,980
1,980

1,900

1,950
2,380
2,350
2,350
2,380

2.330
2,370
2,660
2,970
3,300

3,330
3,400
3,780
3,820
4,070

4,100
4,240
4,230
4,390
4,390

4,430
4,560
4,570
4,590
4,590

39,040 101,970
1,394
2,050
600

3,289
4,590
1,900
77,440 202,300

MAX 1,400
MAX 6,640

MIN 1
MIN 1

PER SECOND, WATER

FEB

192
187
186
187
187

184
184
181
182
189

200
194
194
210
206

213
203
203
202
200

181
141
139
135
134

134
140
190

_ _

5,078
181
213
134
10,070

MAX 6,640
MAX 1,430

MAR

210
231
220
270
271

242
245
286
278

347
585
334
290
294

310
334
393
436
472

505
522
585
654
735

778
714
621
624
717
711

13,508
436
778
210
26,790

MIN i
MIN 2

APR

5,050
5,120

4,920

4,120
4,470
4,800
5,210
5,460

5,510

5,560
5,560
5,560

5,560
5,560
5,560
5,560
5,510

5,510
5,510
5,460
5,460
5,460

5,460
5,460
5,510
5,520
5,570

MAY

5,470
4,870

5,270

5,260
5,010
5,410
5,350
5,250

5,200

4,950
4,600
4,170

4,100
4,100
4,070
4,030
4,150

4,170
4,320
4,720
4,570
4,570

4.570
4,610
4,610
5,210
5,510

159,180 149,520
5,306
5,570
4,120

4,823
5,570
4,030
315,700 296,600

. 0 AC-FT
. 0 AC-FT

261,
1,750,

JUN

5,710
5, BIO

6,520

6,620
6,640
6,620
6,560
6,570

6,340

5,970
5,970
5,980

5,990
6,010
5,710
5,380
5,090

4,870
4,850
4,820
4,810
4,810

4,820
4,620
4,400
4,3BO
4,280

167,770
5,592
6,640
4,280
332,800

500
000

JUL

2,710 3
3,3BO 3

3,520 3

3,540 3
3,530 3
3,570 3
3,560 3

AUG SEP

,530 2,300
,120 2,170

,530 2,080

,510
,440
,740
,410
3,540 3,350

3,530 3,310

3,300 3,360
3,710 3,210
3,850 3,110

3,860 3,010
3,870 2
3.900 3
3,8BO 3

,970
,020
,010
3,900 3,000

3,870 3,000
3,470 1
3,870 2
4,000 2

,010
,990
,920
3,570 2,900

3,560 2,730
3,550 I,620
3,550 2,470
3,560 2- iiA
3,550 1,450

. 940
,930
,860
,750
,620

,520

,420
,420
,400

,400
,400
,400
,400
,310

,290
,220
,220
,210
,210

,210
,210
,210
,190
354

112,460 94,920 45,634
3.628 :
4.130 :
2,710 <

,062
,740
,420

1,521
J.420
354
223,100 IBS, 300 90,520

YEAR OCTOBER 1969 TO SEPTEMBER 1970

APR

723
805
859
852
806

789
687
627
678

672
621
618
573
518

488
456
454
442
463

473
470
468
454
417

384
409
376
356
352

16,986
566
859
352
33,690

. 2 AC-FT
. 0 AC-FT

MAY

332
380
384
406
406

404
398
362
302

314
324
328
354
312

362
398
459
488
533

560
S79
642
666
660

609
588
657
645
579
591

14,306
461
666
284
28,380

1,897,
473,

JUN

678
744
862
950
1,090

1,100
1,260
1,290
513

1,030
1,020
911
838
848

908
967
,020
,080
,080

,110
,110
,220
,240
,250

. 150
,020
946
897
866

30,088
1,003
1,290
513
59,680

000
600

JUL

827
852
852
841
953

1,050
1,150
1,230
1,260

1,250
1,290
1,300
1,210
1,150

1,130
1,070
1,040
1,020
1,050

1,080
1,100
1,160
1,220
1,130

1,130
1,160
1,220
1,250
1,240

AUG

,150
,180
,1BO
,280
,330

,320
,350
,380
,410
,420

,390
,370
,280
,260
,210

,110
,240
,430
,030
,030

,000
936
831
859
810

741
789
633
518
465

SEP

411
449
454
470
384

378
366
387
364
235

178
91
98
192
198

221
226
172
115
113

130
120
156
131
82

67
61
60
60
60

34,725 33,374 6,429
1,120
1,300
827

,077
,430
442

214
470
60

68,880 66,200 12,750

BUENA VISTA LAKE BASIN 59

11192500 KERN RIVER NEAR DEMOCRAT SPRINGS, CALIF.--CONTINUED

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF KERN RIVER AND KERN RIVER NO. 1 CONDUIT NEAR DEMOCRAT SPRINGS, CALIF., WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

1
2
3
it
5

6
7
8
9
10

11
12
13
14
IS

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL MEAN MAX

M1N
AC-FT

CAL YR
*TR YR

674
672
795
836
841

864
854
846
814
791

756
718
774
788
767

766
769
765
762
754

746
739
713
706
704

696
716
730
734
724
730

23,626 17
762
664
672

733 719
610 585
546 576
524 522
506 518

465 499
401 470
362 468
310 467
310 466

328 466
353 474
349 466
333 444
353 443

366 443
582 435
564 369
561 354
561 353

562 359
586 360
587 376
622 337
614 338

607 336
681 341
975 354
979 393
979 597

053 13,949
568 450
979 719
310 337
46,860 33<820 27,670

1965 TOTAL
1966 TOTAL

COMBINED DISCHARGE

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
16
19
20

21
22
23
24
25

26
27
26
29
30
31

TOTAL MEAN
MAX MIN
AC-FT

CAL YR
MTR YR

OCT

321
292
312
320
284

273
261
219
214
218

230
256
270
256
215

206
205
202
195
162

156
157
157
155
154

167
168
231
238
235
235

6,988 7
225
321
15*
13*660 14

1966 TOTAL
1»67 TOTAL

315.108 MEAN
247 , 905 MEAN

, IN CUBIC FEET
CA

NOV DEC

235 416
221 359
207 430
213 452
213 903

214 4,600
200 1.090
228 601
230 476
205 463

204 459
204 466
201 475
197 536
194 556

193 556
191 650
190 1.220
165 1.220
243 1,230

444 1,270
372 1,500
292 1.610
250 2,010
222 2,020

196 2.040
200 2,340

221 2.450 376 2.500
426 2.510
. . . . 2.660

,171 40,296
239 1.300
444 4,600
165 359
. 220 79.930

247.732 MEAN
686,552 MEAN

565
577
574
577
577

577
575
574
573
554

490
473
469
444
441

442
440
415
412
411

410
397
394
390
366

364
365
365
365
397
407

14.400 11
465
565
364
28.560 21

863 MAX 1,
679 MAX 1,

PER SECOND,

JAN

2,660
2,740
2,600
3,230
3,250

3,240
3,250
3,310
3,240
2,710

2,620
2,570
2,520
2,390
2.340

2.330
2,330
2,370
2.240
2.170

2.090
1.660 1
1.640 1
1,690 1
1,650 1

1,720 1
1,760 1
1,760 1
1.380
1.300
1,260

72,460 19
2.336
3,310 1
1,260
143,800 36

679 MAX
1,886 MAX

365
331
330
330
330

355
422
397
379
418

411
376
343
346
376

380
360
379
378
376

377
371
369
441
461

490
527
581
. . . .

,065
395
581
330
. 950

740
570

613
622
626
645
676

723
743
797
612
635

876
666
938
965
969

996
992
996
956
664

953
905
856
779
762

743
726
718
714
758
771

25,239
814
996
613
50,060

MIN 310
MIN 258

OF KERN RIVER

FEB

500
495
450
460
495

450
440
440
440
440

440
440
440
440
440

440
615
666
900
960

998
. 040
. 130
. 200
. 170

. ISO
,120
. 070

. . . .

,469
695
,200
440
,620

4.600
4,600

MAR

1.060
1.070
1,040
989
960

1,010
1.000
1,010
998
970

960
960
960
930
f°

960
865
810
785
TT5

810
610
765
7>0
765

790
BIS
620
820
620
640

27,977
902
1,070
770
55,490

MIN 154
MIN 154

801
772
732
744
749

765
764
731
677
695

767
769
621
834
792

679
676
760
783
779

777
750
719
711
726

726
708
720
645
643

22,235
741
634
643
44,100

643
697
696
667
659

652
644
656
659
656

599
579
571
492
471

475
538
563
565
578

545
549
625
633
661

637
627
546
535
555

584
641
634
603
601

633
670
708
736
865

986
,060
. 240
,300
,400

,510
,570
,490
,550
,550

,540
. 530
,460
,420
,300

,200
,150
,090
,140
. 150

. 140
,100
,100
. 150
. 160

. 200
. 190
,200
,160
. 170

. 160
. 200
. 270
. 210
. 100

. 030
. 000
965
. 010
,090

. 160
,160
1,140
,070
924

926
1,010
966
928

e*-a

16,569 33,331 33.731
600
697
471

. 111

,570
564

1.088
1,270
863
36.870 66.110 66.910

891
896
947
956
936

909
882
861
869
894

894
862
806
772
809

795
613
833
828
786

756
754
752
734
750

710
670
645
660
604
590

24,864
802
956
590
49.320

495
418
384
352
338

372
391
385
353
337

325
324
305
301
303

293
276
298
323
284

278
270
258
290
290

296
303
301
334
346

9,823
327
495
25B
19,480

AC-FT 625,000
AC-FT 491,700

AND KERN

APR

660
660
650
603
602

610
610
606
803
631

654
837
865
966
1.100

,190
,270
. 510
,760
,600

,690
,940
,920
,940
,920

1,960
2,040
2,040
2,060
2,170

40,391
1,346
2,170
602
60,120

AC-FT
AC-FT

RIVER NO. 1

MAY

CONDUIT NEAR DEMOCRAT

JUN JUL

2,270 3,260 2.650
2,290
2,440
2. 450

3,270
3,130
3,130

2,650
2,650
2,640
2,460 3,140 2,110

2.510 3,140 2.740
2, 650
2,710
2,970

3,130
3,150
3,100

2,900
2,940
2.910
2,890 2,790 2,620

3,070 2,600 2,900
3,060
3,050
3,040

2.790
2,600
2,470

2.900
2.900
2.910
3,050 2.450 2,900

3,070 2,460 2,640
3,120
3,130
2,990

3,560
3.660
3,720

2.840
2.900
2,970
3,320 3.840 2.720

3.320 3.940 2,860
3,320 '
3,420 <
3,420 '

,,430
,,420
,.280

3,180
3.180
3.160
3,410 4,310 3,040

3,240 4,430 3,040
3.250 :1.510 3.030
3,250 2,670 3,030
3.270 2,660 3,030
3,270 2,730 3,030
3.260 3.030

92.990 99.070 90.020
3.000
3,420 <
2,270 Z

1,302
,430
,450

2,904
3.180
2.110
164.400 196,500 176,600

491,400
1,366,000

AUG

3.030
3.050
3,150
3.160
3.250

3.300
3.260
3.260
3.300
3.490

3.870
3.650
4.030
4.240
4.230

4,220
4,430
4,520
4.560
4,570

4,570
4,590
4,600
4,600
4,490

3,630
3,790
3,760
3,410
3,050
3,070

116.550
3.824
4.600
3.030
235.100

SPRINGS,

SEP

2,990
2,860
2.830
2.840
2,900

2.920
2.890
2,860
2,780
2,770

2,660
2,450
2,330
2,290
2,190

2,170
2,170
2.190
2.190
2.180

2.190
2.180
2.090
2.090
2.090

2.090
2.090
2.090
2.490
2.290

73.150
2,438
2,990
2,090
145,100

60 BUENA VISTA LAKE BASIN

11192500 KERN RIVER NEAR DEMOCRAT SPRINGS, CALIF.--CONTINUED

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF KERN RIVER AND KERN RIVER NO. 1 CONDUIT NEAR DEMOCRAT SPRINGS, CALIF., WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

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16
17
IB
19
20

21
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23
24
25

26
27
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29
30
31

TOTAL
MEAN
MAX
M1N
AC-FT

CAL YR
»TR YR

3. 390
2.290
2,280
2.420
2.180

2,230
2,220
2,150
2,200 1
2,180 1

1,900 1
862 1
872 1
772
712

69*
728
664
675
960

1,060
1,070
1,070
1,080
1,070

1,070
1,080
9*6
948
930

42,471 27
1,370
2,420 1
664
84,240 55

1967 TOTAL
1968 TOTAL

COMBINED DISCHARGE

968
897
952
952
952

952
951
928
,000
,180

,330
,220
. 160
980
974

930
856
830
830
860

870
895
893
898
896

895
892
843
532
560

. 876 17
929
,330
532
,290 34

721,651
309,056

605
623
623
616
610

610
583
574
559
544

533
530
516
456
423

431
432
494
576
565

565
566
570
570
571

572
576
578
584
581
571

,207
555
623
423
,130

MEAN
MEAN

, IN CUBIC FEET

550
530
518
518
508

507
500
484
476
482

517
566
536
496
496

516
554
560
538
506

508
511
512
512
528

560
554
538
538
530
550

16,199
523
566
476
32,130

1.977
844

528
524
526
534
578

604
594
558
542
526

550
571
610
628
642

617
578
576
628
650

654
628
612
608
668

738
788
834
805

17.899
617
834
524
35,500

796
765
815
856
857

936
906
791
802
777

747
710
656
635
590

575
570
567
564
605

653
659
578
644
674

662
640
685
688
713
777

21.893
706
936
564
43.420

862
654
730
667
666

645
646
684
746
788

791
820
712
680
802

826
862
840
770
717

718
704
723
738
720

656
639
740
789
844

22,179
739
862
639
43,990

MAX 4.600 MIN 423 AC-FT
MAX 2,420 MIN 170 AC-FT

PER SECOND, OF
CALIF. , WATER YEAR

DAY

1
2
3
4
5

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27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR

OCT

210
209
202
204
246

184
182
181
197
189

185
185
185
200
240

2*5
234
237
234
234

233
230
218
218
215

208
208
208
208
210
208

211
246
181

NOV

20B
208
208
212
226

225
224
220
220
220

220
221
217
230
270

298
319
319
312
289

272
269
269
267
265

259
229
228
226
224

. . . .

246
319
208
12,990 14,630 11

1968 TOTAL 241,340

DEC

224
224
220
208
206

210
249
227
37
16

15
14
12
11
11

12
10
305
257
257

254
231
181
243
305

370
342
291
306
335
334

191
370
10
,740

JAN

332
331
324
307
306

312
331
329
337
347

330
324
309
409
446

431
429
424
489
717

720
614
499
789
2.060

1,880
1,480
1,290
1,200
1,140
1<110

656
2.060
306
40,360

MEAN 659

FE8

1,080
1,070
1,050
1,020
1,020

1,100
1,050
1,020
1,000
1,180

1,950
1,980
1.930
2.060
2.200

2,280
2,260
2,420
2,460
2.380

2.360
2.380
2.380
2.440
2.090

1.630
1.800
2,400

. . . . . .

1,785
2.460
1.000
99.160

MAX 1.

KERN RIVER AND KERN
OCTOBER

MAR

2.420
2.340
2.350
2,320
2,280

2,760
2,730
2.730
2,700

2,640
2,680
2,970
3,280
3,610

3,660
3,750
4,020
4,150
4,410

4,450
4,610
4,600
4.760
4.760

4,810
4,940
4,950
4,980
4,980
4,980

112,950

4,980
2,280
224,000

790 MIN
030 MIN

912 954
933 933
901 952
896 978
852 1,020

792 .070
797 ,150
802 ,280
822 ,360
814 ,360

746 ,390
729 ,480
766 ,550
752 ,620
747 ,550

714 ,530
644 ,610
672 ,700
768 ,790
795 ,780

822 .660
749 .520
854 ,490
854 ,560
819 ,560

784 ,620
833 ,710
851 ,720
938 ,700
970 ,560
991 -

25,319 4 ,157
817 ,439
991 ,790
644 933
50,220 85,600

1,431.000
613.000

1,410
1,360
1,390
1,360
1,280

1,300
1,400
1,460
1,460
1,530

1.520
1.450
1.400
1,400
1,420

1,350
1,310
1,310
1,270
1,140

1,070
1,120
1,170
1,310
1,310

1,300
1,240
1,220
1.140
1.130

,130
,150
,150
,100
,110

,180
,280
,310
,210
,220

,220
,200
,130
,110
,030

,050
968
937
914
922

952
650
480
430
395

390
390
390
330
315
1.120 coo

40,650 27,311
1,311
1,530
1,070

881
,310
268
80,630 54,170

RIVER NO. 1 CONDUIT NEAR DEMOCRAT

270
280
300
315
330

310
285
280
285
265

250
245
225
200
185

185
185
195
200
185

180
175
175
170
185

190
195
200
220
230

6,895
230
330
170
13,680

SPRINGS,
1968 TO SEPTEMBER 1969

APR

5,110
5.440
5.510
5,330
5,310

5,190
5,600
5,850

5,900
5,900
5,950
5,950
5,950

5,950
5,950
5,950
5,950
5,900

5,900
5,900
5,850
5,850
5,850

5,850
5,850
5.900
5,900
5,950

170,860

5.950
4.510
338.900

10 AC-FT
10 AC-FT

MAY JUN

5,950 6,000
5.850 6,100
5,250 6,200
5,690 6,400
5,660 6,910

5,800 7,010
5,750 6,950
5,650 6,960

5,600 6,730
5,400 6.370
5.000 6.360

4,170 6,370

4,100 6.380
4.100 6,400
4,070 6,100
4,200 5,770
4,500 5,480

4,550 5,260
4,700 5,240
5,100 5,210
4,950 5,200
4,950 5,210

4,950 5,220
5.000 5.020
5,000 4,800
5,600 4,780
5.900 4,680
5,900

158,990 179,510

5,950 7,030
4,070 4,680
315,400 356,100

478,700
1,987,000

JUL AUG

4,530 2,840
3,110
3,780
3,950

3,930
3,510
3.910
3,920 3,920

3,970 3,800
3,960 3,800
3,940 3.750

3.930 3.700
3.940 3.750
3,700 3,750

4,250 3,500

4,260 3,400
4,270
4,300
4,280

3,360
3,410
3,410
4,300 3,400

4,260 3,400
3,860
4,270
4,400
3,970

3.410
3.390
3,310
3,290

3,960 3.120
3.950 3,010
3.950 2,860
3.960 2.860

3,950 2,850
3,940 2,820

124,850 106,700

4,530
3,110

3,442
3,930
2,820
247,600 211,600

SEP

2,810
2,690
2,570
2,550
2,480

2,340

2,250
2,140
2,020

1,920
1,820
1,820
1,820
1,800

1,800
1.800
1.800
1,800
1.710

1.690
1,620
1,620
1,610
1.610

1.610
1.610
1,610
1.590
727

57,557
1,919
2,810
727

114,200

BUENA VISTA LAKE BASIN 61

11192500 KERN RIVER NEAR DEMOCRAT SPRINGS, CALIF.--CONTINUED

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF KERN RIVER AND KERN RIVER NO. 1 CONDUIT NEAR DEMOCRAT SPRINGS, CALIF., WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

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29
30
31

TOTAL 5

MEAN
MAX
M1N

. 590
. 600
. 590
,590
,610

. 660
. 650
. 650
. 650
. 650

. 660
. 650
660
,750
,750

. 760
,740
,750
,750
. 740

. 660
,740
,730
,720
. 650

. 620
. 540
,430
. 430
. 340
. 340

,650
,634
760
340
AC-FT 100.500

250 1.260 572 582 580
. 090 584 571 575 601
. 090 522 568 576 587
. 480 489 508 576 640
. 500 470 476 574 641

. 590 461 433 573 613
. 500 461 384 572 614
. 490 460 375 571 653
. 600 446 369 572 646
. 620 446 393 577 663

. 750 444 387 586 613
. 750 440 416 580 607
. 710 428 581 580 690
720 426 573 592 681 710 427 583 585 684

620 428 912 584 701 550 445 861 575 725 ,440 449 786 575 787 ,610 449 758 573 832
. 620 487 796 572 869

610 575 791 553 903
610 579 790 513 921
,560 578 787 512 987

. 570 580 785 505 ,170
570 576 789 510 ,110

997 16.356 19.936 15.715 24.958 26
. 500 528 643 561 80S
. 750 1,260 912 592 1.170
647 426 369 505 580

,130 719
. 210 766
. 260 770
. 250 791
. 200 790

. 190 787
. 090 780
. 030 744
. 080 683
. 100 666

. 070 695
. 020 706
. 010 708
970 735
913 693

882 744
850 782
850 B43
837 869
858 913

861 939
858 959
853 1.020

771 988
796 966

. 827 26.131 4
961 843
. 260 1.050
738 666

. 050
. 120
. 240
. 320
. 460

. 470
. 630
,580
654
,350

,410
,400
. 300
. 220
. 240

. 300
. 350
410
470
470

. 500
. 500
. 610
. 640

. 540
. 410

. 174 4
. 372
,640
654

. 220
240
250
230
,350

,450
,550
630
,660
,690

,640
,680
700
600
,540

. 520
. 460
. 420
. 400
. 420

. 440
. 460
. 530
580

. 490
. 520

. 520 4
. 501
. 700
. 220

. 500 785
. 530 826
. 530 831
. 630 845
. 680 759

,670 754
,700 740
,730 761
,760 736
,770 609

,750 555
,730 468
,640 475
. 630 572
. 580 577

,480 598
,490 597
,470 542
,380 484
,420 483

,370 498
. 310 485
. 210 520
. 240 496
. 190 446

,120 434
. 170 421

B^O TO

,239 17,516
,427 584
,770 845
816 394

CAL YR 1969
UTR YR 1970

TOTAL 1.093.756
TOTAL 377.019

MEAN 2.997
MEAN 1.033

MAX 7,030 MIN 306 AC-FT 2,169,000
AC-FT 747,800

BUENA VISTA LAKE BASIN

11194000 KERN RIVER NEAR BAKERSFIELD, CALIF.

LOCATION.--Lat 35°25'54", long 118°56'43", in NWsSWij sec.2, T.29 S., R.28 E., Kern County, on left bank 0.8 mile

Office.

DRAINAGE AREA.--2,407 sq mi.

PERIOD OF RECORD.--October 1893 to September 1970. Daily discharges for period October 1953 to September 1963 are in files of California district office of Geological Survey. Monthly discharge only for some periods, published in WSP 1315-A.

ation in feet) for the water

Minimum daily

EXTREMES.--Maximums and minimums (discharge in cubic feet pe
1966-

Wtr yr
1966
1967
1968
1969
1970

- 70 ai

Date
June
Dec.
Oct.
June
Oct.

21,
7,
3,
5,
18,

1966
1966
1967
1969
1969

Maximum
Discharge
al,580
9,290
2,350
7,580
al,810

Elevation
_

454.94

_

-

Date
Sept.22, 1966
Oct. 21, 1966
Sept.23, 1968
Dec. 15, 1968
Jan. 8, 1970

Discharge
255
168
164

Maximum daily discharge.

ily, 37 cfs Dec. 15, 1968.

COOPERATION.--Records furnished by Kern County Land Co. and reviewed by Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECONO, HATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

1
2

5

6
7
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11
12

15

16

18
19
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21
22

24
25

27
28

30

MEAN
WAX

701

B52

881
864
841
815

755

809

783
755
745

736
718

712

719

727

766
881
657

521

481
424
387
320

357

571
583
584

589

828

909

1,000

577
1,000

531

518
495
493
496

480

390
376
374

388

357

360

470
682
340

586 414 821 724 6B4 569 403 834 693 688

450 385 888 792 561

398 525 741 708 601

488 410 828 750 606

JUN

611

716
764

,560

,580

,190

,133

,180 920

,210 974

,220 910
,200 908

,130 816

,180 785

,030 703

,112 831

485
428

361
336

372

374
355

301

290

282
255

304
292

301
287

328
485

NOTE. MEAN DAILY DISCHARGE IS COMPUTED FOR A 24 HOUR PERIOD FROM NOON ON DATE LISTED TO NOON ON THE FOLLOWING

DAY.

BUENA VISTA LAKE BASIN

11194000 KERN RIVER NEAR BAKERSFIELD, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

OCT NOV DEC JAN FEB MAR APR HAY JUN JUL «UG

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B
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14
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16
17
IB
19
20

21
22
23
24
25

26
2T
28
29
30
31

MEAN

MIN

NOTE

DAY.

DAY

1
2
3
4
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6
7
B
9

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26

28
29
30
31

MEAN

330

285

2B1
277

242

284

236
225
220
20B
185

16B

1T7
178
171

184

255

168

251 440

224 1,150

216 487

222 501

210 585

243 1,280

469 1,340

309 1.B20

223 2,380

2,730

3,290

2,700

2,530

2,370

2,150

1,730

1.790

,190 819 1,960 3,510 4,460 3,320

,180 827 2,100 3,320 2,880 3,100

MEAN DAILY DISCHARGE IS COMPUTED

DISCHARGE. IN CUBIC FEET

2 280
2 300

2 210
2 230

889
833
740

704
684
666
683
913

1.050

. 070
,080
,080

962
950
B88

1,382

895 644

,000 584

,180 539

993 440

8T7 8
885 0

957 8

957 9
957 9

591 602
588 595

955 577

558

496

512

569
565

524

528
529

587

556
539
567

538

FOR A 24 HOUR PERIOD FROM NOON ON DATE

PER SECOND, HATER YEAR OCTOBER 1967 TO

577 588 854 688
636 587 800 776

628 623 730 886
617 688 743 883

815 644 657 882

703 875 1,020

631 730 757 848

LISTED TO NOON

SEPTEMBER 1968

JUN JUL

,130 1,360

3,910 2,460

4,300 2,220

4,680 2,150

3,900 2,110

3,090 2,110
240,200 46,400

ON THE FOLLOWING

«UG SEP

1.1BO 279

,220 318

,730 1,330
,770 1,290

,540 1,210
,6CO 1,290
,580 1,290

,700 1,260

,570 1,180

,480 1,348

,160 196
,080 188

,110 194

,010 206
988 IBS

55 164
48 179
41 184

41 199

327 244

920 230
1,300 327

NOTE. MEAN DAILY DISCHARGE IS COMPUTED FOR A 24 HOUR PERIOD FROM NOON ON DATE LISTED TO NOON ON THE FOLLOWING DAY.

BUENA VISTA LAKE BASIN

11194000 KERN RIVER NEAR BAKERSFIELD, CALIF.--CONTINUED

DISCHARGEt IN CUBIC FEET PER SECCNDt WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

OCT NOV DEC JAN FEB MAR APR MAY JUN JUL

1 255
2 227

6 200

8 191
9 155
10 131

11 181
12 1B3
13 193
14 217
15 231

16 263
17 283

20 263

21 261
22 2*6

25 22*

26 229
27 225
28 222

31 22*

AC-FT 13,890 16,

NOTE. MEAN DAILY
BAY. NO GAGE-HEIGHT

DI

DAY OCT

1 .610 1,
2 ,63C 1,

* ,620 1,

6 ,680 1,

8 ,690 1,

16 ,800 1,
17 ,800 1,
18 ,810 1,

25 ,680 1,

26 ,630 1,

3D ,380 I,
31 ,380

MEAN ,666 1,

PIN 1,380

NOTE. MEAN DAILY
DAY.

231
231

266

256
259
253

251
261
299

3*1
352

300
301

260
260
259

370

4,300 4,130 2,620

55 375 1,600 2,640 7,190 5,910 7,250 4,320 4,070 2,110

4C 518 2,130 3,470 6,500 4,820 6,630 4,470 3,840 1.930

369 1,290 5,660 6,220 ------

DISCHARGE IS COMPUTED FOR A 24 HOUR PERIOD FROM NOON ON DATE LISTED TO

SCHAR

NOV

280
170

5CO

580

54C

56C

370

521

3,620 3,110

NOON ON THE FOLLOWING

GE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

1,270 583 613 601 1,740 700 1,100

435 1,000 61C 764 908 811 1,450

582 812 ,210 1,030

DISCHARGE IS COMPUTED FOR A 24 HOUR PERIOD FROM NOON ON DATE LISTED TO

,310 1,560 801

,460 1.68C 7B7

1,640 1,750 780

,460 1,470 672

,610 1,240 486
,510 1.19C 465

,6tC 1,030 421

,590 826

NOON ON THE FOLLOWING

BUENA VISTA LAKE BASIN

LOCATION. --Lat 35°19'24", long 119°44'31",

11194200 WAGONWHEEL CREEK NEAR REWARD, CALIF.

ec. 8, T.30 S., R.21 E., Kern County, at culvert on private

DRAINAGE AREA.--1.38 sq

PERIOD OF RECORD.--Annua Tiaximums, water yea 1958-65. October 1965 to September 1970.

s. Altitude of gage is 1,500 ft (from topographic map). Oct. 15, 1958, to Oct. 6, 1965

EXTREMES.-- Max imums and

Annual maximu

Date Time Di
Nov. 25, 1965 0630 *
Dec. 11, 1965 2330
Dec. 12, 1965 1500
Dec. 27, 1965 2200
Dec. 28, 1965 0330
Jan. 30, 1966 0930
Feb. 7, 1966 1230

Dec. 6, 1966 1400 *

No flow for several m
Period of record:
rating curve based on
on computation of flo
in each year.

DI5CHAR

NOV. 23, 1965.... 1.0

JAN. 30, 1966.... 1.8

MONTH

APRI L

WTR YR 1970...........

minimums (discharge in cubic feet p

m discharge (*) and peak discharges

sch. G.H. Date Time
51 9.07 Nov. 30, 1967
6.5 6.96 Mar. 7, 1968
6.6 6.97 Apr. 2, 1968
24 7.98
22 7.90 Jan. 19, 1969 2000
46 8.89 Jan. 21, 1969 0900
22 7.88 Jan. 26, 1969 0630
Feb. 6, 1969 1230
17 7.66 Feb. 23, 1969 0930

onths in each year.

er second, gage height in feet),

above base (5.0 cfs), water years 1966

Disch. G.H. Date Time
9.2 7.16 Feb. 24, 1969 2030
*10 7.25 Feb. 25, 1969 2400
8.7 7.12 Feb. 28, 1969 1200
Apr. 5, 1969 1630
11 6.89
9.8 6.86 Mar. 4, 1970 1645
30 7.54
16 7.07
33 7.62

computation of flow through culvert at gage heights 6.97 w through culvert plus road-overflow at gage height 13.44

SE, IN CUBIC FEET PER SECOND, WATER

DEC. 6, 1966.... 1.6
JAN. 24, 1967.... .10

MAR. 7, 1968.... . 1

JAN. 19, 1969.... 1.

YEARS OCTOBER 1966 TO

JAN. 24, 1969.... 2

CF5-DAY5 MAXIMUM

1.70 1.7

, 9.05, 9.55, and
ft; no flow for

SEPTEMBER 1970

0 FEB. 24
1 25
4 26
50 28

0 MAR. 4
0
2

MINIMUM MEAN

0 .10
0 .16
0 .058
0 .025
0 .029

0 .052
0 .011

0 .003
0 .0050

0 .003
0 .0005

0 .010
0 .006
0 .0020
0 .001

0 .44
0 1.29
0 .047
0 .14
0 .14

0 .055
0 .005

- 70

Disch. G.H.
56 8.39
52 8.25
68 8.79
34 7.66

*37 7.77

9.92 ft, and
several months

, 1969.... 1

, 1970.... .7

RUNOFF IN
ACRE-FEET
. 1
. 9
. 6
. 4
2

3.2
8.1

. 2
3.4

. 2
. 4

. 6
. 4
1.2
1

27
71
2.8
101
101

3.4
3

NOTE. FLOW OCCURRED ONLY ON DAYS LISTED ABOVE.

66 BUENA VISTA LAKE BASIN

11195500 SAN EMIGDIO CREEK AT SAN EMIGDIO RANCHHOUSE, CALIF.

LOCATION.--Lat 34°58'54", long 119°11'03", in San Emigdio Grant, Kern County, on left bank 50 ft downstream from unnamed tributary, 0.8 mile upstream from San Emigdio ranchhouse, and 13 miles west of Wheeler Ridge.

DRAINAGE AREA.--48.8 sq mi.

PERIOD OF RECORD.--March 1959 to September 1970.

GAGE.--Water-stage recorder and sharp-crested weir with rectangular flume for flows below 15 cfs. Datum of gage is 1,617.57 ft above mean sea level.

AVERAGE DISCHARGE.--11 years, 1.57 cfs (1,140 acre-ft per year); medi
(870 acre-ft per year).

of yearly mean discharges, 1.2 cfs

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (25 cfs), water years 1966-70

Nov. 24, 1965

Dec. 6, 1966 0800
Aug. 14, 1967

From floodmarks.

Disch. G.H.
*24 alO.12

Date Time
Nov. 20, 1967

Jan. 19, 1969
Jan. 25, 1969

Disch. *16

97 alO.6
538 a!2.66

Date Time
Feb. 25, 1969

Feb. 9, 1970 2000

Disch. G.H.
176 all.10

Wtr yr Date
1966 Many days
1967 July 24, 30, 1967
1968 June 19, 1968

Period of record: M

Annual minimum daily discharge, water years 1966-70

Discharge
. 30
. 60
. 47

Wtr yr Date
1969 Many days
1970 do.

Discharge
. 59
1.6

REMARKS.

2
3
4

7
8
9
10

11
12
13
14
15

16
17
18

20

21
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23
24

27
28
29
30

MEAN
MAX
MIN
AC-FT

- - Records

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22

good except

DISCHARGE,

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4.7

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4.7
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IN CUBIC

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gage-he

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TO SEPTEMBER

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. 85
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. 80
51

BUENA VISTA LAKE BASIN

11195500 SAN EMIGDIO CREEK AT SAN EMIGDIO RANCHHOUSE, CALIF.--CONTINUED

OISCHARGEt IN CUBIC FEET PER SECOND. WATER YEAR OCT08E

DAY OCT NOV DEC JAN FEB MAR APR HAY JUN JUL 4UG SEP

1 .90
2 .90
3 .90
* .90
5 .90

6 .BO
7 .80
B .80
9 .80
10 .90

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
2B
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31

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MEAN 1.06 1 '
MAX 1.3
MIN .80

AC-FT 65 (

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. 30

. BO
. BO
. 80
1.1
. 90
1.0

0

. C .70 .70 .1
. C .70 .0 .1
. 0 .70 .0 .1
. 0 .70 . " .0
. 0 .70 . 0 .0

. 90 .80 . 0 .0
. 90 .80 . 0 .0
0 .90 .70 .80 .90
. 90 .80 1.0 .90
1.1 .80 1.0 .90

1.1 .70 .90 .90
l.C .80 .90 .80
l.C .70 .90 .80
l.C .70 3.9 .80
. 90 .70 1.4 .90

. 90 .80 .90 .90
. 80 .70 .90 .90
. 80 .70 .90 .90
. 80 .70 .9C 1.2
. 80 .70 .90 1.1

. 80 .70 .90 .90
. 80 .70 .0 .90
. 80 .7C .2 1.0
. 80 .60 .4 1.0
. 80 .70 .4 l.C

. 80 .70 .3 1.0
. 80 .70 .3 .90
. 80 .70 .2 .90
. 70 .70 .2 1.1
. 70 .60 .2 1.1
. 70 .1

. 92 1.24 1.14 .89 .71 1.08 .97
1.2 1.4 1.4 1.1 .80 3.9 1.2
. 80 .90 .90 .70 .60 .70 .80

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

NOV OEC JAN FEB MAR APR MAY JUN JUL

31

TOTAL
MEAN
MAX
MIN
AC-FT

6
2

. 5 2.
. 5 1.
. 5 1.
. 5 1.
. 6 1.

. 6 2.
. 5 1.
. 4 1.
. 6 1.
. 6 1.

. 6 1.
. 5 1.
. 5 1.
. 5 1.
. 5 1.

. 6 1.
. 6 1.
. 6 1.
. 2 1.
. 2 1.

. 6 1.
. 4 1.
. 5 1.
. 0 1.
. B 1.

. 6 1.
. 6 1.
. B 1.
. 8 1.
. 9 1.

. 1 50.
10 1.6
. 2 2.
. 4 1.
25 9

4
1

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31 1 '
. B
. 1
81

4
1 '

i

1.3 .97 .74 .97 .6 2.0 .92 .70 .92 .6 1.6 .92 .70 .92 .6 1.2 .97 .70 .92 .6 1.2 .97 .70 .92 .6

1.2 1.0 .74 .87 .6 1.1 1.0 .74 .92 .7 1.1 .97 .74 .92 .7 1.0 .97 .74 .87 .7
. 9? .BT .70 .78 .7

. 87 .87 .66 .74 .7
. 87 1.1 .62 .70 .7
. 97 1.0 .56 .78 .8
. 97 .92 .56 .74 .8
1.0 .82 .56 .74 .8

. 1 .78 .53 .70 .8
. 2 .74 .53 .70 .8
. 3 .74 .50 .66 .8
. 2 .78 .47 .56 .8
. 1 .74 .50 .53 .8

. 2 .82 .50 .56 .8
. 2 .92 .56 .53 .B
. 1 .92 .56 .56 .8
. 1 .92 .59 .53 .7
. 1 .87 .62 .56 .8

. 97 .87 .74 .56 .8
. 97 .78 .78 .56 .9
. 97 .74 .82 .59 .9
. 97 .74 .87 .59 .9
. 97 .74 .92 .59 .9
. 74 .62 .9

33.75 27.11 19.65 22.11 24.9' 1.13 .87 .66 .71 .8 2.0 1.1 .92 .97 .91
. 87 .74 .47 .53 .6

2 .92
b .87
b .92
b .87
b .92

b .92
) .92
i .87
. . 78
!> .78

3 .70
! .74
. 74
. 78
. 82

. 74
. 74
. 74
. 78
. 74

. 82
. 82
. 62
. 59
. 66

. 59
. 62
. 66
. 66
! .78

23.11
. 77
. 92
. 59

CAL

BUENA VISTA LAKE BASIN

11195500 SAN EMIGDIO CREEK AT SAN EMIGDIO RANCHHOUSE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND,

NOV DEC JAN PER

MATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN
MAX
MIN

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13

15

16
17
18
19
20

21
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23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN

. 78
. 78
. 78
. 70
. 66

. 66
. 66
. 66
. 70
. 70

. 74
. 70
. 96
2.0
1.1

. 92
. 87
. 82
. 82
. 82

. 78
. 78
. 78
. 78
. 78

. 78
. 82
. 78
. 93
1.2
1.0

. 85
2.0
. 66

OCT

5.5

6.0

6.1
6.1
6.1
6.1
6.0

5.8
5.8

5.4

5.2
5.4

5.4

174.4

6.1

1.0
. 97
. 97
. 92
. 97

. 92
. 92
. 92
. 92
. 87

. 87
1.2
. 97
1.1
3.5

. 97
. 97
. 97
. 70
. 62

. 66
. 62
. 66
. 70
. 66

. 62
. 59
. 59
. 59
. 62

. 92
3.5
. 59

DISCHARGE

NOV

5.4

6.6

5.8
5.8

5.5

5.4
5.4

167.2

6.6

. 66
. 62
. 62
. 59
. 62

. 62
. 59
. 59
. 59
. 59

1.2
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. 66
. 66
. 74

1.8
. 70
. 66
. 62
. 82

. 74
. 82
. 82
. 82
1.3

1.5
1.0
. 97
. 97
. 87

. 82
1.8
. 59

, IN CUf

DEC

5.2

5.2

5.5
5.2

6.1

3.5
2.8

4.4

155.8

7.1

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. 87
. 87
. 82
. 82

. 78
. 78
. 82
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. 82
. 78
. 92
. 97
. 87

. 82
. 82
. 82
8.4
5.3

6.0
1.5
. 78
2.2
81

1.3
. 72
. 74
. 62
. 62

81
. 62

1C FEET

4.3

3.3

5.3
7.2

5.0

5.0
4.8

4.4

155.9

7.6

. 66
. 70
. 70
. 70
. 82

2.4
1.6
. 90
1.0
. 90

. 95
4.5
2.5
2.5
4.6

3.0
1.7
2.5
5.5
3.5

2.5

6.0
9.0

2.5
1.9
2.6

. 66
144

1.7
1.3
4.0
2.0
1.6

1.6
1.5
1.4
1.4
1.7

1.6
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. 7
. 8
. 7

. 5
. 5
. 6
. 7

2.3

1.5

1.4
1.3
1.2
1.1
1.2

101

MIN .47

PER SECCNO, MATER

4.3

3.8

8.2
11

1O

120.5

11

12

4.5

3.5
4.7

3.2

2.3
2.5

2.7

112.7

12

1.3
1.3
2.1
2.0
7.3

2.6
2.1
2.0
1.8
2.1

2.2
2.4
2.8
2.9
3.0

2.9
3.0
3.0
3.1

4.2

5.2

4.7
4.7
4.9
6.3

5.0
5.1
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5.7
6.0
6.2
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6.7

7.0
7.2
7.4
7.7
8.0

8.2
8.5
8.8
9.0

9.5

9.9

10
10
10
10
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200 489

AC-FT 697
AC-FT 3,040

YEAR OCTOBER 1969

2.6

2.5

2.5
2.5

2.8

6.9
5.3

94.2

6.9

187

3.7

2.8
2.8

3.0

2.9
2.9

2.9

2.1
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2.0
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1.9

78.7

3.7
1.9
156

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11

13
12
12
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12
11
11
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9.0

8.0

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13

587

TO SEPTEMBER

JUN

1.7

1.7
1.7

1.8
1.8

2.0
2.1

1.7
1.6

1.6

1.7
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1.8
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53.9
1.80
2.1
1.6
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6.7
6.2
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418

1970

JUL

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58.4
1.88
2.0
1.8
116

7.9 5
7.6 5
7.0 5
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6.4 5
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HTR YR 1970 TOTAL l,2B4.0Q MEAN 3.52 MAX 12 MIN 1.6 AC-FT 2,550

BUENA VISTA LAKE BASIN 0

11195600 PASTORIA CREEK NEAR LEBEC, CALIF.

LOCATION.--Lat 34°54'33", long 118°48'S5", in Los Alamos Y Agua Caliente Grant, Kern County, on right bank just

DRAINAGE AREA.--27.5 sq mi.

PERIOD OF RECORD.--October 1964 to September 1970.

GAGE.--Water-stage
level.

order and rectangular flume since June 19C Datum of gage is 1,970.93 ft above

AVERAGE DISCHARGE.--6 years, 0.84 cfs (609 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (10 cfs), water years 1966-70

Date Time
Dec. 29, 1965 0200

Nov. 7, 1966 1545
Dec. 6, 1966 1830
Apr. 4, 1967 1900
Apr. 24, 1967 1930

Nov. 20, 1967 0200

Jan. 18, 1969 0300
Jan. 19, 1969 2030

h.
11

13
10
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12
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G.H.
1.60

1.68
1.60
1.61
1.65

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2.88

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n. 26,
b. 6,
b. 12,
b. 15,
b. 18,
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b. 25,
r. 5,
Apr . 5 ,

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0200
1030
1500

Disch. G.H.
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18 2.90
14 2.77
19 2.94
29 3.18
24 3.05
18 2.90
14 2.76
109 3.39
26 2.65
44 2.82

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June

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Dec.
Feb.
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Time Dis
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1800
0700
0700
0830
1300
0930

ily discharge, water years 1966-70

1969
1970

Nov. 3, 8, Dec. 20, 1968
Sept. 3-30, 1970

Annual minii

Wtr yr Date
1966 Several months
1967 Many days
1968 Oct. 8, 17, 1967, Jan. 13-20, 1961

Period of record: Maximum discharge, 109 cfs Feb. 25, 1969 (gage height, 3.39 ft), from rating extended above 6.2 cfs on basis of slope-area measurements of peak flow; no flow for many days in 1964-67, 1970.

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

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL Al

scharge
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31

TOTAL
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BUENA VISTA LAKE BASIN

11195600 PASTORIA CREEK NEAR LEBEC, CALIF.--CONTINUED

DISCHARGE! IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FE6 MAR APR MAY JUN JUL

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6

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16

IB
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MEAN
MAX

AC-FT

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MEAN
MAX
MIN

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.62

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3.1

6.3

DISCHARGE!

. 72
. 84
.B4
.84
. 62

. 72

. 84

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.84
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.84

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.84

1.5
3.8

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2.0
. 84
1.5

1.05
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2.2

1.0

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1.7
1.3
1.5

1.5
1.1

.98
.96

. 72

. 72
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1.01
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1.3
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7.9

1C FEET

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2.0
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1.3
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.84

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15

PER SECOND,

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1.3

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WATER

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2.5

2.2
2.2

2.0
2.5
2.2
3.9
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1.81
3.9

108

YEAR OCTOBER

1.1
2.0
1.5
1.1
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44

1967

1.3
.98
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.84
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1.3

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TO SEPTEMBER

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. 72 1.

.90 1.

1.2 1.

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1.0 1.
.80 1.
.85 1.

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. 80 1.

. 72 1.

.80 l.(

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.95 1.
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3C .40
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4C .50

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3B .46
70 .90

24 28

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. 75
.63
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10 .69
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35 .69

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BUENA VISTA LAKE BASIN

11195600 PASTORIA CREEK NEAR LEBEC, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1963 TO SEPTEMBER 1969

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TOTAL
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MEAN
MAX
MIN
AC-FT

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1.4
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1.3
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19.77
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1.4
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OCT

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36

NOV

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1.1

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19.02
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38

DISCHARGE

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. 66 .54 1.3 20 2.7

. 57 .66 1.3 8.4 2.6
. 66 .63 1.4 14 7.2

. 60 .69 5. 7.9 3.0
. 57 .69 1. 6.5 2.8
. 57 .66 . 9 6.3 2.6
. 60 .63 . 0 6.1 2.4
. 54 .63 . 9 6.1 9.8

1.8 .75 .63 5.3 3.0

. 63 .54 4.4 6.1 3.2
. 57 .90 2.4 5.5 3.0
. 57 .75 6.2 5.3 2.8

. 72 .72 3.2 5.0 2.5
. 69 1.6 8.4 5.0 2.5
. 66 3.5 12 5.0 2.5
. 43 2.4 7.4 4.6 2.4

. 48 7.6 7.8 5.1 2.4
1.3 1.2 7.8 4.5 2.3
2.1 1.2 11 4.5 2.3
1.4 l.C 11 4.8 2.3
2.0 6.4 65 4.5 2.3

1.0 .6 35 3.7 2.2
. 72 .8 38 3.4 2.5
. 69 .4 3.1 2.4
. 66 .4 2.8 2.3
. 51 .4 2.7

28.08 48.46 290.21 216.0 91.1
. 91 1.56 10.4 6.97 3.04

. 43 .48 .60 2.7 2.2
56 96 576 428 181

. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER

DEC JAN FEB MAR APR

. 19 .20 1.0 3.5 1.4
. 17 .19 1.2 5.5 1.4
. 15 .19 1.0 2.5 1.2
. 15 .18 1.0 2.6 1.4
. 15 .18 1.0 5.5 1.5

. 11 .17 .80 4.5 1.4
. 11 .17 .85 3.3 1.3
. 15 .17 .72 2.7 1.2
. 15 .22 3.2 2.3 1.3
. 29 .50 1.9 4.6 1.2

. 31 .26 1.8 4.0 1.2
. 21 .20 1.7 3.0 1.2
. 17 .20 3.5 2.7 1.2
. 15 .70 3.8 2.6 1.2
. 17 1.5 3.0 2.5 1.2

. 17 2.1 2.5 2.5 1.2
. 15 1.8 4.7 2.7 1.2
. 15 1.6 1.2 2.3 1.1
. 13 1.5 1.3 2.2 1.2
. 11 1.4 1.4 2.2 1.2

1.0 1.4 1.4 2.2 2.5
. 38 1.4 1.1 1.9 1.8
. 27 1.4 1.2 1.8 1.4
. 17 1.4 1.2 2.4 1.4
1.6 1.4 1.1 1.9 1.4

. 60 1.7 1.0 1.9 1.4
1.1 1.6 1.0 1.7 4.4
. 60 1.7 4.5 1.8 3.7
. 30 1.5 1.6 1.8
. 23 1.4 1.6 3.9
. 21 .95 1.8

. 32 .94 1.79 2.72 1.63 1
1.6 2.1 4.7 5.5 4.4
. 11 .17 .72 1.6 1.1
19 58 99 167 97

2.1 1.3 1.4 .75 .66

2.7 1.6 1.4 .69 .69 2.2 1.5 1.3 .66 .66 2.2 1.4 1.2 .63 .69 2.7 1.7 1.2 .75 .75

2.4 1.8 1.2 .75 .72 2.2 1.6 1.4 .72 .66 2.3 1.4 1.4 .69 .75 2.2 1.8 1.4 .69 .66 2.0 2.0 1.7 .72 .63

2.2 1.8 .8 .69 .66

2.3 1.7 .4 .63 .63 2.6 1.6 .5 .63 .60 2.2 1.7 .4 .60 .63

2.0 1.4 .6 .60 .66 1.8 1.4 .6 .57 .60 1.9 1.4 .4 .60 .66 2.0 1.3 .3 .60 .66

2.0 1.2 1.2 .57 .63 2.0 1.2 1.1 .57 .69 1.9 1.6 1.1 .60 .66 1.8 1.4 1.0 .63 .75

2.0 1.3 1.0 .7? .75 2.0 1.4 1.0 .60 .66 1.7 1.4 1.0 .63 .69 1.4 1.4 .85 .69 .66
1.2 .85 .66

64.6 47.8 39.80 20.39 20.29 2.08 1.59 1.28 .66 .68

1.2 1.2 .85 .57 .60 128 95 79 40 40

1969 TO SEPTEMBER 1970

MAY JUN JUL AUG SEP

. 0 .37 .21 .08 .01
. 8 .31 .19 .08 .01
. 2 .41 .21 .07 0
. 3 .37 .26 .07 0
. 4 .27 .29 .06 0

. 4 .27 .25 .06 0
. 4 .27 .28 .05 0
. 3 .27 .29 .05 0
. 2 .27 .25 .04 0
. 2 .29 .25 .04 0

. 2 .29 .21 .04 C
. 1 .31 .19 .04 0
. 0 .31 .15 .03 0
. 95 .31 .13 .03 0
. 95 .34 .11 .03 0

. 85 .41 .11 .03 0
. 80 .27 .10 .02 0
. 78 .27 .10 .02 0
. 90 .27 .09 .02 0
. 95 .25 .09 .02 0

. 0 .23 .08 .02 0
. 90 .25 .08 .C2 0
. 85 .23 .07 .02 0
. 90 .25 .07 .02 0
. 90 .25 .07 .02 0

. 72 .25 .08 .02 0
. 72 .25 .09 .02 0
. 63 .25 .09 .02 0
. 54 .24 .09 .02 0

. 48 .23 .08 .02 0 .41 .08 .01

. 06 .29 .15 .035 .0007
3.0 .41 .29 .08 .01
. 41 .23 .07 .01 0
65 17 9.2 2.2 .04

BUENA VISTA LAKE BASIN

11196400 CALIENTE CREEK ABOVE TEHACHAPI CREEK, NEAR CALIENTE, CALIF.

DRAINAGE AREA.--165 sq mi.

PERIOD OF RECORD.--October 1961 to September 1970.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 1,575 ft (from topographic map).

AVERAGE DISCHARGE.--9 years, 2.82 cfs (2,040 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (50 cfs), water years 1966-70

Date Time Disch. 1, 1966 0200

Disch. 2.2 G.H.

1.40

Dec. 6, 1966 2000 *1,140

a From floodmarks.

Wtr yr Date
1966 Several months
1967 do.
1968 do.

Date Time
Apr. 2, 1968 0500

Jan. 25, 1969 1800

Disch. *4.9

214

G.H.
1.65

2.87

Date Time
Feb. 7, 1969 0600
Feb. 25, 1969 0800

Jan. 16, 1970 0700

76
717

inimum daily discharge, water years 1966-70

Discharge Wtr yr Date
0 1969 Oct. 1 to Nov. 24, 1968
0 1970 July 22, Aug. 13, 15, 1970

Period of record: Maximum discharge, 1,410 cfs Aug. 8, 1963 (gage height, 7.48 ft, from floodmarks) rating curve extended above 51 cfs on basis of slope-area measurement of peak flow; no flow for several in most years.

G.H.
2.15
a5.20

charge
0
. 17

, from
months

REMARKS. --Re

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

CAY OCT NOV

1 0
2 C
3 0
4 0
5 0

6 0
7 0
8 C
9 0
10 0

11 0
12 0
13 0
14 0
15 0

16 C
17 0
18 C
19 0
20 0

21 0
22 0
23 0
24 .10
25 .30

26 C
27 0
28 0
29 C
30 0
31

OTAL 0 .40
EAN 0 .C13
AX 0 .30
IN C C
C-FT 0 .6

TR YR 1966 TOTAL 96.0C

0
C
C
C
0

C
. 1C
. 20
. 20
. 30

. 4C
. 60
. 60
. 50
. 50

. 50
. 5C
. 50
. 60
. 60

. 50
. 70
. 80
. 80
. 90

. 90
. 80
. 80
1.1
1.5
1.5

16. 4C
. 53
1.5
0
33

MEAN

. 9 .90
. 5 .80
. 5 .70
. 5 .50
. 5 .60

. 4 1.0
. 3 1.2
. 3 1.0
. 1 .90
. 0 1.0

1.0 .90
. 90 .90
. 90 .90
. 80 .90
. 90 .BO

. 80 .80
. 90 .80
. 80 .80
. 70 .70
. 70 .60

. 70 .50
. 70 .40
. 70 .50
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. 60 .50

. 50 .70
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. 50
1.2
1.1

30.30 21.10
. 98 .75
1.9 1.2
. 5C .40
60 42

,2f- MAX 1.9

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1.1
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2C.10 6
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WIN 0 AC-FT

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190

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JUN

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BUENA VISTA LAKE BASIN

11196400 CALIENTE CREEK ABOVE TEHACHAPI CREEK, NEAR CALIENTE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECCND. HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR HAY JUN JUL

1 0
2 0
3 0
4 C
5 .90

6 196
7 84
B 22
9 14
10 14

11 9.9
12 7.6
13 4.9
14 2.6
15 1.5

17 1.5
18 1.5
19 1.5
20 1.6

21 1.6
22 1.2
23 1.3
24 1.5
25 1.3

26 1.3
27 1.2
28 1.5
29 1.5
30 1.4
31 1.2

TOTAL 0 0 380.00
MEAN. 0 0 12.3
MAX 0 C 196
PIN
AC-FT

000
0 0 754

1.2 2.7 1.0 .0
1.4 2.6 1.2 .0
1.4 2.6 1.2 .0
1.4 2.4 1.0 .0
2.9 2.4 1.4 .4

3.2 2.3 1.2 .2
2.6 2.3 1.2 .0
2.4 2.2 1.0 .0
2.3 2.0 1.0 .0
2.2 2.0 1.2 .4

2.3 1.8 1.2 5.7
2.3 1.8 1.2 6.3
2.2 1.8 1.2 5.7
2.0 1.8 1.5 6.3
2.0 1.7 1.5 7.6

1.8 1.6 1.2 7.6
1.7 1.5 1.2 7.6
1.7 1.4 1.4 8.3
1.7 1.4 1.2 8.3

1.9 1.3 1.0 8.3
2.2 1.2 .80 12
2.4 1.2 l.C 11
3.0 1.1 1.0 12
4.3 1.0 1.0 10

3.5 1.0 1.0 9.0
3.2 1.0 .80 7.6
2.9 1.0 1.0 6.9
2.9 4.5 9.0

2.9 4.0

72.8 48.8 42.30 200.1
2.35 1.74 1.36 6.67
4.3 2.7 4.5 12

1.2 1.0 .80 2.2
144 97 84 397

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOE

10 .1.1
2 C . .60
3 C . .54

5 0 . .78

6 0 . .72
7 0 . .72
80 . .72
90 . .66
10 C . .66

11 0 .4 .66
12 C .8 .66
13 0 .8 .66
14 0 .8 .78
15 0 .86 .78

16 0 .94 .78
17 0 .78 .86
18 0 .66 1.6
19 0 .66 2.3
20 0 .54 1.6

21 C .60 .94
22 0 .60 .94
23 0 .48 .86

25 0 .44 .72

26 0 .44 .72
27 C .44 .66
28 .31 .86 .72
29 .78 .78 .66
30 .86 1.2 .60
31 1.0 .66

MEAN .095 .87 .84
PAX 1.0 1.4 2.3
*"IN 0 .44 .54
AC-FT 5.9 52 51

. 60 .78 1.3 3.7
. 54 .72 1.2 2.4

. 66 .78 1.4 1.8

. 66 .72 1.4 1.7
. 60 .72 1.6 1.6
. 60 .78 1.8 1.4
. 54 .94 1.6 1.3
. 60 1.1 1.6 1.3

. 78 .94 1.5 1.2
. 72 .94 1.5 1.1
. 66 .0 1.6 1.1
. 60 .1 1.6 1.0
.6C .1 1.6 1.0

. 66 .0 1.7 .93
. 72 .1 2.0 .88
. 72 .2 1.8 .83
. 66 .2 1.7 .78
. 72 .2 1.8 .86

. 66 .2 1.8 .78
. 60 .1 1.9 .72
. 60 .2 1.9 .66

. 54 .1 2.2 .72

. 60 .2 2.3 .66
. 66 .2 2.2 .60
.94 .3 2.2 .54
. 78 .3 1.9 .54
. 7H 1.9 .54
l.C 1.9

. 67 1.02 1.73 1.18
1.0 1.3 2.3 3.7
.54 .72 1.2 .54
41 59 106 70

6.9
5.7
5.1
4.5
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4.5
4.0
3.4
5.1
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7.1 0

TO SEPTEMBER 1968

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BUENA VISTA LAKE BASIN

11196400 CALIENTE CREEK ABOVE TEHACHAPI CREEK, NEAR CALIENTE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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9
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15

16
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19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR

DAY

1
1
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN

0 .48
C .48
0 .48
0 .54

0 .60
C .60
0 .54
0 .54
0 .54

0 .66
0 .69
C .48
0 .44
0 .44

0 .72
0 .72
0 .54
0 .60
0 .66

0 .66
0 .54
0 .48
0 .48
. 17 .66

. 38 .8
. 48 .5
. tO .3
. 48 .3
. 38 .0

0 .083 .71
0 .60 1.8
0 0 .44
0 4.9 44

1968 TOTAL 182.71 MEAN

DISCHARGE, IN CU

OCT NOV DEC

2.2 3.0 3.7

3.2 3.7 4.3
3.0 3.7 4.3

2.62 3.48 3.89
3.2 4.9 5.3
2.0 3.0 3.5

1.0 8.4
. 94 7.6
. 86 7.3
. 86 6.5

. 72 18
. 72 68
. 78 58
. 78 54
. 78 47

. 72 36
. 72 25
. 86 22
1.5 18
1.4 17

1.2 18
1.1 18
1.2 22
2.0 50
2.7 68

2.3 58
2.4 56
2.3 56
4.3 67
82 354

70 222
41 174
22 132

9.38 60.5
82 354
. 72 6.5

. 50 MAX 3.7

1C FEET PER SECOND

JAN FEB

3.7 4.1

4.9
4.7

5.19 4.26
19 5.6
3.3 3.5

120
102
112
76

50
44
4C
32
32

30
26
26
19
14

13
14
16
19
32

34
19
17
28
24

20
52
58
58
72

42.5
120
13

80
66
68
62
58

70
66
50
39
37

37
37
36
36
28

22
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19
18

17
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16
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16
14
12
12
12

33.9
80
12

II
9.6
9.1
9.1
8.7

8.4
, 8.4
8.0
8.0
7.6

7.3
6.9
6.3
6.3
6.0

5.8
5.8
5.6
5.3
4.9

4.7
5.3
5.3
5.1
4.9

7.51
11
4.5

MtN 0 AC-FT 362
MIN 0 AC-FT 9,620

, WATER YEAR OCTOBER 1969

MAR APR MAY

8.5

5.6

4.5
4.5

5.65
9.4
4.1

MIN .72

4.3

4.5

4.1

4.1
3.7

3.83
4.9
3.2
228

AC-FT

2.9

1.8

1.9

1.7

1.7

1.6
1.6
1.4

2.18
3.3
1.2
134

10,180

JUN

3.9
4.3
4.3
4.5
4.1

4.3
4.3
4.1
4.5
4.7

. 7
. 1
. 1
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. 7
. 5
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3.3

3.2
2.9
2.9
2.7
2.4

2.3
2.6
2.6
2.6
2.3

3.58
4.7
2.3
213

TO SEPTEMf

JUN

. 94
. 94
. 94
. 86

. 94

1.6

1.4
1.3

1.2

1.1
1.0
. 78
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. 78

. 78

1.1
1.3
1.2

1.15
1.6
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68

JUL

2.0
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1.79
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ER 1973

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1.0
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AUG

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1.9
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1.7
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2.0
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. 9

1.75
2.2
1.4
107

AUG

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27

SEP

1.7
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2.0
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1.81
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108

SEP

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. 72

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1.2
. 54
54

BUENA VISTA LAKE BASIN

11196420 TEHACHAPI CREEK NEAR TEHACHAPI, CALIF.

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

DRAINAGE AREA.--53.2 sq mi.

PERIOD OF RECORD.--September 1962 to September 1970.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 3,534.48 ft above mean sea level. Prior Aug. 5, 1964, at site 0.2 mile upstream at different datum.

AVERAGE DISCHARGE.--8 years, 0.26 cfs (188 acre-ft per year).

EXTREMES.--Maximums and minlmums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (10 cfs), water years 1966-70

Date
Mar. 2

Dec. 6

Mar. 8

Jan. 25

Wtr yr
1966
1967
1968

, 1966

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Date
Most of
do.
Many da

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1830

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1500

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Disch.
15
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17 *244
66
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14

Wtr yr
1969
1970

G.H. Date
. 69 Mar.
. 65 Apr.
. 70 Apr.
1.73
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. 70 Feb.
. 68 Feb.

r years 1966-70

Date

Many days
Aug. 20, 1970

13,
3,
5,

16,
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28,

1969
1969
1969

1970
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Time
1500
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Disch.
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145
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Dis

G.H.
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1.38
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. 70

charge
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Period of record: Maximum discharge, 1,700 cfs Aug. 8, 1963 (gage heights, 5.30 ft in gage well, 6.40 ft, from floodmarks, site and datum then in use), from slope-area measurement of peak flow; no flow for parts of most years.

REMARKS.--Records good. No gage-height record Oct. 21, 1969, to Jan. 19, 1970, Jan. 22 to Mar. 16, 1970.

DISCHARGE, IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

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31 ______

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR 1965 TOTAL 0.00
UTR YR 1966 TOTAL 0.00

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1.8 0 0

MEAN 0 MAX 0 MIN 0 AC-FT 0

BUENA VISTA LAKE BASIN

11196420 TEHACHAPI CREEK NEAR TEHACHAPI, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR MAY JUN JUL

22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

0
0
0
0
0

1966 TOTAL
1967 TOTAL

0
0
0
0
0

12.71
13.41

0
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12
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25

MEAN
MEAN

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. 035 MAX 12 MIN 0 AC-FT 24
. 037 MAX 12 MIN 0 AC-FT 27

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DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

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TOTAL
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PIN
AC-FT

CAL YR

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FEB

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MAR

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MIN 0 AC-FT

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6.4

4.5

MAY

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BUENA VISTA LAKE BASIN

11196420 TEHACHAPI CREEK NEAR TEHACHAPI, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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AC-FT

HTR YR

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Middl. Fork Tul. «i>

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station oVscripn'oni af Hi* r»porl

Penstock, tunnvl, dos*d fturno, or
pip* showing dir.cHon of flow

FIGURE 3 -Sche diagram showing diversions and storage in Tule River basin

TULARE LAKE BASIN

11197000 TULARE LAKE IN KINGS COUNTY, CALIF.

LOCATION. --Lat 36°02'36", long 119°38'34", in SEWE^ sec.l, T.22 S., R.21 E., Kings County, at El Rico Ranch, 6.0 miles southwest of Corcoran and 14.2 miles southeast of Stratford.

PERIOD OF RECORD. --March 1906 to Septe
January 1969 to September 1970.

ber 1920 (incomplete), February 1937 to September 1961 (elevations only),

EXTREMES.--Maximums and minimums (contents
are contained in the following table:

Wtr yr Date
1969 June 24, 1969
1970 Oct. 1, 1969

cre-feet, elevation in feet) for January 1969 to September 1970

Minimum
Contents
997,000
756,000

Elevation
192.50
189.7

Date

(a)
Sept.30, 1970

Contents Elevation
0
237,000 182.8

a Lake dry Oct. 1, 1968, to Jan. 23, 1969.

Period of record: Maximum elevation, 196.8 ft June 27, 28, 1941; lake dry or practically dry for parts of 1906, 1914-16, 1919, 1937, 1946, 1950-53, 1955-56, 1958, 1969, lake dry for entire years 1920-22, 1924-36, 1947-49, 1954, 1957, 1959-61. Lake elevation of June 27, 28, 1941, was highest since about 1890.
Historical accounts indicate that Tulare Lake under natural conditions reached an elevation of 216 ft above mean sea level in 1862 and 1868. This lake elevation was the highest since at least the early 1800's.

COOPERATION.--Records furnished by Tulare Lake Basin Wate
capacity curves furnished by J. G. Boswell Co. for wat

Storage District 1906-63; lake
r years 1969-70.

elevations and

MAX
KIN

(t)
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CONTENTS, IN ACRE-FEET, AT 0800, JANUARY TO SEPTEMBER 1969

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15,700

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72,700
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89,400
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68,000
72,700

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294
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t ELEVATION, IN FEET, AT END OF MONTH.
t CHANGE IN CONTENTS, IN THOUSANDS OF ACRE-FEET.

TULARE LAKE BASIN

11197000 TULARE LAKE IN KINGS COUNTY, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEET, AT 0800, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

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(i)

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746,000
744,000
742, COO

740,000
738,000
736,000
734.000

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726, OCO
724,000
722,000

720, OCO
718,000
716,000
715,500
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714, CCO
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399, COC
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374, OCC
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332, COC
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t ELEVATION, IN FEET, AT END OF MONTH.
J CHANGE IN CONTENTS. IN THOUSANDS OF ACRE-FEET.

TULARE LAKE BASIN

11197250 AVENAL CREEK NEAR AVENAL, CALIF.

DRAINAGE AREA.--57.1 sq mi.

PERIOD OF RECORD.--October 1961 to September 1970.

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

AVERAGE DISCHARGE.--9 years, 3.71 cfs (2,690 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet). Annual maximum discharge (*) and peak discharges above base (30 cfs), water years 1966-70

Date
Dec.

Dec.
Jan.
Jan.
Mar.
Mar.
Apr.
Apr.

No

29, 1965

6, 1966
24, 1967
30, 1967
12, 1967
16, 1967
7, 1967
18, 1967

flow for

Time
2000

1000
1200
1600
0500
1400
0200
1000

sever;
f recoi

Disch. *94

*1,540
253
92
65
161
115
106

il months

G.H.
2.36

5.72
3.19
2.35
2.19
2.73
2.48
2.43

in each

Date
Apr.

Nov.

Jan.
Jan.
Jan.
Feb.
Feb.

year.

21

18

19
21
25
6
15

2,

, 1967

, 1967

, 1969
, 1969
, 1969
, 1969
, 1969

600 cfs

Time
1200

2000

1400
0030
0730
1500
1700

Feb.

Disch.
96

*6.1

735
1,120
2,420
210
210

24, 1969

G.H.
2.37

1.53

4.27
5.02
7.54
3.10
3.10

(gage he

Dat(
Feb,
Feb,
Feb
Apr ,
Apr

Mar,
Mar,

ight,

. 18, 1969
. 24, 1969
. 28, 1969
. 2, 1969
. 5, 1969

. 1, 1970
, 4, 1970

7.89 ft) ,

Time Di
0700
1300 *2
1600
2400
1800

1400
1930

from ratin

sch.
110
,600
406
36
50

57 *95

g CU)

REMARKS.--Re
Minor diversions for stock above station

DISCHARGE, IN CUBIC FEET PER SECONOi MATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

NOV DEC JAN FEB MAR APR MAY JUN JUL

10
6.2
2.7
1.3
. 20

.20
.20
. 20
.20
.20

. 20
.20
.20
. 20
.20

1.3
1.3
. 70
2.1
3.0

2.7
2.4
2.0
1.9
1.8

1.6
1.6
1.6
1.3
1.3

.40
.40
.40
.40
.30

.20
. 10
. 10
. 10
. 10

. 10
. 10
. 10
. 10
. 10

0
0
0
0
0

0
0
. 10
. 10
. 10

. 10
. 10
. 10
. 10
. 10

31

TOTAL
MEAN
MAX
UN
AC-FT

1.25
3.0
. 50

TULARE LAKE BASIN

11197250 AVENAL CREEK NEAR AVENAL, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECONDt WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY OCT NDV

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL 0 0
MEAN (
MAX (
MIN (

0
0
0
AC-FT 0 0

DEC

0
0
0
0
2.0

450
55
14
8.0
4.0

2.0
1.0
. 40
. 20
. 20

. 10
0
0
0
0

0
0
0
0
0

0
0
0
0
0

JAN

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
52
24

8.4
4.8
3.5
2.7
26

0 £*

536.90 146.4
17.3
450
0
1.060

WTR YR 1967 TOTAL 1,854.30 MEAN 5.

DISCHARGE, IN CUBIC

DAY OCT NOV

1 .12 .09
2 .0'
3 . 1<
4 .!<

. 09
. 06
. 06
5 .12 .06

6 .12 .06
7 .09 .06
8 .09 .05
9 .0' .05
10 .06 .04

11 .07 .04
12 .1.

13 .!(
14 .It

. 03
. 02
. 01
15 .12 .02

16 .0
17 .0
18 .0
19 .0
20 .0

21 .0
22 .0
23 .0
24 .0
25 .0

26 .0
27 .0
28 .0
29 .0
30 .0
31 .0

MEAN .08
MAX .1
MIN .0'

. 03
. 03
. 34
. 40
. 20

. 19
. 18
. 17
. 16
. 15

. 14
. 13
. 12
. 12

. 11
. 40
. 01
AC-FT 5.5 6.7

UCl»

. 26
. 16
. 09
. 06
. 20

. 16

. 12
. 09
. 06

. 09
. 12
. 16
. 12
. 12

. 12
. 20
. 16
. 16
. 12

. 12
. 16
. 12
. 12
. 12

. 12
. 12
. 16
. 16
. 16
. 16

. 14
. 26
. 06
8.4

4.72
52
0
290

08

FEET

. 16
. 16
. 16
. 16
. 16

. 16

. 16
. 16
. 16

. 16
. 16
. 16
. 16
. 16

. 12
. 12
. 12
. 12
. 12

. 12
. 12
. 12
. 12
. 12

. 09
. 09
. 09
. 09

. 09

. 13
. 16
. 09
8.2

FEB

12
8.9
6.9
5.5
4.4

3.8
3.2
2.4
2.2
1.9

1.7
1.2
1.0
. 80
. 80

1.0
1.2
1.2
1.0
. 80

. 80
. 80
1.0
1.0
1.9

1.7
1.0
. 80

70.90
2.53
12
. 80
141

MAR

. 70
. 50
. 70
. 80
. 80

. 70
. 40
. 40
. 30
. 50

11
37
26
23
12

58
29
19
13
9.2

6.9
5.7
4.2
3.6
3.3

3.0
2.8
2.2
2.2
2.0
11

289.90
9.35
58
. 30
575

MAX 450 MIN 0

PER SECOND. WATER

. 12
. 12
. 12
. 12
. 12

. 12

. 09
. 09
. 09

. 09
. 09
. 12
. 12
. 12

. 16
. 20
. 16
. 12
. 09

. 09
. 09
. 09
. 09
. 09

. 06
. 06
. 06
. 06

. 10
. 20
. 06
6.0

. 06
. 06
. 06
. 04
. 04

. 04

. 50
. 20
. 16

. 16
. 12
. 20
. 16
. 16

. 28
. 28
. 28
. 28
. 28

. 20
. 20
. 20
. 20
. 16

. 16
. 16
. 16
. 12
. 12
. 12

. 17
. 50
. 04
11

APR MAY JUN JUL AUG

5.7 10 .2 .10
4.6 8.2 .2 .10
4.2
7.2
12

8.6
62
25
17
13

20
17
12
9.2
12

11
8.7
48
41
29

56
42
36
43
30

23
20
17
16
1 3

. 7 .5 .10
. 9 .5 .10
. 1 .5 .10

. 7 .5 .20
. 9 .5 .20
. 2 .3 .30
. 2 .3 .40
. 2 .5 .40

. 2 .5 .30
. 9 .5 .20
. 6 .8 .20
. 3 .5 .20
. 0 .0 .20

. 5 1.2 .10
. 2 .80 .10
. 0 .70 .10
. 8 .60 .10

SEP

. 0 .60 .10 0

. 0 .60 .10 0
. 0 .80 .10
. 8 .70 0
. 3 .60 0
. 5 .50 0

. 8 .20 0
. 5 .20 0
. 8 .20 0
. 2 .20 0

. 2 .10 0

663.2 110.5 31.30 3.80 0
22.1 3.56 1.04 .12 0
62 10 2.2 .40 0 4.2 1.3 .10 0 0 1.320 219 62 7.5 0

AC-FT 3.680

YEAR OCTOBER 1967 TO SEPTEMBER 1968

. 12
. 09
. 05
. 04
. 03

. 02

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0
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. 012
. 12
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0 0 0 0

. 70000

. 30
. 30
. 20
. 10

. 10
. 10
. 10
. 10
. 10

1.40
047
. 30
0
2.8

0
0
0
0
0

TULARE LAKE BASIN

11197250 AVENAL CREEK NEAR AVENAL, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3

5

6
7
8
9
10

11
12
13
14
15

16
17
IB
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
PIN
AC-FT

WTR YR

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

0
0
0
0
0

1969 TOTAL

OCT

. 63
. 63
. 68
. 68
. 68

. 54
. 54
. 58
. 63
. 63

. 68
. 68
. 63
. 68
. 68

0
0
0
0
C

8,188.95

DISCHARGE,

NOV

. 63
. 63
. 68
. 63
. 54

. 63
. 68
. 63
. 58
. 58

. 54
. 54
. 54
. 54
. 58

1

0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
. 02
263
169

337
65
37
164
,080

426
109
75
60
48
36

92.5
1,080
0
5,690

MEAN 22.4

IN CUBIC FEET

OEC

. 54
. 58
. 58
. 58
. 58

. 63
. 63
. 68
. 63
. 63

. 68
. 68
. 68
. 68
. 73

JAN

. 88
. 88
. 78
. 78
. 78

. 68
. 54
. 54
. 54
. 54

. 50
. 50
. 50
. 58
. 73

27
10
7.0
5.4
27

154
54
35
29
25

23
22
19
10
62

36
29
86
43
31

25
24
198
1,190
676

320
171
217

127

1,190

7,050

MAX 1,190

PER SECOND,

FEB

. 73
. 73
. 73
. 73
. 73

. 73
. 73
. 68
. 63
. 73

. 63
. 58
. 54
. 58
. 54

125
98
84
72
64

59
55
50
46
45

40
38
36
33
32

30
29
29
27
26

26
24
23
23
22

21
21
20
19
17
19

40.4
125

2,490

MIN 0

WATER

MAR

21
21
. 78
20
22

1.3
. 88
. 68
. 63
. 54

. 54
. 46
. 42
. 42
. 42

19
20
24
19
25

27
22
19
17
15

12
12
10
10
10

7.0
7.0
5.4
5.4

2.7
2.7
5.4
5.4
4.4

2.7
2.7
2.3

2.3

10.8
27

643

2.0
2.0
2.0
2.3
2.3

2.0

2.3
2.3
2.3

2.0
2.0
2.3
2.3
2.7

2.7
2.7
2.3
2.3

2.7
2.3
2.3
2.0
2.0

2.0
2.0
2.0

2.0
1.7

2.22
2.7

136

AC-FT 16,240

YEAR OCTOBER 1969

APR

. 46
. 42
. 45
. 46
. 46

. 48
. 48
. 50
. 50
. 54

. 54
. 54
. 63
. 63
. 58

MAY

. 38
. 30
. 27
. 27
. 24

. 21
. 24
. 21
. 21
. 18

. 18
. 18
. 15
. 12
. 09

1.7
2.0
2.0
1.7
1.7

2.0

2.0
2.3
2.7

2.7
2.7
2.0
1.6
1.6

1.6
1.6
1.6
1.6

. 1 .68 .58
. 0 .68 .58
. 0 .68 .58
. 0 .63 .63
. 0 .63 .68

. 0 .63 .68

. 0 .63 .68
. 0 .63 .68
. 98 .63 .68

. 0 .58 .73
. 0 .58 .68
. 1 .58 .63
. 2 .58 .58
. 1 .63 .63

. 1 .58 .68
. 1 .58 .63
. 0 .63 .63
. 98 .63 .63

1.4 .88 .54 .63
1.4 .83 .54 .63
1.3 .78 .54 .63
1.3 .73 .54 .63
1.3 .83 .54 .63

1.3 .83 .54 .58

1.3 .78 .54 .58
1.3 .78 .58 .63
1.2 .73 .58 .63
- - .73 .58 -

1.72 .95 .60 .64
2.7 1.2 .68 .83

102 58 37 38

TO SEPTEMBER 1970

JUN JUL AUG SEP

. 12
. 01
0
0
0

0
0
0
0
0

0
0
0
. 03
. 03

MEAN
MAX
MIN
AC-FT

. 54
. 54
. 63

. 60
. 68
. 54

. 78

. 26
. 009
. 12

TULARE LAKE BASIN

11197800 POSO CREEK NEAR OILDALE, CALIF.

DRAINAGE AREA.--230 sq mi.

PERIOD OF RECORD.--July 1959 to September 1970.

GAGE.--Water-stage recorder. Altitude of gage i

AVERAGE DISCHARGE.--11 years, 28.0 cfs (20,290 a (8,000 acre-ft per year).

s 700 ft (from topographic map).

:re-ft per year); median of yearly me discharges, 11 cfs

Annual maxi

Date
Dec.
Feb.

Dec.
Jan.
Apr.
Apr.
May

Apr.

Wtr
1966
1967
1968

30, 1965
7, 1966

6, 1966
25, 1967
14, 1967
25, 1967
10, 1967

3, 1968

yr Date
June

Sept.
June

Period

Time D
2300
1730

»

1600
1300
0730
1900

1700

6, 1966
28, 1967
26, Sept.

of record:

mum di.

isch.
81
79

4,300
90
174
410
410

*76

23-30,

Max ill

charge (* and peak discharge

G.H. Date
4.46
4.34

11.57
4.27
5.39
6.80
6.80 1>
t

an. 20
an. 25
an. 26
eb. 7
eb. 13
eb. 16
eb. 25
lar. 1
lar. 21
5.01 Apr. 3

1968

urn discha

, 1969
, 1969
, 1969
, 1969
, 1969
, 1969
, 1969
, 1969
, 1969
, 1969

Time
0900
1900
2100
0400
1200
0600
0400
0300
0900
1100

Discharge

ge, 6,

2.2
1.7
2.0

700 cfs Feb.

s above b

Disch.
880
3,020
2,870
600
482
780

*6,700
1,200
575
995

ge, wate

Wtr yr
1969
1970

25, 1969

ase (70

G.H.
8.00
10.57
10.44
7.35
7.04
7.80
12.85
8.65
7.75
8.35

r years

Date
Sept. 2
Aug.

(gage

cfs), w

Date
Apr.
June
June

Jan.
Jan.
Mar.
Mar.
Mar.

1966-70

6, 1969
5, 6, 9,

height,

ater years

6, 1969
10, 1969
17, 1969

16, 1970
25, 1970
3, 1970
6, 1970
11, 1970

1970

12.85 ft),
t 11.57 ft

1966

Time
0600
1500
1300

1900
0800
0700
1500
0400

from
min

- 70

Disch. G
1,060 8
90 6
100 6

*2,750 10
71 6
105 6
115 6
90 6

Discha

imum, 0.90 cf

. H.
. 45
. 75
. 80

. 34
. 62
. 80
. 86
. 80

rge
1.9
1.6

July 26, 1961.
Flood of Apr. 4, 1958, reached a stage of 8.6 ft, from floodmarks (discharge, 2,750 cfs, furnished by Ke County Land Co.).

REMARKS.--Records good. No gage-height record Nov. 24 to Dec. 10, 1967. Oilfield waste comprises most of low flow.

REVISIONS.--WSP 1735: Drainage area.

DISCHARGE! IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TD SEPTEMBER 1966

CAY

1
2
3
4
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14
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16
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21
22
23
24
25

26
27
28
29
30
31

PEAN
MAX
MIN
AC-FT

3.5
3.5
3.3
3.5
3.7

3.8
3.6
3.7
3.6
3.5

3.5
3.8
3.7
3.6
3.6

3.6
3.6
3.6

3.6

3.6
3.4
3.3
3.1
3.2

3.3
3.4
3.5
4.4
3.9
3.3

4.4
3.1
219

3.5
3.5
3.3
3.4
3.2

3.2
3.3
3.1
3.2
3.3

4.2
4.9
4.8
4.1
4.6

3.9
5.7
5.3

4.2

4.1
4.2
4.9
5.7
6.0

6.0
5.4
5.1
4.8
4.8

6.0
3.1
259

5.1
5.0
5.1
5.0
5.0

5.0
5.0
5.0
5.1
5.5

5.0
5.7
5.3
5.4
5.3

4.8
5.5
5.2

5.6

5.9
6.0
5.6
5.7
6.2

7.4
9.0
11
16
49
62

62
4.8

36
28
24
22

20
19
19
20
18

18
18
IB
17
18

17
16
17

16

15
14
13
14
14

14
13
11
12
22
26

49
11

22
19
16
17

38
74
58
41
34

31
28
27
25
23

?2
22
22

19

20
20
19
19
21

24
26
26

______

74
16

29
31
29
29

31
30
29
28
27

27
28
28
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29
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21

20
19
18
18
16

16
15
15
15
15
14

31
14

14
14
14
12
10

10
9.3
9.5

9.8

11
14
13
12
11

10
9.3
8.8

11

11
11
9.8
8.6
7.8

7.0

6.7
7.0

14
6.7

6.5 2.8 3.0
5.9 2.7 3.1
5.5 2.7 3.0
4.9 2.7 3.0
5.1 2.6 2.9

4.6 2.2 2.8
5.3 2.3 2.9
5.1 2.6 3.0

5.1 2.7 2.B

5.2 2.6 2.9
4.6 2.6 2.8
4.8 2.6 3.0
4.7 2.7 3.C
4.2 2.9 3.0

3.7 2.4 3.0
3.8 2.6 3.1
3.9 2.6 3.0

3.7 2.4 2.8

3.6 2.4 2.7
3.6 2.7 2.6
3.6 3.0 2.5
3.5 3.0 2.6
3.6 3.0 2.6

3.5 2.9 3.0

3.0 3.0 2.5
2.8 3.0 2.6

6.5 3.0 3.1
2.8 2.2 2.5

AUG SEP

2.6 4.6
?.6 4.5
3.0 4.2
2.8 3.5
2.8 3.4

3.0 3.2
2.8 3.3
2.8 3.4

2.6 3.7

2.8 3.6
3.0 3.5
3.C 3.5
3.0 3.5
3.0 3.6

3.2 3.7
3.2 3.7
3.0 3.5

3.4 3.2

3.4 3.1
3.6 2.9
3.4 3.0
3.2 3.2
3.1 3.3

3.2 3.3

3.1 3.3
2.9 3.2
4.C

4.C 4.6
2.6 2.9

WTR YR 1966 TOTAL 3.427.4 MEAN 9.39 MAX 74 MIN 2.2 AC-FT 6,800

TULARE LAKE BASIN

11197800 POSO CREEK NEAR OILDALE, CALIF.--CONTINUED

DISCHARGE! IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

31

TOTAL
MEAN
MAX
FIN
AC-FT

3.0
2.9
2.6
2.8
3.1

3.2
3.2
3.2
3.2
3.0

2.9
3.2
2.9
3.2
3.3

3.3
3.3
3.4
1.3
3.4

3.5
3.5
3.5
3.5
3.3

3.3
2.9
3.8
4.0
3.8
3.5

3.26
4.0
2.6
200

3.6
3.4
3.3
3.4
3.4

3.4
2.8
3.3
4.2
4.C

4.0
4.C
3.8
3.7
3.9

3.8
3.9
3.8
3.9
2.7

3.6
3.8
3.9
4.0
4.0

4.0
4.0
4.0
4.0
4.0

3.72
4.2
2.7
221

4.0
4.0
43
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547

2,130
750
2CO
120
76

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147
2,130
4.0
9,020

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35.0

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2,150

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27.1

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24.7

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100
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106
144
133

167

172
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220
228

311
353
365
368

300
273
240
232
213

171

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170
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148
174
317

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229
187

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110
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81
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62 1
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35.2 5.<

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2.3
2.8
2.6
2.8
3.2

3.2
3.0
2.8
2.5
2.3

2.6
2.8
3.0
3.1
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3.2
3.3
3.4
3.4
3.4

3.2
3.1
2.8
2.7
2.6

2.5
2.2
1.7
2.0
3.2

2.83

1.7
168

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTCBER 1967 TO SEPTEMBER 1968

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MEAN 3
MAX
MIN

3.3
3.5
3.5
3.3
3.5

3.7
3.9
3.9
4.1
4.2

4.2
4.2
4.2
4.4
4.4

4.8
4.4
4.4
5.2
5.2

4.8
4.8
4.6
5.2
6.2

5.8
5.6
4.8
5.2
6.8

6.n
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6.2
6.2
6.2
5.8
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6.2
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IB
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2C
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21
5.2

19
IB
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17
17

16
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31
24
21
19

19
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19
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18

1
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1
1
1

16
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18
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31
15

22
20
2C
21
21

2C
19
20
2C
22

22
21
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23
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22
45
50
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34
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49
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2
1
9.8

71
9.8

10
10
9.8
8.8
8.6

8.4
7.9
7.3
7.3
6.6

6.8
7.3
7.5
7.7
8.4

8.1
7.9
6.8
6.0
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5.0
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3.5
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3.0
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3.0
2.6
2.8
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2.2
3.3
3.9
3.9

3.9
2.0

3.7
3.9
4.1
4.1
3.3

3.0
2.5
2.3
2.5
2.5

3.0
3.0
2.8
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2.8

3.0
3.0
3.0
2.8
2.8

2.8
2.8
2.8
3.3
3.2

2.8
3.0
2.8
2.8
2.6
2.6

4.1
2.3
183

2.8
2.S
2.6
2.6
2.6

2.6
2.8
2.8
2.8
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2.6
2.6
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2.6
2.6
2.8
2.8
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3.0
3.0
3.2
3.0
3.C

3.0
3.0
3.C
3.0
3.2

2.83
3.2

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174

3.2
3.0
3.0
3.2
3.2

3.2
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4.1
4.6
4.1

3.7
4.8
3.9
3.3
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3.0
3.0
3.2
3.2
3.0

2.8
2.2
2.0
2.0
2.0

2.0
2.0
2.0
2.0
2.0

3.01
4.8
2.0
179

WTR YR 1968 TOTAL 4,111.2 MEAN 11.2 MAX 71 MIN 2.0 AC-FT

27,890
8,150

TULARE LAKE BASIN

11197800 POSO CREEK NEAR OILDALE, CALIF.--CONTINUED

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29
30
31

MAX
HIN

2.3
2.2
2.3
2.3
2.5

2.6
2.8
2.6
2.6
2.6

3.0
3.0

2.2
2.5

4.2
3.3
4.1
5.2
4.8

5.4
4.6
5.2
5.2
5.2

5.0
5.2
5.2
5.6
5.8
5.6

5.8
2.2

DISCHARGE. IN CUBIC FEET

5.4
5.2
5.2
5.2
5.0

5.0
5.2
5.2
5.0
4.B

5.2
5.2

5.0
5.2

4.6
4.4
4.8
5.4
5.2

4.2
4.6
4.8
5.0
5.0

5.0
4.8
4.8
5.4
5.0

5.4
4.2

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4.8
5.0
4.B
4.6
4.6

4.6
4.8
4.8
4.6
4.4

4.2
4.6

11
24

25
19
17
54
489

178
244
175
127
1.560

1,340
976
425
298
224

1,560
4.2

PER SECOND

131
112
118
112
108

233
532
371
300
267

252
263

322
287

601
42B

660
720

672
656
660
888
3,180

1,400
855
680

3,180
108

, HATER YEAR OCTOBER 1968 TC

1,030
715

610
435

365
260

170
203

162
145
160
140
138

150
192

358
442

526
435
379

365

316
330
365
358
386

1,030
138

MIN 2.0

463
407

540
470

848
575

400
351

323
330
351
330
267

235
225

220
210

235
260
255

200
192
186
178
182

848
178

AC-FT

182
175

175
175

168
162

162
170

165
158
150
148
150

142
132

120
118

118
112
108

92
92

78

182
71

7,820

SEPTEMS

JUN

67
69

60
58

53
55

58
B4

84
80
76
69
60

58
82

60
46

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84
33

ER 1969

JUL

30
26

24
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9.0
7.6
6.2

5.3
6.2

6.1
5.8

14.4
30
5.3
884

AUG SEP

5.5 3.2
5.2 3.2
5.C 3.2
4.7 3.5
4.4 3.5

4.1 3.9
4.C 3.7
3.9 3.0
4.9 3.0
4.9 3.2

4.2 3.9
3.7 3.5
3.5 3.5
3.5 3.5
3.5 3.2

3.5 3.0
3.2 2.8
3.0 3.0
3.2 3.2
3.0 3.5

2.8 3.0
3.2 2.8
3.5 3.0
3.2 2.6
3.7 2.8

3.5 1.9
3.7 2.3
3.C 2.6

3.2 2.8

3.7B 3.12
5.5 3.9
2.8 1.9
232 185

WTR YR 1969 TOTAL 50,297.8 MEAN 138 MAX 3,180 MIN 1.9 AC-FT 99,770

DISCHARGE, IN CUBIC FEET PER SECOND,

NOV DEC JAN FEB

WATER YEAR OCTCBER 1969 TO SEPTEMBER 1970

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MEAN
PAX
PIN

3.2 6.7
3.5 6.7
3.7 5.8
3.7 5.3
4.2 7.2

4.4 6.2
4.9 11
4.4 14
3.9 13
4.4 1C

4.9 11
4.9 1C
4.9 10
5.8 1C
5.8 11

5.3 11
5.3 14
5.3 15
5.8 15
4.9 14

4.2 13
4.2 12
4.2 13
4.4 12
4.4 12

4.9 12
6.2 14
6.2 13
7.2 13
7.2 13
7.2

4.95 11.1
7.2 15
3.2 5.3

12
13
14
13
12

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16

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17
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24
24
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27
25

31
44
34
29
25
23

2C.2
44
12

23
21
21
20
18

19
20
20
?1
27

44
41
40
40
60

812
936
412
156
96

69
53
44
42
62

42
37
55
41
35
32

108
936
18

31
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29
29
27

26
26
25
25
31

40
36
33
42
57

46
42
43
4C
35

31
31
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27
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27
25
29

32.9
57
25

41
66
98
76
96

102
94
82
73
78

84
69
62
57
57

55
49
48
43
40

34
31
30
31
31

31
29
3C
31
30
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55.1
102
29

MIN 1.9
MtN 1.6

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23.6
32
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AC-FT
AC-FT

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14
12

10
1C
8.5
7.6
6.2

6.7
6.7
6.7
5.3
5.3

5.3
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4.9
4.4
4.4
4.9

12.6
30
4.4

101,100
16,950

3.9
3.2
2.8
2.6
2.6

2.6
3.0
3.2
3.2
3.5

4.2
5.8
5.8
5.3
5.3

4.2
3.9
3.7
3.9
3.5

3.2
3.C
3.0
3.5
2.8

2.8
3.0
3.0
2.8
2.6

3.53
5.8
2.6

2.6 1.9
2.3 1.8
2.8 1.9
2.8 1.9
2.8 1.6

2.8 1.6
3.0 1.9
3.0 1.9
3.2 1.6
3.0 1.9

3.0 2.6
2.9 2.3
2.9 2.1
2.8 2.6
2.8 2.6

2.8 2.6
2.B 2.6
2.3 3.C
2.3 2.8
2.3 3.0

2.3 3.2
2.1 3.2
2.1 3.2
1.9 3.2
2.3 3.0

2.6 3.C
2.6 2.8
2.8 2.3
2.3 2.6
1.8 2.3

2.58 2.45
3.2 3.2
1.8 1.6

2.3
2.3
2.3
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2.6

2.8
3.0
3.0
3.5
3.2

3.0
3.0
3.2
3.0
3.C

3.0
2.8
3.C
2.6
2.3

2.3
2.6
2.8
2.6
2.6

3.0
3.0
3.0
2.8
2.8

84.0
2.8C
3.5
2.3
167

TULARE LAKE BASIN

11200800 DEER CREEK NEAR FOUNTAIN SPRINGS, CALIF.

LOCATION.--Lat 35°56'30", long 118°49'19", in SEWE!, sec.10, T.23 S., R.29 E., Tulare County, on left bank 1.0
Bella.

DRAINAGE AREA.--83.3 sq mi.

PERIOD OF RECORD.--August 1968 to September 1970.

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

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (100 cfs), August 1968 tc

Date Tiir

Aug. 25, 1968

Disch.
1.0

Nov. 15, 1968 1400 137
Jan. 19, 1969 2100 1,590
Jan. 25, 1969 0930 2,510

Wtr yr Date
1968 Aug. 14-22, 1968
1969 Oct. 1, 1968

G.H. Date Time Disch. G.H.
2.29 Feb. 6, 1969 1400 660 5.85
Feb. 15, 1969 1930 398 5.12
3.98 Feb. 24, 1969 2300 *3,340 9.85
7.57 Apr. 3, 1969 0200 557 5.58
8.83 Apr. 5, 1969 2000 752 6.06

Date
Jan. 16, 1970
Mar. 5, 1970

Septe

0100

Disch.
1,810
115

minimum daily discharge, August 1968 to September 1970

Discharge
0
. 58

discharge, 3,340 cfs Feb. 24, 1969

Wtr yr Date
1970 Aug. 18, 1970

G.H.
7.91
3.86

charge
. 24

ge height, 9.85 ft) ,
:eight 8.83 ft in gage

REMARKS.--Re

IN CUBIC FEET PER SECOND, AUGUST TO SEPTEMBER 1968

JAN FEB MAR APR HAY JUN

31

TOTAL
MEAN
MAX
PIN
AC-FT

19.65
. 66
. 94

TULARE LAKE BASIN

11200800 DEER CREEK NEAR FOUNTAIN SPRINGS, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY

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27
28

MEAN

KIN

CAY

OCT

. 58
. 94
. 3

. 2

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. C
^4
. 6

. 4
. 6
. 4
. 8

. 4

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. 5

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. 3

. 3
3
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i.OO

. 58

OCT

NOV

6.8
6.4
6.1

6.4

6.4
6.1
6.1
6.1

6.1
6.4
9.4
8.9
54

33
17

11
9.8

8.9

8.0
8.C

8.0
8.0
8.0

10.5

6.1

DISCHARGE,

NOV

DEC

10
12
9.8

9.4

8.9
8.4
8.0
8.0

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12
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10
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32
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14

11

12
16

45
23
20

15.9

8.0

IN CUt

DEC

21
20

20
19
17
16

15
14
15
43
39

27
22

651
442

317

512
1,570

1,080
560
375

229

14

1C FEET

161
146

319
248
204
1B6

176
208
200
166
235

241
196

381
353

333

985
1,610

725
499
503

353

13C

PER SECOND,

499
421

272
253
236
250

217
210
222
208
208

214
231

253
272

265

267
277

277
286
291

281

208

WATER

29B
291

306
289
274
265

260
267
262
253
231

?17
217

210
217

231

204
192

184
182
178

250

178

YEAR CCTOBER

176
167

150
150
150
150

150
148
145
143
138

137
135

134
132

124

124
122

121
118
116

138

106

1969

101
ICO

86
85
91
91

88
86
80
77
73

68
82

69
67

65

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76.9

52

TO SEPTEMBER

JUN

49
48

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44
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1973

JUL

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AUG

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9.4
9.4

8.9
8.4
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8.0
8.C

8.4
8.9

9.4
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12

9.4
8.9

8.4
8.4
8.4

9.16

8.C

SEP

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MEAN
MAX
WIN

9.1 12 11
9.5 11 12
9.9 11 12
9.9 I
9.5 1

9.5 1
9.5 1
9.5 I
9.5 1
10 1

11 1
11 1
9.9 1
9.9 1
9.9 I

12 1
16 1
15 I

Lf

12

12
12
12
13
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12
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12 8
12 2
12 1
14 13 13
14 13 28

13 12 19
12 12 33
12 12 21
12 12 18
13 12 22

13 12 48
13 11 27
13 11 20
13 12 18
13 12 18

8 35
8 34
7 32
7 32
6 31

6 29
6 28
6 27
7 24
6 26

2 34
2 30
4 32
7 56
3 40

9 35
7 40
4 37
8 34
6 32

5 32
2 31
5 30
6 28

1 2B
5 27
5 34
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11.5 13.0 16.8 72.2 32.6 48.0 16 19 48 889 56 79 9.1 11 11 16 24 32

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28.3
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19.6
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12 6.3 2.3 1.1
11 5.1 2.3 1.2
9.9 4.8 1.8 1.2

9.1 4.8 1.8 1.1

9.1 4.3 1.8 1.5
<5.5 3.6 1.8 1.4
9.1 3.6 1.7 1.1
11 4.0 1.6 1.2
15 4.8 1.6 1.1

14 4.3 1.3 1.2
12 3.8 .88 .88
13 3.3 1.3 .98
12 3.1 .72 1.4
12 2.6 .64 1.6

12 2.B .52 1.6
11 3.3 .32 1.6
11 3.1 .24 1.4
9.9 2.9 .46 1.6
9.1 2.6 .58 1.5

7.6 2.3 .80 1.8
6.9 2.3 .46 2.1
6.6 2.3 .88 2.1
6.0 2.6 1.2 1.7
6.6 2.4 1.1 1.6

6.3 2.3 .64 1.7
6.3 2.4 .72 1.5
6.9 2.6 1.1 1.4
7.2 2.3 1.4 1.5
7.6 2.1 1.4 1.5
2.3 1.1

9.64 3.36 1.18 1.41
15 6.3 2.3 2.1
6.0 2.1 .24 .88

MAX 1,610 PIN 8.0 AC-FT 85,160

TULARE LAKE BASIN

11202000 NORTH FORK OF MIDDLE FORK TULE RIVER NEAR SPRINGVILLE, CALIF.

LOCATION.--Lat 36°10'29", long 118°41M1", in T.20 S., R.30 E. (unsurveyed) , Tulare County, on right hank 1.2 miles upstream f m from Hossack Creek, and 7.4 miles northeast of

DRAINAGE AREA.--39.3 sq

PERIOD OF RECORD.--October 1939 to September 1970. Monthly discharge only for some periods, published in

October 1954, records fo nduit published separately, combined flow only, October 1954 t

ete channel for conduit diver

AVERAGE DISCHARGE.--River only, 31 years, 27.8 cfs (20,140 ac
sion, 31 years, 59.3 cfs (42,960 acre-ft per year).

urns and minimums (discharge in cubic feet per
ontained in the following table:

Altitude of gage is 2,920 ft (from topographic map).

- ft per year). Combined flow of river and diver-

Ri
Wtr

only

Max mum

yr Date Disch. G.H.
1966 Nov. 23, 1965 155 5.90
1967 Dec. 6, 1966 16,900 a!3.83
1968 Feb. 17, 1968 156 3.78
1969 Jan. 25, 1969 5,080 9.19
1970 Jan. 16, 1970 2,430 7.79

Combined
Date Disch.
Nov. 23, 1965 206
Dec. 6, 1966 16,900
Feb. 17, 1968 221
Jan. 25, 1969 5,080
Jan. 16, 1970 2,460

ond, gage height in feet) for the water years

Minimum daily
Ri only
Date

(b)
Oct. 5, 6, 1966
Aug. 6, 1968
Oct. 5, 6, 1968

Disch.
. 20
. 40
. 27
. 86
2.7

Date

(c)
Oct. 11, 1966
Sept. 7, 1968
Oct. 9, 1968
Sept.26,27, 1970

a From floodmarks.
b July 18, Aug. 8, 22, 24, 1966.
c Sept. 7-10, 17, 21-24, 28-30, 1966.
d Aug. 21, 24, Sept. 17, 1970.

discharge (creek only), 16,900 cfs Dec. 6, 1966 (gage height, 13.83 ft, from
floodmarks), from rating curve extended above 270 cfs on bas f critical-depth determinations at gage
heights 9.67 and 12.47 ft; no flow Sept. 10, 11, 1955. ge (combined flow), 16,900
1966; minimum daily, 7.2 cfs Aug. 18, Oct. 17, 1961.

REMARKS.--No gage-height nduit Nov. 28, 1967, to Mar. 28, 1968. Pacif
turned to North Fork of Middl
published herein. See schematic

COOPERATION.--Gage-height d and 36 discharge measurements for
d and 16 discharge measurements for water years 1966-67 f nduit furnished by Pacific Gas 5 ter years 1968-70 for conduit col-
f the Geological Survey, in connection

REVISIONS (WATER YEARS).--WSP 1445: 1951. WSP 1930: Drainage area.

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
it

. 60
».4
5.2
5.2
5 6.0

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23
24
25

26
27
28
29
30

. 3
. 1
. 1
. 1
. 1

. 2
. 2
. 1
. 1 1
. 5 1

. 3 1
. 2 3
. 2 1
. 6 1
. 1

. 0 1
. 0 1
. 90 2*
. 80 16
. 60 5

. SO 2
. 90 1
. 4 2
. 80 2
. 60 2

TOTAL 47.60 81
MEAN
MAX
MIN
AC-FT

. 54 2
6.0
. 60
94

CAL YR 1965 TOTAL 6
WTR YR 1966 TOTAL

. 80
. 80
. 80
. 90
. 90

. 90
. 90
. 80
. BO
. 90

. 90
. 90
. 90
. 4
. 2

. 1
. 8
. 3
. 2
. 90

. 0
. 6

. 0

. 3
. 9
. 8
. 6
. 1

. 40
. 71
24
. 80
161

,322.70
769.10

1.4
1.2
1.2
1.1
1.1

1.1
1.1
1.1
1.1
1.2

1.2
1.9
1.6
1.6
1.6

1.5
1.5
1.5
1.4
1.4

1.5
1.5
1.4
1.3
1.6

1.6
1.4
1.4
17
13
9.5

78.0
2.52
17
1.1
155

MEAN
MEAN

8.9
3.2
2.6
2.3
2.3

2.6
3.6
4.1
3.5
3.1

2.7
2.0
1.8
1.7
1.6

2.0
1.6
l.S
1.6
1.5

1.5
1.4
1.6
1.6
1.6

1.6
1.5
1.4
1.4
2.5
2.1

72.8
2.35
8.9
1.4
144

17.3
2.11

2.5 2.5 6.6 2.2
2.3 2.
2.2 2.
2.2 2.
2.6 2.

9.9 2.
6.1 2.
4.1 2.
3.3 2.
3.3 2.

3.0 2.
2.8 2.
2.5 2.
2.4 2.
2.3 2.

2.2 2.
2.2 2.
2.1 2.
2.1 2.
2.0 2.

2.0 2.
2.0 2.
2.0 2.
2.2 2.
2.1 2.

2.4 2.
2.2 2.
2.2 2.
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2.

79.2 75.
2.83 2.4
9.9 3.
2.0 2.
157 14

17 2.5
20 3.1
19 3.7
16 4.2

13 4.7
12 5.0
12 3.6
12 2.7
17 3,0

11 2.4
6.5 2.1
2.8 1.8
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g^
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1.7
1.6

1.5
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1.4
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1.2
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1.1

1.1
1.1
1.1
1.1
2.1 1.1
1.1

209.4 64.4
6.98 2.08
20 5.0
1.9 1.1
415 128

MAX 133 MIN .60 AC-FT 12,540 MAX 24 MIN .20 AC-FT 1,530

1.1
1.0
1.0
1.0
. 90

. 90
1.1
1.1
1.1
1.1

1.0
1.0
1.0
. 80
. 90

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. 80
. 70

. 90
. 90
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. 70

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. 70
. 60
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. 60

26.20
. 87
1.1
. 60
52

. 60
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10.30
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10.80
. 36
. 50
. 30
21

TULARE LAKE BASIN

11202000 NORTH FORK OF MIDDLE FORK TULE RIVER NEAR SPRINGVILLE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND. HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

OCT NOV

. 50 .BO
. 50 1.0
. 60 1.0
. 60 1.0
. 40 .70 3

. 40 .90 13
. 50 1.1 3
. 50 6.7
. 60 1.9
. 50 1.2

3.2 1.0
. 80 .90
. 60 .80
. 50 .80
. 50 .80

. 60 1.0
. 60 3.6
. 50 1.0
. 60 1.0
. 60 4.B

. 70 1.6
. 80 1.2
. 80 1.1
. 80 1.3
. 70 1.2

. 60 1.1
. 60 1.1
. 60 33
. 60 17
. 60 1.4

DEC

1.1
45
126
11
760

,300
. 450
784
437
314

248
208
180
156
139

125
116
105
97
91

B5
78
71
67
62

59
55
52
49
48
. 70 ti

21.10 92.00 24.366.1
. 68 3.07
3.2 33
. 40 .70
42 182

1966 TOTAL 25,041.
1967 TOTAL 47,102.

786
13.300
1.1
48,330

30 MEAN
20 MEAN

JAN

45
44
43
43
43

42
41
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39
40

51
52
52
52
51

51
51
SO
49
49

70
66
58
78
72

65
65
65
67
133
141

1.808
58.3
141
39
3.590

68.6
129

DISCHARGE, IN CUBIC FEET

DAY

1
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3
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31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
*TR YR

OCT NOV

8.2 7.6
8.2 7.3
8.2 7.3
8.2 7.3
8.2 7.3

8.2 7.3
8.2 7.3
7.9 7.3
8.2 7.3
8.2 7.6

8.2 7.3
8.2 7.3
8.2 7.3
8.7 7.6
7.9 7.6

7.9 7.6
7.9 7.6
7.9 8.2
7.6 14
7.6 8.7

7.6 8.2
7.6 7.9

7.6 7.6
7.6 7.6

7.6 7.6

7.6 15 7.6 26

245.4 261.2
7.92 8.71
8.7 26
7.6 7.3
487 518

1967 TOTAL 23.418
1968 TOTAL 2>475

DEC

12
11
11
10
14

11
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8.2

8.2
8.7

11
11

11

8.7
8.2
7.9

288.5
9.31
14
7.6
572

10 MEAN
97 MEAN

JAN

7.6
7.6
. 3
. 6
. 6

. 1
. 1
. 1
. 8
33

17
11
9.0
8.4
8.4

8.4
7.9
7.6
7.3
7.1

7.1
6.8

6.8
6.8

6.8

7.1
7.1
9.3

270.7
8.73
33
6.8
537

64.2
6.76

FEB

100
86
81
78
78

79
81
81
81
83

88
88
B6
85
78

75
72
71
71
68

66
65
63
62
68

63
63
62

2.122
75.8
100
62
4.210

MAX 13.300
MAX 13.300

PER SECOND

FEB

8.2
8.2
8.2
7.9
7.9

7.6
7.3
7.1
8.2
8.7

7.6
7.3
7.3
7.1
6.8

7.3
61
31
12
12

12
10

8.4
8.2

7.6

7.1

315.9
10.9
61
6.8
627

MAX 389
MAX 61

MAR

62
62
6Z
63
62

61
60
58
59
59

60
71
83
79
78

230
215
168
150
139

135
133
131
125
116

110
109
110
110
109
127

3.196
103
230
58
6.340

MIN
MIN

WATER

MAR

7.1
6.8
6.6
6.6
6.6

6.6
9.3
22
15
12

10
11
11
10
8.7

12
13
11
10
9.3

8.4
7.6

7.6
7.6

7.6

8.2 B'.Z

291.3
9.40
22
6.6
578

MIN 7.
MIN .

APR

119
118
105
103
100

88
99
92
89
86

99
91
94
99
105

97
75
56
55
50

51
56
51
59
37

37
38
38
37
32

2.256
75.2
119
32
4.470

MAY

32
33
39
44
41

46
66
118
185
191

139
110
94
95
126

192
257
311
347
365

377
389
377
377
349

314
278
251
266
285
266

6.360
205
389
32
12.620

JUN

233
192
152
141
143

138
148
156
158
156

157
156
148
147
147

151
1*6
155
167
159

182
195
186
179
179

172
165
164
166
165

4.903
163
233
138
9,730

JUL

158
146
131
124
110

94
84
71
61
53

48
46
43
36
32

28
24
21
19
15

11
9.8
9.5
9.5
9.5

9.5
9.2
9.2
9.2

9^2

1,448.5
46.7
158
8.9
2.870

AUG

8.9
8.9
8.
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8.
8.
8.
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9.
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9.2
9.2
9.2
8.9

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273.
8.8
9.2
8.6
542

SEP

8.6
8.6
8.3
8.3
8.3

8.6
8.6
8.0
9.2
9.2

8.9
8.3
7.8
10
8.3

8.3
8.3
8.3
9.2
8.9

8.6
8.3
8.3
8.3
8.3

8.9
8.6
8.3
8.3
a 3

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256.2
8.54
10
7.8
508

.20 AC-FT 49.670
. 40 AC-FT 93.430

YEAR OCTOBER 1967 TO SEPTEMBER 1968

APR

12
13
12
11
11

10
9.7
9.0
9.0
8.7

9.3
11
9.7
9.7
9.3

9.3
9.3
8.7
8.4
8.2

7.9
7.6

7.1
7.3

7.1
7.3

12
15

285.9
9.53
15
7.1
567

3 AC-FT
27 AC-FT

MAY

16
17
14
14
18

12
9.7
8.4
7.9
7.6

7.9
8.4
7.9
8.2
7.3

6.8
6.8
6.6
6.8
7.3

8.4
8.4

7.3
7.1

7.6
7.1

6.3
6.3
6.3

277.9
8.96
18
6.3
551

46.450
4.910

JUN

6.3
6.3
6.3
6.3
6.3

6.6
6.6
6.6
6.3
6.1

6.1
5.7
5.7
5.7
5.7

5.5
5.5
5.5
5.5
5.5

5.5
5.5

5.?
5.2

5.?
4.B
1.7
1.5
1.4

161.3
5.3B
6.6
1.4
320

JUL

1.4
1.3
1.3
1.2
1.1

1.0
1.2
. 57
. 57
. 45

. 38
. 30
. 75
. 86
. 98

. 57
. 61
. 61
. 61
. 61

. 57
. 57
. 38
. 57
. 75

. 75
. 86
. 45
. 45
. 61
. 57

22.90
. 74
1.4
. 30
45

AUG

. 45
. 57
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. 27
. 38
. 75
. 86
1.2

1.1
. 86
1.1
1.5
1.3

1.1
. 98
. 86
. 86
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1.1
. 98
. 86
. 86
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. 75
. 75
. 86
. 75
. 75

25.70
. 83
1.5
. 27
51

SEP

. 75
. 98
. 86
. 61
. 61

. 57
. 45
. 98
. 9B
. 9B

1.1
1.1
1.1
. 98
1.1

1.1
1.1
1.1
1.2
1.2

. 98
. 98

. 98
. 86

. 98
. 86
1.1
1.6
1.1

?9.27
. 98
1.6
. 45
SB

TULARE LAKE BASIN

11202000 NORTH FORK OF MIDDLE FORK TULE RIVER NEAR SPRINGVILLE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY OCT NOV

1 1.2
2 1.2
3 1.2
4 1.2

1.2
1.2
l.S
l.S
5 .86 1.4

6 .86 1.4
7 1.1
6 1.1
9 2.6
10 10

11 13
12 11
13 12
14 36
15 25

16 21
17 19
16 15
19 11
20 11

21 15
22 17
23 11
24 5.3
25 4.4

26 5.1
27 5.0
28 4.2
29 1.4
30 2.5

1.4
1.4
1.3
1.4

1.3
1.8
2.0
1.4
13

3.9
2.4
2.5
2.3
2.3

1.8
1.7
1.7
1.7
l.B

1.8
l.B
1.7
1.5
1.5

TOTAL 267.52 63.6
MEAN 8.63

MAX 3(MIN .ae

2.12
13
1.2
AC-FT 531 126

CAL YR 1966 TOTAL 2,123
NTR YH 1969 TOTAL 41,296

DEC

2.3
1.9
1.6
1.8
l.B

1.6
1.8
l.B
1.6
1.7

2.8
2.1
1.9
2.6
4.0

8.4
4.1
3.1
3.0
2.7

2.6
2.3
2.3
2.7
9.4 2

7.6 1
4.5
8.2
9.1
5.2
4.5

112.0 B
3.61
9.4
1.7
222

. 99 MEAN
. 72 MEAN

JAN

4.3
4.2
4.1
3.9
3.9

3.6
3.3
2.7
2.6
2.4

2.3
2.2
3.1
8.1
B.3

3.6
3.4
50
773
294

419
306
123
590
,640

. 350
613
346
245
159
117

. 093.4
261
2.640
2.2
16.050

5.6
113

DISCHARGE, IN CUBIC FEET

DAY OCT NOV

1 6.
2 6.
3 6.
4 6.
5 6.

6 6.
7 6.
8 6.
9 6.
10 6.

11 6.
12 6.
13 6.
14 6.

8.0
6.0
7.2
5.9
7.4

8.6
B.2
7.0
7.5
7.2

6.3
5.4
5.4
5.4
15 7.2 5.5

16 B.B 6.6
17 8.9 5.7
IB 8.6 7.4
19 8.
20 B.

21 17
22 21
23 13
24 7.'

r 5.7
5.3

5.3
5.7
5.6
> 5.2
25 7.7 5.1

26 7.
27 7.

28 B. 29 7.

30 6. 31 7.

TOTAL 256.
MEAN 6.3
MAX 2
MIN 6.

S 5.1
5.1
5.5
5.4
5.3

187.0
6.23
8.6

r s.i
AC-FT 513 371

CAL YR 1969 TOTAL 41,651
HTR YR 1970 TOTAL 6,099

DEC

15
21
21
15
5.6

5.1
5.2
5.5
6.0
5.7

5.1
5.0
4.9
4.9
4.8

4.9

4.7
20
16

21
22
7.9
5.6
48

22
9.8
6.9
8.6
8.4
7.9

352.3 2
11.4
48
4.7
699

. 5 MEAN
. 9 MEAN

JAN

7.8
6.5
4.9
4.9
4.B

4.7
4.7
4.7
9.5
49

15
9.8
7.0
42
37

899
241
122
78
62

53
47
46
98
67

56
57
46
40
35
31

. 190.3
70.7
899
4.7
4.340

114
16.7

FEB

107
69
61
76
63

63
50
42
39
38

36
43
38
31
56

53
42
41
39
36

35
33
34
129
125

83
66
125

1.697
60.6
129
31
3.370

MAX 61
MAX 2.640

PER SECOND

FEB

29
26
24
29
20

16
IB
16
16
19

23
20
25
26
21

19
29
21
IB
15

13
12
11
11
11

11
11
15

529
16.9
29
11
1.050

MAX 2.640
MAX 899

MAR

116
61
57
49
46

42
39
36
36
34

32
32
32
32
32

36
42
47
50
56

66
61
73
93
117

129
154
IBS
224
245
278

2.552
82.3
278
32
5,060

MIN
MIN

. MATER

MAR

20
32
22
20
20

20
19
18
18
20

IB
IB
19
21
21

22
22
18
15
15

15
15
15
15
19

24
20
18
16
14
11

580
IB. 7
32
11
1.150

MIN 1
MIN 2

APR

268
261
242
230
235

242
201
188
178
171

191
218
235
231
193

180
193
210
204
231

306
356
329
255
230

204
199
218
236
230

6,665 11
229
356
171
13,620 23

. 27 AC-FT

MAY

248
248
239
212
201

227
245
310
373
434

452
451
442
398
376

402
451
452
446
438

438
386
398
451
451

434
432
406
434
457
464

,796
361
464
201
,400

4,210

JUN

465
472
464
382
369

346
322
281
255
230

201
178
178
201
204

261
236
212
204
204

196
201
204
199
183

163
152
143
135
129

7,392
246
485
129
14,660

JUL

125
123
125
121
116

110
103
98
92
87

81
61
87
84
76

66
61
55
50
46

47
43
36
31
26

21
23
20
16
14
11

2.077
67.0
125
11
4,120

AUG

11
11
11
11
7.3

5.5
5.2
5.7
5.5
5.7

5.5
5.2
5.2
5.2
5.2

5.2
5.0
5.0
. 6
. 3

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. 1
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. 3
. 1

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. 3
. 5
. 5
. 5

176.0
5. 68
11
4.1
349

SEP

4.3
4.5
4.3
4.3
4.5

4.8
5.
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5.
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3.
1.

7.9
14
15
26
13

205.2
6.84
26
1.9
407

. 86 AC-FT 81,910

YEAR OCTOBER

APR

9.0
9.2
B.8
8.6
6.6

8.6
9.8
9.6
10
14

18
IB
17
17
12

9.8

8.1
7.9
7.7

7.8
7.5
7.2
7.1
7.1

7.5
6.6
8.4
8.2
6.9

296.8 1
9.96
18
7.1
593 2

. 9 AC-FT 82
. 7 AC-FT 12

1969

MAY

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16
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64
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,099
35.5
64
10
,180

,620
,100

TO SEPTEMBER 1970

JUN

22
IB
14
8.8
6.1

6.2
8.5
16
IB
12

9.2
8.6
9.2
10
10

8.9

7.9
7.8
8.2

9.0
6.2
7.7
6.1
8.1

6.1
9.8
7.9
7.7
7.6

299.7
9.99
22
6.1
594

JUL

6.0
5.3
5.6
4.8
3.6

3.8
3.6
3.8
3.7
3.7

3.6
3.6
3.5
3.5
3.4

3.4

3.3
3.3
3.3

3.2
3.2
3.2
3.2
3.2

3.
3.
3.
3.
3.
3.

113.1
3.65
6.0
3.1
224

AUG

. 1
. 0
. 1
. 0
. 0

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2.9
3.0
3.0

3.3
3.3
3.1
2.B
2.B

2.8
2.9
2.8
2.9
3.0

2.7
2.8
2.8
2.7
2.9

3.1
3.2
3.1
3.0
3.2
3.2

92.5
2.98
3.3
2.7
163

SEP

3.0
2.9
2.8
2.9
3.5

4.0
3.8
3.9
3.7
3.2

3.1
3.3
2.9
3.0
2.9

2.9
2.7
2.6
3.0
3.1

3.0
3.1
2.9
3.2
3.3

3.3
4.9
4.0
4.5
4.0

99.6
3.32
4.9
2.7
198

TULARE LAKE BASIN

11202000 NORTH FORK OF MIDDLE FORK TULE RIVER NEAR SPRINGVILLE, CALIF.--CONTINUED

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF NORTH FORK OF MIDDLE FORK TULE RIVER AND PACIFIC GAS ELECTRIC CO. CONDUIT NEAR SPRINGVILLE, CALIF., WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

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31

TOTAL
MEAN
MAX
MIN
AOFT

CAL YR
WTR YR

OCT

20
16
16
16
17

17
16
16
16
16

16
16
16
16
IB

18
17
17
18
17

17
16
16
16
16

16
16
14
16
16
15

509
16.4
20
14
1,010

1965 TOTAL
1966 TOTAL

NOV

15
15
15
15
15

15
15
15
16
16

16
16
17
33
26

30
47
32
26
23

22
33
86
76
49

38
35
34
33
32

856
28.5
86
15
1,700

21tl21
11,034

DEC

31
31
32
32
31

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24
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23

24
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23
22
22

55
40

869
28.0
55
21
1.720

MEAN
MEAN

JAN

16
24
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23
23
26
25

845
27,3
33
16
1.680

57.9 MAX
30.2 MAX

FE8

26
25
25
25
28

41
33
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27
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799
28.5
41
25
1.580

202 MIN
89 MIN

MAR

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44
48
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53
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50
52
57
61
66
70

1.433
46.2
70
29
2.840

14
11

APR

80
88
89
88
85

81
80
80
79
86

74
70
63
62
61

64
67
70
65
61

59
56
54
55
58

62
63
63
64
64

2.091
69.7
89
54
4.150

AC-FT 41,890
AC-FT 21.870

MAT

66
68
70
73
73

74
73
70
65
64

59
56
55
55
54

54
52
52
52
49

46
46
44
43
41

39
38
37
36
35
33

1,672
53.9
74
33
3.320

JUN

32
31
31
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31
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24
24

24
23
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21
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742
24.7
32
19
1,470

JUL

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16
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15
15
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15
14

4
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4
4
4

13
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13
13
14
14

477
15.4
18
13
946

AUB

14
14
14
14
13

13
13
12
12
12

12
12
12
12
12

12
12
12
12
12

12
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12
12

12
12
12
12
12
12

383
12.4
14
12
760

SEP

12
12
12
12
12

12
11
11
11
11

12
12
12
12
12

12
11
12
12
12

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12
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11

348
11.6
12
11
690

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF NORTH FORK OF MIDDLE FORK TULE RIVER AND PACIFIC GAS S ELECTRIC CO. CONDUIT NEAR SPRINGVILLE, CALIF., WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

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29
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31

TOTAL
MEAN

MAX MIN
AC-FT

CAL YR
WTR YR

OCT

12
14
13
13
12

12
12
12
13
12

11
12
13
12
12

13
13
12
12
12

13
13
13
13
12

12
13
13
13
13
13

388
12.5
14
11
770 1

1966 TOTAL
1967 TOTAL

NOV

12
12
12
12
13

13
16
33
19
16

16
15
15
15
15

13
17
15
15
44

28
21
18
16
16

15
15
59
53
27

606
20.2
59
12
. 200

34.408
56,467

DEC

23
72
183
54

3,780

13,300
3,460
790
443
320

254
213
185
161
144

129
120
109
101
94

88
80
73
69
64

61
56
53
50
48
47

24,624
794
13,300
23
48,840

MEAN
MEAN

JAN

45
44
43
43
43

42
41
40
39
40

51
52
52
52
51

51
51
50
49
49

70
66
58
78
72

65
65
65
67
133
141

1,808
58.3
141
39
3,590

94.3 MAX
155 MAX

FE8

100
86
81
78
78

79
81
81
81
83

88
88
86
85
78

75
72
71
71
68

66
65
63
62
68

63
63
62

. --.-_

2,122
75.8
100
62
4,210

13,300
13,300

MAR

62
62
62
63
62

61
61
60
61
61

62
73
84
80
79

231
216
169
151
140

137
136
134
128
119

113
112
113
113
112
130

3,247
105
231
60
6,440

MIN 11
MIN 11

APR

122
120
108
106
103

91
102
95
92
92

101
93
96
102
107

100
101
103
99
99

99
101
102
111
99

101
104
103
101
94

3,047
102
122
91
6,040

AC-FT
AC-FT

MAT

95
98
105
109
106

112
133
184
234
255

205
175
157
159
191

259
324
378
414
432

444
456
443
443
415

381
344
316
302
290
271

8,230
265
456
95
16,320

68,250
112,000

JUN

238 2ie
209

20e
210

205
215
223
226
223

224
223
215
214
214

218
213
222
234
227

250
263
254
247
247

239
232
231
233
232

6,807
227
263
205

13,500

JUL

225
213
198
191
177

161
152
138
129
121

115
114
111
104
100

95
91
86
82
79

76
73
70
68
66

64
61
60
59
57
55

3,391
109
225
55

6,730

AU6

54
52
51
50
49

48
47
46
45
44

42
42
42
41
40

39
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37
36
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37
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36
35
34
34
33
33

1,275
41.1
54
33
2.530

SEP

34
35
34
33
32

32
32
31
31
31

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29
26
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36
33
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32
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28
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29

922
30.7
36
28
1.830

TULARE LAKE BASIN

11202000 NORTH FORK OF MIDDLE FORK TULE RIVER NEAR SPRINGVILLE, CALIF.--CONTINUED

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF NORTH FORK OF MIDDLE FORK TULE RIVER AND PACIFIC GAS E ELECTRIC CO. CONDUIT NEAR SPRINGVILLE, CALIF., WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY

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IB
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TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

OCT

28
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25
25
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23
23
23
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23
22

749
24.2
28
22
1,490 1

1967 TOTAL
1968 TOTAL

NOV

22
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21
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21
21
23
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23
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49
32

27
26
25
25
24

24
24
27
33
45

752
25.1
49
21
490

33,287
12,685

DEC

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32
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32
28
28

30
30
27
25
26

25
25
26
29
27

25
26
31
34
34

38
38
37
36
31
32

937
30.2
38
25
1,860

MEAN

MEAN

JAN

30
30
27
28
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24
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41
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37
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24

1,032
33.3
56
24

2,050

91.2 MAX
34.7 MAX

FEB

32
32
35
35
36

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41

35
33
32
32
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30
105
98
70
67

72
65
60
58
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57
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1,420
49.0
105
30
2,820

456 MIN
105 MIN

MAR

53
50
48
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69
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50

46
4B
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63

1,524 1
49.2
69
42

3,020 3

21 AC-FT
13 AC-FT

APR

68
69
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64
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67
71
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69
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65
63
60
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49
48
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56
62
68
73
77

,851
61.7
77
46

,670

66,020
25,160

MAY

79
80
78
78
83

76
71
67
65
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68
68
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69
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60
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2,019
65.1
83
S3
4,000

JUN

51
49
48
47
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933
31.1
51
22
1,850

JUL

22
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16
16
16
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16

559
18.0
23
16
1,110

AUG

15
16
15
14
14

14
14
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16

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15
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480
15. S
17
14
952

SEP

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429
14.3
15
13
851

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF NORTH FORK OF MIDDLE FORK TULE RIVER AND PACIFIC GAS E ELECTRIC CO. CONDUIT NEAR SPRINGVILLE, CALIF., WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY

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31

TOTAL
MEAN

MAX
MIN
AC-FT

CAL YR
WTR YR

OCT

12
13

15
13
16
43
26

22
20
IB
15
15

17
24
20
15
15

15
15
15
15
22
17

530
17.1
43
12
1,050 1

1968 TOTAL
1969 TOTAL

NOV

16
16
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20
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16
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17
45

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20
20
19

19
IB
IB
16
IB
. . . .

600
20.0
45
16
,190

12,114
56,637

DEC

19
19
19
18
IB

IB
18
17
17
17

27
19
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29
39

39
26
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21

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21
26
38

32
27
30
30
25
26

737
23. B
39
17
1,460

MEAN
MEAN

JAN

25
26
26
29
31

35
35
34
31
27

26
25
40
56
44

36
31
B9
815
352

4B6
373
190
648
2,640

1,350
614
349
250
202
172

9,087
293
2,640
25
18,020

33.1 MAX
156 MAX

FEB

153
136
131
122
121

129
115
105
100
98

97
106
102
96
124

117
105
104
102
96

93
90
89
192
192

149
119
142

......

3,327
119
192
B9
6,600

105
2,640

MAR

133
123
115
104
99

94
90
B5
84
82

78
78
77
77
77

84
95
105
110
120

132
127
139
160
IBS

197
222
253
292
313
346

4,276
138
346
77
6,480

MIN 12
MIN 12

APR

336
329
310
298
303

310
269
256
246
239

259
2B6
303
299
261

246
261
276
272
299

374
424
397
323
296

271
266
285

297

8,885
296
424
239
17,620

AC-FT
AC-FT

MAY

315
315
306
279
268

294
312
377
439
500

517
516
507
462
440

466
SIS
516
510
S02

501
449
461
514
S14

497
495
468
498
522
528

13, 803
445
528
266
27,360

24,030
112.700

JUN

548
535
529
447
434

411
384
344
320
294

265
241
241
264
267

322
297
272
266
260

25 7
262
265
260
244

224
213
204
196
190

9,256
309
54S
190
18.360

JUL

186
184
186
182
177

171
164
159
153
149

125
141
148
145
137

130
123
117
112
108

109
104
98
93
86

63
85
82
78
76
72

3,965
128
186
72
7,660

AUG

69
67
64
62
56

53
51
50
49
50

50
47
45
44
43

42
42
41
41
39

38
38
37
37
37

36
36
35
36
36
35

1,406
45.4
69
35
2,790

SEP

34
34
33
32
33

34
33
32
32
32

31
30
31
31
31

30
30
30
30
31

32
31
29
27
25

31
36
37
46
35

965
32.2
48
25
1,910

TULARE LAKE BASIN

11202000 NORTH FORK OF MIDDLE FORK TULE RIVER NEAR SPRINGVILLE, CALIF.--CONTINUED

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF NORTH FORK OF MIDDLE FORK TULE RIVER AND PACIFIC GAS £ ELECTRIC CO. CONDUIT NEAR SPRINGVILLE, CALIF., WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY

1z
3
4
5

6
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11
1Z
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14
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16
17
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19
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Zl
22
Z3
24
25

Z6
Z7
ZB
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
HTR YR

OCT

Z9
30
31
31
30

30
30
30
30
30

30
30
29
Z9
29

35
34
32
33
30

22
27
29
27
28

27
27
Z6
2B
27
26

906
29.2
35
22
1,800

1969 TOTAL
1970 TOTAL

NOV

26
26
26
26
as

33
32
29
29
28

2B
27
27
27
28

33
29
Z6
2B
26

26
26
26
25
25

25
25
25
25
24

Bll
27.0
33
24

1,610

57.693
18,504

DEC

21
2Z
Zl
24
25

24
24
26
25
26

25
25
as
25
24

24
24
24
49
52

49
53
36
32
80

54
40
34
33
30
30

1.006
32.5
BO
21
2.000

MEAN
MEAN

JAN

29
30
as
ZB
27

27
27
28
3B
B3

47
43
38
76
71

921
242
144
112
96

87
B4
79
132
100

B9
90
79
73
68

3,060
99.4
921
27
6,110

15B
50.7

FEB

62
59
57
55
54

53
53
53
51
55

59
56
61
62
57

55
65
57
55
52

52
50
4B
4B
4B

48
4B
57

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1,530
54.6
65
4B
3,030

MAX 2,640
MAX 921

MAR

67
80
65
62
64

65
66
66
65
68

63
63
6B
76
79

BO
B3
79
72
70

71
72
74
79
84

B8
83
Bl
78
74
71

2,256
72.8
68
62
4.470

MIN 21
MIN 16

APR

67
67
6B
6B
70

73
75
75
76
BO

B4
84
S3
63
77

74
71
67
65
63

63
61
59
59
61

63
64
61
61
65

2,067
69.6
64
59
4.140

AC-FT
AC-FT

MAY

69
71
74
75
7B

84
Bl
B3
85
94

93
91
92
103
116

125
127
127
122
116

111
111
114
116
113

103
102
96
94
91
69

3.046
96.3
127
69
6,050

114,400
36,700

JUN

85
Bl
77
74
69

66
67
70
78
66

63
61
59
57
55

54
52
50
9
7

6
5
4
2
2

0
3
2
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0

1.707
56,9
B5
40
3.390

JUL

37
34
34
3*
33

32
32
32
32
32

31
31
30
30
2B

2B
27
27
27
26

26
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25
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26
25
24
24
24
24

B92
26.8
37
24
1,770

AUG

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18

636
20.5
23
18
1,260

SEP

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20
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18

17
IB
18
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18

18
18
16
16
18

18
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17
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16
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17
18

545
18.2
20
16
1,080

TULARE LAKE BASIN

11203100 NORTH FORK TULE RIVER AT SPRINGVILLE, CALIF.

t of
ille

DRAINAGE AREA.--97.6 sq mi.

PERIOD OF RECORD.--February 1957 to December 1966 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 1,040 ft (from topographic map).

AVERAGE DISCHARGE.--9 years, 29.6 cfs (21,430 acre-ft per year).

second, gage height in feet) for October 1965 to

Ma

Wtr yr Date
1966 Dec. 30, 1965
1967 Dec. 5, 1966

scharge G.H.
240 6.40
24,200 a23

Minimum daily
Date Discharge
Aug. 5-8, 1966 .10
Oct. 1, Nov. 18, 19, 1966 .30

ecord: Maxim
nded
in 1958, 1960-62, 1964.

discha
3,900 cfs

24,200 cfs Dec. 5, 1966 (gage height, 23 ft, from floodmarks), from ope-area measurement of peak flow; no flow for many days

COOPERATION.--Records furnished by Calif Department of Water Res and

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

iewed by Geological Survey.

DAY

1
2

31

TOTAL
MEAN
MAX
MIN
AC-FT

OCT

. 50
. 60
. 60
. 90

1.0
. 90
1.7
1.1
. 70

1.0
1.4
1.2
L.O

. 80
. 90
. 80
. 80
. 90

. 90
. 90
. 80
. 80
. 70
. 70

NOV

. 50
. 50
. 50
. 60
. 70

. 50
. 90
1.5

. 80
. 80
. 90

4.9
15
15
14
12

9.4
8.4
29
70
62

37
27
23
20
18

379.90
12.7

DEC

17

90

JAN

71

901
29.1

677
21.8
133 71
11 15
1,340 1,790

FEB

CAL YR 1965 TOTAL 15,741.20 MEAN 43.1 NTR YR 1966 TOTAL 5,033.30 MEAN 13.8

891
31.8

MAX 378
MAX 133

MAR

31
32

1,101
35.5

APR MAY JUN JUL

MIN
MIN

41
43
43
41
39

36
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29
28
39

37
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23
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17
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23
28
24

21
19
16
15

14

14
15
16
13
14

776
25.9
43
13
1.540

AC-FT
AC-FT

13
13
9.9
8.1
8.0

8.3
9.0
R.I
8.6
17

18
13
10
8.3
6.4

6.3
5.6
4.3
4.4
4.7

4.1
3.2
2.2
2.3
2.1

1.6
1.8
1.4
1.1
1.1
1.4

206.3
6.65
18
1.1
409

31,220
9,980

1.7
2.0
1.8
1.7
1.3

. 2
. 5
. 7
. 8
. 5

. 1
. 0
. 90
. 70
1.3

. 80
. 70
. 80
. 80
. 80

. 70
. 60
. 70
1.0
. 60

. 70
. 70
. 60
. 50
. 50

31.70
1.06
2.0
. 50
63

. 60
1.0
1.4
1.0
. 60

. 40
. 40
. 30
. 40
. 50

. 50
1.1
. 60
. 50
. 60

. 50
. 30
. 40
. 60
. 60

. 50
. 40
. 50
. 50
. 30

. 30
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. 40
. 30
. 30
. 30

16.40
. 53
1.4
. 30
33

. 30
. 40
. 40
. 20
. 10

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. 10
. 10
. 50
. 60

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. 60
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9.60
. 31
. 60
. 10
19

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. 60
. 50
. 20

. 20
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. 50
. 60

. 70
. 60
. 60
. 60
. 90

. 80
. 60
. 60
. 70
. 90

. 90
. 70
. 40
. 40
. 40

15.80
. 53
. 90
. 20
31

DISCHARGE, IN CUBIC FEET PER SECOND, OCTOBER TO DECEMBER 1966

Vf

1
2
3
$
5
6
7
8

OCT
. 30
. 50
. 70
. 60
. 70
. 80
. 90
1.0

NOV
1.0
1.0
1.2
1.5
1.7
2.3
1.7
2.7

DEC
7.3
5.8
294
60
4,230

2,090
734

DAY
9
10
11
12

15
16

OCT
. 70
. 80
. 70
. 70

. 40
. 40

NOV
2.0
1.5
1.0
. 70

. 60
. 60

405
310
230
185

130
118

17
18
19
20

23
24

. 50
. 50
. 70
. 90

. 90
. 70
. 60

. 40
. 30
. 30
1.6

2.3
. 90
. 80

107
97
88
81

70
65
60

25
26
27
28

30
31

. 50
. 50
. 70
. 80

. 70
. 70

. 70
. 70
. 70
1.0

15

56
53
50
48
47
45
44

TOTAL... 20.90 85.90 24,295.1 MEAN.
MAX...
MIN...
AC-FT.

784

14,200
5.8
48,190

NOTE. FIGURES FOR CALENDAR YEAR 1966 ARE AS FOLLOWS: MINIMUM, 0.10 CFSs AND 56,230 ACRE-FT.

TOTAL 28,350.70i MEAN 77.7s MAXIMUM, 14,200(

TULARE LAKE BASIN

11203200 TULE RIVER NEAR SPRINGVILLE, CALIF.

LOCATION.--Lat 36°06'02", long 118°52'07", in NEVSWs sec.17, T.21 S., R.29 E., Tulare County, on left bank downstream from highway bridge, 3.5 miles southwest of Springville, and 4.1 miles upstream from Success Prior to Mar. 20, 1968, at site 1.9 miles upstream.

DRAINAGE AREA.--247 sq mi. Area at site used prioi

PERIOD OF RECORD.--October 19S7 to September 1970.

GAGE.--Water-stage recorder. Altitude of gage
1.9 miles upstream at different datum.

AVERAGE DISCHARGE.--13 years, 149 cfs (108,000 (71,700 acre-ft per year).

1968, 225 sq

680 ft (from topographic map). Prior to Mar. 20, 1968, a

re-ft per year); median of yearly mean discharges, 99 cfs

EXTREMES

Date
Nov.
Dec.

Dec.
Dec.
Jan.
Jan .
Mar.
Apr.
Apr.
May
May

Mar.

23,
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Anr

1965
1965

1966
1966
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1968

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Time
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2300

0400
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2000
2400
0400
2300
0500
2300

1900

and minimums (di

iximum dis

Disch.

370 *689

2,080
*49,600
585
644
578
860
1,540
1,800
1,350

*386

charge

G.H.
4.38
4.92

6.34
a!7.18
4.16
4.24
3.87
4.40
4.78
5.05
4.88

4.02

(discharge in cubic feet per second, gage height in feet).

iove base (350 cfs), water years 1966-70

Date lisch. G.H. Jan. 19, 1969
Jan. 21, 1969
Jan. 25, 1969
Feb. 6, 1969
Feb. 12, 1969
Feb. 16, 1969
Feb. 19, 1969
Feb. 24, 1969
Feb. 28, 1969
Mar. 3, 1969
Apr. 3, 1969
Apr. S, 1969
May 11, 1969

2000
1000
0830
1500
2000
0100
0900
2400
1800
0400
0500
2000
0200

well; 19.7 ft, fr

Wtr yr Date
1966 Aug. 20, 21, 1966
1967 Oct. 1, 1966
1968 Sept.20, 1968

June 16, 1969 1300

floodmarks.

11,300
3,930
*17,300
2,170
787
1,350
1,330
11,100
2,300
1,420
1,700
3,660
1,250
2,260

Date Time
July 14, 1969 0500

Dec. 20, 1969
Dec. 25, 1969
10, 1970
16, 1970
24, 1970
14, 1970
17, 1970
2, 1970
4, 1970

0430
2200
1100
1230
1400
0230
1000
1000
2400

Disch.
370

430
450
509

*9,660
688
517
374
961
857

Annual minimum daily discharge, water years 1966-70

Discharge Wtr yr Date
. 4 1969 Oct. 1, 1968
2.5 1970 Sept. 2, 1970
4.6

Discharge
5.7
7.7

Period of record: Maximum discharge, 49,600 cfs Dec. 6, 1966 (gage height, 17.18 ft in gage well, 19.7 ft, from floodmarks, site and datum then in use), from rating curve extended above 7,400 cfs on basis of slope-area measurement of peak flow; no flow for many days in 1961.
Flood in December 1955 reached a stage of 13.7 ft, from floodmarks (discharge, 21,000 cfs). REMARKS.--Records good. Many small diversions above station for irrigation. Power is developed on Middle Fork and tributaries. Diversion to Tule River diversion ditch starts 400 ft upstream, most of which is returned to the river 0.5 mile downstream. Records since Mar. 20, 1968, include flow diverted to Tule River diversion ditch. Water-quality records for the water years 1966-70, are published in reports of the Geological Survey. REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR DCTCBER 1965 TO SEPTEMBER 1966

DAY OCT NCV DEC JAN FEB MAR APR MAY JliN JUL AUG SEP

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MEAN
MAX
MIN
AC-FT

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14.3
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10
881

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52

38
102
74
62
53

47
46
198

204

124
99
90

78

63.1
264
17

70
67
67
68
67

63
60
55
53

56
78
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56
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53
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48
48
48

48
48
47

47

50
48
48
218
379
227

77.1
379
46

180
124
104
95
88

88
95
104
108

97
92
90
88
86

84
80
74
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68

67
65
63

60

60
58
56
55
74
80

84.4
180
55

74
82
76
74
74

181
152
116
99

90
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84
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97
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92.4
181
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92
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108
121
126
137
132

135
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MIN

155 f
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167
170 f
161 i

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143 E
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137

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116 62
170
78

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12
11
9.5

8.5

19.2
31
8.5

7.2 2.8
5.5 2.9
6.3 3.4
5.9 3.7
4.7 3.1

4.0 2.8
3.7 2.0
3.7 1.5
4.0 1.1
4.3 .80

4.0 . BC
3.4 .80
3.1 .80
3.4 .8C
3.1 .90

3.1 .70
3.1 .60
3.1 .60
2.8 .50
2.8 .40

4.7 .40
3.7 .60
2.2 .50
1.3 .50
1.3 .80

1.3 .70
1.1 .70
1.1 .80
1.1 1.0
1.5 1.1
2.2 1.3

3.31 1.27
7.2 3.7
1.1 .40

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L.80
3.7
. 80
107

TULARE LAKE BASIN

11203200 TULE RIVER NEAR SPRINGVILLE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

1
2

4

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16

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24

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29

MAX
WIN

WTR YR

CAY

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2
3

5

7
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12
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16
17
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19
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21

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27
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PAX
MIN

QCT

2.5
3.7

5.9

4.3
5.1
4.7
4.3

6.3
8.0
8.0

7.6

6.7
6.3
5.9

5.9
6.7
7.2
6.7

6.3
6.3
5.9
6.3

8.0
2.5

1967 TOTAL

QCT

49
47
46

43

40
39
37
36

34
3?
32
31

31
3C
31
30
31

32

33
34
34

34
34
34
34

30

NOV

6.7
6.3

7.2

13
49
38
24

21
21
21

20

22
2C
53

62
38
31
27

24
24
5C
165

6.3

140,393.

DISCHARGE

NOV

34
33
32

29

31
31
3C
32

31
3C
32
33

32
33
36
112
93

70

61tc
59

59
67
68
144

29

DEC

47
44

171

5,150
1,590
990

532
427
360

285

254
243
235

225
212
200
191

185

170
168

10 MEAN

, IN CUBIC

DEC

101
73
68

8B

79
87
78
74

74
76
67
69

74
81
88
95
90

82

8ft
9?
94

94
92
90
87

66

156
154

148

141
137
135

135
133
133

128

126
122
120

153
203
183
296

200
196

385

FEET

JAN

82
76
72

65

63
63
63
89

106
97
94
95

106
1C1
92
88
85

85

84
83
82

84
91
33
8C

63

318
266

222

205
200

94
94
91

180

180
180
176

172
170
168
164

170

198

MAX 30,200

PER SECOND,

FEB

90
87
88

90

90
87
88
109

87
85
85
82

80
163
24R
181
170

179

159
154
150

140
138
136

80

168
166

170

158
154

203
387
434

550

557
465
420

415
411
411
435

381
432

337
840

NIN

WATER

MAR

128
123
119

116

116
322
248
206

154
150
148
140

14C
163
148
138
135

131

133
133
134

141
144
154
160

322
114

436
401

502

838
644

652
550
544

520

TOO
769
599

668
710
613
790

480
470

585
1,040 1

2.5 AC-FT

YEAR OCTOBER

APR

180
220
181

173

153
151
148
149

151
147
147
145

135
128
126
123
116

110

101
102
104

111
117
123
128

220
101

480
465

538

613
884

660
544
532

800

,030
,060
,080

,070
,060
,030
990

660
613

,190

278,500

1967 TO

MAY

123
125
123

132

121
115
107
104

116
120
121
12C

104
98
91
95
101

111

104
95
90

81
85
88
88

132
81

JUN

488
472

514

508
514

496
480
470

455

455
475
450

470
485
475
460

419
411

526

SEPTEMBER

JUN

82
77
72

69

62
70
66
61

49
44
42
44

42
37
31
28
27

26

26
25
21

20
19
16
16

82
16

JUL

355
334

281

233
224

167
165
156

156

40
34
25

18
11
14
109

98

90
90

355

1968

JUL

14
14
15

14

11
13
14
13

10
9.9
11
11

11
10
1G
10
8.6

7.0

8.C
7.5
8.5

8.1
8.4
8.5
7.4

15
6.7

AUG SEP

76 38
73 52

70 48

64 45
60 48

54 47
53 47
55 46

51 43

50 66
46 90
44 70

40 64
36 62
35 62
38 75

44 54
38 50
38 46
36 52

76 90

AUG SEP

6.4 .3
6.3 .7
6.3 .3

6.5 .9

5.9 .5
5.8 .3
5.8 .3
5.6 .1

5. 1 .4
6.3 .4
6. 1 .5
7.4 .5

6.9 .6
5.5 .5
5.6 .2
6.3 .9
7.4 .6

8.9 .3

9.1 .0
8.4 .1
7.0 .4

6.4 .0
6.8 .1
7.C .4
5.8 .1

9.6 .4
5.1 .6

WTR YR 1968 TOTAL 25,487.3 MEAN 69.6 PIN 4.6 AC-FT 50,550

TULARE LAKE BASIN

11203200 TULE RIVER NEAR SPRINGVILLE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3

5

7
8
9
10

12
13

15

n

19
20

22

24
25

27

29
30
31

MEAN
MAX

i
2
3
4

6
7
8
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11
12
13
14

16
17
18
19
20

21
22

24

26
27
26
29
30

EAN
AX
IN

5.7
7.1
7.9

9.0

11
12
12
11

11
15

69

30

23
21

21

22
22

20

21
33
40

21.7
71

47
47
47
47

47
48

47
47

46

61
74
75

61
56

61

60
50
58

75

29
27
26

29

29
28
25
25

28

162

92

62
60

46

42
41

39

37

47.3

54
54
54
51

82
71

67
66

66

73
76
72

66
66

66

62

94

39
47
41

39

38

36
36

60

110

132

75
71

60

58
59

133

161

95

75.5

60
56
57
57

62
64

66
64

63

62
62
62

116
220

102

113

260

88
86
80

89

98

78

68

111

,830
,400

,810

,010
1 ,400

,310

,200

760

1.278

85
S2
78
75

68

178
162
138
201

4,330
1,410
696

287
267

468

282

4,330

630
566

524

825

668

591

1,060
689

788

2,830
4,580

1,210

1,000

194
182
170
167

144

185
164

311

179
270
222

170
162

152

202

311

9,780

1,070
1,140

856

716

584

548

618
653

625

688
751

816

952

1,100

757

289
718
426
376

294

273
254

277

289
285
277

232
228

236

222

718

17.79C

1,020
1,190

1,500

1,160

1,080

848

896
944

1,190

960
808

744

832

1,005

184
178
178
172

172

177

171

168
160
157

144
14?

132

151

184

824
758

681

765

1.110

1,070

1,060
1,020

1,000

1,000
1,030

987

960

978

959

157
162
159
155

163

170

168

189
192
196
192
186

176
174

176

157

196

996
928

848

772

554
524

53

30
C8

86

75
50

395

357

620

134
124
118
109

89

107

92

83
80
74
71
68

65
60

50

46
48
48

134

323
305
289

281

265

254

237
230

212

195
189

183

160
155

152

145
138
132

218

46
42
41
40

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24
22
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18

18
15
15

46

122
115
113

105

101

87

91
85

78

75

72
71

65

64
62

56

56
56
55

80.3

15
15
17
17

15
15
13

13

12

12
12
12
12
12

12
1C

12

1C
10

1C11

17
10

53
51
48

47

50

49

45
44

43

43

47
48

49

46
44

44

43
44

46.3

8.1
7.7
8.1
6.5

11
12
10

10

9.9

10
11

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12
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13
15

15
14

12

12
12
12
11
9.9

11.1
15
7.7

,33C HIM 7.7 AC-FT 93,150

TULARE LAKE BASIN

11204500 SOUTH FORK TULE RIVER NEAR SUCCESS, CALIF.

DRAINAGE AREA.--109 sq mi.

PERIOD OF RECORD.--June 1930 to December 1954, January 1956 to September 1970 only for some periods, published in WSP 1735.

GAGE.--Water-stage recorder. Altitude of gage is 770 ft (from t
site 0.4 mile downstream at different datum.

AVERAGE DISCHARGE.--38 years, 42.0
(20,300 acre-ft per year).

re-ft per year);

Monthly and yearly dischar

graphic map). Prior to June 26, 1951,

edian of yearly mean discharges, 28 cfs

EXTREMES.--Maximu

Annual maximu

inimums (discharge in cubic feet per second, gage height in feet),

discharge (*) and peak discharges above base (200 cfs), water years 19

Date
Dec.

Dec.
Dec.
Mar.
Mar.

Apr.
Apr.
Apr.
Apr.
Apr.
Apr.
Apr.

29,

3,
6,
14,
16,
4,
7,
11,
15,
18,
21,
24,

1965

1966
1966
1967
1967
1967
1967
1967
1967
1967
1967
1967

Time
2200

0500
1100
0300
2300
2200
1100
0430
2000
1500
2300
1600

Disch. *250

340
*14,300 al
203
250
351
326
786
360
440
522
447

Date
May
May
May

Mar.

Nov.
Jan .
Jan .
Jan .
Feb.
Feb.
Feb.

4,
9,
17,

8,

15,
19,
21,
25,
6,
15,
19,

1967
1967
1967

1968

1968
1969
1969
1969
1969
1969
1969

Time
0100
2300
2200

0730

1200
1930
0800
0930
1500
2000
0900

Disch.
254
590
335

*189

214
2,820
929
5,280
630
390
450

G.H.
3.81
4.60
4.04

3.57

3.71
7.00
5.07
8.69
4.60
4.11
4.24

Date
Feb.
Feb.
Apr.
Apr.
June
June

Jan.
Jan.
Jan.
Mar.

24,
28,
3,
5,
9,
16,

14,
16,
24,
4,

1969
1969
1969
1969
1969
1969

1970
1970
1970
1970

Time
2300
1800
0100
1900
1500
1600

2300
1330
1100
2200

Disch.
4,720
992
804
1,090
264
403

254

*3,400
222
203

G.H.
8.35
5.03
4.76
5.21
3.57
3.93

3.72
7.44
3.60
3.52

a In gage well; 13.3 ft, from floodmarks

Wtr yr Date
1966 Several months
1967 Many days
1968 Sept.19, 1968

Discharge
0
0
. 03

Wtr yr Date
1969 Oct. 1, 1968
1970 Sept.12, 1970

Discharge
. 42
. 39

REMARKS.--Records good. Diversions for irrigation of 1,600 stati

REVISIONS (WATER YEARS).--WSP 1315-A: 1931-32(M). WSP 1445: 1952-53(P), drainage area. Revised figures of peak discharge for the water years 1958 and 1960, in addition to those published in WSP 1565 and 1715, are given as follows:
REVISED PEAK DISCHARGE.--1958: Dec. 17 (0500) 232 cfs (5.03 ft); Jan. 25 (0100) 463 cfs (5,71 ft); Feb. 25 (0700) 471 cfs (5.73); Mar. 17 (0500) 1,010 cfs (6.78 ft); Mar. 21 (2400) 818 cfs (6.48 ft); Apr. 3 (1000) 1,120 cfs (6.97 ft); May 12 (0800) 268 cfs (5.18 ft).
1960: Feb. 2 (0200) 611 cfs (6.05 ft); Feb. 8 (2100) 381 cfs (5.51 ft); Mar. 28 (0900) 237 cfs (5.05 ft).

31

TOTAL
HEAN
MAX
HIM
AC-FT

1.9
1.5
1.6
1.8
1.3

. 90
. 80
. 70
. 80
1.8

1.9
1.6
1.5

3.4
2.7
2.5
L.9
1.6

1.4
1.1
1.1
1.5

DISCHARGE

1.1
1.2
1.6
1.6
1.5

1.6
1.6
1.8
1.9
2.5

2.5
2.1
1.9
3.4
7.0

5.0
20
10
8.4
7.4

7.0
6.7
20
35
31

18
14
12
12
10

> IN

9.9
9.5
11
12
11

10
9.9
10
10
12

12
17
16
14
14

13
12
12
13
13

13
13
12
12
13

16
14
14
79
119

249.8 6G4.3
8.33
35
1.1
495

19.5
119
9.5
1.200

CUBIC FEET

42
30
26
24
23

23
25
28
26
24

22
21
18
18
18

16
16
16
14
16

14
15
16
15
16

16
16
16
16
21
21

628
20.3
42
14
1.250

19
18
19
18
19

62
42
31
25
26

23
24
21
20
20

20
19
19
19
19

19
20
21
21
22

23
21
21

651
23.3
62
18
1.290

22
23
23
23
24

24
24
24
24
26

28
31
34
35
34

33
31
2B
30
32

31
29
30
29
28

28
28
30
31
31
31

B79
28.4
35
22
1.740

31 7.5 .1
31 B.3 .6
31
30
28

26
25
25
24
33 1

26 1
21 1
20
18
16

16
15
6
8
6

6
4
3
12
11

9.1
9.1
9.1
8.8
8.4

. 7 .6
. 4 .4
. 4 .3

. 4 .3
. 4 .4
. 4 .1
. 0 .6
. 4

B 9
. 6
. 1 .1
. 9 .40
. 5 .20

. 1 .20
. 7 .10
. 3 .10
. 8 .10
. 6 .10

. 6 .10
. B .10
. 8 1.0
. 0 .20
. 9 .20

. 8 .10
. 8 .10
. 9 0
. 9 0
. 1 0

576.5 170.3 25.40
19.2 5.49 .85
33 12 2.6
8.4 l.B 0
1.140 338 50

JUL

0
0
0
0
0

TULARE LAKE BASIN

11204500 SOUTH FORK TULE RIVER NEAR SUCCESS, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTCBER 1966 TD SEPTEMBER 1967

CAY OCT r

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3 C
4

5 (

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8 2
9 I'
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40V

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i.6

. 2

f 7
B 2
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.9

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. 7

.9
. 5

. 4

. 1
. 1

TOTAL 0 171.5
MEAN 0 5.72
MAX 0 30
PIN 0 0

DEC

9.9
9.4
137
36
1,710

6,660
1,110
575
377
247

171
133
114
1C9
95

77
66
51
43
51

59
60
60
62
58

57
52
48
48
46
45

399
6,660
9.4

JAN

45
46
48
51

50
46

44

41
40
36
34
31

31
32
35
36

41
60
72

62
62

93
128

49.7
128
29

AN 108

FEB

83
82
83

72
70

67

71
72
70
70

58
55
55
54

54

59

60
53

64.6
83
50

MAR

45
45

38
37

37

52
131
139

187
142
120
110

100

89

84
77

80

83.3
187
36

»PR

87
84

155
249

197

269
272
290

257
327
357
351

360

348

320
299

230

265
426
84

MAY

209
215

212
251

354

293
260
245

302
302
302
299

281

248

233
215

191
182

263
454
182

JUN

152
143

134
128
122
125

1C5
101
99

90
87

83

81
78
76

72

70
69

63

1C1
167
63

JUL

58
56

52
50
48
47

42
42
40

36
35

33

32
31
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28

26
25

23
23

38.7
60
23

AUG

21
2C
20

18

16
16
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16

14
14
14

13
13
13

11

10
10
10
10
10

10
10
10

8.5
7.0

13.5
21
7.C

SEP

7.0
13
12

9.0

9.0
8.5
8.0
8.C
8.0

8.0
7.5
7.0
7.0
7.0

6.5
6.5
16

15

12
13
13
19
15

12
11
10

16

11.3
33
6.5

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

1
2
3
4
5

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14
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16
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30
31

TOTAL
MEAN
MAX
PIN
AC-FT

WTR YR

2
2
2
2
1

3
2
12
11
11

11
g^
9.
9.
9.

8.
a.
8.
8.
f ^

f f
8.
8.
8.
e.

8.

a.
e.
9.
9.

1
7.
59

1968

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. 0
. 0
. 0
. 0

. 0
. 0
. 0
. 0
. 0

. 0
. 0
. 5
. 5
. 0

6.5
8.5
8.0
40
31

22
18
17
16
16

16
15
17
18
36

40
6.0

fOTAL 6,846.53

24
20
20
18
24

24
20
26
21
20

19
16
13
18

18

21
27
23

22
23
24
26

27
27
27
27
24
24

27

MEAN

22
22
21
20
20

20
20
19
20
30

29
25
24
24

27

22
21
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20
20
20
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19
22
24
24
24
29

64

18.7

29
26
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25
26

26

25
26
37

26
26
26
25

24

78
49
48

48
43
42
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37
36
34
33

78

MAX 149

30
28
26
25
25

25

149
91
77

50
49
52
42

42

44
42
42

41
41
40
42

42
43
46
47
47

149

MIN .03

54
80
63
59
64

56

52
50
48

42
41
41
40

38

35
34
33

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28
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28
27
27

80

AC-FT

26 12
26 12
25 12
25 11
25 11

25 12

24 13
24 12
23 11

23 10
24 10
26 9.5
27 9.5
27 9.0

?4 9.0

20 8.5
19 8.0
19 7.5

19 7.5
20 5.0
19 5.0
18 5.0
18 4.7

17 4.5
16 3.7
16 2.7
16 2.4
15 2.2
14

27 13

13,580

2.2
2.4
7.0
2.9
2.2

2.0

2.1
2.9
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TULARE LAKE BASIN

11204500 SOUTH FORK TULE RIVER NEAR SUCCESS, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

NOV DEC JAN FE8 MAR APR MAY JUN JUL

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363
811
2,670

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369

211

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184
178
177

361

251

211

202
251

403

390
490
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2,230

636

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510
421

329

284

267

254
257

305

309
313
333
3*9

373

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489

254

510
398

394

381

377
337

321

365
361
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298

267

274

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264
260

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248

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208

202

202

193

175
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187

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101

92

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DISCHARGE, IN CUBIC FEET PER SECOf^D, HATER YE8R OCTOBER 1969 TO SEPTEMBER 1970

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76.8
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MIN

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35.16
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70

TULARE LAKE BASIN

11204680 PIONEER DITCH BELOW SUCCESS DAM, CALIF.

LOCATION

PERIOD 0
Tule R

GAGE, - -}

Corps

AVERAGE

EXTREMES

REMARKS.

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TOTAL
MEAN
MAX
KIN
AC-FT

. --Lat 36

F RECORD.

ater-stag
of Engine

DISCHARGE

. --Period

- - Records

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°03'34", long 118°55?

- - April 1959 to Septe
Porterville.

e recorder and Parsha
ers) . Prior to Feb.

. --11 years, 7.43 cfs

of record: Maximum

excellent. Ditch re

DISCHARGE, IN CUBIC

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22", in NW% sec. 35, T.21 S., R.28 E., Tu

mber 1970. Prior to October 1960 monthl

11 flume. Datum of gage is 549.00 ft ab 1, 1961, at site 0.5 mile downstream at

(5,380 acre-ft per year).

daily discharge, 29 cfs Apr. 15, 16, 196

FEET PER SECONDi MATER YEAR OCTOBER 1965

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0 B.8 .8
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0 8.8 .9
0 9.1 1

0 9. 1
0 9. 1
0 9. 1
0 9. 1
0 9. .5

0 9. .8
0 9. .8
0 9. .0
0 9. .8
0 9. 8.7

0 9. 8.7
0 9. 8.7
0 8. 8.2
0 6.8 8.2
0 6.8 8.2

5.6 6.8 8.2
8.1 6.8 8.2
8.7 6.8 8.2
8.7 6.8 8.2
8.7 6.8 9.6

8.8 7.9 10
8.8 8.7 10
8.8 8.7 10
8.8 8.7 10

8.8 7.0 10
8.8 10

0 0 92.6 254.4 265.3
0 0 2.99 8.48 8.56
0
000

0 8.8 9.6 11
6.8 5.8
0 0 184 505 526

Lare County, on left bank 0.1 mile

r diversions only, published with

)ve mean sea level Clevels by
lifferent datum.

; no flow at times in most years.

on 11204700).

TO SEPTEMBER 1966

7.3 9. 17 13
6.0 9. 15 10
6.0 9. 12 10
6.0 9. 13 10
6.0 9. 12 10

6.0 9.9 13 10
9.2 14 13 10
11 15 9.6 10
11 5 10 11
11 5 11 12

11 5 11 13
11 5 13 13
11 1 13 13
11 9.6 13 13
7.6 9.6 11 13

9.2 9.6 10 12
11 9.6 10 13
12 13 12 13
12 4 13 13
11 4 14 13

11 6 12 12
11 6 12 11
11 5 14 10
8.7 5 15 8.7
7.5 5 15 8.0

7.5 5 16 8.0
7.5 5 17 8.0
9.0 5 17 8.0
9.9 5 17 8.0
9.9 6 17 8.1
6 17

9.31 3.2 13.4 10.8
12 16 17 13
6.0 9.6 9.6 8.0
554 809 822 644

TULARE LAKE BASIN

11204680 PIONEER DITCH BELOW SUCCESS DAM, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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6 10
7 8
8 7
9 7
10 7

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12 9
13 9
14 9
15 9

16 9
17 9
IB 9
19 9
20 9

21 9
22 9
23 9
24 9
25 9

26 9
27 9
28 9

30 6
31 6

TOTAL 273
MEAN B.
MAX
MIN 6
AC-FT 5

6.0
4.4
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3.6

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MAX 12 11
MIN 9.1 0
AC-FT 642 312

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5.1 10
4.7 10
4.7 11

4.7 11
8.8 11
9.0 10
9.4 10
9.3 10

B.9 10
9.3 10
9.8 10
9.8 10
9.8 11

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YEAR OCTOBER 1967 TO SEPTEM

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TULARE LAKE BASIN

11204680 PIONEER HITCH BELOW SUCCESS DAM, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

NOV GEC JAN FEB MAR APR MAY JUN JUL

6.4 0 5.5 12 13
6.4 0 6.0 12 14
6.4 0 6.C 12 14
4.2 0 6.0 12 14
3.1 G 6.0 12 14

3.3 0 8.5 12 14
3.3 0
3.3 0
3.3 0

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DISCHARGE, IN CUBIC FEET PER SECOND,

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TULARE LAKE BASIN

11204700 SUCCESS LAKE NEAR SUCCESS, CALIF. (Formerly published as Lake Success near Success)

LOCATION.--Lat 36°03'40", long 118°55'18", in SE\iNtfi! sec.35, T.21 S. , R.28 E. , Tulare County, in control towe

DRAINAGE AREA.--391 sq mi.

PERIOD OF RECORD.--November 1961 to September 1970. Prior to October 1965, published as Lake Success near

rder. Datum of gage el (levels by Corps of En

EXTREMES.--Maximums and minimums (contents in acre-feet, elevation in feet) for the water years 1966-70 ai contained in the following table:

Wtr yr Date
1966 May 9-11, 1966
1967 Dec. 7, 1966
1968 June 5-9, 1968
1969 June 20, 21, 1969
1970 June 1-3, 1970

Contents Elevation Date
26,000 613.84 Sept.30, 1966
101,300 658.63 Nov. 3-6, 1966
43,900 629.95 Sept.30, 1968
95,300 656.42 Oct. 13, 1968
45,380 631.00 Jan. 6, 1970

5,890 584.98
5,340 583.65
8,880 590.85
8,230 589.73
7,895 589.13

COOPERATION.--Records furnished by Corps of Engineers; records for water years 1966-69 are rounded to Geological Survey standards.

Capacity table, water years 1966-70 (elevation, in feet, and contents, in acre-feet)

2
3
4

6
7
a
9

13
14

16
1?

19
20

21
22

24

26

28

30

KIN

(t) (t) (tt)
CAL YR
WTR YR

58
58

20,800
20,500
20,300

19,900

18,500
17,700

13,300

10.7CO

8,780

8,620
8,440

8, 100

7,770

6,970

- 14,200
360

1965 MAX
1966 MAX

0 4,0
5 5,9

6,820
6,850
6,880

6,960

7,100

7,380

7,860

8,410
8,540

9,450

10,100

6,790

+3,130
101

66,100
26,000

10
03

1C, 100

10,100
10,200

10,200

10,000

10,000

10.00C

1C, 000
1C, 000

10,000

10,000

9,980

+100
42

MIN 6,790
MIN 5,890

590
600

9,990
10,100
10,100

10,000

10,000

10,000

9,230

8,740
8,780

8,870

9,020

8,720

- 570

58

t -2
t -15

8,378
14,935

1C, 000
10,200
10,300

11,000

11,800

12,700

13,200

13,600

14,000

14,600

15,100

9,810

+5,870
88

,400
,300

6
6

16,500
16,700
16,900

17,200

17,300

17.7CC

18,000

18,300

18,500

19,100

19,500

16,200

+5,200
215

20 32,
40 59,

21,300
21,500
21,800

22,300

23,100

23,900

24,300

24,500

24,700

21,000

+4,500
420

006
546

25,400
25,500
25,600

26,000

25,900
25,800

25,700

25,700

25,600

25,600

25,300

+400
555

660

25,600
25,600
25,600

25,700

25,400
25,200

24,600

23,600

23,100

23.0CO

22,300

- 3,300
671

105,146

22,000
21,900
21,800

20,100

7,900
7,400

16,500

14,800

14,500
14,100

13,400

12,600

10,900

- 11,400
621

10,800
10,700
10,600

9,640

9,180
9,070

8,820

8,310

8, 190
8,10C

7,920

7,780

7,380

- 3,520
526

7,200
7,130
7,080

6,930

6,590
6,480

6,280
6,200

6, ICO

6,080
6,060

6,020

5,980

5,890

- 1,490
290

t ELEVATION, IN FEET, AT END OF MONTH. t CHANGE IN CONTENTS, IN ACRE-FEET. tt EVAPORATION, IN ACRE-FEET.

TULARE LAKE BASIN

11204700 SUCCESS LAKE NEAR SUCCESS, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14

16

ia
19
20

22
23
2*

26

29
30

MIN

(t)
(*)
Ctt)

OCT

5,880
5,850
5,830
5,810
5,790

5,770
5,750
5,740
5,720
5,700

5,690
5,660
5,650
5,630

5,590

5,550
5,540
5,520

5,490
5,480
5,460

5,420

5,380
5,370

5,360

- 530

NOV

5,350
5,350
5,340
5,340
5,340

5,340
5,350
5,430
5,530
5,590

5,620
5,660
5.690
5,720

5,780

5,850
5,890
5,980

6,270
6,340
6.41C

6,530

7,050
7,230

5.340

+1,870

DEC

7.360
7,480
9,150
9,650
28,400

100.500
97,600
93,200
88,500
83,000

76,800
73,400
74 , 300
74,400

71,800

67,900
66,200
65,100

63,500
62,700
61,900

60,100

56,900
55,700

7,360

+47,370

53,300
52,200
51,000
49,800
48.600

47,4CO
46,200
44,900
44,200
43,800

43,400
42,900
42,500
42,100

41,000

40,000
39,500
39,000

38,400
38,100
38,300

38,800
38,400

37,700
37,800

37,700

- 15,900

38,900
38,900
38,900
38,900
38,800

38,600
38,300
38,100
37,900
37,600

37,300
37,100
36,800
36,500

35,900

35,000
34,600
34,100

33,000
32,400
31,800

31,100
30,600

______

30,200

-8,500

29,600
28,900
28,200
27,400
26,700

25,900
25,100
24,300
23,500
22,700

21,900
21,300
21,700
22,700

24,800

27,400
28,000
28,500

28,200
27,800
27,400

28,000
28,600

30,100
30,800

21,300

+1,500

32,500
33,200
33,900
35,000
36.300

37,300
39,200
40,700
42,000
43,300

46,000
47,800
49,200
50,500

52,700

55,300
57,100
58,200

61,100
61,700
62,800

63,600
63,800

64,200
64,200

32,500

+32,500

64,100
64,000
63,900
64,000
64,400

65,000
65,800
66,900
68,400
70,500

71,700
72,500
73,100
73,600

75,200

77,700
79,000
80,100

82,400
83,600
84,600

86,400
87,000

87,900
88,400

63,900

+24,500

JUN

88, SCO
89,000
89,000
89.000
89,100

89,100
89,200
89,200
89.3CO
89,300

89.4CO
89,400
89,400
89,300

89,000

88.7CO
88,500
88, SCO

88, ICO
88,100
88, ICO

87.9CO
87. SCO

87,600
87,500

87,500

- 1,200

JUL

87,400
87,200
87, 100
87,000
86,800

86,700
86,600
86,500
86,500
86,400

86,300
86,200
86, 100
86,000

85,900

85,700
85,400
85,200

84,500
84,200
83,600

81,700
80,700

78,500
77,500

76,500

- 11,000

AUG

75,400
74,200
72.90C
71,700
70,500

69,300
68,000
66,900
65,800
64,700

63,600
62,500
61,400
60,300

58,100

55,900
54.90C
53,800

51,600
50,400
49,400

47,300
46,200

44,100
43,100

42,100

- 34,400

SEP

41,200
40,400
39,500
38,800
37,900

37,200
36,400
35,600
34,800
34,100

33,400
32,700
32,000
31,300

30,100

29,000
28,500
28,000

26,900
26,400
25,900

25,000
24,500

23,700
23,300

23,300

- 18,800

WTR YR 1967 MAX 100,500 MIN 5,340 t +17,410

t ELEVATION, IN FEET, AT END OF MONTH,
t CHANGE IN CONTENTS, IN ACRE-FEET,
tt EVAPORATION, IN ACRE-FEET.

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

CAY

1
2
3
4
5

6
7

9
10

11
12
13
14
15

16
17

19
20

21

24

27

29

31

(t)

w(tt)

OCT

22,900

22.10C
21,600
21,?00

20,900
20,500

19,600
19.2CO

18,700
18,200
17,800
17,300
16.80G

14,900

12,700

11,400

10,600

10,100

- 13,200

NOV

10,100

10,200
10,200
10,2CO

10,300
10,300

10,500
10,500

10,600
10,600
10,700
1C. 800
10,800

11, SCO

12,600

13,000

13,400

+3,600

13,800

13,900
13,800
13,800

13,800
13,700

13,400
13,300

13,100
12,900
12,800
12,700
12,600

12,600

12,200

12,000

12,000

11,800

- 1,900

11,800

11,600
11,500
11,400

11.3CC
11,300

11,300
11,400

11.9GC
12,100
12,100
12,200
12,200

12,300

12,300

12,600

12,900

13,200

+1,400

13 30C

13,600
13,700
13,800

14,100
14,300

14,800
15,100

15,400
15,600
15,800
16,000
16,200

19,900

20,300

20,700

+7,500

21,100
21,200
21,300

21,400
21,500

22,900
23,400

23,800
24, ICO
24,500
24.9CO
25.2CO

28,000

29,000

29,700

30,500

30,500

+9,800

32,100
32,500
33,000

33,400
33,800

34,500
34,900

35,200
35,600
35,800
36,100
36,400

8,400

8,900

39,300

+9,000

40,100
40,200
40,400

40,600
40,800

41,100
41,300

41,400
41,600
41,800
42,000
42,200

43,100

43,400

43.6CO

43,700

+4,200

JUN

43,800
43,800
43,900

43.9CO
43,900

43,900
43,800

43.6CO
43.4CO
43,200
43, COO
42,700

41,000

38,600

36, SCO

- 7,700

JUL

35,000
35,000
34,800

34,700
34,600

33,300
32,600

31,800
31, COO
30,200
29,300
28,600

26,100

23,100

21,600

20,100

- 15,900

AUG

19,800
19.8CC
19,400

18,800
18,100

16,600
15.8CC

15,000
14,200
13, SCO
13,400
13.4CO

11,800

Hi ICC

K.90C

10.80C

-9,300

SEP

10,800
10,700
10.70C
10.60C
10,600

10,500
10,400

10,300
10,200

10,100
10,000
9,94C
9,870
9,810

9,680

9,240

9,060

8,940

10,800

- 1,920

WTR YR 1968 MAX 43,900 MIN 8,880 t -14,400

TULARE LAKE BASIN lu/

11204700 SUCCESS LAKE NEAR SUCCESS, CALIF.--CONTINUED

CCNTENTSt IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1968 TD SEPTEMBER 1969

DAY DCT NDV DEC JAN FEB MAR APR HAY JUN JUL AUG SEP

1 8*818 8,759 12,488 10,429 68,501 77,298 60,431 65,992 94,321 93,333 72,002 47,518
2 8,759 8,782 12,617 10,003 66,515 74,385 63,491 66,651 94,557 92,971 71,030 47,199

8,582

8,488 9,C

8,385 9,197 13,211 11,378 64,052 61,653 72,586 72,210 94,165 89,438 63,827 45,632
8,333 9,264 13,101 11,557 63,286 60.645 71,649 73,682 94,191 88,914 62,768 45,422

8,268 9,338 13,053 11,709 63,175 59,3CO 70,743 75,245 94,060 88,270 61,689 45,184
8,236 9,417 12,991 1L,869 63,249 58,153 70,009 76,792 93,982 87,678 60,609 44,948 8,231 9,528 12,902 12,063 63,361 57,279 69,261 78,410 93,930 87,065 59,510 44,713 8,374 9,646 12,821 12,272 63,194 56,534 68,401 79,852 93,930 86,504 58,377 44,479

8,729 10,744 13,238 11,372 63,9C2 55,167 64,826 83,557 95 ,C29 84,482 55,664 43,934
8,8CG 10,92G 13,259 11,128 64,315 54,986 64,183 84,912 95,187 83,817 54,789 43,825
8,860 11,070 13,238 23,902 65,627 54,B21 63,566 86,164 95,292 83,016 53,941 43,717
8,914 11,220 13,204 28,328 66,089 54,789 63,119 87,408 95,319 82,244 53,120 43,636

21 8,920 11,345 13,
22 8,860 11,471 13,
23 8,788 11,6C3 12,

27 8,552 12,063 12,752 76,813 81,294 55,914 64,504 92,790 94,609 76,375 49,142 42,951
28 8,582 12,171 12,245 77,232 79,467 56,602 64,504 93,151 94,348 75,634 48,799 42,845

31 8,729 10,887 70,989 59,757 93,982 72,964 47,839

MAX 8,920 12,353 13,286 77,232 83,793 77,298 73,725 93,982 95,319 93,333 72,002 47,518
MIN 8,231 8,759 10,887 10,003 63,175 54,756 60,431 65,992 93,748 72,964 47,839 42,659
(t) 590*60 596.27 594.06 646.01 649.94 640.12 643.16 655.91 655.82 646.96 632.72 629.00
(t) -150 +3,670 -1,500 +60,100 +8,500 -19,700 +5,500 +28,700 -300 -20,700 -25,200 -5,100
(ft) 218 89 67 77 204 431 691 1,370 1,580 2,000 1,540 953

CAL YR 1968 MAX 43,900 MIN 8,231 J -900
WTR YR 1969 MAX 95,319 HIM 8,231 i +33,800

t ELEVATION, IN FEET, AT END OF MONTH.
t CHANGE IN CONTENTS, IN ACRE-FEET.
tt EVAPORATION, IN ACRE-FEET.

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP

2 41,296 19,030 9,479 8,436 30,089 26,581 31,745 38,837 45,380 35,449 20,612 15,692
3 40,489 18,385 9,516 8,231 29,919 27,009 31,901 39,072 45,380 35,460 20,125 15,627
4 39,7C6 17,765 9,547 8,016 29,729 27,365 32,058 39,245 45,268 35,472 19,92C 15,548

6 38,1C5 16,651 9,658 7,895 29,284 28,241 32,437 39,544 44,479 34,961 19,387 15,319
7 37,301 16,213 9,727 8,011 29,038 28,434 32,618 39,706 44,069 34,468 19,115 15,176
8 36,488 15,706 9,789 8,185 28,803 28,560 32,799 39,857 43,771 33,926 18,852 15,013
9 35,712 15,176 9,864 8,384 28,550 28,628 32,949 40,071 43,541 33,293 18,576 14,828

32,788 12,991 10,015 10,371 27,782 28,754 34,168 41,309 42,725 31,043 17,622 14,062 32,079 12,440 9,864 10,519 27,925 28,774 34,535 41,660 42,500 30,584 17,480 13,867 31,351 11,889 9,652 11,260 27,830 28,852 34,882 42,039 42,157 30,099 17,375 13,694

30,685 11,345 9,436 23,427 27,659 28,920 35,244 42,420 41,751 29,610 17,286 13,514 30,059 10,835 9,216 26,268 27,706 28,959 35,597 42,698 41,348 29,077 17,167 13,341 29,392 10,263 8,998 27,243 27,659 28,989 35,896 42,925 40,923 28,580 17,012 13,190 28,677 9,671 8,824 27,668 27,526 28,950 36,058 43,112 40,501 28,059 16,871 13,019 27,944 9,076 9,076 27,935 27,356 28,871 36,185 43,272 40,033 27,507 16,776 12,855

26,415 9,040 9,858 28,386 26,962 28,677 36,406 43,528 39,121 26,452 16,599 12,522 25,630 9,112 9,839 28,541 26,748 28,570 36,499 43,636 38,764 25,893 16,519 12,407 24,903 9,179 9,658 29,195 26,517 28,852 36,616 43,744 38,397 25,323 16,439 12,319
24,198 9,228 9,553 29,630 26,250 29,274 36,722 44,002 37,972 24,743 16,351 12,204

,110

018 16,089 11,916
479 16,010 11,876

31 20,348 8,908 30,391 31,331 45,338 21,527 15,851

MAX 42,091 19,700 10,148 30,462 30,260 31,331 38,105 45,338 45,380 35,472 21,079 15,757
HIN 20,348 8,974 8,824 7,895 25,449 25,567 31,568 38,482 35,850 21.527 15,851 11,863
(t) 607.22 5S1.75 590.90 618.43 613.25 619.35 625.41 630.97 623.50 608.68 601.28 595.54
(t) -22,352 -10,925 -515 +21,483 -4,942 +5,882 +6,774 +7,233 -9,488 -14,323 -5,676 -3,988
(tt) 468 159 79 92 127 263 440 832 940 853 664 509

CAL YR 1969 MAX 95,319 MIN 8,824 $ -1,992
WTR YR 1970 MAX 45,380 MIN 7,895 t -30,837

t ELEVATION, IN FEET, AT END OF MONTH.
t CHANGE IN CONTENTS, IN ACRE-FEET.
tt EVAPORATION, IN ACRE-FEET.

108 TULARE LAKE BASIN

11204900 TULE RIVER BELOW SUCCESS DAM, CALIF.

LOCATION.--Lat 36°03'23", long 118°S5'22", in SWV sec.35, T.21 S., R.28 E., Tulare County, on right bank 1,000 ft downstream from Success Dam and 5 miles east of Porterville.

DRAINAGE AREA.--393 sq mi.

GAGE.--Water-stage recorder and broad-crested weir. Datum of gage is 536.00 ft above mean sea level (levels by

AVERAGE DISCHARGE.--17 yea 5, 181 cfs (131,000 s-ft per year), adjusted for
tion.

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet) for the
1966-70 are contained in the following table:

on, and evapora-

Maximum

Wtr yr Date Discharge
1966 July 8, 9, 1966 512
1967 Dec. 6, 1966 a9,050
1968 July 26, 1968 456
1969 Feb. 27, 28, Mar. 1, 3, 4, 1969 3,210
1970 Oct. 6, 1969 459

a Includes flow over spillway that bypassed gage.

5.82
9.44
5.83

Minimum daily
Pate
Nov. 22-25, 1965
Nov. 24-27, 29 to Dec. 4, 1966
Nov. 22-28, 1967
Nov. 10, 11, 23-30, 1968
Sept.30, 1970

Discharge
. 10
. 50
1.7
. 50
2.9

Period of record: Maximum discharge, 27,000 cfs Dec. 23, 1955 (gage height, 21.65 ft, site and datum the in use), from rating curve extended above 1,400 cfs on basis of studies of upstream peaks; no flow at times in 1954-57, 1959-62, 1965. Maximum discharge since construction of Success Dam in 1961, 9,050 cfs Dec. 6, 1966 (includes flow through spillway); no flow for long periods in 1961-62, 1965.
Flood of Nov. 19, 1950, reached a stage of 26 ft, from floodmarks, site and datum then in use (discharge, 32,000 cfs).

CAY

1
2
3
4
5

6
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9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
2*
25

26
27
28
29
30
31

HE»N
MAX
MIN

MEANt
AC-FTt

CAL YR

103
103
103
103
103

103
306

399
396

417
441

443

439
433
421
399
167

89
89
89
89
90

90
90
84
82
85
88

230
444
82

13.8
847

1965 TOTAL

88
3.0
. 90
. 70
. 60

. 60
. 60

. 50
. 30

. 30
. 30

. 40

. 40
. 40
. 30
. 20
. 20

. 20
. 10
. 10
. 10
. 10

4
3
3
3
3

17.5
93
. 10

72.4
4,310

59,039

85
68
62
62
62

72
85

91
84

63
58

84

67
69
69
69
69

69
64
60
63
65

65
62
60
175
396
417

95.5
417
58

98.2
6,040

70 MEAN

368
164
95
107
126

137
111

138
138

131
110

104

265
258
252
213
81

81
68
61
53
44

44
44
44
32
12
2.0

120
368
2.0
7,400
112
6,870

162

1,9 .50 4 22
5.0 .50 4 22
8.0 .50 4 22
8.0 .50 4 22
8.0 12 4 22

9.0 29 3 22
9.0 76 2 30

28 86 2 56
29 96 2 84

16 104 5 106

16 107 7 100

16 108 54 71
16 108 63 70
16 108 74 70
6.0 90 78 55
. 50 68 78 33

. 50 62 79 35
. 50 50 65 40
. 50 36 55 39
. 50 27 40 38
. 50 20 30 38

. 50 17 24 28
. 50 14 21 9.2
. 50 14 22 11
6.9 22 15
18 22 15
43 15

9.30 55.0 45.9 45.1
29 108 84 106
. 50 .50 21 9.2

116 138 136 69.9
6,470 8,500 a. 080 4,300

JUN JUL AUG SEP

16 67 1C 29
16 60 10 29
18 56 10 21
14 26 10 10
9.5 9.8 22 6.0

6.7 9.7 88 .50
6.1 55 86 .60
9.5 370 86 .60
13 321 96 .60
13 262 37 16

56 303 34 24
56 232 31 31
90 228 31 36
132 232 37 34

146 233 43 28
143 222 47 24
132 86 47 10
128 73 39 .70
83 73 35 .50

59 73 35 .50
59 73 31 .50
53 71 29 .50
22 70 18 .50
22 68 1C .60

40 68 10 .60
56 80 1C .60
67 87 10 .60
74 87 10 .60
69 84 21 .60
11 29

55.0 170 33.8 11.0
146 370 96 36
6.3 9.7 10 .50

20.3 7.32 0 1.00
1,210 450 0 59

MAX 830 MIN 0 AC-FT 117,100 MEANt 174 AC-FTt 126,300

t ADJUSTED FOR CHANGE IN CONTENTS AND EVAPORATION FROM SUCCESS LAKE AND FOR DIVERSION TO PIONEER DITCH.

TULARE LAKE BASIN

11204900 TULE RIVER BELOW SUCCESS DAM, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

MAR APR MAY JUN JUL

1
2
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KEAN
MAX
MIN

MEANt

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. 70

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. 60

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. 80
1.0

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1.0
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4.33

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35.6

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. 5

180

3,760
7,250

4,040
4,C20

2,440

435
1,040

1,320
1,410
1,280
922

690
690

690

690
754

805
798

7,250

2,253

800
SCO

558
390

390

419
417

414
411
423
431

429
427

420

446
492

499
498

805

275

447
413

450

447

444
444

74
71
71
81

98
03

491

441
449

512

303

491
540

590

588

105
50

182
268
300
300

492
621

650

214
74

25
26

650

404

MIN .50

23
23

2.7

2.7

123
251

266
266
288
364

401
507

741

800
800

750
750

8CO

851

AC-FT 124

750
750
750

566

566
570

661
700
755
810

810
768

710

662
662

632
614

810

1,067

,400 MEANt

618
618

550

582
598

602
600
598
598

578
537

505

505
485

477
477

618

575

477
413

250

218
202

202
223
266
289

286
286

422

613
622

618
618

622

240

681
705

605

594
590

586
583
582
582

582
582

578

570
566

566
562

705

85.9

6,800

459
447

414

378

361
341

338
335
335
333

330
327

318

280
258

253
253

10,801
360
494
253

66.7

WTR YR 1967 TOTAL 173,631.80 MEAN 476 MAX 7,250 MIN .50 AC-FT 344,400 MEANt 516 AC-FTt 373,900

t ADJUSTED FOR CHANGE IN CONTENTS AND EVAPORATION FROM SUCCESS LAKE AND FOR DIVERSION TO PIONEER DITCH.

DISCHARGE, IN CLBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY

1
2
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4
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a
9
10

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14
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16
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25

26
27
28
29
30
31

MEAN
KAX
PIN

MEANt
AC-FTt

253
251
251
251
251

249
245
241
251

269
264
264

26C
260
258
258
245

241
240
257
237
?37

235
231
228
227
224
91

243

91

44.6
2,740

12
11
8.3
7.8
a.c

8.3
8.1
7.9
7.2

7.6
7.9
7.4

6.9
6.3
4.2
2.2
2.1

1.1
1.7
1.7
1.7
1.7

1.7
1.7
1.7
6.0
43

7.09

1.7

75.5
4,490

81
81
81
112
131

131
160
175
174

173
155
134

110
111
111
140
15S

15*
162
160
159
159

151
147
147
147
147
147

141
175
81

112
6,900

147
147
133
126
126

126
126
105
64

91
115
H7

114
111
III
111
111

111
111
111
10
64

63
63
64
64
64
64

99.5
147
63

122
7,520

383

64
64
64
64
65

15
1.9
8.0
19

23
23
21

17
20
19
18
18

47
00
32
41
41

27
04
88
85

5 .5
41
. 9

86
10, 00

MAX 810

MAR

84
84
85
85
85

92
94
. 86
82

39
30
26

24
24
24
24
24

24
16
2.8
2.7
2.7

2.7
2.7
2.7
2.7
2.7
7.9

37.5

2.7

203
12,490

MIN 1.7

APR

12
10
8.5
8.3
7.3

7.5
7.6
7.6
7.7
5.3

7.8
16
20
20
18

21
27
20
13
14

14
14
14
24
34

30
27
27
27
27

16.6

5.3

182
10,810

AC-FT 277

MAY

27
27
27
27
27

27
27
27
27
27

27

18
22
46

54
53
50
47
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49
4B
46
40
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38
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22
18
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21

33.1

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123
7,570

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JUN

33
42
46
40
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38
IC3

137

137
135
135

135
130
127
55
52

52
52
146
245
333

384
420
424
4CO
377

149

33

48.4
2,880

341

JUL

370
51
45
40
37

37
37
256
363
362

392

391
383
371

46
41
40
32
27

27
247
319
342
434

454
50
38
93
65
47

243

27

15.1
931

AC-FTt 247

AUG

35
22
17
17
190

265
335
360
355
357

360

320
25
19

16
16
16
17
74

119
112
101
95
95

94
85
42
14
13
14

127

13

0
0

100

SEP

14
14
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14
14

14
14
14
18
28

33
33
23
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15
16
16
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502
16.7

14

2.77
165

t ADJUSTED FOR CHANGE IN CONTENTS AND EVAPORATION FROM SUCCESS LAKE AND FOR DIVERSION TO PIONEER DITCH.

TULARE LAKE BASIN

11204900 TULE RIVER BELOW SUCCESS DAM, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECONDi WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

NOV DEC JAN FEB MAR APR MAY JUN JUL

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TOTAL
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TOTAL
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48
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USTED FOR

323

439
435

450
459

438

417
414
414
414
414

414

422

447

438

411

385
355
385
385

419

323

73.7

. 70

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18

187

96

96
96
96
96
100

102
102
102
102
102

163 2
290 2
348 2
348 2

332 800 ,01

328 800 ,01
313 800 ,01
286 800 ,01
426 800 ,01
577 870 ,01

589 1,010 ,01
562 1,270 ,01
423 1,490 ,01
390 1,660 ,01

,180 3,000 ,01
,260 3,200 ,02
,030 3,210 ,02
,320 ,02

0 ,800 572

0 ,810 574

0 ,520 570

0 ,320 628

0 ,220 800
0 ,140 800

0 ,110 850
0 ,110 900
0 ,040 952
0 940 1,000

CHANGE IN CONTENTS AND EVAPORATION FROM SUCCESS LAKE AND FOR

DISCHARGE, IN CU8IC FFET PER SECOND, WATER YEAR CCTC8ER 1969

385

371
365

36C
36C

345

343
340
335
330

328

55

55

55
55
55

253

54

79.8

55

56

52
52

5?

39
13C
154
151

164

48

216

219
219
215

125

39

122

215 323 355 99 19

191 323 355 125 100

103 323 355 100 101

29 320 35

30 319 35
128 318 35
165 318 35
2C3 318 35

320 319 35

253 323 36

0 108 99
8 118 86
8 70 79

8 37 31
8 37 12
8 24 12
8 12 16
8 14 19

8 18 19
8 18 66

C 1C8 111

258 357 9

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662

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788

DIVERSION TO

TC SEPTEMBER

105
108
108
164
287

308

235
2C3
188

186
193
196
196
254

282
282

294

3CC

245
243
229

204 326 292 71.8 65.5

29 318 84 12 12

555 239 392 202 210

229

105

99.8

610

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634

680
680
625

581
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575
574

325
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PIONEER

1970

219
36
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18
4C

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280
315
321

300
291
297
243
257

275

272

261

268
257
243
225

238

18

32.4

604

497

483

345
342
342

280
231
226
223

128
7,850

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DITCH.

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83.?

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12.9
791

151

88

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221

68.9
4,100

33
25
?0
24
40

52

71
77
77

76
76
76
76
72

69
69

69

69

37
16
2.9

52.9

2.9

5.76
343

t ADJUSTED FOR CHANGE IN CONTENTS AND EVAPORATION FROM SUCCESS LAKE AND FOR DIVERSION TO PIONEER DITCH.

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Doll«lmy«r ditch

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MiddU Fork Kaweoh River No. 2 Conduit i

h K~--Rr,« I^C
4-1 No. 2 Powornouse | ,
1 O ' -T J
Kawoah Rhror p"l
No. 1 Powerhouse LJ

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Koweok River r'n
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4 2°*5 Middle Fork Koweok River

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L ^-s Menorck Creek

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EXPLANATION

Oagin9 station

Numbers are Ihose given in fho
ilolion deKriptiom of Hie report

aro"**ou"

Stroa-ii, *p*n HUM*, or canal
skowintj dimctwn of ft»w

^ nstock, iunn«L cUmd flvm*.
or pip* ihowing dirwcfion of N*w

FIGURE 4 -Schematic diagram showing diversions and storage in Kawcah River basin

TULARE LAKE BASIN

11206500 MIDDLE FORK KAWEAH RIVER NEAR POTWISHA CAMP, CALIF.

DRAINAGE AREA.--102 sq mi.

PERIOD OF RECORD.--July 1949 to Septe
WSP 1735. Prior to October 1954, and conduit published separately; combined flow only

Altitude of gage 2,100 ft (from topogr map) . Pr

i concrete-1ined channel fo
to October 1955, at datum

AVERAGE DISCHARGE.--21 ye
duit, 21 years, 178 cf

rs (river only), 138 cfs (99,980 acre-ft per ye
(129,000 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet) for th 1966-70 are contained in the following table:

Maximum
River only
Wtr yr Date Disch. G.H.
1966 Nov. 22, 1965 549 6.19
1967 Dec. 6, 1966 23,300 17.70
1968 May 28, 1968 610 6.15
1969 Jan. 25, 1969 6,580 11.82
1970 Jan. 16, 1970 2,890 9.49

Period of record:
floodmarks, datum then
1949. Maximum discha
Sept. 23-25, 1949.

Combined
Date Disch.
Nov. 22, 1965 604
Dec. 6, 1966 23,300
May 28, 1968 661
Jan. 25, 1969 6,580
Jan. 16, 1970 2,910

River only
Date Disch.
Oct. 7-9, 1965 9.6
Nov. 17,18, 1966 8.7
Oct. 10, 1967 6.7
Sept.17, 1969 5.1
July 26, 1970 7.1

f river and con-

r years

daily
Combined
Date Disch.
Sept.29, 1966 11
Nov. 2, 3, 1966 9.5
Sept.28-30, 1968 9.8
Oct. 12, 1968 12
Sept.28-30, 1970 14

m of K

table published herein.

REVISIONS.--WSP 1930: Dra

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEA" OCTOBER 1965 TO SEPTEMBER 1966

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TOTAL
MEAN
MAX
MIN

CAL YR
WTR YR

OCT

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9.9
9.7
9.7
9.7

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9.6
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313.2
10.1
11
9.6

1965 TOTAL
1966 TOTAL

NOV

10
10
10
10
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10
10
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1111

15
78
34

30
103
41
31
19

16
82
237
273
135

93
71
59
51
44

. . . . .

1,534
51.1
273
10

51,767.1
26,356.2

DEC

40
41
44
45
42

38
34
30
32
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25
28
19
17
14

14
14
14
14
14

14
14
13
13
13

13
13
13
116
74
46

891
28.7
116
13

MEAN
MEAN

38
37
32
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827
26.7
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142
72.2

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701
25.0
41
22

MAX 671
MAX 356

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36
49

60
71
76
82
82

85

83
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93
107
111

106
122
142
160
176
203

2,516
81.2
203
24

MIN 9.1
MIN 9.6

239
273
281
279
269

269
275
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259
261

201
185
161
160
174

209

213
179
158

146
139
142
166

243
251
243
241
259
. . . . . .

6,588
220
281
139

AC-FT
AC-FT

289
311
320
338
356

356
353
320
283
253

215
213
213
239
253

267

303
?99
271

239
239
245
253

?67
245
229
195
164
140

8,216
265
356
140

102,700
52,280

JUN

133
125
119
119
120

122
167
161
130
116

119
136
136
136
115

115

122
108
91

83
72
57
51

45
45
46
43
37
. . . . . .

3,048
102
167
37

JUL

31
26
24
23
22

22
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23
23
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23
22
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23
23

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24

735
23.7
31
22

362
12.1

TULARE LAKE BASIN

11206500 MIDDLE FORK KAWEAH RIVER NEAR POTWISHA CAMP, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 196ft TO SEPTEMBER 1967

DAY

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27
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31

TOTAL

MEAN MAX
MIN
AC-FT

CAL YR
MTR YR

DAY

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31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

OCT

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11

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10

352 1,
11.4
12
10
698

1966 TOTAL
1967 TOTAL

OCT

42
28
19
15
9.3

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30 .3
9 82
42
. 7

NOV DEC

9.6 65
9.3 177
9.3 417
9.6 100

10 10.500
12 1.720
14 846
12 596

12 476

12 392
11 338
11 301
10 277
9.6 261

8.7 237
8.7 227
9.0 217
118 207

26 193
14 182

12 173 11 167
10 161

10 156
10 146
513 146
349 144
113 140
134

382.4 22,703
46.1 732

8.7 65
2.740 45,030

48,055.4 MEAN
128.765.4 MEAN

133
130
127
125
124

106
9B
93
99
101

102
10B
102
101
101

102
101
93
86

240
182
134

179

166
162
154

307
277

4,303
139

86
8,540

132 MAX
353 MAX

191
67
58
50
49

48
48
44
44
155

158
161
162
160
143

130
127
126
123

120
lib
115

126

116
113
112

3,908 7
140

112
7,750 13

10,500
10,500

DISCHARGE. IN CUBIC FEET PER SECOND.

7.8 15
9.2 17
8.9 4B
8.6 15
8.6 27

8.2 17
7.4 15
7.4 15
7.4 14
7.4 IS

7.4 17
7.4 17
7.4 12
8.2 12
10 12

10 14
14 16
19 15
51 16
32 15

31 13
29 14
26 18
25 22
25 27

24 29
22 28
26 26
22 26
32 26
24

17.0 18.3
51 29
7.4 12

1967 TOTAL 105.708.6 MEAN

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22
52

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26
26
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26
26

26
27
26
25
24
24

24.8
52
IB
1.530

290
1968 TOTAL 24,409.0 MEAN 66.7

21
20
22
22
22

19
IB
17
IB
35

20
18
17
16
14

15
9B
75
67
85

96

82
86
85

82
78
83
83
. . . . . .

48.0
96
14

MAX 1.470
MAX 390

112
113
115
113
112

108
107
108
109
109

118
161
219
197
189

592
437
338
303

295
295
283

239

221
219
229
231
209
225

. 038
227

107
,960

MIN 8.
MIN 8.

WATER

80
71
67
67
69

70
62
89
66
60

57
57
59
54
46

51
54
47
43
40

47

48
51
59

66
79
106
134
142
151

69.0
151
40

MIN
MIN

207
209
211
235
231

227
275
257

253

265
253

267
269

255
255 ,
255 ,
259 .

255 ,
257 ,
249 ,

253 ,

257 ,
261 ,
255 ,

227

7,504 23,
250

207
14,880 47,

7 AC-FT 95
7 AC-FT 255

231
237
247

271

289
372
530

A54

498
429

426
542

915
050
120
190

320
440
470

320

190
120
040

860
775

982 26
774

231
570 52

,320
. 400

YEAR OCTOBER 1967 TO

153
140
118
1 2
12

10
10
10
12
16

19
19
17
17
175

151
138
118
102
95

85

80
102
140

204
264
298
326
332

156
332
76

324
112
278
266
272

244
236
224
202
210

224
224
167
153
132

153
218
284
334
34B

334

191
168
202

300
350
390
390
340

259
390
132

6.7 AC-FT 209,700
6.7 AC-FT 48,420

JUN

650
556
550

65B

SB*
654
734

760

775
760

694
738

835
820
920
990
910

. 120
,140
. 100

. 200

. 210
,170
. 170

. 350

. 546
885

550
. 650

SEPTt

JUN

300
320
320
2BO
220

145
146
153
12S
110

120
13*
14B
ISO
150

151
151
135
12B
IIP

104

93
86
78

64
57
57
52
42

141
320
42

JUL

370
360
250

080

1,040
970
860

718

718
755

726
750

750
678
622
598
562

530
504
477

514

522
435
506

429

22,929
740

429
45,460

«BER 1968

JUL

35
30
22
18
17

IB
17
21
20
21

22
20
20
20
24

32
31
30
29
28

2B
27
26
26
26

25
25
26
28
31
29

772
24.9
35
17
1.530

AUG

382
370
36B

322

295
251
219

225

217
215

198
190

192
177
153
151
145

13B
130
138
198
196

160
129
110

87

6,293
203
382
B2
12.480

AU3

28
26
25
24
24

22
20
20
20
20

20
20
20
IB
IB

20
21
20
20
24

25
24
24
21
19

IB
IB
IB
16
15
14

642
20.7
28
14
1,270

SFP

77
B?
9B
157
190

112
B6
71

57

51
48

45
36

23
20
64
90
72

43
31
33
34
44

35
22
15
30
49

1,825
60. B
190
15
3,620

SEP

15
14
14
14
14

13
13
12
12
12

12
12
12
12
12

12
12
11
11
11

12
12
11
11
11

10
10
9.8
9.8
9.8

356.4
11.9
15
9.8
707

TULARE LAKE BASIN

11206500 MIDDLE FORK KAWEAH RIVER NEAR POTWISHA CAMP, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY

1
2
3
4
5

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8
9
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14
15

16
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18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL MEAN
MAX

AC-FT

CAL YR
KTR YR

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN
MAX

AC-FT

CAL YH

13
14
13
14
14

14
14
14
14
13

13
12
IS
124
56

51
48
47
45
41

39
35
32
30
16

7.7
7.2
7.0
12
34
23

831.9
26.8
124
7.0
1,650

1968 TOTAL
1969 TOTAL

OCT

15
15
15
14
14

14
14
14
14
14

14
14
14
14
16

72
48
37
27
22

17
16
48
35
16

16
16
16
15
15
15

20.8
72
14
1,280

9.8
10
36
30
16

13
12
12
13
13

12
24
16
12
44

14
IS
17
14
13

11
11
11
11
12

12
12
12
11
11

459.8
15.3 i
44

912 1,

25,032.1
145,804.3

DISCHARGE,

NOV

IS
15
15
15
15

16ia
14
14
14

14
14
14
14
14

14
13
13
13
13

13
13
12
\£

12

12
12
1^
1^
12

13.6

12
811 1

1969 TOTAL 145,700.6

11 17
11 21
12 24
13 31
13 39

13 42
12 34
12 26
12 18
12 14

27 14
13 12
13 67
45 106
63 SB

54 41
16 27
14 134
14 1,470
14 631

14 1,090
14 720
14 363
41 903
72 3,520

38 1,870
19 1,050
33 718
33 S10
22 411
18 348

712 14,329
3.0 462
72 3,520
11 12
410 28.420

MEAN 68.4
MEAN 399

IN CUBIC FEET

12 13
12 18
12 ZZ
12 21
12 20

12 20
12 21
11 21
11 38
11 144

11 62
11 41
11 31
11 128
11 93

11 1,670
11 729
11 335
43 224
60 156

M 137
82 128
26 116
16 247
167 148

7a 124
39 129
16 109
14 98
14 88
14 76

27.3 168

11 13
,6HO 10,330

MEAN 399

316
288
266
248
246

280
250
240
234
232

234
2S2
238
218
300

286
250
242
234
202

187
186
168
S16
522

378
324
336

7,673
274
522

314
288
284
260
244

236
242
206
204
196

187

182
177
180

198
226
254
268
274

276
264
282
308
338

372
423
483

594
634

9,123
294
634

15,220 18,100

f«AX 390
MAX 3,520

PER SECOND

74
67
66
64
61

61
63
64
62
63

78

75
74
64

62
79
64
60
55

55
51
48
47
47

51
49
70
. . . . . .
. . . . . .

62. b

W
3,470

4AX 3,S<?0

MIN
MIN

634
610
598
530
602

582
504
477
444
390

423

492
495
432

399
438
486
480
590

734
800
730
602
504

480
510
582

698

16,366 3
546
800

734
742
670
606
S70

654
755
960

,100
,200

,210

,140
,120
,120

,180
,290
,320
. 290
,300

,350
,370
,340
,470
,500

,460
,420
,470

,680
,770

,511
,178
,770

32,460 72,420

7.0 AC-FT 49,650

,800
,780
,690
,600
,530

,500
. 410
,240
,080
835

702

800
955
1,030

1,060
990
860
920
960

965
1,060
1,070
1,010
905

855
850
BIS

855

32,617
1,087
1,800

64,700

JUL

BBO
8B5
860
825
795

765
750
742
730
726

718
706
698
722
694

694
690
678
686
706

682
666
638
5B6
522

483
474
477
456
447
456

20,837
672
885

41,330

AUG

411
382
360
350
316

254
226
208
204
270

298
240
208
206
182

174
155
140
124
114

109
100
99
99
109

85
68
55
50
45
43

5,684
183
411

11,270

SEP

40
42
42
39
35

35
48
43
38
33

23
14
9.8
7.9
6.6

5.2
5.1
10
16
16

16
16
IS
IS
IS

IS
IS
IS
IS
IS

660.6
22.0
48
5.1

1,310

5.1 AC-FT 289,200

, KATER YEAR OCTOBER 1969

86
113
B3
78
82

85
91
89
83
91

78

88
102
106

109
114
111
99
91

93
102
111
129
150

158
142
132
122
110

103

77
6,350

MIN 5
MIN 7

90
96
117
130
153

182
184
200
232
268

282

238
191
162

143
137
128
120
110

107
99
95
100
114

128
128
109
110
122

151

90

146
177
?20

270

302
248
262
286
338

322

334
459
610

706
722
694
618
542

538
578
638
638
574

514
534
514
522
550

450

146
9.000 27,660

TO SEPTEMBER 1970

JUN ""

S94
S46
483

370

3S3
373
3SO
426
306

256

193
158
14?

143
163
206
234
252

252
246
232
204
189

177
196
151
122
94

269

94
16,010

83
83
85

85

80
82
75
73
93

82

57
54
47

47
41
37
35
34

30
26
16
14
10

7.1
8.3
9.3
13
13
13

47.8

7.1

2,940

AUG

13
12
16
21
20

20
20
19
19
19

19
18
18
IB
18

18
18
18
18
17

17
17
17
17
16

16
16
16
17
16
16

17.4
21
12
1,070

SEP

13
12
12
12
12

12
11
11
11
11

10
8.1
8.1
8.1
11

14
13
13
13
13

13
13
13
12
12

12
12
11
11
11

11.6
14
8.1
691

. 1 AC-FT 289,000
. 1 AC-FT 81,300

TULARE LAKE BASIN

11206500 MIDDLE FORK KAWEAH RIVER NEAR POTWISHA CAMP, CALIF.--CONTINUED

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF MIDDLE FORK KAWEAH RIVER AND MIDDLE FORK KAWEAH RIVER NO. 3 CONDUIT NEAR POTWISHA CAMP, CALIF., WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
1ft
15

16
17
18
19
20

21
22
23
2ft
25

26
27
28
29
30
31

TOTAL MEAN MAX

MIN
AC-FT

CAL YR
HTR YR

OCT

30
29
28
27
26

26
25
24
2ft
23

23
22
22
22
31

29
28
27
26
24

23
22
23
21
21

21
21
21
21
20
20

750
24.2
31
20
1,490

1965 TOTAL
1966 TOTAL

NOV DEC

20 98
19 101
19 102
19 99

19 95
19 91
19 88
19 91
20 88

21 83
21 85
37 76
137 75
88 67

84 63
161 60
97 60
87 62
74 60

69 60
131 56
294 52
330 53
191 54

149 53
127 53

114 53 106 176
100 135
108

3, 611 2>49ft
87.0 80.5
330 176
19 52

5,180 ft, 950

67,845 MEAN
39,388 MEAN

COMBINED DISCHARGE, IN CUBIC

DAY

1
2
3
it
5

6
7
8
9
10

11
12
13
1ft
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN

CAL YR
WTR YR

NO.

OCT

12
12
13
13
13

13
13
12
12
12

12
13
13
12
12

12
12
12
11
11

11
11
11
12
11

10
10
10
10
10
10

11.6
13
10

1966 TOTAL
1967 TOTAL

3 CONDUIT NEAR

9.9 117
9.5 229
9.5 455
9.B 138
9.8 3,360

11 10,500
20 1,720
40 846
28 596
25 476

20 392
19 338
17 301
16 277
16 261

18 247
20 237
17 227
16 217
168 207

79 193
57 182
45 173
29 167
32 161

30 156
29 146
553 146
404 144

U*

64.1 738
553 10,500
9.5 117

JAN

96
91
85
86

91
97
100
93
88

84
82
80
79
81

77
71
69
66
64

62
61
58
57
55

55
53
52
52
60
58

2,300
74.2
100
52
4,560

186 MAX
108 MAX

FEET PER
POTWISHA

133
130
127
125
126

118
114
112
112
112

114
118
116
116
116

116
115
114
112
110

267
209
160
226
211

204
200
191
204

304

157
341
110

58,700.5 MEAN 161
139, 054. S MEAN 361

FEB

57
59
60
61

96
77
67
62
65

60
61
62
62
61

62
64
66
65
66

71
75
76
78
76

75
71
71

1,885
67.3
96
57
3,740

725 MIN
410 MIN

SECOND, OF

MAR

70
70
71
78

80
82
89
88
103

114
123
127
132
133

136
128
134
137
137

137
144
158
162
150

157
173
193
212
227
254

4,075 8
131
254
70
8,080 16

19 AC-FT
11 AC-FT

APR

324
332
330
319

319
325
322
310
312

252
236
212
212
226

261
287
265
231
210

198
191
194
218
260

296
304
296
294
312

. 138
271
332
191
,140

134,600
78,130

MAY

365
374
392
410

410
406
373
336
306

269
267
267
293
306

321
336
357
353
324

292
292
298
306
318

320
297
281
?47
215
192

9,866 4,
318
410
192
19,570 9,

MIDDLE FORK KAWEAH RIVER AND CAMP, CALIF., WATER YEAR OCTOBER 1966 TO

227

190
181
180

179
179
175
175
186

189
192
193
191
174

165
160
157
156
153

150
145
145
143
156

146
143
142

171
227
142

MAX lO.bOO
MAX 10,500

142

145
143
141

137
135
136
137
137

146
193
255
232
223

693
616
477
478
342

334
334
322
301
277

258
256
267
269

263

264
693
135

MIN 9.5
MIN 9.5

244

273
270

267
315
297
303
293

305
293

308
309

303
295

295
300

296
298
290
309

?98
302
296
290

<J90
315
244

4C-FT
AC-FT

?71

?88
324
312

330
413
572
679
695

539
470

467
584

772
957

,160 1,
. 230

,360
,480
,490
,460

,230
,160
,080
9S5

S10
1,490 1,
271

116.400
27&.ROO

JUN

186
178
172
172
173

175
221
214
183
169

173
190
190
190
169

170
189
177
164
147

141
130
115
110
104

103
103
105
102
96

711
157
221
96
340

MIDDLE

JUL

91
84
78
72
67

65
63
59
56
52

50
47
46
44
42

40
39
37
35
34

35
34
33
33
32

32
31
30
29
31
32

1,453
46.9
91
29
2,880

AUG

30
39
43
37
34

31
28
27
26
25

23
23
23
22
22

21
21
21
20
19

19
19
IB
17
17

17
17
17
16
15
16

723
23.3
43
15
1,430

SEP

16
14
13
13
13

13
13
13
13
13

13
13
13
13
13

13
12
12
13
13

13
12
12
12
12

12
12
12
11
12

382
12.7
16
11
758

FORK KAWEAH RIVER
SEPTEMBER 1967

JUN ""

690

590
655
699

627
695
77B
787
801

81*
802

736
780

87T
86?

030
95?

160
180
140
180

250
210
210
330

926
390
590

,410
,400
,290
,200
,120

,080
,010
894
802
749

749
786

756
780

7RO
708

625
592

560
534
507
523

554
467
540
546
534
468

773
1,410
467

AU&

423
407
403
387
356

327
282
251
240
262

253
251

233
227

231
215

1«7
177

174
168
176
232
?24

190
157
137
126
119
121

238
423
119

SEP

118
125
143
203
234

153
129
116
106
99

90
86
86
82
75

69
63
10B
130
105

84
7«
78
80
90

78
68
68
87
10R

3.139
105
234
63

TULARE LAKE BASIN

11206500 MIDDLE FORK KAWEAH RIVER NEAR POTWISHA CAMP, CALIF.--CONTINUED

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF MIDDLE FORK KAHEAH RIVER AND MIDDLE FORK KAHEAH RIVER NO. 3 CONDUIT NEAR POTHISHA CAMP, CALIF., HATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY

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16
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18
19

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21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN

CAL YR
WTR YR

OCT

100
85
75
70
62

61
58
54
53
51

49
48
47
46
44

42
41
39
38
37

37
37
37
36
34

34
33
32
32
32
31

1,475
47.6
100
31

1967 TOTAL
1968 TOTAL

NOV

30
30
29
30
29

30
28
28
28
27

27
26
26
30
30

32
38
50
110
80

73
70
66
64
62

60
56
66
60
74

1,389
46.3
110
26

118,
38,

DEC

65
69
72
65
84

69
65
64
61
64

69
68
S6
48
55

52
52
56
59
61

59
63
73
80
87

90
89
87
82
76
71

2,111
68.1
90
48

862.0 MEAN
087.4 MEAN

JAN

68
63
60
56
54

53
51
49
49
74

72
60
59
58
106

87
71
66
65
65

70
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72
73

72
74
69
67
65
72

2.061
66.5
106
49

326
104

FE8

72
76
76
76

72
70
67
69
94

72
67
66
6b
61

63
156
126
118
137

146
128
130
132
131

128
126
133
132

2,858
98. 6
156
61

MAX 1,490
MAX 441

MAR

120
116
116
119

120
112
140
116
109

110
114
113
109
105

111
113
107
104
101

108
107
106
110
116

119
128
155
183
192
201

3,809
123
201
101
7,560

MIN 26
MIN 9

APR

189
167
169
169

158
152
156
173
209

238
243
220
221
221

197
185
167
152
145

134
126
129
148
186

251
311
345
373
379

6.116
204
379
126
12,130

AC-FT
. 8 AC-FT

MAY

361
326
314
320

292
264
272
250
258

272
?72
215
201
181

202
267
334
384
398

384
317
241
218
252

351
401
441
439

9,555
308
441
181
18,950

235.800
75,550

JUN

369
369
329
269

194
197
204
178
160

171
189
199
201
201

202
202
186
179
169

156
147
146
140
133

123
116
115
107

5,796
193
369
96
11,500

JUL

86
81
76
71
67

67
65
74
73
67

63
59
58
56
55

57
55
52
50
48

48
47
44
42
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39
44
48
55
49

1,776
57.3
86
39
3,520

AUG

47
42
35
36
34

31
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27
26

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24
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24
23

23
23
23
22
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26
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24
22
19

18
18
18
16
15
14

785
25.3
47
14
1,560

SEP

15
14
14
14
14

13
13
12
12
12

12
12
12
12
12

12
12
11
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11

12
12
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11

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9.8
9.8
9.8

356.4
11.9
15
9.8
707

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF MIDDLE FORK KAWEAH RIVER AND MIDDLE FORK KAHEAH RIVER NO. 3 CONDUIT NEAR POTWISHA CAMP, CALIF., WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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24
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27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

1
1
1
1
1

1
1
1
1
13

13
12
15
124
56

51
48
47
45
41

39
35
32
30
29

28
27
27
25

39

946
30.5
124
12

1,880

1968 TOTAL
1969 TOTAL

34
32
70
69
55

49
43
41
44
45

43
66
65
50
105

76
74
79
76
73

66
60
59
57
51

45
43
36
35
35

1,680
56.0
105
32
3,330

37,710
158,416

36
34
36
38
37

36
35
33
32
32

73
42
41
91
123

114
68
60
58
52

48
52
53
96
132

101
80
91
92

76

1,972
63.6
132
32
3,910

. 4 MEAN

74
75
77
86

99
96
93
85
76

73
71
126
166
118

101
90
201
1,510
632

1,090
721
379
917
3,520

1,870
1,050
718
510

15,477
499
3,520
71
30,700

103

316
288
266
248

280
250
240
?34
232

234
252
238
218
300

286
260
261
253
228

219
218
200
539
522

378
324
336

7,866
281
539
200
15,600

MAX 441

314
288
284
260

236
242
206
204
196

187
187
182
177
180

198
226
254
268
274

276
264
282
308
338

372
423
483
542

634

9,123
294
634
177
18,100

MIN 9.
MIN 12

634
610
598
530

582
504
477
459
443

487
539
557
552
488

459
498
546
539
650

795
862
794
668
571

552
585
657
718

17,720
591
862
443
35,150

8 AC-FT
AC-FT

793
797
72*
659
623

707
808
1,010
1,150
1,240

1,250
1,210
1,190
1,170
1,170

1,230
1,340
1,380
1,340
1,350

1,410
1,430
1,400
1,530
1,570

1.530
1,450
1,480
1,570

37,981
1,225
1,780
623
75,340

74,800
314,200

,810
,780
,690
,600
,570

,560
,470
,300
,140
887

754
741
852
1,010
1,060

1,110
1,040
911
971
1,010

1,020
1,110
1,120
1,060
957

906
902
866
851

33,985
1,133
1,810
741
67,410

932
937
912
878
847

817
801
792
780
777

770
757
750
773
745

745
7*0
727
735
754

731
714
685
634
569

529
520
523
502

502

22,371
722
937
493
44,370

457
428
406
395
360

298
271
253
249
315

343
285
253
251
226

218
199
184
168
158

153
143
142
142
138

126
120
114
109
104
102

7,110
229
457
102
14,100

99
101
100
97
93

93
105
100
95
90

83
75
70
68
66

64
62
60
61
62

64
60
56
55
53

51
SO
48
52
52

2,185
72.8
105
48
4,330

TULARE LAKE BASIN

11206500 MIDDLE FORK KAWEAH RIVER NEAR POTWISHA CAMP, CALIF.--CONTINUED

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF MIDDLE FORK KAWEAH RIVER AND MIDDLE FORK KAWEAH RIVER NO. 3 CONDUIT NEAR POTWISHA CAMP, CALIF., WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

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11
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13
1*
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16
17
IB
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20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MJN

CAL YR
MTR YR

51
50
48
46
44

42
41
40
39
39

44
40
37
37
44

125
100
89
7B
72

64
59
59
61
57

54
53
51
49
47
45

1,705
55.0
125
37

1969 TOTAL
1970 TOTAL

45
44
43
42
41

56
71
58
55
54

56
56
54
S3
52

55
46
44
43
42

40
40
36
35
34

33
33
32
30
30

1,355
45.2
71
30

158,727
56,038

30
30
30
29
29

?9
29
28
29
27

28
27
27
27
26

26
26
26
69
121

126
143
66
74
226

139
99
73
67
63
60

59.6
226
26

MEAN
MEAN

56
53
51
7
2

4
5
5
4
204

121
99
87
185
153

1,700
729
335
251
205

186
177
164
297
197

172
178
155
142
135
129

208
1,700
42

435 MAX
154 MAX

127
120
119
117
114

114
116
116
116
117

132
130
129
128
118

116
133
118
114
109

109
105
102
100
101

105
103
124

116
133
100

3,520
1,700

140
168
137
132
136

139
145
143
137
145

132
131
142
157
161

164
169
166
154
146

148
157
166
184
206

214
198
188

166
152

158
214
131

MIN 26
MIN 14

146
152
173
187
210

239
241
257
2P9
326

339
321
295
248
219

199
193
184
176
165

162
154
150
155
169

183
183
164
165
176

207
339
146

AC-FT 314
AC-FT 111

201
232
275
303
325

357
103
317
341
393

377
339
389
513
A64

760
776
748
671
594

590
630
690
690
626

566
586
566
574
602
610

503
776
201

,800
,200

646
S9R
535
477
421

404
424
401
477
357

306
286
243
208
192

193
213
257
285
303

303
297
284
256
241

229
24S
202
173
151

320
646
151

1 6
1 6
1 8
1 7
1 8

1 3
1 6
1 9
136
157

145
126
120
116
110

110
104
100
98
97

93
89
80
75
71

67
67
63
60
56
55

108
157
55

S3
50
49
48
46

46
45
42

(.2
41

41
39
38
38
37

37
36
36
36
34

33
32
31
30
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27
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28
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27
26

37.2
S3
26

25
25
24
23
23

24
21
21
20
19

19
18
IB
18
16

20
18
18
18
18

18
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18
16
16

16
IS
14
14
14

18.8
25
14
1,120

TULARE LAKE BASIN

11208000 MARBLE FORK KAWEAH RIVER AT POTWISHA CAMP, CALIF.

DRAINAGE AREA.--51.4 sq mi.

PERIOD OF RECORD.--March 1950 to September 1970. Monthly discharge only for March 1950, published in WSP 1315-A. Prior to October 1954, records for river and conduit published separately; combined flow only October 1954 to September 1960.

GAGE.--Water-stage recorder and concrete control on river; water-stage recorder and concrete control for conduit diversion. Altitude of gage is 2,150 ft (from topographic map).

AVERAGE DISCHARGE.--20 years (r nly), 75.7 cfs (54,840 acre-ft p
54 cfs (39,100 acre-ft p r). Combined flow of river and conduit, 20 years, 102 cfs (73,900 acre-ft per year); median of yearly mean discharges, 78 cfs (56,500

EXTREMES. --M
1966-70 a:

mums and minimums (discharge in cubic feet per
contained in the following table:

River
Wtr yr
1966
1967
1968
1969
1970

Date
May
Dec.
May
Jan.
Jan.

6,
6,
28,
25,
16,

1966
1966
1968
1969
1970

only
Di!

6

2
1,

;ch.
402
,400
278
,610
,310

G.
4.
11.
4.
8.
7.

H.
80
50
65
86
19

Date
May
Dec.

May
Jan.
Jan.

Con

6,
6,
28,
25,
16,

nbined

1966
1966
1968
1969
1970

Disch.
447
6,400
330
2,610
1,310

height in feet) fo

Minimum daily

Date

Sept.
Sept
Sept
Sept

R

. 28
. 22
. 28
. 11

(

iver only
I
, 1966
,23, 1967
, 1968
, 1969
a)

)isch.
2.4
. 7
. 4
. 38
. 83

Date

Sept
Oct.
Aug.
Oct.
Sept.

C<

. 29,
1,
25,
2,
. 17,

Dmbined

1966
1966
1968
1968
1970

Disch.
3.1
3.4
1.6
2.3
3.9

a Oct. 26, 27, 29, 30, 1969.

good. Marble Fork Kaweah River No. 3 conduit diverts from left bank of Marbl bove station; water is returned to Kaweah R
schematic diagram of Kaweah River basin elsewh n this report. For records of combined discharge of riv tables published he Water-quality records for th

rd and 62 discharge

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE. IN CUBIC FEET PER SECOND. HATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

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31

TOTAL
MEAN
MAX
MIN

CAL 1H
KTR YK

3.
3.
3.
3.
3.

3.
3.
3.
3.
3.

3.
3.
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3.
3.
3.
3.
3.
3.

97.

3.]
3.
3.

1965
1966

2 3.1
2 3.1
1 3.6
1 3.8
0 4.4

0 4.4
0 4.4
0 4.4
1 4,2
1 3.8

0 4.0
0 4.0
0 4.4
0 26
2 15

2 18
2 42
1 18
1 5.3
2 3.8

2 3.4
4 38
6 149
4 156
2 54

2 30
1 22
1 18
1 16
1 13

3 679.1
4 22.6
6 156
0 3.1

TOTAL 29,b68
TOTAL 15,378

11
15
17
15
12

12
10
10
7.9
4.4

4.5
2.6
3.1
3.4
3.4

3.4
3.4
3.4
3.4
3.4

3.4
3.2
3.2

3.2 3. a
3.2
3.2
3.2
14
16
13

217.1
7.00
17
2.6

,b MEAN
. 1 MEAN

8.5
4.0
3.4
4.5
7.4

8.2
8.5
8.5
8.5
8.5

8.5
8.5
B.2
8.5
8.2

7.9
7.9
8.2
8.2
8.2

8.2
8.2
7.9
7.9
7.6

7.6
7.6
7.6
7.6
7.9
7.6

238.0
7.6S
8.5
3.4

81.0
42.1

7.4
7.6
7.6
7.6
7.6

8.8
7.9
7.4
7.6
7.6

7.6
7.9
7.9
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7.6

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7.6

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7.9

7.9
7.9
7.9

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216.3
7.73
8.6
7.4

MAX 504
MAX 267

8.8
9.6
9.9
12
12

12
12
12
12
18

27
28
32
40
40

43
38
42
44
44

45
51
64
66
49

53
71
90
104
120
149

1.358.3
43.8
149
8.8

MIN 2.6
MIN 2.4

181
213
221
215
209

209
223
225
205
191

137
128
107
112
139

185
199
151
116
96

86
83
88
117
161

189
197
189
183
197

4,952
165
225
83

AC-fT 5fl
AC-FT 30

227
247
241
237
?57

267
265
235
189
161

141
141
151
179
187

203
209
211
185
154

144
156
151
163
173

175
158
141
113
85
66

5.622
181
?67
66

,650
. 500

69
62
61
63
63

63
91
84
79
68

73
78
79
74
52

4?
49
50
43
3fl

35
25
17
16
IS

15
14
14
13
13

1.458
48.6
91
13

14
13
11
10
9.3

9.
9.
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9.
9.
6.
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7.
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7.
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6.
6.

6.
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6.
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6.

255. 13
8.2 4
1
5.

4.7
4.7
4.9
5.1
6.4

6.2
5.3
4.4
4.4
4.5

4.5
4.7
4.7
4.7
4.9

5.1
5.1
5.1
5.3
5.5

5.5
5.3
6.4
7.6
5.1

4.7
3.6
2.4
2.6
3.0

146.4
4.88
7.6
2.4
290

TULARE LAKE BASIN

11208000 MARBLE FORK KAWEAH RIVER AT POTWISHA CAMP, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND* WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR MAY JUN JUL

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24
25

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27
28
29
30
31

TOTAL MEAN MAX

MIN
AC-FT

CAL YR
WTR YR

DAY

1

2,8
2.8
3.0
3.4

3.6
3.8
4.0
3.6
3.2

3.2
3.2
3.2
3.4
3.4

3.2
3.2
3.1
3.1
3.1

3.1
3.1
3.1
3.2
3.2

3.1
3.1
3.4
3.4
3.4
3.6

101.6
3.28
4.0
2.8
302

1966 TOTAL
1967 TOTAL

OCT

1.3

3.8
4.0
4.0
4.0

4.2 4
4.7 1
5.3
5.3
4.9

4.7
6.9
9.3
9.3
9.3

9.3
9.6
10
10
66

24
12
9.3

8.5 e.2
7.1
7.6
436
224
40

965.3 11
32.2
436 4
3.8
1.910 22

26.902.bO
67,424.30

DISCHARGE,

2.9

14
77
327
36

,540
,100
522
322
255

223
199
181
163
152

145
139
133
128
125

120
112
109
104
98

97
89
90
90

83

. 451
369
. 540
14
,710

MEAN
MEAN

82
81
79
78

74
71
70
70
70

72
74
73
73
73

73
72
71
69
69

120
97
89
89
90

89
92
88
91
184
183

2,665
86.6
184
69
5,330

73.7
185

IN CUBIC FEET

2.9 4.8

120
103
90
80
81

81
80
79
80
85

91
92
91
88
77

70
66
67
67
65

61
60
60
55
56

52
72
86

2.155
77.0
120
52
4,270

MAX 4,540
MAX 4,540

PER SECOND

12

89
91
92
89

70
48
45
48
47

49
59
70
71
57

391
375
239
187
163

156
154
151
131
116

105
100
107
103
92
92

3,671
118
391
45
7,280

MIN 2
MIN

> WATER

24

89
84
81
84
80

77
88
81
84
84

85
82
81
88
87

S2
82
85
80
80

78
78
76
79
71

74
81
76
71
66

2,414 12
en. 5
89
66

63
66
68
76
72

80
117
204
232
22B

172
142
131
150
?28

336
426
526
589
641

731
S20
A60
940
845

723
665
629
571
522
477

,330
398
940
63
4,790 24,460

. 4 AC-FT
. 70 AC-FT

YEAR OCTOBER

64

53,360
133,700

375
305
310
360
381

332
396
62
6B
68

77
68
17
20
6?

501
504
585
633
585

723
755
714
709
75C

765
750
755
840
875

16,545 12

55? 87<i
305
32,820 25

1967 TO SEPTEMBER

152

JUIV

115

885
865
780
681
661

613
574
508
456
420

435
441
543
453
423

414
366
328
310
286

265
240
250
240
250

238
184
198
204
206
200

,919
417
885
1B4
,620

1968

9.4

152 25
144 1
142 1

1 128 12
121

107
62
71
61
78

78
73
73
64
53

58
56
42
49
78

88
71
62
50
28

20
11
11
12
13

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% ^
1 4
% 3
. 6
. 4

. 6
. 5
. 3
. 2
. 0

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. 0.1
. 0
. 90

. 80
. 70
. 70
. 80
. 90

. 90
. 90
. 90
. 90
. 0

2,085.2 102.20
67.3
152
9.2
4,140

».41
25
. 70
203

AUG ot'-

6.3 2.

31

TOTAL
MEAN

MAX MIN
AC-FT

CAL YR 1967
XTR YR 1968

OCT

1.3
1.3
1.1
1.1
1.4

1.9

2.4
2.2
1.7

1.9
1.9
2.4
2.7
2.7

2.7
2.7
2.7
2.7
2.7

2.7
2.7
2.7
2.7
2.7

2.7
2.9
2.9
2.9
2.9
2.9

72.2
2.33
2.9
1.1
143

NOV

2.9
2.9
2.9
2.9
2.9

2.9

2.9
2.9
3.0

3.0
3.0
2.9
2.9
2.7

2.9
2.7
2.7
3.1
3.0

2.9
2.9
2.9
2.9
2.9

2.9
2.7
2.7
2.7
2.9

86.5
2.88
3.2

172

DEC

2.9
2.9
2.9
2.9
3.0

2.9

2.7
2.7
2.7

2.7
2.7
2.9
3.2
3.2

3.2
3.0
3.4
3.4
3.4

3.5
3.0
3.0
3.0
3.0

3.0
3.0
3.0
3.7
5.0
4.8

97.4
3.14
5.0

193

JAN

4.8
4.6
4.6
4.6
4.6

4.3

3.7
3.7
3.7

3.7
4.6
5.7
5.9
7.0

8.1
7.5
7.5
7.5
7.5

7.5
7.5
7.5
7.5
7.6

7.8
11
16
17
16
15

227.9
7.35
17

452

FEB

12
6.8
3.9
3.9
3.9

3.9

3.7
5.5
7.3

7.3
7.b
8.9
7.3
5.2

4.8
13
15
12
21

26
IS
20
2?
22

22
20
28
27
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361.9
12. S
28

718

MAR

24
15
12
12
15

12

11
6.6
5.9

6.1
7.8
6.1
5.7
5.2

5.7
5.5
5.9
5.7
5.7

5.0
5.0
5.2
6.6
8.9

17
21
34
52
65
66

465.6
15.0
66

924

»PR MAY JUN JUl

64 152 115 9.'
46 157 120 6.
37 144 114 5.
41 142 98 6.
49 141 74 5.'

37 117 2 6.
37 118 0 5.
47 110 3 5.
52 97 9 5.
72 103 1 5.

86 113 0 6.
87 106 8 5.
75 75 8 5.
82 65 6 5.
76 59 4 5.

62 72 4 5.
59 115 1 5.
48 146 31 b.
42 172 25 5.
38 168 22 5.

32 157 12 5.
28 124 5.2 5.
27 81 5.5 5.
36 79 5.0 5.
59 106 3.4 5.

106 141 5.0 6.
141 161 6.3 6.
146 165 6.f> 6.
J59 147 11 6.
159 130 10 6.

2,030 3.777 1,175.? 189.
67.7 122 39.? 6. 1C
159 172 12n 9.1,

4,030 7,490 ?,330 37=

AUG

. 6.3

) 6.3
> 6.6
6.3
» 6.1

5.7
5.5
5.2
4.8
4.6

4.3
3.9
3.7
4.1
3.9

3.4
2.9
2.9
2.9
3.4

3.0
2.2
1.9
1.5
1.2

1.9
2.4
1.9
1.9
1.7
2.2

114.6
3.70
6.6
1.2
227

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f>3.4
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3.
. 4
12

MEAN 151
MEAN 23.7

MIN
MIN

. 70 4C-FT 109,400
. 40 4C-FT 17,180

TULARE LAKE BASIN

11208000 MARBLE FORK KAWEAH RIVER AT POTWISHA CAMP, CALIF.--CONTINUED

DISCHARGE, IN CUFtIC FEET HER SECOND, WATER YEAR OCTOBER 196R TO SEPTEMBER 1969

DAY

1
2
3
it
5

6
7
8

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11
12
13
14
15

16
17
18

1920
Zl
zz
23
24
25

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31

TOTAL
MEAN

MAX MIN
AC-FT

CAL YR
HTR YR

OCT

1.4
1.5
2.0
1.1
1.2

1.4
1.4
1.9

3.4

3.4
3.4
3.8
52
22

14
12
13
11
9.1

8.3
7.5
5.9
5.5
2.6

. 78
. 78
. 83
. 88
1.7
1.3

198.47
6.40
52
. 78
394

1968 TOTAL
1969 TOTAL

NOV

1.7
3.1
13
7.0
3.0

1.1
\.d
1.3

4.0

2,0
3.3
7.3
2.0
7.4

6.7
3.3
5.6
6.5
3.8

2.2
2.0
1.9
1.5
1.4

1.5
1.6
1.6
2.3
3.4

107.5
3.58
13
1.1
213

8,862
85,638

2.7 6.7
1.6 5.5
1,6 4.6
. H8 5.2
. H3 8.7

3.2 11
3.5 7.1
. 88 4.9

3.9 4.9

10 5.2
3.0 4.9
8.7 25
IZ 65

24 36

8.4 14
1.0 6.3
3.0 35
4.2 715
3.1 317

3.0 608
5.2 33H
5.2 182
13 298
16 1,940

1.9 1,130
2.3 524
1.2 342
1.0 252
. 94 209
4.1 182

151.33 7,287.6
4. 88 235
24 1,940
. 83 4.6
300 14.450

. 00 MEAN 24.2
. 72 MEAN 235

DISCHARGE. IN CUBIC FEET

DAY

1
2
3
4
5

6
7

a
9
10

11
12
13
1*
15

16
17
IB
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

WTR YR

OCT

1.1
1.1
1.1
1.1
1.1

1.1
1.1
1.1
1.1
1.1

2.6
1.3
1.2
1.3
1.6

44
37
25
16
19

13
11
22
15
1.0

. 83
. 83
. 88
83
!s3
. 88

227.08
7.33
44
. 83
450

NOV

1.1
1.3
1.3
1.3
1.4

6.5
7.1
1.1
1.2
1.2

1.6
1.8
l.b
1.2
1.2

1.2
1.1
1.2
1.2
1.3

1.3
1.2
1.1
1.1
1.1

1.1
1.1
1.2
1.8
2.0

49.8
1.66
7.1
1.1
99

1970 TOTAL 17,02

DEC JAN

2.0 1.9
2.1 3.7
1.9 5.9
1.9 5.5
1.7 7.9

2.2 9.5
2.0 10
2.0 10
2.0 16
1.6 72

2.1 29
2.1 14

2.0 7,5
1.8 38
1.7 41

1.5 614
1.5 283
1.7 139
5.8 88
33 50

25 41
53 40
7.0 35
1.7 88
55 65

37 33
7.8 36
1.2 27
1.0 20
1.9 14
1.9 11

265.1 1,855.9
8.55 59.9
55 614
1.0 1.9
526 3,660

,.18 MEAN 46.6

167
149
137
130
126

133
124
115
111
106

96
70
SB
53
54

52
58
58
50
49

47
49

103
165

145
119
115

2.687
96.0
167
47
5,330

MAX 172
MAX 1,940

PER SECOND

FEB

9.5
7.1
6.7
6.3
4.4

4.2
5.2
7.1
6.3
6.3

13
14
12
9.1
7.5

6.7
9.1
3.8
2.7
2.6

2.3
2.3
2.2
2.2
2.2

2.3
2.4
8.1

167.6
5.99
14
2.2
332

MAX 614

112
104
104
95
90

89
84
82
80
80

76
76
74
71
71

74
ftO
R9
92
95

94
90

109
122

139
157
183
208
242
270

3,430
111
270
71
6,800

MIN
MIN

, WATER

MAR

21
28
22
19
21

22
28
29
25
25

19
19
26
42
49

52
54
45
33
31

35
44
52
70
86

95
77
73

54
43

1,303
42.0
95
19
2,580

MIN

275

240
222
252

242
205
202
202
200

228
262
288

225

212
242
278
275
341

428
473

353
290

288
326
383

461

8,800 25
293
473 1
200
17,450 49

. 40 AC-FT
. 38 AC-FT

YEAR OCTOBER

APR

37
48
64
68
79

97
97
101
119
139

143
128
112
85
71

61
54
49
47
41

41
36
35
37
47

53
44
33
32
37

494

431
386
371

443
527
658
750
822

ftlO
770
802

766

826
915
930
900
890

935
970

. 020
. 060

,020
,020
,020

,160

JUN

1,260

1,170
1,120
1,060

1,020
960
846
710
546

464
458
534

662

658
582
521
602
642

630
68?

614
598

570
570
546

578

,187 21,733
ft!2
. 220
371

724
1,260
458
,960 43,110

17.580
169.900

1969 TO SEPTE

MAY

51
76
106
121
141

161
131
149
179
208

179
147
183
?60
320

365
374
371
338
300

295
313
353
356
313

283
278
273
285
?85

2,035 7,482 3
67.8
143
32
4,040 1

. 83 AC-FT

241
374
51
t,840

33,770

JUN

288
268
233
198
185

165
187
149
205
133

104
97
97
51
51

51
65
74
89
88

79
65
57
44
35

26
36
13
5.5
4.2

,164.7
105
288
4.2
6,280

JUL

586

586
566
546

527
532
515
509
512

500
503
566

458

461
449
437
458
479

428
404

347
308

280
272
252

258
252

13,670
441
590
245
27,110

8ER 1970

JUL

4.2
3.8
4.0
3.3
5.5

11
4.7
4.7
7.5
16

11
5.5
4.7
6.7
5.9

6.3
6.3
7.1
7.9
9.1

6.3
10
9.1
9.5
11

12
14
13
11
8.3
7.1

248.5
8.02
16
3.3
493

AUG

198

175
173
145

104
89
66
84
127

139
95
77

65

60
56
49
41
37

34
28

46
75

24
13
14

6.2
4.5

2,345.2
75.7
198
4.5
4.650

AUG

6.7
5.9
7.1
7.5
6.7

6.3
5.9
5.5
5.2
5.2

5.5
5.5
5.9
5.5
5.2

5.2
5.5
5.9
5.9
5.9

5.5
5.5
5.5
4.9
4.7

4.9
5.5
5.9
5.9
5.5
5.2

177.0
5.71
7.5
4.7
351

SEP

3.3
5.6
4.2
1.7
. 46

. 49
5.4
3.0
1.1
. 40

. 38
. 43
. 43
. 49
. 58

. 62
. 66
. 66
1.1
1.7

. 78
1.0
1.1
. 68
. 83

. 78
. 78
. 83

1.0

41.62
1.39
5.6
. 38
63

SEP

5.2
3.0
1.6
1.3
1.4

. 5
. 5
. 6
. 7
. 7

. 5
. 0
. 0
. 1
1.1

1.1
1.1
1.3
1.3
1.4

1.5
1.5
1.5
1.5
1.6

1.6
1.5
1.5
1.8
2.1

48.5
1.62
5.2
1.0
96

TULARE LAKE BASIN

11208000 MARBLE FORK KAWEAH RIVER AT POTWISHA CAMP, CALIF.--CONTINUED

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF MARBLE FORK KAWEAH RIVER AND MARBLE FORK KAWEAH RIVER NO. CONDUIT AT POTWISHA CAMP, CALIF., WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

OCT

11
10
9.5
9.2
8. ft

8.8
8.3
8.0
7.9
7.6

7.5
7.5
7.2
7.2
9.3

8.7
8.2
7.9
7.6
7.4

7.2
7.1
6.8
6.4
6.2

6.2
6.1
6.1
6.1
6.0
6.0

237.8
7.67
11
6.0
472

6.0
6.0
6.1
6.3
6.6

6.6
6.4
6.4
6.4
6.5

6.7
6.7
7.9
57
49

52
80
55
41
35

29
64
190
196
93

68
60
56
54
50

1,313.6
43.8

6.0
3.610

48
52
54
53
50

49
47
47
45
41

42
41
39
37
33

28
28
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30

31
28
27
27
27

27
27
27

60
57

1(209
39.0

27

2(400

48
40
36
36
36

40
40
42
40

40
40
39
40
40

38
36
35
35

33
32
32
32
30

30
30
29
29
32
30

1,120
36.1

29
2,220

29
30
30
30
30

38
34
31
32

26
30
29
29
30

31
32
32
34

36
40
40
41
36

36
34
36

918
32.8

28
1,820

37
35
32
33
33

34
36
38
44

67
68
72
80
80

78
82
84
84

85
92
105
107

93
113
132
146
162
191

2.472
79.7

32
4,900

223
255
263
257
251

251
265
?67
?47

179
170
148
154
180

237
193
158
138

128
125
130
159
205

233
241
233
227
241

6,218
207

125
12,330

MAY

?B9
280
?76
?95

308
309
?79
?32

183
183
193
221
229

251
253
?27
196

186
198
203
204
215

217
200
183
155
126
106

6,916
223

106
13.720

JUN

109
102
101
103
103

103
131
124
119

113

I 1 S

119
114
92

89
90
83
78

74
63
54
52

49
48
47
43
39

2,599
86. f<
131
39
5,160

JUL

36
32
28
26
23

22
21
20
19
17

16
15
14
13
13

12
11
10
10
10

9.6
8.6
8.1
7.5

7.1
7.1
6.8
6.4
6.8
7.1

450.4
14.5
36
6.4
893

AUG

6.9
7.6
12
9.5
7.5

6.6
5.7
4.8
4.6
4.2

4.0
3.8
3.8
4,0
4.4

4.0
4.0
4.0
4.0
4.0

4.0
3.6
3.6
3.9

4.6
5.0
4.9
5.1
5.1
5.5

158.7
5.12
12
3.6
315

SEP

5.6
5.3
5.3
5.5
6.9

7.1
6.1
5.2
5.2
5.3

5.4
5.7
5.7
5.7
5.9

6.0
6.0
6.1
6.7
7.0

6.5
6.1
7.2
8.3

6.1
5.0
3.3
3.1
3.5

172.9
5.76
8.3
3.1
343

TOTAL MEAN
MAX MIN
AC-FT

CAL YR
MTR YR 1966 TOTAL 23,785.4 MEAN 65.2 MAX 309 MIN 3.1 AC-FT 47,180

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF MARBLE FORK KAWEAH RIVER AND MARBLE FORK KAWEAH RIVER NO. CONDUIT AT POTWISHA CAMP, CALIF., WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

AUG !

231
222
220
206
198

181
155
138
133
153

153
148
148
136
128

131
129
112
113
135

142
132
122
125
103

,184 1,190
135 39.7
231 86

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
HTR YR

OCT

3.4
3.6
3.9
4.0
4.0

4.1
4.2
4.4
4.0
3.6

3.6
3.6
3.7
3.8
3.7

3.5
3.6
3.5
3.5
3.5

3.5
3.6
3.5
3.6
3.6

3.5
3.5
3.8
3.8
3.8
4.0

115.4 1,
3.72
4,4
3.4
229

1966 TOTAL
1967 TOTAL

NOV

4.2
4.4
4.4
4.4
4.4

4,7
7.6
13
9.0
7.1

6.5
8.7
11
11
11

12
15
14
14
97

57
36
25
22
19

17
18
462
262
78

259.4
42,0
462
4.2
2,500

34,014
79,511

DEC

51
116
265
76
1,700

4,540
1,100
522
322
255

223
199
181
163
152

145
139
133
128
125

120
112
109
104
98

97
89
90
90
88
83

11,615
375
4,540
51
23,040

. 8 MEAN.8 MEAN

JAN

82
81
79
78
79

74
71
70
70
70

72
74
73
73
73

73
72
71
69
69

120
97
89
89
90

89
92
88
91
184
183

2,685
86.6
184
69

5(330

93.2
218

FEB

120
103
101
98
99

100
102
103
104
109

117
118
117
115
105

100
98
99
99
97

93
94
94
93
97

94
74
86
- -

2.829
101
120
74

MAX 4,540
MAX 4,540

MAR

89
91
92
89
84

85
86
87
89
87

88
95
106
111
101

422
404
283
231
207

201
201
197
180
165

154
150
157
153
142
143

4,770
154
422
84

MIN 3.1
MIN 3.4

APK

141
136
133
137
134

131
141
134
137
137

137
135
134
141
140

135
135
138
133
132

129
130
128
131
122

125
133
127
122
116

3,984
133
141
116

AC-FT
1C-FT

MAY

113
118
120
126
122

133
172
260
284
?7B

?22
192
183
?04
?B2

388
479
580
644
696

786
875
R94
942
857

759
708
675
615
570
525

13,802
445
9*2
113

67,470
157,700

JUN

415
353
360
410
433

384
449
516
522
522

53d
521
470
473
515

554
557
638
687
637

776,
BOA
754
763
804

820
BOS
810
896
930

18.112
604
930
353

JUL

940
920
835
735
714

668
634
568
516
480

497
505
607
517
487

478
432
397
380
355

334
309
321
313
325

314
261
276
282
286
280

14(966
483
940
261

2 TULARE LAKE BASIN

11208000 MARBLE FORK KAWEAH RIVER AT POTWISHA CAMP, CALIF.--CONTINUED

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF MARBLE FORK KAWEAH RIVER AND MARBLE FORK KAWEAH RIVER NO. 3 CONDUIT AT PDTWISHA CAMP, CALIF., WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

1 31
2 27
3 23
4 22
5 19

6 19
7 17
8 16
9 15
10 14

11 13
12 13
13 12
14 11
15 11

16 10
17 10
18 9.8
19 9.5
20 9.5

21 9.1
22 9.5
23 9.5
24 9.5
25 8.8

26 9.1
27 9.0
28 9.0
29 8.7
30 9.0
31 8.7

TOTAL 411.7 MEAN 13.3
MAX 31
MIN 8.7
AC-FT 817

8.7
8.4
fl.4
8.4
8.7

9.0
6.4
8.2
7.9
8.0

7.8
7.5
7.7
8.4
9.1

8.7 e.tj

10
33
28

25
23
23
22
21

20
18
19
17
24

425.1
14.2
33
7.5

COMBINED DISCHARGE, IN

DAY OCT

1 2.9
2 2.3
3 2.7
4 2.9
5 3.0

6 3.4
7 3.4
8 3.2
9 3.6
10 3.6

11 3.6
12 3.6
13 4.0
14 52
15 22

16 14
17 12
18 13
19 11
20 9.3

21 8.4
22 7.6
23 6.0
24 b.6
25 7.1

26 7.6
27 7.2
28 6.6
29 7.0
30 11
31 13

MEAN 8.47

MIN <?.3
AC-FT 521

CAL YP 1968 TOTAL

CONDUIT

NOV

11
9.5
29
33
27

21
17
16
21
23

21
2b
31
21
31

33
31
36
38
34

30
26
28
26
18

14
13
13

23.7

9.5

1,»10

17,087.

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17
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23
24
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29
29
30
30
27
25

693
22.4
30
16

CUBIC

24
23
21
20
20

19
19
18
18
23

23
21
20
20
35

28
26
24
24
24

26
28
30
30
30

29
29
28
27
26
28

761
24.5
35
18

32
28
27
28
28

27
26
26
27
31

27
27
27
26
24

26
60
62
56
66

72
63
65
67
67

66
64
73
72

1,290
44.5
73
24

FEET PER SECOND, OF
AT POTWISHA CAMP

13
11
12
12
11

11
12
11
IP
9.4

22
13
15
26
b3

tfb
20
19
16

1»
16
17
27
40

33

25
24

^n.B

9.4
1.280

' Mt '

22
22
23
25
31

37
39
39
35
29

28
27
47
85

44
37
65
730
317

608
33?
190

1,940

1,130
524
342
252

209 i y?

250

22

lb,370

N 46.7 *

, CALIF.,

167
149
137
130
126

133
124
lib
111
106

104

102
97

96
102
102
94
93

90
89
86

165

145
119
115

::::::

lib

H6

6,410

ax 221

68
59
55
55
58

55
49
55
48
46

46
51
48
45
43

46
44
41
40
40

41
45
43
46
51

61
65
80
100
112
113

1,749
56.4
113
40

WIN 7.
WIN 1.

MARBLE
WATER

112
104
104
9S
90

84
82
80
80

76

74
71

74
80
»9
92
95

94
90
98

122

157
183

242
270

111

71
6,800

MIN

111
92
81
86
95

SI
82
93
100
122

138
138
125
129
125

110
100
90
85
80

75
70
75
85
110

158
181
195
206
209

3,429
114
209
70

5 AC-FT

201
205
191
184
184

164
165
157
144
150

161
154
122
111
105

119
163
195
221
217

206
173
128
126
154

191
211
215
197
180
163

5,?57
170
?21
105

135,000

164
169
1*3
147
122

88
86
88
79
71

86
94
94
92
90

90
87
77
70
67

56
49
48
47
41

36
35
30
27
24

2,417
80.6
169
24
4,790

6 AC-FT 33,720

FORK KAWEAH RIVER AND MARBLE
YEAR OCTOBER 1968 TO

275
?6?
240
223
254

206
202
202
200

228

?B8
284

229
268
310
307
373

460
SOS
487

322

360

49b

9,315
311

200
1W,4HU

522
520
459
414
396

547
678
770
P41

«29

821
793

R54
944
958
931
921

966
1,000
962

,100

050
nso

190
?50

26.031
840

396
51.630

21
20
17
17
15

16
17
18
20
16

14
12
11
11
10

9.6
9.1
6.6
7.9
7.6

7.4
6.9
6.6
6.3
6.4

6.6
6.5
6.8
7.3
7.0
7.0

354.6
11.4
21
6.3
703

7.0
7.0
7.2
6.8
6.6

6.2
5.9
5.6
5.2
5.0

4.7
4.3
4.1
4.5
4.3

3.8
3.3
3.3
3.
3.

3.
3.
2.
1.
1.

2.3
2.8
2.3
2.3
2.1
2.6

129.0
4.16
7.2
1.6
256

FORK KAWEAH RIVER
SEPTEMBER 1969

JUN

,290
,250
,170
,120
,080

99)
876
740
577

49R

569
701

694
61H
556
636
679

669
722
717
652
636

608
584

610

22,682
75*

490
44,990

JUl_

628
630
621
606
588

574
559
553
555

544

608
497
505

512
498
485
503
517

475
451
435
393
354

320
300

305
299

15,051
486

293
29,850

AUG

245
241
229
223
192

143
139
137
182

194

130
125
119

114
111
106
95
92

89
82
81
101
110

78
55
50

43

126

42
7,730

2.6
2.6
2.6
2.5
2.6

2.5
2.1
2.0
2.1
2.2

1.9
2.4
2.8
2.8
3.0

3.1
3.2
3.1
3.1
3.1

3.6
3.7
3.7
3.7
3.5

3.5
2.7
2.2
2.3
2.4

83.8
2.79
3.7
1.9
166

NO. 3

SEP

40
44
41
39
36

45
43
39
36

32

25
24
25

24
24
23
22
24

24
21
20
19
18

18
17
17

19

84?
28.1

17
1,670

1.6 AC-FT 33.890

TULARE LAKE BASIN

11208000 MARBLE FORK KAWEAH RIVER AT POTWISHA CAMP, CALIF.--CONTINUED

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF MARBLE FORK KAWEAH RIVER AND MARBLE FORK KAWEAH RIVER NO. CONDUIT AT POTWISHA CAMP, CALIF., WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
1*
15

16
17
18

1920
21
22
23
24
25

26
27
26
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

OCT

19
17
17
16
16

15
15
1*
13
13

17
15
13
13
14

51
39
30
33

27
25
26
31
27

25
23
23
21
19
IB

704
22.7
59
13
1,400

NOV

17
17
16
15
15

19
28
31
29
29

33
3*
33
31
31

25
21
19
19

IB
17
16
15
15

15
14
12
11
11

63b
21.2
34
11
1,260

DEC

11
11
11
11
10

11
11
11
11
10

111111

10
10

9.9
10
14
44

46
65
48
41
97

79
48
33
32
30
28

815.8
26.3
97
9.9
1,620

a MEAN

JAN

28
23
21
18
17

18
19
19
25
90

54
45
41
68
78

283
139
112
102

9?
92
85
129
102

68
89
79
72
66
63

2,795
90.2
638
17
5,540

259

FEB

62
58
56
56
54

54
57
58
56
56

64
65
62
S9
57

56
59
52
50
49

48
46
46
46
47

48
48
56

1,527
54.5
65
46
3,030

MAX 1,940

MAR

65
69
62
59
61

62
69
69
65
65

59
59
66
63
91

94
96
87
75
72

76
86
95
113
129

138
119
114
105
94
S3

2,580
83.2
138
59
5,120

MIN 9.9
MIN 3.9

APR

76
66
104
108
119

138
138
142
160
180

184
169
154
126
112

102
95
89
87
81

81
76
75
77
88

96
67
74
72
78

3.256
109
1H4
72
6.460

4OFT
4C-FT

MAY

92
117
148
163
163

204
173
192
?22
251

?22
188
?25
305
365

410
419
416
383
344

339
357
394
386
356

329
324
318
330
328
327

8,810
284
419
9?
17,470

187.200
53,350

JUN

333
313
278
242
229

230
233
195
251

1 8
1 1
1 1
ft
ft

111
120
13*
134

125
111
103
89
80

73
81
57
50
43

4,513
ISO
333
43
8.950

JUL

39
39
40
39
42

46
38
36
35

39
32
27
26
24

23
22
21
22
23

21
21
20
20
21

21
25
22
20
17
15

680
28.4
46
15
1,750

AUG

14
13
12
9.7
8.9

6.5
8.1
7.7
7.4

7.7
7.7
7.9
7.5
7.2

7.0
7.3
7.7
7.7
7.5

7.1
7.1
7.1
6.5
6.2

5.5
5.8
6.5

6.5
6.1

243.2
7.85
14
5.5
482

SEP

6.1
5.5
4.6
5.0
5.3

5.4
5.4
5.0
5.1

4.7
4.0
4.0
4.1
4,1

4.1
3.9
4.1
4.1
4.2

4.3
4.5
4.3
4.3
4.3

4.3
4.0
4.0
4.0
4.1

135,9
4.53
6.1
3.9
270

124 TULARE LAKE BASIN

11208500 MIDDLE FORK KAWEAH RIVER TRIBUTARY NEAR HAMMOND, CALIF.

LOCATION.--Lat 36°29'3S", long 118°49'30", in NWijSW^ sec.34, T.16 S., R.29 E., Tulare County, in Sequoia Natio Park, at culvert on State Highway 198, 2.7 miles northeast of Hararaond.

DRAINAGE AREA.--1.90 sq mi.

PERIOD OF RECORD.--Annual maximums, water years 1960-67. May 1967 to September 1970.

GAGE.--Water-stage recorder and crest-stage. Altitude of gage is 1,740 ft (from topographic map). Sept. 23, 1959, to May 9, 1967, crest-stage gage at present site and datum.

Date
Dec.

Dec.

Mar.
Apr.

30,

6,

16,
1,

1965

1966

1968
1968

Time Disch. *2.9

*879

1830 *.91
1530 .91

G.H.
10.77

30.63

10.30
10.30

Date
Jan.
Jan .
Feb.
Feb.
Feb.
Apr.
Apr.

22,
25,
6,
24,
28,
2,
5,

1969
1969
1969
1969
1969
1969
1969

Time
0100

2100
1600
2230
1700

Disch.
52
*203
22
116
27
13
31

G.H.
13.17
22.06
11.86
16.08
12.14
11.42
12.32

Date
Jan.
Jan .
Jan.
Jan .
Mar.
Mar.

10, 1970
14, 1970
16, 1970
24, 1970
1, 1970
4, 1970

Time
0300
1630
1815
0600
2200
1900

Disch. G.H.
3.2 10.66
6.2 10.95
*80 14.30
3.2 10.64
8.0 11.08
5.9 10.91

Jan. 19, 1969 1800 112 15.79 June 16, 1969 0900 50 13.07

No flow for many days in each year.
Period of record: Maximum discharge, 879 cfs Dec. 6, 1966 (gage height, 30.63 ft), from rating curve extended above 22 cfs on basis of computation of flow through culvert at gage heights 12.50, 14.80, 16.00, 18.41, and 22.06 ft and computation of flow through culvert plus road-overflow at gage height 30.63 ft; no flow for many days in each year.

DISCHARGE, IN CUBIC FEET PER SECOND, MAY TO SEPTEMBER 1967

31

TOTAL
MEAN
MAX
MIN
AC-FT

6.2

5.8
5.4
5.1
4.8
4.5

4.2
4.0
3.7
3.6
3.4

3.2
3.2
3.0
2.9
2.9

2.9
2.9
2.8
2.8

2.6

JUN

2.6
2.4
2.2
2.0
2.0

2.2
2.0
1.8
1.7
1.5

1.5
1.4
1.5
1.4
1.2

1.2
1.1
1.0
l.D
. 90

1.0
. 90
. 80
. 70
. 70

. 70
. 60
. 60
. 60
. 60

39.80
1.33
2.6
. 60
79

JUL

. 60
. 60
. 50
. 50
. 50

. 50
. 50
. 50
. 50
. 50

. 40
. 40
. 40
. 40
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. 40
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. 30
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. 20
. 20
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12.00
. 39
. 60
. 20
24

«UG

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. 20
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. 20
. 20
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. 20
. 10

. 10
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2.80
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5.6

SEP

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1.30
. 04 3
. 10
0
2.6

TULARE LAKE BASIN

11208500 MIDDLE FORK KAWEAH RIVER TRIBUTARY NEAR HAMMOND, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TC SEPTEMBER 1968

DAY

1
2

4
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25

27
28

30

TOTAL

MAX
MIN
AC-FT

OCT

. 06

. 08
. 13

. 13

. 02

0
0
0
0
. 02

. 01
. 02
0
C
C

. 02
. 02

. 01

1.02

0
2.0

NOV DEC

. 03 .43

. 05 .24

. 10 .36
. C8 .30

. 04 .30
. 04 .30

. C2 .30

. 02 .30

. 24 .36

. 01 .24
2.9 21

JAN FE8 MAR APR MAY

. 30 .36 .36 .36 .03

. 3C .43 .43 .30 .02

. 30 .43 .49 .30 .08
. 30 .43 .55 .24 .06

. 24 .49 .49 .16 .06

. 36 .49 .49 .16 .04

. 24 .24 .36 .06 .02
21 22 27 21 3.4

JUN JUL

. C2 0

. 03 .01
. 05 0

. 05 0
. OP 0

. 02 0

. 01 J

. 02 0
. CL .01

0 .01
0 0
. 01 0
0 0

0 0
0 0
. 01 0
C 0
0 C

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0 0

0 0

0 0
. 9 .1

AUG

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C

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. C2

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. 01
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0

0
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0

. 05

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. 10

WTR YR 1968 TOTAL 60.89 MEAN .17

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

CAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
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0 .02 .06 .7 11 8.6
0 .02 .05 4 11 8.3
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0 .02 .20 4 28 6.2
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MTR YR 1969 TOTAL 1,337.60 MEAN 3.66 MAX 75 MIN 0 AC-FT 2,650

TULARE LAKE BASIN

11208500 MIDDLE FORK KAWEAH RIVER TRIBUTARY NEAR HAMMOND, CALIF.--CONTINUED

OrSCHARGEr IN CUBIC FEET PER SECOND,

NOV DEC JAN FEB

WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

MAR APR MAY JUN JUL

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. 16 .16 .1 .61
. 13 .16 .1 .61
. 13 .16 .2 .61
. 13 .16 .8 .61

. 13 .16 .3 .55
. 13 .13 .3 .55
. 16 .10 .3 .55
. 16 .10 .5 .55
. 16 .13 .2 .55

. 16 .13 3 .49
. 16 .13 .9 1.1
. 16 .13 .3 .73
. 20 .13 .1 .73
. 20 .10 .5 .67

. 20 .16 .3 .61
. 20 .13 .1 .55
. 20 .13 .0 .49
. 20 .13 .1 .49

. 20 .16 1.2 .49
. 20 .16 .97 .49
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TULARE LAKE BASIN 127

11208610 MONARCH CREEK NEAR HAMMOND, CALIF.

LOCATION. --Lat 36°27'09", long 118°35'37", in SE^NWH sec. 15, T.17 S. , R.31 E. , Tulare County, Sequoia National Forest, on right bank 0.2 mile upstream from mouth, 0.3 mile northeast of Mineral King, and 14.9 miles east
of Hammond.

DRAINAGE AREA. --1. 89 sq mi.

PERIOD OF RECORD. --August 1968 to September 1970.

GAGE. --Water-stage recorder. Altitude of gage is 8,200 ft (from topographic map).

EXTREMES. --Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (10 cfs) , August 1968 to September 1970

Disch. G.H.
21 1.95
*66 2.47
32 2.13

Date

Aug. 7

Dec. 2
Jan. 25

Wtr yr
1968
1969

Time
,8,1968 -

, 1968 0315
, 1969 0415

Date

Sept. 27-30,
Oct. 10-12,

Disch. G.H.
2.4 1.14

10 1.68
16 1.83

Annual min

1968
1968

Date

Apr.
May

Aug.

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1969
1969
1969

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discharge, Ai

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Disch. G.
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22 2.
*81 2.
31 2.

igust 1968 to

Wtr yr Date
1970 Dec.

H.
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10
71
23

Septe

18, 1

Date

Apr.
May

mber

969

10, 1970
17, 1970
19, 1970

1970

Time
2000

1745

Discharge
. 83

Period of record: Maximum discharge, 81 cfs June 1, 1969 (gage height, 2.71 ft); minimum daily, 0.83 cfs
Dec. 18, 1969.

REMARKS. --Records good. Water-quality records for the water years 1968-70 are published in reports of the Geo-logical Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, AUGUST TO SEPTEMBER 1968

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP

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2.3
2.3
2.2

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2.2
2.2
2.1

2.1
2.1
2.0
2.0
2.0

2.0
2.0
1.9
1.8
1.8

1.8
1.8
1.8
1.7
1.7
1.6

TULARE LAKE BASIN

11208610 MONARCH CREEK NEAR HAMMOND, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOD, WATER YEAR CCTCBER 1968 TO SEPTEMBER 1969

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21 63 35
20 57 34
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21 45 34
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33 35 33
36 31 34

36 27 33
36 26 33
41 28 36
43 33 32
45 35 32

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1

47 34 32 9.6
52 33 32 9.1
51 33 30 8.4
51 33 30 8.C
48 33 31 7.6

53 34 31 7.2
49 36 30 6.8
44 36 30 6.5
48 36 27 6.4
49 35 26 6.C

46 34 25 5.4
45 34 25 5.2
47 33 23 5.0

. 3 19 54 36 24 4.6
. 5 49 23 4.5

. 0 272.4 1,222 1,131 949 329.1 10

. 5 19 55 63 36 21
. 6 3.7 17 26 23 4.5

1.0 AC-FT 8,750

31

TOTAL
HEAN
MAX
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AC-FT

CAL YR

. 5
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04 1
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26

1.0
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1.1
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L.O
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3.0
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4 17 5.3
9 20 5.0
8 21 4.9
7 22 5.0
6 23 4.7

8 22 4.5
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3 76 124 118 216 513 1,730 1,340 392 221 70

AC-FT 8,710

TULARE LAKE BASIN

11208620 EAST FORK KAWEAH RIVER BELOW MOSQUITO CREEK, NEAR HAMMOND, CALIF.

LOCATION.--Lat 36°27'05",.long 118°37'04", in SW^NK'-a sec.16, T.17 S., R.13 E., Tulare County, Sequo Forest, on right bank 300 ft downstream from Mosquito Creek and 13.2 miles east of Hammond.

DRAINAGE AREA.--16.0 sq mi.

PERIOD OF RECORD.--August 1968 to September 1970.

GAGE.--Water-stage recorder. Altitude of gage is 7,280 ft (from topographic map). EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (60 cfs), August 1

Date Time Di

to September 1970

Jan. 25, 1969 0915 81
Apr. 22, 1969 2000 103
May 1, 1969 1845 127

a Aug. 16-19, 1968.

1968 Sept.29, 30, 1968
1969 Oct. 8-12, 1968

G.H.
1.99

2.86
3.04
3.20

Date Time
May 31, 1969 2245
June 23, 1969 2200
July 13, 1969 1730
Aug. 10, 1969 1815

sch.
589
341

G.H.
4.39
3.97
3.84
3.39

Date Time
Jan. 16, 1970 1010
Apr. 10, 1970 1900
May 17, 1970 2000
June 20, 1970 2000

sch. *336

277
121

ly discharge, August 1968 to Septemb

Wtr
1970

Discharge
5.0
4.7

Date
Sept.30, 1970

G.H.
3.96
2.56

charge
5.0

Period of record: Maximum discharge, 589 cfs May 31, 1969 (gage height, 4.39 ft); minimum daily, 4.7 cfs Oct. 8-12, 1968.

REMARKS.--Records good. Water-quality records
logical Survey.

1968-70 are published

DISCHARGE, IN CUBIC FEET PER SECOND, AUGUST TO SEPTEMBER 1968

DEC JAN FEB MAR APR MAY JUN

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TULARE LAKE BASIN

11208620 EAST FORK KAWEAH RIVER BELOW MOSQUITO CREEK, NEAR HAMMOND, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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522
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JUN

497
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473
414
386

350
270
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175
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215
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242

268
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228

274
497
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JUL

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185
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177
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AUG

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WTR YR 1969 TOTAL 28,183.8 MFAN 77.2 MIN 4.7 AC-FT 55,900

DfSCHARGE, fN CUBfC FEET PER SECCNO, WATER YEAR OCTOBER 1969 TC SEPTEMBER 1970

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9.6

197C TOTAL

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7.9

8.*2
8.2
8.2
9.0

8.2
8.1
8.0
7.8
7.6

7.5
7.3
7.2
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12.2
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17.5
70
9.4

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12.8
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19.0
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34
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33
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31
3C
32

38.5
61
26

49
53
60

64
65
72
85

84
83
93
127

195
208

187
162

165
186
207
215
186

169
182
179
183
192
199

134
215
34

199

169
140
120

134
125
139
112

1C1
95
84
74

72
80

99
1C2

101
100
95
89
84

85
81
70
64
60

105
199
60

55
54
54

52
49
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38.7
58
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13
13
12
12
12

11
10
10
1C
9.6

9.4
9.5
9.9
9.2
8.8

13.1
2C
8.2

. 8
. 4
. 4
. 2
. 1

7.1
6.7
6.5
6.5
6.3

6.2
6.4
6.9
6.8
6.5

6.5
6.4
6.2
6.0
6.2

5.9
5.3
5.4
5.3
5.2

5.1
5.2
5.2
5.1
5.0

6.23
7.8
5.0
371

TULARE LAKE BASIN

11208625 EAST FORK KAWEAH RIVER AT SEQUOIA NATIONAL PARK BOUNDARY, NEAR HAMMOND, CALIF.

LOCATION. --Lat 36°27'30", long 118°39'11", in SWsSWa sec. 7, T.17 S., R.31 E., Tulare County, in Sequoia Nat Park, on right bank 0.6 mile southwest of Silver City and 11.4 miles east of Hammond.

DRAINAGE AREA. --23. 7 sq mi.

PERIOD OF RECORD. --August 1968 to September 1970.

GAGE. --Water-stage recorder. Altitude of gage is 6,160 ft (from topographic map).

EXTREMES. --Maximums and minimums (discharge in cubic feet per second, gage height in feet) .

Annual maximum discharge (*) and peak discharges above base (70 cf s|) , August 1968 to September 1970

Date
Aug.

Jan.
Feb.
Apr.

Wtr
1968
1969

1, 1968

25, 1969
25, 1969
1, 1969

yr Date
Sept.
Oct.

Time

0945
1300
2000

29, 30,
9-12,

Disch. G.
16 2,

335 4,
99 3,
95 3,

Annual

1968
1968

. H.
. 50

. 41
. 32
. 29

minii

Date Time Disch.
Apr. 21, 1969 2045 195
May 2, 1969 0345 218
May 31, 1969 2245 *934
June 22, 1969 2130 432
Aug. 10, 1969 1930 228

num daily discharge, August 1968

Discharge Wtr yr D
5.6 1970 S
5.4

G.H.
3.85
3.95
5.74
4.70
3.87

to Septe

ate
ept.30, 1

Date
Jan. 16,
Apr. 10,
May 17,
June 20,

mber 1970

970

1970
1970
1970
1970

Time
1115
1945
2115
2045

Disch. *450
102
375
160

Di

G.H.
4.76
3.34
4.54
3.68

scharge
8.2

Period of record: Maximum discharge, 934 cfs May 31, 1969 (gage height, S.74 ft); minimum daily, 5.4 cfs
Oct. 9-12, 1968.

REMARKS. --Records good. Water-quality records for the water years 1968-70 are published in reports of the Geo-logical Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, AUGUST TO SEPTEMBER 1968

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL ftUG S

9.1
9.1
9.1

8.4
8.1
8.1
8.1

22 L2 7.1
23 11 6.8
24 10 6.2
25 10 6.2

26 1° 5.9
27 1C 5.9
28 9.8 5.7
29 9.5 5.6
30 9.5 5.6
31 9.5

TOTAL 377.3 231.7
MEAN 12.? 7.72
MAX 15 9.1
CIN 9.5 5.6
AC-FT 74R 460

TULARE LAKE BASIN

EAST FORK KAWEAH RIVER AT SEQUOIA NATIONAL PARK BOUNDARY, NEAR HAMMOND, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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HEAN
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22
23
2*

26

28

30

WEAN
WAX
CIN
AC-FT

OCT

5.6
5.6
5.5
5.5
5.5

5.5
5.5

5.4
5.4

5.4
5.4
7.5
14

8.3
8.3
8.1

7.5
7.3
7.0
6.8
6.8

6.7
6.6

6.5
9.5

1*
5.4

17
17
16
15
15

14
14
14
13
13

13
13

17

25
24
20
18
18

17
16
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14

14

13

15.5
25
12
956

7.6
7.7
11
10
9.5

a. a
8.4

8.4
8.8

8.8
11
9.8
9.1

12
12
12

12
12
12
12
11

1C
10

9.5
9.5

13
7.6

DISCHARGE,

13
12
12
12
12

14
1*
14
13
14

14
14

14

14
12
12
12
12

11
11
11

10

10

9.8

12.2
14
9.8
727

9.5
11
9.8
9.5
9.1

9.1
9.1

8.8
9.5

11
12
9.8
12

4
6
0

16
15
4
2
1

4
8

3
3

18
8.8

N CU8

9.5
9.8
9.5
9.2
9.2

9.5
9.2
9.2
9.2
10

9.2
9.

8.

8.
8.
8.
32
28

24
18
IB

26

13

11

14.3
38
8.6
881

12
12
12
13
15

16
16

15
14

13
13
18
20

15
16
50

64
47
36
72
213

114
68

39
33

213
12

1C FEET

10

10
10
10

11
11
12
13
15

14
14

23

188
80

35

32
31
42

31

28

25

29.7
188
10

27
24
22
22
21

14
2C

19
19

19
19
18
18

7
7
7

16
16
16
17
76

62

76
14

PER SECOND,

23

22
22
21

21
23
23
23
24

25
24

23

23
24

21

21
20
21

21

22

22.4
26

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16
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16
16

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14
14

16
18
18

18
18
21
25
29

34

58
67

78
14

WATER

23

22
22
25

23
23
23
22
22

21
24

29

30
32

29

32
35
38

46

42

38

29.8
46

82
81

71
74

54

65
79
90
89

88
98
101

163
169
156
131
115

112

152
169

169
53

YEAR OCTOBER

40
43
49

58
59
66
76
86

88
80

61

54
49

42

38
38
39

45

42

42

52.8
92

184
189

157
148

318

310
315
332
339

413
436
434

476
470
410
483
511

507

579
640

719
148

1969

77
82
96

107
98
102
114
135

128
144

247

278
288
281

235

259
281
288

242

249

259

192
288

760

571
534

234
219
248
287

3CO
281
296

313
344
368
361
322

291

282

760
219

TO SEPTEH

264
244
228
199
168

170
182
172
199
155

126
109

86

88
99
115

132

126
120
109

1C1

82

67

137
264

288

272
266

233
230
264
244

221
210
213

210
207
208
188
175

168
170

161

288
156

ER 1970

61
59
58
58

57
55
52
50
50

46
43

41

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38
37

35

33
32
30

28

25

24

41.2
63

150
141

128
118

89

120
96
89
83

67
63
60

55
52
5C
50
50

49
45

40
37

150
36

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19
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14.6
21

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9.9
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9.9

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8.

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8.

9.39
11
8.2
559

TULARE LAKE BASIN 13

11208730 EAST FORK KAWEAH RIVER NEAR THREE RIVERS, CALIF.

LOCATION.--Lat 36°27'05", long 118°47'15", in NWs sec.14, T.17 S., R.29 E., Tulare County, on left bank just downstream from diversion dam, 6.6 miles east of Three Rivers.

DRAINAGE AREA.--85.8 sq mi.

PERIOD OF RECORD.--May 1952 to September 1955, October 1957 to September 1970. Prior to October 1962, combined records only.

GAGE.--Water-stage recorder and Parshall flume on river; water-stage recorder and Parshall flume for conduit diversion. Altitude of gage is 2,500 ft (from topographic map). May 15, 1952, to Sept. 30, 1955, at site
200 ft downstream at different datum.

AVERAGE DISCHARGE.--(River only), 16 years, 94.7 cfs (68,610 acre-ft per year). Combined river and conduit, 16 years, 121 cfs (87,660 acre-ft per year).

Wtr yr
1966
1967
1968
1969
1970

Dec.
Dec.

May

Ma

River only
Disch.
29, 1965 541 5.18
6, 1966 13,000 b21
29, 1968 424
"~ 1969 4,700 10.76

Minimum daily

G.H.

May 29,

Jan. 16, 1970 3,220 8.95

Disch.
1965 565
1966 13,000
1968 450
1969 4,700
16, 1970 3,230

River only
Date Disch.
Sept.26, 1966 .30
Oct. 6, 7, 1966 .30
(c) .60
Dec. 21, 1968 .31
Aug. 19, 1970 .87

Combined
Date

(a)
Nov. 2, 3, 1966
Sept.28-30, 1968
Oct. 12, 1968
Sept.28-30, 1970

a Aug. 24, Sept. 12, 14-26, 29, 1966. b From floodmarks.
c Aug. 24, 26, Sept. 14-16, 1968

REMARKS.--?

through Hammond powerhouse of Southern California Edison Co.;
eturned to Middle Fork Kaweah River in sec.8, T.17 S., R.29 E., 1.9 miles below mouth of East Fork.
cords of combined discharge of r tables published herein. Water-quality record 1968-70 are published in reports of the Geological Survey

COOPERATION.--Records furnished by Southern California Edison Co. for water years 1966-68. Records for East Fork Kaweah River No. 1 conduit near Three Rivers, water-quality records, and 26 discharge measurements w nished by Southern California Edison Co. for the water years 1969-70.

MEAN

MAX MIN
AC-FT

5.4
3.7
3.2

. 80
. 80
. 80
. 80

. 80
. 80
. 90
. 90
5.0

3.8
4.1
2.0

. 80
. 80

1.70
5.4
. 70
105

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

NOV DEC JAN FES MAR APR MAY JUN JUL

. 60
1.0
1.1

154
172

TOTAL 52.80 790.30
25.3
158

20
10
9.8
9.9
12
12

605.7
13.9
30

104
122

55.2
122

CAL YR 1965 TOTAL 40(654.90 MEAN 111 MAX 700 MIN WTR YR 1966 TOTAL 22,941.70 MEAN 62.9 MAX 395

140
160
173
220
249

248
259
267
257
235

189
169
150
154
200

200
257
234
188
155

147
141
143
171
241

309
320
326
335
356

6,593
220
356
140
13.080

,60 AC-FT

383
376
389
395
377

382
377
364
352
328

291
290
309
330
335

352
365
375
367
321

293
310
303
2B1
268

257
232
219
180
149
127

9,677
312
395
127
19,190

80,640

117
108
99
94
95

96
126
110
94
90

96
96
93
89
77

73
68
62
SB
50

44
37
31
29
25

24
23
22
22
22

2,070
69.0
126
22
4,110

20
18
IS
16
14

13
11
10
10
9.6

8.7
8.3
8.2
8.1
8.1

7.5
7.3
7.2
3.9
. 70

. 80
. 80
. 70
. BO
. 70

. 60
. 60
. 60
. 60
. 70
. 70

215.20
6.94
20
. 60
427 ,

1.2
1.8
11
2.3
. 70

. 60
. 70
. 80
. 70
. 70

. 70
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. 60
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. 60
. 70
. 70
. 80

34.40
1.11
11
. 60
6B

. 80
. 80
. 70
. 70
. 60

. 60
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. 40

. 30
. 60
. 60
. 60
. 60

16.60
. 55
. 80
. 30
33

TULARE LAKE BASIN

11208730 EAST FORK KAWEAH RIVER NEAR THREE RIVERS, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY OCT NOV

1
2
3
i>
5

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7
8
9
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11
12
13
U
IS

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL 14
MEAN
MAX
MIN
AC-FT

WTR YR 1967

40 .50
40 .40
40 .40
40 .50
40 .50

30 .40
30 .40
40 12
,40 4.9
,50 .50

50 .50
. 50 .50
50 .40
,50 .50
,50 .50

50 .50
,40 .SO
,40 .50
,60 .40
,50 SO

,50 9.
,50 3.
,50 . 0
. 50 . 0
. 50 . 0

. SO .60
,50 .80
. 50 185

. 50 110 ,50 23
. 60

. 40 408.10
. 46 13.6
. 60 185
. 30 .40
29 809

DEC

14
197
177
67
3.200

8,000
1,500
550
400
360

320
300
291
254
249

225
225
201
201
176

168
157
157
153
143

143
132
125
122
119
85

18,411
594
8,000
14

36,520

JAN

117
114
112
111
111

108
106
105
80
73

75
90
73
73
71

73
73
71
71
71

346
346
105
97
143

92
95
97
122
125
201

3,547
114
346
71

7,040

TOTAL 99.890.50 MEAN 274

DISCHARGE, IN CUBIC FEET

DAY OCT NOV

1 35 25
2 3C
3 25
4 20

23
23
23
5 16 23

6 11 23
7 1C

8 (
9 (

11
. 9 1.7
,0 .7
10 7.6 .6

11
12
13
14
15

16
17
18
19
20

21
22
23
24

. 2 .6
. 9 .1
. 8 .80
. 6 .9
. 4 .6

. 0 .8
. 7 .7
. 4 1
. 0 6
. 8 1

. 6 .7
. 4 .8
. 2 .2
. 0 .7
25 18 .4

26 26 .0
27 2<

28 2(
29 2C

> .5
8.0
> 6.8

30 25 46 31 25

TOTAL 420.5 384.60
MEAN 1

MAX MIN

3.6 12.8
35 64
,.0 .80
AC-FT 834 763

CAL YR 1967
WTR YR 1968

TOTAL 82.600
TOTAL 19,991

DEC

14
14
12
9.7
26

14
12
11
8.9
9.0

10
9.1
IS
33
36

35
35
39
44
40

44
42
45
45
45

33
14
12
11
11
10

738.7
23.8
45
8.9
1,470

. 80 MEAN
. 30 MEAN

JAN

9.4
7.7
6.8
6.6
6.8

6.9
6.9
6.9

7,7
54

24
13
12
10
47

31
20
14
13
13

IS
16
17
16
16

14
17
32
53
52

598.7
19.3
54
6.6
1.190

226
54.6

FEB

143
125
125
102
102

78
111
111
110
118

125
125
125
125
106

105
102
100
97
89

87
85
81
79
97

85
85
79

2,902
104
143
78
5,760

MAX 8,000
MAX 8,000

PER SECOND,

FEB

20
22
20
17
16

18
14
14
IS
35

17
17
18
17
14

17
96
83
62
78

78
65
64
64
58

58
62
67
67

1,193
41.1
96
14
2,370

MAX 1,240
MAX 302

MAR

77
78
78
76
73

73
73
73
74
74

80
121
165
145
130

331
269
216
180
159

154
153
154
145
134

125
126
133
137
127
138

4,071
131
331
73
8.070

MIN .
MIN .

WATER

MAR

67
67
65
60
62

62
60
81
64
58

58
61
61
58
51

58
60
54
52
47

49
50
47
50
52

56
60
69
85
100
103

1,927
62.2
103
47
3,820

MIN
MIN

APR

124
122
123
142
135

124
179
154
154
152

166
158
164
168
170

159
156
176
171
164

164
166
168
178
158

168
173
167
165
144

4,712
157
179
122
9,350

MAY

142
148
158
168
163

172
219
327
406
388

312
271
254
283
387

533
670
810
900

1,010

1,050
1,070
1,120
1,120
1,080

1.010
940
810
777
716
632

18,046
582
1,120
142
35,790

JUN

534
482
477
508
529

48?
546
S99
634
665

70B
698
653
642
686

724
695
860
900
870

,120
,180
,150
,170
,120

,180
. 150
,180
,220
,240

24,602
820
1,240
477

48,800

JUL

,240
,200
,160
,120
,090

960
860
680
565
526

515
526
508
470
455

422
402
380
362
356

335
315
302
302
298

284
269
329
315
291

17,123
552
1,240
269
33,960

AU5

260
260
235
239
220

206
180
189
189
157

146
143
144
146
160

157
132
132
117
114

100
92
90
119
122

122
122
85
78
75
65

4,596
148
260
65
9,120

SEP

62
73
90
78
80

100
80
64
60
55

48
41
41
38
37

38
29
29
51
37

31
29
29
38
37

29
29
26
41
38

1,458
48.6
100
26
2,890

30 AC-FT r».oju
30 AC-FT 198,100

YEAR OCTOBER 1967 TO SEPTEMBER 1968

APR

108
97
87
87
95

87
83
85
95
108

125
143
136
125
119

125
97
75
80
85

75
64
73
83
92

132
181
201
244
244

3,431
114
244
64
6,810

MAY

244
146
136
230
249

235
225
225
197
206

225
220
193
168
157

160
211
230
239
230

276
281
211
197
201

260
260
291
302
276
265

6,946
224
302
136
13,780

JUN

265
265
281
281
225

168
164
161
13B
118

117
131
132
134
132

130
124
110
98
91

82
73
7?
68
61

62
55
so
44
38

3,870
129
281
38

7,680

JUL

32
28
24
19
IS

19
16
31
25
22

35
12
11
9.9
9.4

8.6
7,6
7.1
6.5
6.2

5.9
5.3
4.7
4.2
3.9

3.7
4.3
5.7
9.2
20
6.1

417.3
13.5
35
3.7
828

AUG

4.9
. 8
. 9
. 9
. 8

. 8
. 8
. 8
. 9
. 4

. 1
. 1
. 2
. 0
1.2

1.1
. 80
. 80
. 80
. 80

. 70
. 70
. 70
. 60
. 60

. 60
. 80
1.0
. 90
. 80
. 80

42.10
1.36
4.9
. 60
84

SEP

. 80
. 70
. 80
. 80
. 80

. 80
. 80
. 80
. 80
. 70

. 70
. 70
. 70
. 60
. 60

. 60
. 60
. 70
. 90
. 80

. 80
. 80
. 80
. 80
. 80

. 80
. 80
. 70
. 70
. 70

22.40
. 75
. 90
. 60
44

. 80 AC-FT 163,800
. 60 AC-FT 39,650

TULARE LAKE BASIN

11208730 EAST FORK KAWEAH RIVER NEAR THREE RIVERS, CALIF.--CONTINUED

DISCHARGE! IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1969

DAY

1
2
3
4
5

6
7
a
9
10

11is
1314
IS

16
17
18
19
20

21
Z2
23
24
25

Z6
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

OCT

. 66
. 66
. 65
. 64
. 64

. 64
. 88
1.0
1.0
. 97

. 95
. 95
. 96
46
8.5

1.4
. 51
2.2
. 78
. 77

. 74
. 74
. 90
. 99
. 89

. 85
. 83
. 80
. 81
10

NOV DEC JAN

. 93 2
. 91 13
12 25
7.9 24
2.1 22

1.1 13
. 73
. 58
. 63
. 66

. 65 27
14 4
8.1 4
2.1 41
48 59

12 45
6.4 11
6.2 8
5.8 6
4.4

3.8
3.0 15
3.3 15
4.4 26
2.3 57

1.3 56
1.5 42

. 76 35.65 34
. 96 18

89.71 157.16 619
2.89
46
. 51
178

1968 TOTAL
1969 TOTAL

5.24 Z
48
. 58

. 5 9.9
9.4
8.8
9.7
13

16
. 91 14
. 52 11
47 9.6
. 87 8.3

8.0
2 7.9
1 27
70
48

19
13
0 156
7 1,470
56 483

31 883
490
316
822
2,840

1,490
6Z6
402
320
Z80
236

14 11,116.6
. 0 359
59 3,840
31 7.9
312 1,230 22.050

19.313.51
109,484.51

MEAN 52.8
MEAN 300

DISCHARGE! IN CUBIC FEET

DAY

1
z
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
2Z
23
24
25

26
27
2B
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

OCT

40
24
19
13
11

9.6
8.7
8.3
8.2
8.4

13
14
11
11
16

60
56
38
27
36

54
54
52
27
14

12
11
11
9.7
9.2

694.9
22.4
60
8.2
1.380

1969 TOTAL
1970 TOTAL

NOV DEC JAN

8.5
8.0
7.7
7.9
7.2

21
27
14
1Z
11

12
13
1Z
11
13

17
11
9.6

9.5 4(

. 9 27
. 7 26
. 1 26
. 7 Z6
. 7 32

. 5 34
. 5 16
. 1 13
. 8 34
. 2 82

. 9 52
. 5 39
. 3 29
. 8 113
. 4 95

. 6 1,510
. 7 430
. 3 236
168
9.0 107 140

7.8 91 120
7.0 81
6.1 4f
4.7 3<

112
i 99
) 184
5.7 156 124

7.5 96 102
7.6 5
6.6 31

) 102
82

FEB

181
163
156
153
153

167
192
232
178
143

143
156
146
181
294

267
ZOO
156
156
174

216
216
212
593
430

312
272
292

6,134
219
593
143
12,170

MAX 302
MAX 2,840

PER SECOND,

FEB

65
60
55
53
So

48
48
48
48
50

57
55
57
57
50

48
65
52
48
47

47
45
43
43
45

45
45
67
5.9 36 74

JLC

306.9 955.7 4,261
10.2 3
27
4.7

. 8 137
56 1,510
>.4 13
609 1,900 8,450

110,576.00
38,039.04

MEAN 303 MEAN 104

1,441
51.5
67
43
2,860

MAX 2,840
MAX 1,510

MAR

252
194
198
176
167

164
157
154
150
140

130
124
121
113
113

110
116
118
118
116

116
104
118
134
163

174
192
216
241
280
302

4,971
160
302
104
9,860

MIN
MIN

WATER

MAR

86
112
77
7Z
74

72
74
72
69
79

69
67
74
82
86

86
92
89
79
74

77
79
86
99
109

120
109
102
99
92
86

2,643
65.3
120
67
5,240

MIN 3
MIN

APR MAY

316 525
325 534
307 46Z
272 394
325 373

276 430
Z58 534
267 654
254 761
254 866

289 896
330 896
344 1,040
339 1,030
307 986

294 1,040
325 1,140
354 1,170
349 1,130

472 1,120
534 1,060
493 986
384 1,120
373 1.190

373 1,190
384 1,190
399 1,170
425 1,330
482 1,400
1,540

10,503 29,257
350 944
534 1,540
Z54 373
20,830 58,030

. 31 AC-FT 38.
. 31 AC-FT 217,

YEAR OCTOBER 1969

APR MAY

62 121
86 150
99 177
105 184
120 208

144 229
152 208
160 218
176 249
196 315

208 307
200 293
156 327
112 446
120 569

144 652
132 696
128 661
120 654
112 581

112 567
99 602
94 682
97 709
109 648

120 567
119 611
107 588

108 581 109 588

3,826 13,987
128 451
208 709
82 121
7.590 27,740

JUN

1.580
1,530
1,420
1,310
1,270

1,280
1,230
1,080
908
690

529
610
626
761
87?

992
1.060
8Z4
896

93B
986
1,040
1.080
926

766
73B
699
688
699

28,972 13
966
1,580
529
57,470 27

310
200

TO SEPTEMBER

JUN

585
533
480
410
363

355
372
354
435
344

302
282
246
220
20S

209
219
24fl
255
257

250
221
196
181
171

165
161
138
119
99

8,370 1
279
585
99
16,600 2

JUL

686
677
654
636
632

615
582
534
503
488

472
462
514
467
436

430
404
394
410

415
404
369
358
330

298
316
290
262
264
254

,990
451
688
254
,750

1970

JUL

90
90
86
82
61

78
74
68
66
64

57
52
49
46
43

39
37
34
32
30

27
25
23
21
19

18
19
16
14
13
12

,405
45.3
90
12
. 790

AU6

224
208
185
170
156

124
110
114
96
137

163
116
104
96
89

82
77
72
66
62

60
56
56
54
54

50
46
45
42
39
35

2.990
96.5
224
35
5,930

AUG

10
8.6
8.0
7.4
6.9

6.4
5.8
4.9
4.5
4.1

4.1
4.1
4.0
4.0
3.5

3.0
2.2
1.1
. 87
1.3

1.2
1.1
. 98
. 93
. 89

1.1
1.7
1.6
1.6
3.8
4.7

114.57
3.70
10
. 87
227

SEP

34
33
31
30
28

26
33
31
30
26

24
22
19
19
19

18
17
21
19
19

22
17
1
1
1

!
. 6
. 3
3
4

684.9
22.8
4?
9.3
1.360

SEP

4.3
. 9ft
1.1
1.1
1.1

1.1
1.2
1.2
1.1
1.1

1.1
1.0
1.0
1.0
1.0

1.0
1.0
1.0
1.0
. 98

. 98
. 9B
. 98
,9B
. 96

. 95
. 95
. 95
. 95
. 95

13.97
1.13
4.3
. 95
67

. 4 AC-FT 219.300
. 87 AC-FT 75,450

TULARE LAKE BASIN

COMBINED DISCHARGE,

11208730 EAST FORK KAWEAH RIVER NEAR THREE RIVERS, CALIF.--CONTINUED

IN CUBIC FEET PER SECONDr OF EAST FORK KAWEAH RIVER AND EAST FORK KAWEAH RIVER NO. 1 CONDUIT NEAR THREE RIVERS, CALIF., WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

1
2
3
4
5

6
7

9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL MEAN
MAX MIN
AC-FT

CAL YR
HTR YK

OCT NOV

26 19
25 18
24 18
24 10
24 Iti

24 Ib
23 17
22 1 1*
22 18
22 1 U

21 18
21 19
21 26
21 59
28 40

27 40
2« 80
25 43
25 36
23 31

22 29
22 76
21 170
21 190
21 81

20 58
20 50

20 45 20 43
20 41
20 ......

703 1,355
22.7 45.2
28 190
20 17
1,390 2.690

1965 TOTAL 47,964
1966 TOTAL 29,223

40
40
40
41
39

39
3B

39

36
38
35
35
34

31
2B
29
33
26

30
29
20
25
26

26
28
31
174
92
56

1,?53
40.4
174
20
2.490

MEAN
MEAN

COMBINED DISCHARGE, IN CUBIC FEET

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN

CAL YR

OCT NOV

13 9,6
14 9.4
14 9.4
14 9.5
14 9.6

14 10
14 16
12 35
11 21
10 16

10 16
10 16
10 14
12 14
10 14

10 16
10 16
10 14
10 13
10 71

10 30
10 23
10 18
10 16
9.9 15

9.9 16
9.9 16
10 205
9.9 133
9.6 47
9.7

340.9 868.5
11.0 29.0
14 205
9.6 9.4

1966 TOTAL 45,622

DEC

37
218
199
91
3,200

8,000
1,500
550
400
360

320
300
291
254
249

225
225
201
201
176

168
157
157
153
143

143
132
125
122
119
85

18,501
597
8,000
37

42
41
39
39
40

42
46

44

40
39
39
39
39

38
36
36
36
33

23
23
22
22
26

29
30
31
31
33
33

1,102
35.5
49
22
2,190

131 MAX
80.1 MAX

PER SECOND,

JAN

117
114
119
122
122

119
117
116
100
97

99
114
97
97
95

97
97
95
95
95

370
369
128
119
165

116
119
121
146
147
222

4,146
134
370
95

. 4 MEAN 125 MAX

33
32
33
34
3b

52
41

35

32
34
33
32
32

32
33
33
33
34

35
37
37
38
35

35
35
34

979
35.0
52
32
1,940

719
406

36
36
34
34
36

37
39

40

55
63
68
74
73

73
65
70
74
76

78
83
91
89
76

72
87
90
94
104
122

2,057
66.4
122
34
4,080

MIN 17
MIN 12

140
160
173
225
259

264
282

280

212
192
173
176
222

222
279
256
20B
175

167
161
162
190
257

322
333
339
347
367

7.091
236

140
14,060

AC-FT 95,
AC-FT 57,

394
387
400
406
388

393
388

164
341

304
303
322
343
348

366
381
392
384
339

311
328
322
302
289

279
254
241
201
170

10.163
328

148
20,160

140
960

OF EAST FORK KAWEAH RIVER AND EAST

FEB

167
149
149
126
126

102
135
135
134
142

149
149
149
149
130

129
126
124
121
113

111
109
105
103
121

109

103
. . . . .
. . . . .

3,574
128
167
102

8,000

MAR

101
102

102
99

99
100
100
101
101

107
148
192
172
157

358
296
242
207
185

180
179
180
170
158

148

141
155
145
156

4,830
156
358
99
9,580

MIN 9.

APR

142
140
143
166
159

148
204
178
178
176

190
182
188
192
194

183
180
200
195
188

188
190
192
203
183

193

192
190
169

181
204
140
10,760

4 AC-FT

MAY

167
173
183
193
188

198
245
352
431
413

337
296
279
308
413

559
696
836
926
1,040

,080
,100
,150
,150
,110

1,040

835
802
741
657

608
1,150
167

90,490

JUN

139
130
121
116
117

118
14S
13?
116
112

118
115
111
99

95
90
84
80
73

68
61
55
53
48

48
47
46

46

2,750
91.7

46

5,450

JUL

44
42
42
39
37

36
34
33
33
33

31
30
30
29
28

26
25
25
24
22

21
21
20
20
20

19
19
18
18
19
20

858
27.7

18
1,700

FORK KAWEAH RIVER

JUN

559
507
503
534
555

508
S71
625
660
691

734
724
679
668
710

750
721
886
926
89*

1,150
1,210
1.180
1,200
1,150

1,210
1,180
1,200
1,250
1,270

847
1,270
503

JUL

1.270
1,230
1,190
1,150
1,120

986
886
706
591
552

541
552
534
496
481

448
428
406
388
382

361
3*1
328
328
324

310
295
355
341
317
312

579
1,270
295

AUG

20
26
35
26
23

20
19
18
17
17

16
16
15
15
15

14
14

14
14
13

13
13
13
12
14

15
14
14
14
14
14

517
16.7

12
1,030

NO. 1

AUG

286
286
261
265
246

232
206
215
215
183

172
169
170
172
186

183
158
158
143
140

126
118
116
146
149

148

111
103
100

174
286
89

SEP

16
16
16
15
15

15
15
14
14
13

13
12
14
12
12

12
12
12
12
12

12
12
12
12
12

12
13
13
12
13

395
13.2
16
12
783

CONDUIT

SEP

87
98
115
103
103

119
102
88
84
78

73
67
67
64
63

64
55
55
77
63

57
55
55
64
63

55
55
52
67
64

73.7
119
52

TULARE LAKE BASIN

11208730 EAST FORK KAWEAH RIVER NEAR THREE RIVERS, CALIF.--CONTINUED

COMBINED DISCHARGEi IN CUBIC FEET PER SECOND, OF EAST FORK KAWEAH RIVER AND EAST FORK KAWEAH RIVER NO. NEAR THREE RIVERS, CALIF., WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

1
3
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
23
23
24
25

26
27
38
39
30
31

TOTAL
MEAN

MIN
AC-FT

CAL YR
WTR YR

61
56
51
46
43

37
36
35
3ft
3ft

3?
32
33
32
31

31
31
30
30
30

29
29
29
27

26
26
26
36
36
26

33.6
61
26
3,070

1967 TOTAL
1968 TOTAL

COMBINED DISCHARGE

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
IS

16
17
18
19
20

21
32
23
24
35

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR

OCT

13
12
12
12
12

12
12
13
13
13

13
11
13
66
38

31
19
18
18
17

16
16
15
15
15

IS
IS
1ft
1ft
30
30

528
17.0
66
11
1,050

1968 TOTAL

35
33
34
24
24

24
25
26
26
26

25
2b
28
29

26
31
43
89
44

33
32
33
31

31
30
33
32
72

32.5

23
1.940

91,010
27,378

39
39
37
35
51

39
37
36
3ft
34

34
31
33
36

35
35
39
44
40

z
5
5
5

1
7
37
36
36
35

38.3
51
31
2. 350

MEAN
MEAN

, IN CUBIC FEET
NEAR

NOV

18
17
32
29
22

20
20
20
20
20

20
35
29
22
70

35
29
29
39
36

36
35
35
36
3ft

23
23
21
31
31

2S.8
70
17
,540

26,591

THREE

OEC

33
23
26
35
33

33
21
30
19
30

47
24
24
62
80

66
31
29
27
37

28
28
38
47
70

56

50
51
39
33

36.0
80
19

2,310

MEAN

34 44 85
33
32
33
31

30
30
30
32
79

38
37
35
73

,8 85
6 S3
3 77
2 77

1 77
9 75
9 96
0 79
1 73

1 76
0 76
9 74
6 68

57 3B 76
45 1
39 1
38

6 78

)3 73
13 70
38 99 65

41 85 68
42 84 65
41 94 68
41 79 71

39 78 76
42
42

10 SO
35 88
53 65 103

48

41.7 63

131

3 79.4

30 36 65
2,560 3,640 4,880

349 MAX 1,270 MIN 23
74.8 MAX 328 MIN 11

PER SECOND, OF
RIVERS, CALIF.,

136
115
105
105
113

105
101
102
110
133

158
151
140
136

144
117
96
102
107

86
95
105
114

155
305
235
269

134

86

269
171
161
355
?74

260
250
250
?23
331

345
319
194
1R3

186
237
356
365
357

307
237
233
227

286
286
317
328
303
391

350

161
7,970 15,360

AC-FT 180,
AC-FT 54,

500
300

29!
291
307
307
251

194
190
187
164
144

157
15S
160
15S

156
150
136
124
117

99
99
94
87

85
80
76
70
64

155

6ft
9,220 2

C.A
54
50
45
41

45
42
57
51
48

34
32
31
30

30
29
?8
36
27

26
26
25
25

25
25
27
28
40
38

35. H
58
25
,300

EAST FORK KAWEAH RIVER AND EAST FORK KAWEAH RIVER WATER YEAR OCTOBER 1968

JAN FEB MAR

31 181 252
30 16
30 15
31 15

3 194
6 196
3 176
34 153 167

35 192 157

35 178 150
33 143 140

33 143 130
33 IS
S3 14
96 19

6 134
6 131
0 114
73 309 114

4ft 383 110
38 30
178 IS
1.470 15

9 116
6 118
6 118
483 179 116

883 333 119
490 33
316 33
822 60

2 104
8 118
3 134
3,840 430 164

1,490 312 174
626 272 193

402 292 316

380
236 .....

280
303

373 333 161
3,840 60
30 1ft

3 303
3 104
23,880 12,390 9,870

73.7 MAX 328 MIN 11

APR

318
334
321
388
338

374
376

311
352
366
361
329

316
347
376
371
431

494
55ft
513
404
393

393

ft!9

503

368
554
267

27
?6
3ft
33
23

21
21
22
24
23

33
23
31
2?
?2

21
23
21
21
21

21
21
19
18

16
18
17
17
16
16

21.0
27
16
1.390

NO. 1

17
16
16
16
15

15
15
14
14
15

14
14
14
14
14

15
14
14
14
14

15
14
14
13
12

12
1?
11
11
11

14.0
17
11
831

CONDUIT
TO SEPTEMBER 1969

MAY

545
554
4R3
414
393

7B?
887

907
909
,060
,050
,010

,060
,160
,190
,150
,130

,140
,080
,010
,140
,220

,220

,200

,430
,570

966
,570
393
21,910 59,390

AC-FT 52
AC-FT 239

740
400

JUN

. 610
,560
,440
,340
,290

93?
713

55?
633
649
784
895

1,020
1,080
844
914
964

95s
1.010
1.060
1,100
947

787

719

719

98B
1,610
552
58,780 29

JUL

708
697
674
65R
653

63S

556
526
513

496
4R6
538
493
464

56
31
21
37
37

440
431
416
385
357

325

316

290
280

476
708
280
360

AUG

250
23ft
211
196
182

150

139
133
163

189
140
138
130
113

106
101
96
90
86

83
83
80
78
78

75

71

64
60

131
250
60
7.460

SEP

59
SB
57
56
54

54

56
54
50

48
45
42
4?
42

1
0
1
0

?

5
1
8
7
35

34

34
45
42

45.5
59
34

3,710

TULARE LAKE BASIN

11208730 EAST FORK KAWEAH RIVER NEAR THREE RIVERS, CALIF.--CONTINUED

COMBINED DISCHARGE

DAY

1

2
3
4
5

6
7
8
9
10

11
12
13
1*
15

16
17
18

1920
21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN

MAX
WIN
AC-FT

CAL YR

OCT

46
38
36
34
33

32
32
32
31
31

36
37
3
3
3

8
7
61
SO
51

57
57
55
45
38

36
35
35
34
33
32

1,307
42.2
84
31
2,590

1969 TOTAL

, IN CUBIC FEET
NEAR

NOV

32
32
31
31
31

46
52
38
36
35

36
37
36
3S
37

41
35
34
34
34

32
32
30
29
30

29
29
27
27
28

1,016
33.9
52
27
2.020

117,116

PER SECOND, OF EAST FORK KAWEAH RIVER THREE RIVERS, CALIF., WATER YEAR

DEC

27
28
27
26
26

27
28
28
27
26

28
28
26
27
?6

26
26
66
123

109
103
66
57
172

111
76
53
45
34
36

1,536
49.5
172
26
3,050

MEAN

JAN

33
31
30
30
32

34
32
31
54
104

74
60
50
133
114

430
246
189
161

141
133
120
205
1*5

125
125
105
97
92
8fl

4,764
154

1,520
30
9,450

321 MAX

FEB

88
83
80
78
75

73
73
73
73
75

82
80
82
82
75

89
75
71
70

70
68
6
6
6

6
6
88

?»105
75.2
89
65
4,180

2,840
1,520

MAR

107
133
97
93
94

92
94
92
R9
99

89
87
94
102
106

112
109
99
94

97
99
106
119
132

144
133
126
123
115
108

3,289
106
144
87
6,520

MIN 26
MIN 13

AND EAST FORK KAWEAH RIVER NO. 1 CONDUIT
OCTOBER 1969 TO SEPTEMBER 1970 __ __

APR

104
108
120
125
138

159
165
172
187
207

219
211
190
180
170

147
143
135
127

127
117
114
117
129

140
139
127
1 28

131

4,433
148
219
104
8,790

AC-FT 232,
AC-FT 90,

MAY

144
174
201
208
232

253
231
241
?7?
338

329
31*
348
467
590

717
682
675
60?

588
623
703
730
669

588
632
609
602
609

14,663
473
730
144
29,080

300
240

JUN

605
553
500
430
363

375
392
374
455
364

322
302
266
240
227

227
237
257
272
275

260
241
217
203
193

18*
184
161
144
125

8,980
299
605
125
17,810

JUL

116
lift
110
106
105

102
98
92
90
88

81
76
73
70
66

58
60
58
56
54

51
49
47
45
43

42
43
40
38
37
36

2,143
69.1
116
36
4,250

AUG SEP

34 23
33 18
32 18
31 18
31 18

30 18
29 18
28 17
28 17
26 16

26 16
26 15
26 15
26 16
25 16

24 16
34 15
24 IS
24 15
33 15

23 15
22 IS
21 15
21 15
20 15

20 14
20 14
21 13
31 13
23 13
23

785 476
25.3 15.9
34 22
20 13
1,560 944

LOCATION.--Lat 36°26'38", long 118°S4'09", i opposite schoolhouse in Three Rivers, 0.2

TULARE LAKE BASIN

11209900 KAWEAH RIVER AT THREE RIVERS, CALIF.

. 13, T.17 S., R.28 E., Tulare County,
ile downstr North Fork Kaweah River.

ight bank

DRAINAGE AREA.--418 sq mi.

PERIOD OF RECORD.--October 1958 to September 1970.

GAGE.--Water-stage recorder. Datum of gage is 809.62 ft above mean sea level.

AVERAGE DISCHARGE.--12 years, 525 cfs (380,400 acre-ft per year); median of yearly mean discharges, 350 cfs (254,000 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (1,800 cfs), water years 1966-70

Date
Nov. 23,

Nov. 28,
Dec. 3,
Dec. 5,
Jan. 30,
Mar. 16,
Apr. 21,
May 10,

1965

1966
1966
1966
1967
1967
1967
1967

Time
0300

1930
0200
2300
2330
1630
2330
0300

Disch.
*1,680

5,200
5,120
*73,000
2,460
4,380
1,950
2,860

G.H.
6.28

8.16
8.13
a!6.69
6.86
7.83
6.43
6.96

Date

May 22,
July 1,

May 29,

Jan. 19,
Jan. 21,
Jan. 25,
Feb. 6,

1967
1967

1968

1969
1969
1969
1969

Time
2200
2200

0030

1800
1630
0930
1600

Disch.
5,220
4,580

*1,520

16,900
9,400
24,200
2,460

G.H.
8.02
7.80

6.05

11.06
9.37
12.49
6.76

Date
Feb.
Feb.
Apr.
May

Dec.
Jan.
Jan.
May

15,
24,
5,
31,

25,
14,
16,
17,

1969
1969
1969
1969

1969
1970
1970
1970

Time
1800
2230
1900
2400

1930
2100
1300
2300

Disch.
2,440
11,900
5,310
7,050

1,850
1,860
*13,400
2,650

G.H.
6.74
9.97
8.07
8.65

6.32
6.33
10.32
6.88

In gage well; 19.0 ft, from floodmarks.

Annual minimum daily di

Discharge

charge, water years 1966-70

Wtr yr Date
1966 Sept.10, 11, 30, 1966
1967 Oct. 25-27, 1966
1968 Sept.27-30, 1968

1969
1970

Date
Oct. 1, 3-7, 9, 1968
Sept.29, 1970

REMARKS.--Records good. Diversions for irrigation of 200 acres above station. Power is developed on the Middle and East Forks of Kaweah River. Water-quality records for the water years 1966-70 are published in reports of the Geological Survey.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

JCT

76
72
68
65
64

64
63
61

59

59
59
58
58
68

NQV

43
45
44
45
46

46
46
45

47

48
49
55
231
270

DEC

250
2*2
253
261
255

242
234
225

227

210
225
204
194
185

363
287
261
248
242

253
270
285

255

246

231
229
231

175
182
IB?
198

307
238
208

202

18B

186
186
185

215
196
208
223

225
225
253

292

67

14
84
55

,070
. 110
,120
,070

,050
,080
,080
,060
,030

88B

740
720
776

. 110
,130
. 1*0
,180

,210
,220
,110

920

821

798
869
882

JUN

424
40B
399
402

399
539
470
464
417

417

445
439
360

JUL

ISO
142
132
124

120
115
110
106
101

95
91
B9
86
81

74

68

65

63

180 I

272 1

180 1

155 I

9 225 186

I 204 201

1 193 198

1 182 2C6

484

458

470

477

875

901

705

660

927

1,000

875

810
821

332

360

298

2B5
257

77

73

72

67
65

34

30

29

28
30

26

25

30

28
26

342 156
307 153
283 495
261 734
498

833

788

182
166

424,000
223,400

TULARE LAKE BASIN

11209900 KAWEAH RIVER AT THREE RIVERS, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
4
5

6
T
8
9
10

11
12
13
1*
15

16
17
18
19
2G

21
22
23
2*
25

26
27
28
29
30
31

MEAN
MAX
M1N
AC-FT

DAY

1
2
3
4
5

6
7
8
9
10

11
1?
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN

24

27
28

27
28
27
24

23

24
23

23
23
22

22
22
22
21

21
21
22
22
22
22

28
21
1,440

186
162
153
146
13B

136

120
116

111
110
109
108
105

102
10D

96
96

94
94

94
85

91

89
90
88

111
186
85

22

22 1,

24 37,
46 7,
83 2,
86 1,

48 1,

44 1,
44

46
58
51

143
120

83

75
72
1,170
1,210
433

268

910

100
010
650
900

200

000
920

863
815

624
599

531
505
481

467

1,210 37,100
22 268
9,540 169,200

DISCHARGE,

84
84
83
82
82

84

83
83

82
80
78
81
89

89
92

252
218

163
149

136
132

123

247

116

78

IN CU

199

181
170
210

211

168
165

172
177
160
129
155

150
142

193
172

165
172

210
226

238

204
191

186

129

445

424

380
372

362

360
354

357
357

781
607

710
695
642

1,110

1,440
330
33,220

1C FEET

184

166
157
152

258
190
177
168
229

277
214

184
181

188
190

197
199

208

188
222

189

147

908

735

501

520

934

908

1.150
1.1BO
1,1BO

2,320 ,820
2,110 ,800
2,070 ,500

954 265
908 325
888 350
833 389

675 477 1,020 1,300 2,160 .7,0 745 323

651

700

705
638

603
579

531
523

520
516
501

______

908

35,100

PER SECOND

206

214
216

218
204
195

184

184
418

36B
400

477
400

400
405

3T5

______

297

184

470

733

1,040
821

2,280
2,160

1,150
1,130

863
901

857

2,280

56,880

, WATER

388

339
335

310
328
318

294

304
337

294
234

294
306
290
294
308

350

530

346

284

1,190

1,320

1,280

1,270

1,580
1,440

1,380
1,350

1,220

1,630

77,400

2,320

1,750

1,700

2,600

4,500
4,520

4,180

3,600
3.380

4,520

163.900

YEAR OCTOBER 1967

591

464
452

680
620

615

561
533

440
418

392
364
370
395
458

790

990

556

364

950
958
8BO
832

760
620

530

540
685
852
1,010
1,020

1.020
891
660
595
633

1,040
1,110
1.100
1.000

819

530

2,570 ,210

2.5BO ,070

2,360 ,940

2,700 ,870

3,600 ,340
3.380 ,240

3,580 ,310

3,460 ,110
3,500 ,070

3,820 ,820

169,400 121,000

TO SEPTEMBER 1968

JUN JUL

862 162
882 149
892 142
815 136

480 126
435 126

415 141
368 129

408 114
428 108

420 102

415 102
412 100
379 96
357 90
337 85

310 83
288 81
278 76
268 73
250 72

218 70
210 73
195 76
179 96

423 105

179 70

545
603

587
568
553
556

531
520
452

385

360
337
480
501

352
318

31
14

98
83
82
75

70
6B
95
03
17

80
76
74
74
77

71
70
an

954 478
259 168
33,010 13,600

AUG SEP

80 35
74 35
71 34
67 34

57
56

58
56

52
51
53
53

52
52
51
49
48

51
50
48
47
42

40
39
38
37

32
31
31
31
31

30
30
29
30

31
31
30
29
29

30
31
30
30
28

28
27
27
27
27

1,618 910
52.2 30.3
80 35
35 27
3,210 1.800

TULARE LAKE BASIN

11209900 KAWEAH RIVER AT THREE RIVERS, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

1
2

4
5

6
7

9
10

11

13
14

16

18
19

21
22

24
25

26
27
2B

30
31

MIN

DAY

2
3
4
5

6
7
8

10

11
12
13

15

16
17
18
19
20

23
24
25

27
2B
29
30
31

MEAN
MAX
MIN
AC-FT

28
29

28
28

28
28

28

30
2C2

108

88

68

60
60

57
53
51

78
95

28

OCT

116
112
112
106

106

101

100
102

226
248

175

162

146

135
133
132
126
123

248
100
8,360

69

130

108

94

152
116

157

116

1C3
97

B5

DISCHARGE.

NOV

119

115

139

166

142
141

154

128
125

123

118

108
107
1C4

212

7,800 11

DEC

84

88

89

80

104
148

149

362
236

202
186

IN CU

DEC

106
108
108
108

109

109

108
107

106

108
385

234

256

290
216
188

181

558

,600

9,460 1,400 1,080 2.140 4,560 2,840 ,880

1,600 2,340 5,910 1,170

1C FEET PER SECOND, HATER YEAR OCTOBER 1969 TO SEPTEMBER 1973

JAN FEB MAR APR MAY JUN JUL

158 390 970 490 653 1,600 309

33 364 642 605 874 1,110 293

38 359 558 701 1.010 1,050 289

7,000 361 577 625 2,020 523 182

628 337 490 51B 1,740 709 152

558 318 546 481 1,890 653 136

599 318 665 570 1,690 555 116 544 410 629 512 1,700 453 113
474 598 487 1,680 395 107

412 ------ 512 1,680 98

7,000 40 970 936 2,130 1,700 316

685
611

550
645

544

390
357

303

296

274

238

216
204

508

AUG

91
85
82
80

79
79

70

68
67

63
62

62
61
62
61

59

55
53
50

48
50
51
48
47

64.8
96
47

195

186

177
202

1B6
175

144

130
139

138
135

122
121

116

109

119

4,501
150

109

SEP

44
42
41
42

44
44

39

37
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37

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37
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34
31
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32

37.6
46
30

TULARE LAKE BASIN

11210100 SOUTH FORK KAWEAH RIVER AT THREE RIVERS, CALIF.

LOCATION.--Lat 36°25'00", long 118°54 1 48", in SE^ sec.26, T.17 S., R.28 E., Tulare County, on right bank 200 ft upstream from unnamed tributary, 0.5 mile upstream from mouth, and 1.8 miles southwest of Three Rivers. DRAINAGE AREA.--86.7 sq mi.

PERIOD OF RECORD. --October 19S8 to September 1970

GAGE. --Water-stage recorder. Datum of gage is 807.22 ft above mean sea level.

AVERAGE DISCHARGE. --12 years, 68.7 cfs (49,770 aci
(35,500 acre-ft per year).

e-ft per year); median of yearly mean discharges, 49 cfs

EXTREMES. --Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (500 cfs) , water yeai

Date Time Disch. G.H. Date Time Disch. G.H. Date
Dec. 29, 196S 2100 *377 3.28 an. 19, 1969 2000 5,820 6.68 June 2, 1969
an. 25, 1969 1000 5,960 6.73 June 22, 1969
Dec. 6, 1966 1400 *11,600 a9.30 eb. 15, 1969 1800 592 3.71
May 21, 1967 2230 624 3.80 eb. 24, 1969 2200 *6,360 6.87 Jan. 16, 1970
June 29, 1967 2200 949 4.22 eb . 28, 1969 - 870 4.10 May 17, 1970
Apr. 3, 1969 0300 628 3.76
May 5, 1968 0200 *229 2.78 Apr. 5, 1969 1800 2,190 S.24

a In gage well; 10.4 ft, from floodmarks.

s 1966-70

Time Disch.
0100 1,030
2400 828

1200 *2,820
2230 550

G.H.
4.56
4.07

5.56
3.57

Annual minimum daily discharge, water years 1966-70

Ktr yr Date Discha
1966 Many days
1967 Oct. 2-10, 1966
1968 Oct. 18, 29, 1967

rge Wtr yr Date
. 10 1969 Oct. 1, 1968
. 10 1970 Sept. 9, 10, 1970
. 26

Dis

Period of record: Maximum discharge, 11,600 cfs Dec. 6, 1966 (gage height, 9.30 ft in gage well, 10. from floodmarks), from rating curve extended above 2,600 cfs on basis of slope-area measurement of peak
no flow at times in 1960-62.

Flood of Dec. 23, 1955, reached a stage of 9.S ft, from floodmarks (discharge, 10,000 cfs).

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

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER

2 .4 2.8 26 38 21 25 112 212 38
3 .6 2.8 26 34 21 23 132 215 36
4 .4 2.8 26 31 20 24 136 236 33
5 .4 3.1 25 30 21 25 127 248 30

6 .6 3.1 25 30 46 25 125 242 28
7 .1 3.4 24 32 39 25 132 239 33

9 .8 3.6 24 34 27 27 136 175 35
10 .1 4.0 24 32 28 29 116 162 31

11 .4 4.0 22 31 2
12 .4 4.0 27 29 2
13 .6 4.4 23 29 2
14 .6 10 21 78 2
15 .4 18 21 25 2

16 .3 17 20 24 2
17 .3 45 19 23 2
18 .8 29 18 23 2
19 .8 24 18 22 2
20 .4 19 18 ?1 2

21 .4 17 18 21 2
22 .0 15 17 21 2
23 .6 122 17 20 2
24 .4 134 17 20 2
25 .1 76 17 20 2

26 .1 48 18 19 2
27 .1 39 17 19 2
28 .8 34 17 19 2
29 .1 31 111 19 -
30 .1 29 107 21 -
31 .8 68 21

31 99 150 28
34 88 143 25
36 74 143 21
39 83 153 19
39 1D4 148 18

40 129 146 17
38 148 141 16
38 132 146 14
38 95 136 12
39 76 125 11

38 72 106 10
38 74 106 10
40 70 99 10

39 129 83 8.6

37 168 78 7.6
38 172 70 5.8
47 170 64 4.8
58 165 58 4.4
68 165 53 4.4
78 47 ______

MAX .3 134 111 53 46 78 172 248 42
MIN .8 2.6 17 19 20 23 70 47 4.4

1966

JUL AUG

. 6 .30
. 6 .30
. 4 .30
. 1 .20

. 8 .20
. 4 .20
. 9 .20
. 9 .20
. 7 .20

. 6 .20
. 6 .20
. 4 .10
. 3 .10
. 2 .10

. 90 .10
. 80 .10
. 80 .10
. 60 .10
. 60 .10

. 60 .10
. 60 .10
. 50 .10

. 40 .10

. 40 .10
. 40 .10
. 40 .10
. 30 .10
. 30 .20
. 30 .20

L.40 .16
3.6 .30
. 30 .10
86 9.7

charge
. 40
. 75

4 ft,
flow;

SEP

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. 10
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. 20
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.11
. 20
. 10
6.7

TULARE LAKE BASIN

11210100 SOUTH FORK KAWEAH RIVER AT THREE RIVERS, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

1 .2
2 .1
3
4 .:
$ .1

6 .1

8 .1
9 .1

11 .2

3 .4
4 .6
5 .6

6 .6
7 .6
18
19
20

22
23
24
25

26
27
28
29
30

MEAN . 3

MIN .1

0 .50
0 .50
0 .50
0 .50
0 .60

0 .BO

0 10
0 9.6

0 5.3

0 4.4
0 4.4
0 4.4

0 4.4
0 4.8
4.4
4.0
14

13
10
8.1
6.6

6.6
6.2
37
107
36

5 11.2

0 .50

24
26
174
46
1,610

7,760

600
400
260

200

150
136
126

118
104
97
90
87

76
72
69
66

66
58
58

55

464

24

51
50
48
47
47

45

41
40

39

39
38
38

38
38
37
37
37

69
59
107
105

76
74

123

57.6

37

107
92
84
78
75

72

66
65

65

63
66
59

58
54
54
52
51

48
47
45
54

4B
47

62.2

45

42
42
42
42
41

41

38
38

45

122
154
100

194
262
203
155
134

124
122
116
105

97
92

90

97.0

38

94
92
B9
123
145

126

215
179

274

210
212
220

200
191
267
259
251

280
255
312
248

232
224

193

208

89

HAY

193
193
193
208
212

208

293

279

220
217
259

322
371
405
435
445

520
510
500
500

485
450

362

339

193

T 51,610

JUN

279
245
254
284
303

276

351

387

344
354
366

383
347
392
430
383

555
520
520
550

540
550

600
612

412

245

JUL

595
565
540
535
455

420

344

287

284

279
251
?32

220
208
193
179
164

136
122
114
107

98
87
81
BO
72

253

65

AUG

56
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25.3

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11

9.6
9.1
8.6

8.2
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12.5

8.2

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TD SEPTEMBER 1968

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8.6

9.1
8.6
7.8

7.8

7.4

9.1
9.1
9.1

8.6
B.6
8.2
8.2

L6
7.4

7.2

7.0

7.0

7.0
7.0
7.0
7.0
7.4

7.8
8.2

8.2
9.1

9.6
9.6
11

31

?3

19
19
18

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19

52
7.0

28

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42
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22
48
100

70

54
55
52

48

47

130
22

45

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37
70
72
61

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42
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51

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37
38

40

56

72
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82

68

66

62
58
61
66
82

95
105

98
89

84
80

52

51
61
76

107

152

164
46

160

136

179

157
140
136
130
143

157
148

102
98

120
136

174

116
109
111

130

140

179
98

JUN

102

95

87

69
66
68
62
55

48
43

36
32

28
26

17

14
13
12

11
9.6

8.2

1,224.1 9

102
8.2

JUL A

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. 89

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. 7
. 6

. 6
. 8

. 4

. 85 5
. 22 I
7.8
. 66

JG SEP

1.0

. 82

. 89

. 85
. 74
. 48
. 48
. 48

. 40
. 40

. 32
. 32

. 32
. 32

. 40

1.5
. 89
. 40

. 32
. 32

. 26

1 16.18
8 .54
7 1.5
0 .26

TULARE LAKE BASIN

11210100 SOUTH FORK KAWEAH RIVER AT THREE RIVERS, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY

1
2
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4
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12
13
14
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17
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21
22
23
24

26
27
28
29
30
31

MAX
MIN

DAY

1
2
3
4
5

6
7
3
9

to

11
12
13
14
15

16
17

ta
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC -FT

CAL YR

OCT

- 4C
. 56
. 76
1.0
1.2

1.2
1.0
1.0
1.2
1.4

1.9
2.5
2.9
12
15

9.6
7.4
6.2
5.9
5.6

5.6
5.6
5.3
5.3

4.7
4.4
3.8
3.6
6.2

a. 2

15
. 40

OCT

7.5
7.

8 . a.
8.

g (

9.
9.

9.5
9.5
10
9.5
10

11
22
18
15
14

14
14
14
14
15

14
14
14
14
12

NOV

5.3
5.4
6.2
1C
9.0

8.0
7.5
7.5
7.5
8.0

8.5
10
14
12
36

28
18
14
13
13

13
12
12
12

10
9.5
9.5
8.5
8.5

5.4

DISCHARGE

NOV

12
12
12
12
12

17
28
19
17
16

15
16
16
16
16

20
18
16
14
14

14
14
14
13
14

14
12
12
12

DEC

9.5
10
9.5
9.5
9.5

9.D

8.5
8.5
8.5

13
12
11
14
34

44
27
20
18
17

14
14
14
14

43
27
24
35
23
24

8.5

JAN

24
22
22

25
25

23
21

20
19
22

56

40
33

2,150

880
500

380

1,500
580
460
345
266
216

19

, IN CUBIC FEET

11
11
12
12
12

12
12
12
12
12

12
12
12
12
12

12
12
12
14
78

46
61
39
31
61

73
46
34
30

12 26

366.5 448 782
11.8 14.9 25.2
22 28 78
7.5 11 11
727 889 1,550

1969 TOTAL 80,210.50 MEAN

25
25
22

20

20
19
20
21
76

49
43
42
69
88

1,360
415
197
134
105

88
85
80
127
101

85
87
77
67

60

119
1,360
19

220

FEB

135
173
146

220

165
157

157
197
200

304

269
203

309

223
243

700
470
550

129

MAX 3,640

PER SECOND,

57
54
52

51

48
47
46
45
47

52
49
51
61
52

48
69
56
52
49

48
46
46
45
43

42
41
69

50.6
69
41

MAX 3,640

MAR

390
345
350

220

190

170
176
173

154

157
1B2

223

256
229

273
287
309
341
354

154

MIN

WATER

112
263
130

112

95
92
85
78
93

82
75
75
80
85

82
80
80
72
66

64
62
65
68
75

83
80
72
69

59

87.4
263
59

MIN
MIN

APR MAY

337 301
325 317
400 2B7

381 305

313 422

291 376
301 363
305 405

259 381

239 410
239 470

249 490

317 508
337 538

243 628
233 610
252 616
280 658
291 682

233 249

. 40 AC-FT 158,000

YEAR OCTOBER 1969 TO

57 68
57 85
59 111

65 126

77 156
83 133
82 145
92 161
101 214

112 194
110 177
102 187
90 257
74 333

69 370
65 382
61 368
59 333
57 317

58 306
54 332
53 363
51 384
57 361

69 297
77 320
65 314
58 288

277

71.2 250
112 384
51 68

7.0 AC-FT 159.100
. 75 AC-FT 45,230

JUN

800
814
718

706

550

321
333
405

526

568
598

562

622
616
622
628

465
450
425
395
381

814
321

SEPTEMBER

JUN

264
240
216
190
164

148
144
132
205
155

120
107
98
89
81

77
74
67
64
59

55
49
44
40
37

34
33
30
29

102
264
26

JUL

400
386
376
358

309

291
280

266
252
276

239

223
200
185
170
162

162
185
141
124

94
94
101
85
77

400
72

1970

JUL

24
22
20
18
17

16
15
13
14
14

13
12
11
10
9.5

8.9
8.7
8.0
6.6
6.1

5.2
5.1
5.0
4.8
4.2

4.0
4.3
4.5
4.3
4.3
4.5

10.2
24
4.0
629

AUG

69
63
56
51
47

41
38
36
33
33

48
37
30
28
27

26
25
23
22
20

18
16
16
14

12
12
11
11
11

69
10
1,780

AUG

. 1
. 0
. 0
. 3
. 9

. 1
. 9
. 9
. 9
. 8

. 2
. 7
. 4
. 6
. 9

. 9
. 0
. 6
. 4
. 5

. 5
. 3
. 4
. 4
. 2

. 98
. 4
. 9
. 7
. 0
2.4

2.17
4.1
. 98
133

SEP

10
10
9.
8.
7.

7.
8.
8.
t'.

8.
8.
8.

8.
8.
8.

8.

9.5
12
10
9.5
8.0

8.0
7.0
7.5
9.0
10

258.0
8.60
12
7.0
512

SEP

2.2
2.0
1.5
1.3
1.1

1.7
1.3
1.2
. 75
. 7!

. 76
. 76
. 76
1.1
1.2

1.1
1.1
1.0
. 81
. 9C

1.5
1.6
1.8
1.8
1.6

1.2
1.1
1.1
. 9
. 9

1.2: 2.;

. 7
7

TULARE LAKE BASIN

11210850 LEMONCOVE DITCH BELOW TERMINUS DAM, CALIF.

70.

nd Parshall flume. Datum of gage is 546.3 ft abov

PERIOD OF RECORD.--June 1962

GAGE.--Water-stage recorder a
of Engineers).

AVERAGE DISCHARGE.--8 years, 4.96 cfs (3,590 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 8.8 cfs May 5, 1970; no

el (levels by Corps

any days

REMARKS.--Records exc
irrigation. At ti

31

TOTAL
MEAN
MAX

MIN
AC-FT

8.0
B.O
8.0
B.O
8.0

8.0
B.O
8.0
B.O
B.O

B.O
3.0
B.O
B.O

B.O
B.O
B.O
B.O
B.O
B.O

248.0
B.OO
B.O
R.O
492

Ditch receives water from Lake Ka to 3 cfs is diverted 200 ft upstre

ah (see station 11210900) which is
into Doffelmyer ditch for irrigat

n 1962, 1969.

used for

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

8.0 1.0
8.0 1.0
8.0 1.0
B.O 1.0
B.O 1.0

8.0 1.0
B.O 1.0
8.0 1.0
B.O 1.3

6.C 1.3

6.0 1.3
6.0 1.3

3.0 1.3
1.0 1.1
1.0 1.1
1.0 1.0

1.0 1.1
1.0 1.2
1.0 1.2
1.0 1.2
1.0 1.2

1.0 1.2
1.0 1.2
1.0 1.2
1.0 1.2
1.0 1.2
1.2

4.37 1.16

1.0 1.0
260 71

1.1
1.1
1.1

1.0

1.1
1.2
1.1
1.0

1.0

1.0
1.0

1.0
1.0
1.0
1.0

1.0
1.0
1.0
1.0
1.0

1.0
1.0
1.0
1.0

1.1
1.1

1.03

1.0
63

1.1 1.0 7.1
1.1 1.0 7.1
1.1 1.0 7.1

1.2 1.0 7.1

1.2 1.0 7.2
1.2 1.0 7.2
1.2 1.0 7.2
1.2 1.0 7.2

1.2 1.0 7.4

1.3 3.2 7.4
1.2 4.3 7.4

1.2 6.0 7,5
1.3 6.0 7.5
1.3 6.0 7.5
1.3 6.0 7.5

2.6 6.B 7.5
3.2 7.1 7.5
3.2 7.1 7.5
l.B 7.1 7.5
1.1 7.0 7.5

1.0 7.0 7.5
1.0 7.0 7.5
1.0 7.0 7.5
7.0 7.5
7.0 7.5
7.0

1.39 4.10 7.37

1.0 1.0 7.1
77 252 439

7.5 7.4 8.
7.4 7.4 8.
7.4 7.4 8.

7.4 7.4 8.

7.4 7.5 8.
7.4 8.2 8.
7.4 8.3 B.
7.4 B.3 B.

7.4 B.3 B.

7.4 B.3 B.
7.4 B.2 B.

7.4 B.2 8.
7.4 8.2 a.
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TULARE LAKE BASIN

11210850 LEMONCOVE DITCH BELOW TERMINUS DAM, CALIF. --CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND,

NOV DEC JAN FEB

WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

1 8.2 7.0
2 8.2 7.0
3 8.1 7.0
4 8.1 7.0
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6 8.1 7.0
7 8.1 7.0
8 8.1 7.0
9 8.1 7.0
10 8.1 7.0

11 8.1 6.4
12 8.1 5.3
13 8.1 5.0
14 8.0 5.0
15 7.0 5.0

16 7.0 5.1
17 7.8 S.I
18 8.1 S.I
19 8.1 5.1
20 8.1 S.I

21 8.1 2.7
22 7.3 .90
23 7.0 1.1
24 7.0 1.1
25 7.0 1.1

26 7.0 1.1
27 7.1 1.1
28 7.0 1.1
29 7.0 1.1
30 7.0 1.1
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MAX 8.2 7.0
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DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

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. 0 4.1 8.1 8.2 8.2 8.
. 0 3.9 8.1 8.2 8.2 8.
. 0 3.9 8.1 8.2 8.2 8.
. 0 3.6 8.1 8.2 8.2 8.

. 6 3.8 8.1 8.2 8.2 8.
. 2 3.8 8.1 8.2 8.2 8.
. 5 4.S 8.1 8.2 8.2 8.
. 2 S.7 8.1 8.2 8.2 8.
. 2 6.2 8.2 8.2 8.2 8.

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. 2 B.l 8.2 8.2 8.2 8.

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. 2 7.9 8.2 8.2 8.2 8.
. 2 8.0 8.2 8.2 8.2 8.
. 2 8.1 8.2 8.2 8.2 8.
. 3 8.1 8.2 8.2 8.2 8.

. 2 7.9 8.2 8.2 8.2 8.
. 2 8.0 8.2 8.2 8.2 8.
. 3 8.1 8.2 8.2 8.2 8.
. 3 8.1 8.2 8.2 8.2 8.
. 2 8.0 8.2 8.1 8.2 8.

. 3 8.1 8.2 8.2 8.3 8.
. 8 8.1 8.2 8.2 8.4 8.
. 0 8.1 8.2 8.2 8.3 8.
. 1 8.2 8.2 8.2 8.3 8.
. 4 8.2 8.2 8.2 8.3 8.

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278 67 62 62 91 403 502 488 506 502 48

8.4 HIN .80 AC-FT 3,880

TULARE LAKE BASIN

DAY

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TOTAL
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MIN
AC-FT

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4.2
5.0
5.2
5.2
5.2

5.2
5.2
5.2
5.7
2.7
l.l

166.9
5.38
8.2
1.0
331

1968 TOTAL

11210850 LEMONCOVE DITCH BELOW TERMINUS DAM, CALIF. - -CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1968

1.1
1.1
1.1
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1.0

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33.0
1.10
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l.l
1.1
1.2
1.2

35.50
1.15
1.3
. 90
70

00 MEAN

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. 80
. 60
. 40
. 20
. 20

. 20
. 10
. 10
. 10
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. 10

27.80
. 90
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MAX 8.4 MIN

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2.7
3.0
4.8

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5.0
6.7
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7.0

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7.0

157.2
5.24
7.0
1.6

JUL

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251.5
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DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

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1 8.
2 8.
3 8.
4 8.
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6 8.
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11 6.
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TOTAL 243.

MAX 8.
MIN 5.
AC-FT 48

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TOTAL 1,589.10 MEAN 4.35 MAX 8.5 MIN 0

TULARE LAKE BASIN

11210900 LAKE KAWEAH NEAR LEMONCOVE, CALIF.

DRAINAGE AREA.--560 sq mi.

PERIOD OF RECORD.--October 1961 to September 1970. Fragmentary prior to March 1962.

GE. --Water-sta
May 22, 1962,

IREMES. --Maxim
tained in the

r yr Date
66 May 27
67 July 3
68 June 3
69 June 26
70 June 7

Period of

increased by
7,650 acre-ft

ary 1962. Us
(spillway ere

year 1970.

Ca

y OCT

8,480

8,010
7,990
8.C60

8,120
8,190
8,250

8,390

8,530
8,600
8,650
8,740

6 8,840
7 8,940
8 9,030
9 9,120
0 9,200

1 9,280
2 9,340

5 9,520

8 9,680

1 9,800

X 9,800
N 7,990

) +1,080
t) 215

nonrecording gage at presen

urns and minimums (contents i
following table:

Maximum

1966
4, 1967
1968

27, 1969
1970

a temporary sandb
Sept. 30, 1970 (

able capaci
st). Dead

t site an

n acre-fe

d datum .

et, elev

73,700 649.10
160,200 699.39
84,200 656.32
158,800 698.68
130,400 683.86

contents, 160,200 acre-ft Ju
ag dam in the ungated spillw
elevation, 568.65 ft).

ty, 149,400 acre-
storage, 166 acre
'

pacity table, wat

560 5,093
570 8,105
580 11,996

CONTENTS, IN

9,630

8,980
8,570
8,160

8,050
8,060
8,060

8,040

8,040
8,080
8,350
8,480

8,140
8,400
8,270
8,060

7,300
7,350

8,690

8,020

9,630
7,300

- 1,080
67

R YR 1966 MAX 73,700

9,120

9,300
8,880
8,440

7,990
7,830
7,830

7,840

7,870
7,820
7,780
7,750

7,710
7,680
7,680
7,710

7,720
7,710

7,720

7,780

9.080

9,490
7,670

+360
26

MIN 6,

ft between elevat
- ft. Spillway de
'

er years 1966-70 (el

600
620
640

ACRE-FEET, AT 2400,

8,800

8,500
8,440
8,420

8,430
8,470
8,340

7,820

7,680
7,670
7,660
7,660

7,650
7,610
7,590
7,590

7,550
7,530

7,500

7,560

7,970

8,800
7,500

- 1,110
40

450 t -2,

8,010

8.00C
7,990
8,000

8,320
8,210
8,030

7,990

7,950
7,930
7,910
7,930

7,980
8,000
8,020
8,010

8,010
8,030
8.060

8,030

7,860

8,320
7,860

- 110
44

270

ation in feet) for

Date
Sept. 30, 1966
Nov. 5, 1966
Mar. 3, 4, 1968
Jan. 12, 1969
Sept. 30, 1970

ly 3, 4, 1967 (elev
ay; minimum since r

ions 520.0

sign flood

evation, in feet,

22,767
39,354
61,695

HATER YEAR OCTOBER

,890

,950
,950
,970

7,990
7,990
8,030

8,110

8,210
8,130
8,020
8,020
7,980

8,010
7,960
7,950
7,970

7,990
8,010
8,070

7,920

8.220

9,270

9,270
7,890

+1,410
89

10,200

12,800
14,200
15,600

17,100
18.700
20,400

23,600

24,900
26,000
27,000
27,900
28,900

30,200
31,800
33,000
33,900

35,100
35,700
36,200

37,800

41,600

44,200
10,200

+34,930 +
366

(invert
pool ele

660
680
700

1965 TO

45,900

49.400
51,100
53,000

54,900
56,800
58,600

61,300

62,400
63,500
64,600
65,800
67,100

68,200
69,100
70,000
70,800

71,700
72,100
72,500

73,100

73,600

71,700

73,700
45,900

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Min

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imum

6,450
6,300
7,780
7,910
7,650

699.39 ft), st
r first filled

et structure)
745.1 ft (cap

nts, in acre-feet)

89,818
123,423
161,476

SEPTEMBER 1966

JUN JUL

70,800 25,300 7,

68,900
67,800
66,700

65,500
64,300
63,100

60,500

59,100
57,700
56,300
54,900
53,200

51.400
49 , 600
47,700
46,000

42,600
40 , 700
38,900

35,300

29,900

70,800
26,700

27,500 -45,000
750 816

23.000 7,
21,900 7,
20,800 7,

19.700 7,
18.700 7,
17,700 7,

15,900 7,

15,000 7,
14,200 7,
13.500 6,
12,800 6,
12.200 6,

11.800 6.
11,400 6,
11,100 6,
10,700 6,

10,100 6,
9,750 6,
9,430 6,
9,080 6,
8,730 6,

8.010 6,

7,640 6,

25,300 7,
7,640 6,

- 19,060 -1,
401

70 are con-

564.87
564.38
569.04
569.43
568.65

orage

Febru-
and 694.0 ft
acity,

AUG

510

380
390
390

390
370
320

180

120
050
980
920
850

780
750
730
720

700
700
690
680
680

660

640

510
640

000
298

SEP

6,640

6,640
6,630
6,620

6,620
6,600
6,590
6,580
6,570

6,560
6.550
6,540
6,540
6,530

6,530
6.530
6,530
6,530

6,520
6,510
6,510
6,500
6.490

6,470

6,640
6,450

- 190
207

t ELEVATION, IN FEET, AT END OF MONTH, t CHANGE IN CONTENTSi IN ACRE-FEET.

TULARE LAKE BASIN

11210900 LAKE KAWEAH NEAR LEMONCOVE, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEET, AT 2400,

NOV DEC JAN FEB

WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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31

MAX
MIN

m w
Ctt)

6,440

6,440
6,430
6,430

6,430
6,430

6,420
6,420

6.410
6,410
6,400
6,400
6,390

6,390
6,390
6.380
6.380
6,380

6,380
6,370

6,360
6,360

,350
,350

,340

. 330

6,440
6,330

- 120

168

6,320

6,320
6,310
6,300

6,310
6,330

6,600
6,680

6,760
6,830
6,870
6,920
6,970

7,030
7,100
7,140
7,160
7,610

8,100
8,160

8,010
7,980

7.980
7,970

10,500

10,500
6,300

+2,360
81

7,850

10,500
8,800
35,800

139,100
147,200

142,500
140,100

136,800
131,800
126,400
120,800
114,900

108.900
102.500
96,000
89,500
82,800

78,600
76,600

73,000
71,400

69,800
67,900

64,500

60,800

147,200
7,850

+52,100
100

58,900

55,100
53,100
51,200

49.200
47,200

43,100
41,100

38,900
36,800
34,600
32,400
30,200

27,900
25,700
23,500
21.200
18,900

17,500
16,200
14,300
13,800
13,400

12,100
10,800

10,100

13,800

58,900
10,100

- 47,000
81

14,500
14,800
15,000
15,100
15,200

15,100
15,100

14,700
14,500

14,400
14,300
14.200
13,900
13,200

12,500
11,600
10,800
10.000
9,600

9,320
9,020
8,840
8,690
8,750

8,740
8,690
8,640

15,200
8,640

- 5,160
51

8,590
8,570
8.550

8,180

8,090
8,050

8,050
8,060

8,150
8,710
9,910
10,600
10,100

13,100
16,100
16,600
16,200
16,000

16,100
16,200
16,300
16,300
16,100

15,700
15,400
15,200
15,200
14,900
14,900

16,600
8,050

+6,260
79

14,900
14,900
16,000

21,000

23,200
27,200

33,300
36,100

40,200
43,400
46,400
49,300
52,400

55,000
56,500
59,000
61,400
63,700

65,700
68 , 400
70.500
73,500
75,400

76,800
78,000
78,900
79,800
80,200

80,200
14.900

+65,300
204

80,300
80,200
79,800

78,100

76,800
76,000

75,800
76,000

74,700
72,800
70,400
68,200
66,800

66,700
67,900
69,800
72,000
74,600

78,000
82,000
86,100
89,900
93,300

96,200
98,400
100,200
101,500
102,600
103,300

103,300
66,700

+23,100
621

103,600
103,600
103,700

105,200

105,700
106,800
108,400
110,100
112,600

115,500
118,200
120,300
122,200
124,200

126,400
128,200
130,500
133,400
135,700

139,400
143,200
145,900
148,000
149,900

151,700
153,400
154,900
156,700
158,500

158,500
103,600

+55,200
1,132

159.500
160,100
160,200

159,800

159,000
158,200
157,500
156,700
155,900

155,800
156,200
157,300
158,100
158,800

159,300
159,600
159,500
159,300
159, 100

158,600
158,000
157.200
156.400
155,400

154,100
152,400
150,800
149,400
147,900
146,200

160,200
146,200

- 12,300
1,779

144,300
142.300
140,300
138,200
136.000

133,700
131,200
128,900
126.400
124,000

121,600
119,200
116,900
114,600
112.300

110.000
107.600
105,100
102,500
99,700

97,000
94.300
91,600
89,100
86,700

84,300
81,900
79,600
77,400
75,100
72,900

144,300
72.900

- 73,300
1,620

70,700
68.700
66,900
65,100
63,500

61,700
59,900
58,000
56,200
54,300

52,300
50,200
47,800
45,500
43,200

41,100
39.200
37,600
36,200
34,700

33,200
31,800
30,500
29,100
27,800

26,800
25,900
25,100
24,400
23,800

70,700
23.800

- 49,100
676

CAL YR 1966 MAX 147,200 MIN 6,300 t +51,700 WTR YR 1967 MAX 160,200 MIN 6,300 t +17,400

t ELEVATION, IN FEET, AT END OF MONTH,
t CHANGE IN CONTENTS, IN ACRE-FEET,
tt EVAPORATION, IN ACRE-FEET.

CONTENTS, IN ACRE-FEET. AT 2400, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

MAR APR MAY JUN JUL

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MAX
MIN

it)
it)
(tt)

23,100
22,400
21,400
20,300
19,100

18,100
17,200
16.200
15,800
15,500

15.200
14.900
14,600
14,200
13,700

13,300
12,900
12,500
12.200
11,800

11,400
11,000

10,200
9,730

9,300
8,870
8.470
8,100
8,020
8,080

23,100
8,020
569.94
- 15,720
250

8,070
8,070
8,060
8,040
8,020

8,010
8,020

8,000
8,010

8,010
8,000
8,000
8,000
8,020

8,020
8,030
8,060
8,580
9,020

9,250
9,210

8,870
8,680

8,470
8,330
8,250
8,190
8,430

9,250
8,000
570.94
+ 350
83

8,520
8,520
8,520
8,330
8,150

8,020
7,960

7,940
7,920

7,940
7,990
7,980
7,900
8,100

8,150
8,040
8,090
8,150
8,100

8,020
8,010

8.130
8,250

8,250
8,170
8,070
8,000
7,980
7,950

8,520
7.900
569.54
-480
32

MIN 7,

7,910
7,910
7,900
7,900
7,900

7,900
7,910

7,900
7,970

8,270
8,170
8,110
8,120
8,200

8,420
8,450
8,400
8,310
8,230

8,160
8,100

8,040
8,030

8,020
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8,040
8,030
8,100

8,450
7,900
570.00
+150
32

900 t +

8,110
8,110
8,130
8,150
8,120

8,050
8.020

7,980
8,110

8,160
6,130
8,060
8,000
7,960

7,950
8,460
9,360
9,480
9,320

9,160
8,340

8,250
8,330

8,290
8,180
8,130
8,050

______

9,480
7,950
569.83
- 50
45

52,800

7,950
7,860
7,780
7,780
7,850

7,910
7,920

8,200
7,920

7,820
7,890
7,950
7,990
7,980

7,990
8,140
8,180
8,190
8,400

8,710
9,040

9,950
10,500

11,100
11,800
12,600
13,400
14,400
15,300

15,300
7,780
587.06
+7,250
90

16,400
17,300
18,100
18,900
19.800

20.600
21,400

23,100
24,100

25,200
26,400
27,300
28,300
29,300

30,200
31,100
31,700
32,400
33,200

33,900
34,500

35,700
36,500

37,600
39,000
40,400
42,100
43,900
- - - - - -

43,900
16,400
624.49
+28,600
347

45,600
47,300
48,800
50,200
51.800

53.200
54,500
55,800
56,900
58,100

59,500
60,800
61,900
62,600
63,300

64,100
65,100
66,400
68,200
69,900

71,600
73,000
73,800
74,600
75,400

76,700
78,300
80,100
81.600
82,700
83,500

83,500
45,600
655.87
+39,600
496

83,800
84,000
84,200
84,000
83,600

82,700
81,900
81,300
80,500
79,400

78,200
77,000
75,900
74,600
73,400

72,100
70.500
68,700
66,800
64,700

62,600
60,500
58,400
56.200
54,100

51,900
49,900
48,200
46,600
45,200
______

84,200
45,200
625.74
- 38,300
1,025

44,000
43,000
42,000
41,000
39,900

39,000
38,100
37,200
36,200
35,300

34,400
33,500
32,500
31,600
30.700

29,700
28,800
27,900
27,000
26 , 300

25,600
25,000
24, 300
23,700
23,200

22,600
22.100
21,600
21,000
20,500
20.000

44,000
20,000
595.60
- 25,200
773

19,400
18,900
18,400
17,800
17,200

16,500
15,900
15,300
14,800
14,400

13,900
13,600
13,200
12,900
12.600

12,300
12.000
11,700
11.400
11,100

11.000
10,900
10,900
10,800
10.800

10.700
10.700
10,600
10.500
10,500
10,400

19,400
10.400
576.16
- 9,600
392

10,300
10.300
10,200
10,100
10.000

9,950
9,870
9,800
9,720
9,650

9,580
9,510
9,430
9,360
9,280

9,220
9,150
9,070
9,000
8,930

8,860
8,790
8,720
8,660
8,580

8,510
8.450
8,410
8,380
6,330
- - - - - -

10,300
8,330
570.65
- 2,070
294

t ELEVATION, IN FEET, AT END OF MONTH, t CHANGE IN CONTENTS, IN ACRE-FEET. tt EVAPORATION, IN ACRE-FEET.

150 TULARE LAKE BASIN

11210900 LAKE KAWEAH NEAR LEMONCOVE, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEET, AT 2*00, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY OCT NOV DEC JAN FE8 MAR APR MAY JUN JUL AUG SEP

1 8,320 8,050 8,040 8,030 122,800 117,100 84,200 68,900 151,400 155,900 142,800 102,100
2 8,320 8,050 8,020 8,020 117,400 116,000 85,700 69,000 154,600 155,200 142,500 101,500
3 8,330 8,130 8,020 8,020 112,400 115,800 87,600 68,400 156,300 154,700 141,900 100,800
4 8,320 8,320 8,050 8,030 108,800 116,200 88,400 67,500 156,900 154,300 140,900 100,100
5 8,320 8,380 8,040 8,090 106,600 115,600 91,500 66,300 156,900 153,800 139,700 99,000

6 8,310 8,360 8,040 8,120 107,400 114,400 94,200 65,800 156,800 153,000 138,000 97,900
7 8,310 8,300 8,050 8,080 105,600 112.000 94,800 65,900 156.100 152,300 136,000 96,900
8 8,310 8,220 8,030 8,030 102,500 108,600 93,700 67.200 154.600 151,800 134,200 95.600
9 8,310 8,140 8,020 7,990 99,100 105,200 91,900 69,600 152.300 151,300 132,600 94.200
10 8,310 8,060 8,030 7,960 95,000 101,800 90,000 72,700 148,700 151,000 131,100 92,800

11 8,300 8,030 8,160 7,940 90.500 90,100 88,200 75,600 145,000 151,600 129,900 91,600
12 8,300 8,040 8,210 7,910 86,600 94,200 86,900 78,400 143,000 152,200 128,400 90,800
13 8,330 8,140 8,150 7,990 83.500 90,300 85,800 81,300 142.400 153,300 126,600 90.000
14 8,690 8,150 8,190 8,770 81,300 86,900 84,600 84,100 143,200 153,900 124,600 89,300
15 9,040 8,390 8.830 8,510 81,000 83,900 82,700 86,700 144,700 154,200 122,800 88,500

16 9,170 8,590 9,020 8,150 80,700 81,000 80,600 89,800 146.700 154.500 121.500 87,900
17 9,270 8,630 8,500 8,040 79,900 78,300 78,700 93,800 148,600 154,600 120,000 87,300
18 9,360 8,600 8,090 8,310 80,300 76.900 77,400 98,100 149,400 154,600 118,200 86,900
19 9,440 8,520 8,040 33,000 81,103 76,600 75,900 102,100 150,500 154,500 116,200 86,500
20 9,510 8,450 8,050 40,900 81,200 76,300 75,000 106,000 151,900 154,500 114,200 86,100

21 9,400 8,340 8,020 54,600 81,200 76,200 75,100 110,400 153,200 154,600 112.500 85,800
22 9,210 8,230 7,970 63,600 81,500 75,800 75,600 114,500 154,800 154,500 111.200 85,500
23 9,010 8,120 8,000 66,900 82,000 75,400 75,800 117,500 156,600 153,900 110,100 85,200
24 8,800 8,040 8,060 72,900 94,100 75,300 74.900 121,600 158,000 152,700 109,100 85,000
25 8,580 8,020 8,590 117,000 110,500 75,400 73,500 126,200 158,700 151,100 107,900 84.700

26 8.350 8,000 8,780 136,700 115,900 75,700 71,900 130,100 158,800 149,700 106,500 84,500
27 8,100 8,040 8,280 139,800 116,700 76,300 70.500 133,300 158,800 148,600 105,100 84,300
28 8,020 8,100 8,150 139,400 117,300 77,300 69,500 136,400 158.300 147,400 104,100 84.100
29 8,040 8,080 8,280 136,800 78,600 69,000 139,800 157,200 146,100 103.300 83,800
30 8,060 8,050 8,180 132,800 80,400 68,800 143.500 156,500 144,800 103,100 83,100
31 8,100 8,090 128,000 82,400 147,400 143.600 102,700 ------

MAX 9,510 8,630 9,020 139,800 122,800 117,100 94,800 147,400 158.800 155.900 142.800 102.100
MIN 8,020 8,000 7.970 7,910 79,900 75,300 68,800 65,800 142,400 143,600 102,700 83,100
(tl 569.98 569.85 569.96 682.55 676.56 655.16 645.52 692.85 697.49 690.86 668.03 655.58
UJ -230 -50 +40 +119,910 -10,700 -34,900 -13,600 +78,600 +9,100 -12,900 -40,900 -19,600
(ttl 154 50 35 56 148 353 473 948 1,180 1,773 1,796 1,228

t ELEVATION, IN FEET, AT END OF MONTH,
t CHANGE IN CONTENTS, IN ACRE-FEET.
tt EVAPORATION, IN ACRE-FEET.

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP

2 79,851 17,287 7,998 8,760 34,216 12,131 16,099 47,055 127,398 87,233 30,070 7.856

4 75,323 14,728 7,992 8,510 32,526 11,135 17,878 49,813 129,332 83,612 28,100 7,890
5 72,978 13,936 7,992 8.348 31,622 10,841 18,875 51,281 129,790 81,875 27,182 7,890

7 68,680 13,036 7,998 8,046 29,704 9,506 21*273 54,614 130,433 77,975 25,450 7,886
8 66,506 12,458 8,002 8,019 28,799 8,908 22.461 56,252 130,176 75,747 24.722 7.880
9 64,374 11,835 8,005 8,070 27,850 8,334 23,813 57,940 130,249 73,380 23,983 7,866
10 62.233 11,214 8,005 9,513 26,925 8,386 25,329 60,109 129,680 71,100 23,229 7,856

14 54,053 9,955 8,016 10,088 23,759 8,351 31,345 68,388 124,988 61,595 19,909 7,768
15 52,056 9,658 8,002 10,957 22,898 8,595 32,358 71,728 123,064 59,263 19,077 7,768

16 50,387 9,404 7,998 27,975 21,953 8,595 33,332 75,506 121,062 57,003 18,237 7,765
17 48,743 9,195 7,998 34,308 21,323 8,506 34,281 79,354 119,002 54,707 17,463 7,765
18 47,055 8,978 8*002 36,197 20,504 8,376 35,153 83,236 116,992 52,676 16,713 7.752
19 45,284 8,745 8,029 37,006 19,596 8,098 35,970 86,696 114,994 50,782 15,927 7,741
2C 43,478 8,439 8,857 37,294 18,646 7,988 36t767 89,818 113,097 48,865 15,105 7,735

21 41,65? 8,274 9,277 37,303 17,689 8,005 37,582 92,849 111,164 46,882 14,314 7,728
22 39,689 8,181 10,099 37,246 16,659 8,084 38,327 96,135 109,145 45,146 13,549 7,725

26 31,112 8,C50 1C,772 37,920 11,642 10,756 41,764 109,674 100,192 39,128 10*691 7,691
27 28,960 8,029 10,265 37,775 10,002 11,727 42,693 112*751 98,041 37,582 10.033 7,671
28 26,902 8,019 9,627 37,495 9,605 12,588 43,489 115,746 95,782 36,018 9,385 7,668
29 24*919 7,998 9,162 37,054 13,368 44*219 118*401 93*579 34*391 8,945 7,655

31 21,167 8,912 35,744 14,703 123,602 32,120 8,302

^AX 81,8j3 19,216 10,772 38*055 35*032 14*703 45*072 123,602 130,433 89,289 31,112 7,958
MIN 21,167 7,978 7,988 8*019 9,605 7,988 15*342 45*998 91,414 32,120 8*302 7*648

(t) -61,889 -13,189 +934 +26,832 -26,139 +5,098 +30,369 +78,530 -32,188 -59,294 -23,818 -654
(ft) 569 126 52 86 99 101 300 941 1,326 1,136 551 278

CAL YR 1969 MAX 158,800 MIN 7,910 t +822
WTR YR 1970 MAX 130,433 MIN 7,648 t -75,452

t ELEVATION, IN FEET, AT END OF MONTH,
t CHANGE IN CONTENTS, IN ACRE-FEET,
tt EVAPORATION, IN ACRE-FEET.

TULARE LAKE BASIN

11210930 FOOTHILL DITCH BELOW TERMINUS DAM, CALIF.

LOCATION.--Lat 36°24'48", long 119°00'47", in NE% sec.35, T.17 S., R.27 E., Tulare County, on left bank 0.7 mile downstream from Terminus Dam and 2.1 miles northeast of Lemoncove.

PERIOD OF RECORD.--October 1961 to September 1970.

GAGE.--Water-stage recorder and Parshall flume. Datum of gage is 492.8 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--9 years, 17.6 cfs (12,750 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 50 cfs Feb. 10, 1962; minimum daily, 1.0 cfs Feb. 1, 2, 1962.

REMARKS.--Records excellent. Ditch receives water from Lake Kaweah (see station 11210900) wh
irrigation.

DISCHARGE, IN CUBIC FEET PER SECOND, HATER

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CAL YR 1965 TOTAL 8,910 MEAN 24

TULARE LAKE BASIN

11210930 FOOTHILL DITCH BELOW TERMINUS DAM, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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TULARE LAKE BASIN

11210930 FOOTHILL DITCH BELOW TERMINUS DAM, CALIF.--CONTINUED

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PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER

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14.8
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26.6

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TULARE LAKE BASIN

11210950 KAWEAH RIVER BELOW TERMINUS DAM, CALIF.

LOCATION.--Lat 36 0 24'51", long 119°00'4Z", in SE^SE^ sec.26, T.17 S., R.27 E., Tulare County, on left bank 0.6 mile downstream from Terminus Dam and 2.2 miles northeast of Lemoncove.

DRAINAGE AREA.--561 sq mi.

PERIOD OF RECORD.--October 1961 to September 1970.

Bis by

AVERAGE DISCHARGE.--9 years, 724 cfs (524,500 acre-ft per year), adjusted for change

Wtr yr Date
1966 June 17, 18, 1966
1967 Dec. 8, 1966
1968 June 19, 1968
1969 June 3, 1969
1970 June 24, 1970

Period of record: Ma

Discharge
1,290
5,370
1,380
5,610
1,700

G.H.
5.22
8.62
5.34
8.77
5.74

Date

Many days

Sept.29, 1968
Oct. 2, 1968
Sept.29, 1970

Minimum daily
Discharge

discharge, 5,610 cfs June 3, 1969 (gage height, 8.77 ft; no flow at times in

Lverts water

- igation. At

REVISIONS (WATER YEARS).--Revised figure of monthly adjusted discharge for March 1963, superseding that published in WSP 1930, is 27,560 acre-ft.

DISCHARGE, IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

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. 0 368
. 0 373
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. 0 271
. 0 824

. 0 782

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. 0 80
. 0 ______

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EANt 67.1 26.9

TR YR 1966 TOTAL 113,502

t ADJUSTED FOR DIVERSION

76
73
332
479
474

467
332
239

228

227

236
223
204

191
173
155
147
154

159
161
159
134

148
163
508
620

236

73

26.5

00 MEAN

10 MEAN

558
441
335
297
267

262
269
359
410
411

327

251

242

239
230
217
204
201

195
191
193
180

137
114
113
119

251

113

257

612 MAX]
311 MAX 1

TO LEMONCOVE DITCH

160
188
181
182
182

180
336
301
243
211

213

204

177

171
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194
203
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203
206
218
240

228

215

160

236

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AND

216
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212
214
222

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232
239
257
268

328

469

473

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447
453

457
460
487
555

535
591
595
617

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455

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FOOTHILL DI

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437

372
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300

294

277

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284
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380
383

375
372
361
363

411
392
364

361
541
258

936

AC-FT 442
AC-FT 225

365 891
381 918
384 914
391 923
395 940

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379
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310

294

455
582
601
610
628

636
640
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663

801

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995
887 980
875 910

524 1,086
887 1,280
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1,016 380

,700 MEANt 650
,100 MEANt 340

859
753
645
645
637

607
592
540
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504

407

354

255
210
209
192
186

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181
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114
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74
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74
21,830
83.1
5,110

AC-FTt 470
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TULARE LAKE BASIN

11210950 KAWEAH RIVER BELOW TERMINUS DAM, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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,420 716 551 1.010 1.270 2.380 3,900

,420 725 598 107 1,760 2,130 3,880
,400 725 616 23 2,000 2,060 3,680

. 400 747 524 37 2.050 2,020 3,510
,400 786 515 0 2,310 2,000 3,130
,400 804 510 0 2,580 1,980 2,880
,410 803 SOS 0 2,720 1,620 2,620

,440 80S SOS 0 2,770 1,500 2,310
,440 802 S24 0 2,850 1.550 2.070
,460 803 825 0 2,890 1,620 1,830
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,460 992
,440 1,040

,410 983 ,440 930
,480 791

,520 697

,350 600
,230 579

,380 558
,390 570
,030 559

718
595

. 030 0 2.8BO 1,700 1,750
,200 110 2.890 1,760 1,760

. 260 115 2.890 1,860 1,770
,410 S37 2,820 1,980 1,770 ,750 694 2,790 2,000 1,780

,520 680 3,050 2,020 1,710

,320 653 3,090 2,100 1,720

,240 621 3,150 2,820 1,720 ,230 652 3,020 3,020 1,840

,210 882 2,960 3,060 1,990
,120 1,030 2,950 3,080 1,980
,120 1,110 2,950 3,140 1,970

,130 1.150 2,780 3,470 1,980
,080 2,690 1,960

,520 1,040 1,810 1,150 3,150 3,470 4,040

. 960

,910
,910
,910

,870
,800
,780
,810

,800
,750
,740
. 710
,700

,690
,710
,720
,740
,750

,380
,300
,270
,270
,250

,220
,200
,160
,160
,160

. 160
,270
,330
,330
,320

,180
,120
,070
,000
942

,730 o-»o
. 710 839
,700 819
,700 818
. 670 799

,620 657
,560 563
,450 513

,380 499
, 380

,400 30,992
. 723 1,033
,960 1,380

0 5,620 158,500 82,480 42,480 60,540 27,910 160,700 132,800 147,400 105,900 61,470

31

TOTAL
MEAN
MAX
MIN
AC-FT
MEANt

AC-FTt 1,500 9,440 211,200 35,680 37,570 67,190 94,340 185,900 190,700 138,600 36,160 14,750

IEAN 495 MAX 5,320 MIN 0 AC-FT 358,100 MEANt 596 AC-FTt 431,800
IEAN 1,362 MAX 5,320 MIN 0 AC-FT 985,800 MEANt 1,413 AC-FTt 1,023,000

DISCHARGE, IN CUBIC FEET PER SECOND,

NOV DEC JAN FEB

MATER YEAR OCTOBER 1967 TQ SEPTEMBER 1968

MAR APR MAY JUN JUL

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
IB
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN
PAX
PIN
AC-FT
MEANt
AC-FTt

CAL YR
WTR YR

S02
511
631
700
696

605
559
549
132
218

220
218
252
269

265
253
249
247
249

249
247
240
242

246
245
234
230
121
41

700
41
20,100
101
6,220

1967 TOTAL
1968 TOTAL

61
57
60
64
65

66
64
65
62
58

59
60
56
56

64
68
68

68

68
155
210
209

211
182
161
161
173

211
56
5,920 11,
128
7,620 12,

433,350.00
107,781.00

179 202
180 181
179 168
239 156
283 149

281 144

222 138 180 138
173 139
168 134

1S6 163
149 241
162 214
154 168

106 204
181 220
156 220

202 220

201 218
177 218
174 218
180 208

236 204
278 204
279 204
264 204
224 204
208 204

283 241
70 134
890 11,670
205 210
580 12,920

MEAN 1,187
MEAN 294

209
212
212
212
227

243
222
212
207
209

212
223
230
229

188
184
187

491

592
788
538
386

434
448
448
461
______

788
184
18,180
333
19,170

MAX 4,040
MAX 1,360

458
413
394
346
326

329
329

449
485

378
318
317
319

307
306
316

221

173
174
120
84

57
58
64
79
115
145

485
57

16,150
402
24,710

MIN 0
MIN 16

146
143
137
108
86

98
82

78
107

144
178
191
182

166
161
156

89

81
78
81
89

130
176
198
210
221

221
76
7,900
642
38,180

AC-FT 859
AC-FT 213

223
229
232
227
228

226
216

193
187

185
186
188
223

254
262
263

281

299
304
295
280

278
299
308
417
527
567

567
185
16,610
950
58,420

758
848
871
932
960

945
887

872
952

998
1,010
1.040
1.060
1,060

1,070
1,220
1,300

1,360

1,350
1,350
1,360
1,350

1,320
1,200
1,060
976
842

1,082
1,360
758
64,410
484
28,800

,500 MEANt 1,143
,800 MEANt 301

716
650
626
616
612

569
547

555
552

537
525
521
518
516

514
501
487

422

377
345
348
331

298
302
301
304
304
304

468
716
298
28,770
96.1
5,910

AC-FTt
AC-FTt

310
314
316
317
314

317
318

248
230

226
197
170
167
16?

157
153
151
152
151

84
31
40
46

42
38
43
43
41
41

166
318
31
10,220
40.5
2,490

827,300
218,500

41
41
41
40
37

38
38
38
38
37

34
34
33
33
33

34
34
33
32
32

31
31
32
34
32

32
26
19
16
18

33.1
41
16
1.970
25.5
1,520

t ADJUSTED FOR DIVERSION TO LEMONCOVE DITCH AND FOOTHILL DITCH, CHANGE IN CONTENTS AND EVAPORATION FROM LAKE KAWEAH.

TULARE LAKE BASIN

11210950 KAWEAH RIVER BEIOW TERMINUS DAM, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY

1

1

13
14

16

18
19

21
22
23

25

26
27
28

30

MEAN
MAX
MIN
AC-FT
MEANt
AC-FTt

CAL YR
WTR YR

OCT

9.3
2.5
. 9

. 5

. 9
. 6

7.3

6.4

6.9
15

55

39
38

91
128
129

126

127
127
76

47

46.0
129
2.5
2,830
63.3
3,890

1968 TOTAL
1969 TOTAL

NOV

78
63
48

97

106

106

168
186

185
175
171

126

108
78
60

87

115
186
48
6,830
128
7,620

98,733
592,093

DEC

87
87
74

79

76

112
113

185

128
128
115

120

331
478
308

262

16B
479
67
10,310
179
11,000

. 1 MEAN
. 1 MEAN

218
192
184

189

221

171
328

596

1,040
874

2,380
3,940
3,940

4,220

1,027
4,300
171

63,163
2,989
183,800

270
1,622

4,280
4,260
3,800

2,360

2,800
2,240

1,500

1,500
1,500

1,340
2,240
2.580

2,344
4,280
43

130,200
2,166
120,300

MAX 1,360
MAX 5,560

2,710
2,720
2,320

1,970

2,750

1,490

1,490
1,490

1,490
1,500
1.500

1.520

2,137
3,100
1.49C
131,400
1,585
97,450

MIN 2.5
MIN 2.5

1,600
1,700
1.730

1.800

2,990

2,980
2,980

2,980
2,980
2,980

2,980

2,696
3.000
1.600
160,400
2,489
148,100

AC-FT
AC-FT 1

2,980
2,980
2,980

2,980

3,000

2,990
3.280

3.690
4,020
4,000

4,520

3,282
4,770
2,980
201,800
4,596
282,600

195,800
,174,000

4,750
4,990
5,390

5,560

2,950

2,750

2,780
2,800

2.950
3,000
3,140

3.280

3,821
5,560
2,750
227,400
4,015
238,900

MEANt
MEANt 1,

JUt

3,240
3,180
3,060

2.910

1.990
1,980

1,980

1,850
1,880

2,050
1,900
1,920

1.860

2.262
3.240
1.810
139,100
2,108
129,600

296 AC-FTt
754 AC-FTt

1,550
1,200
1,280

1,440

1.390
1,410

1.470

1.500
1.550

1,330
1,400

1,180
1,040
816

973
953
836

348

1,197
1,670
348
73,630
592
36,390

214
1,270

SEP

480
520
518

676

716
689

890
884

763

484
484

336
309

271
268
253

204
189
191

425

459
890
189
27,310
175
10,430

,600
,000

t ADJUSTED FOR DIVERSION TO LEMONCOVE DITCH AND FOOTHILL DITCH, CHANGE IN CONTENTS AND EVAPORATION FROM LAKE KAWEAH.

DAY OCT

1 701
2
3
4
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6

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9
10

11
12

14
15

16
17
18
19
20

22
23

25

26
27
28

30

MEAN
MAX
MIN

,050
,220
,220
,223

. 170

,140
,140
, 140

,130
,110

,090
,070

,060
,070
,070
,060
,060

,110
,160

,170

,170
,160
,110

990

,104
,220
701

DISCHARGE,

NOV

1,050
784
644
488

381

440
431
426

356
278

261
267

266
237
216
215
238

153
155

96

99
103
99

97

331
1,050
96

IN CUE

DEC

83
89
87
85

87

90
92
92

91
88

86
90

88
82
80
82
85

219
313

310

458
554
510

282

174
554
80

1C FEET

JAN

199
198
197
195

194

154
126
128

120
315

417
405

544
609
655

691
695

714

736
746
747

776

446
800
120

PER SECOND,

FEB

814
824
820
831

839

832
840
836

831
826

834
833

833
834
834

835
833

943

1,040
1,050
659

844
1,050

WATER

MAR

802
1,100
964

969

873
820
646

602
570

525
527

689
689
577

521
564

318

286
279
276

263

584
1,100

YEAR OCTOBER

APR

51
61
58

51

72
73
178

188
191

192
186

153
154
124

113
87

80

80
120
137

101

147
208

1969 TO SEPTEMBER 1970

MAY JUN JUL

139 938 ,240
172 951 ,180
186 945 ,170

187 978 ,220

189
188
191

209
211

204
231

286
300
290

264
265

280

265
252
248

455

244
468

,200 ,370
,350 ,420
,360 ,420

,350 .420
. 340 ,420

. 330 ,410
,460 ,370

,580 ,320

,650 ,180
,670 ,110
,680 ,110

,700 ,010
,7CO 879

,670 854

,640 851
,620 860
,550 862

,420 693

,381 1,146
,700 1,420

564 897 235

AUG

538
534
517
490

481

414
408
400

40
67

10
28

430

385
401
410

382
376

312

285
286
284

146

392
551

44.4
2,730

SEP

73
10
13
17

17

20
19
19

19
19

14
9.2

9.0
11
12
13
12

12
13

13

12
12
7.3

7.7

19.8
140
6.6
1,180
39.5
2,350

CAL YR 1969 TOTAL 631,560.0 MEAN 1,730 MAX 5,560 MIN 43 AC-FT 1,253,000 MEANt 1,762 AC-FTt 1,276,000 WTR YR 1970 TOTAL 206,746.8 MEAN 566 MAX 1,700 MIN 6.6 AC-FT 410,100 MEANt 494 AC-FTt 357,800

CHANGE IN CONTENTS AND EVAPORATION FROM LAKE

TULARE LAKE BASIN

11211300 DRY CREEK NEAR LEMONCOVE, CALIF.

DRAINAGE AREA.--75.6 sq mi. Area at site used prior to Mar. 8, 1969, 80.4 sq mi

PERIOD OF RECORD.--October 19S9 to September 1970.

GAGE.--Water-stage recorder. Altitude of gage is 570 ft (from topographic map).
1.6 miles downstream at different datum.

AVERAGE DISCHARGE.--11 years, 22.4 cfs (16,230 acre-ft per year); median of yearly mean discharges, (3,800 acre-ft per year).

or to Mar. 8, 1969,

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height

Annual maximum discharge (*) and peak discharges above base (50 cfs), wat

feet).

Date Time
Dec. 30, 1965 0800

Dec. 6, 1966 0900
an. 22, 1967 1800
an. 24, 1967 2000
an. 31, 1967 0300
ar. 13, 1967 1000
ar. 16, 1967 1900
Mar. 31, 1967 2400
Apr. 5, 1967 0100

a In gage well; 8

Period of rec

Flood of Dec.

Disch. *112

"14,500
63
345
295
243
390
111
285

94 ft, f

ord: Max

23, 1955

G.II.
2.97

a7.30
2.80
3.67
3.57
3.58
3.88
3.15
3.67

rom floodm

imum disch

Date

Apr.
Apr.
Apr.
Apr.
Apr.
Apr.

Feb.

Jan.

arks,

arge,

7,
H>
15,
18,
22,
28,

17,

25,

site

14,5
use)

1967
1967
1967
1967
1967
1967

1968

1969

and d

00 cf<

Time
1300
0500
1500
1700
0400
2400

2300

atum

Dec

,070

Disch.
472
601
320
532
556
340

*42

*6,070

then in u

6, 1966

G.H.
4.00
4.18
3.73
4.09
4.12
3.77

2.70

5.18

se.

(gage

Date
Feb.

Dec.
Jan .
Jan .
Jan.
Jan.
Mar.
Mar.

height, 7

24,

26,
10,
15,
16,
24,
2,
5,

. 30

ye

1969

1969
1970
1970
1970
1970
1970
1970

ft in
ar.

Time
-

0100
1500
0100
1230
1630
0400
0200

gage

Disch.
5,580

98
62
205

*1,990
141
708
330

well, 8.94

G

2
2
3
6
2
4
3

f

believed to have exceeded that in December 1955, from information by local residents. REVISIONS.--The maximum discharge for the water year 1960 has been revised to 206 cfs Feb. 2, 1960 (ga height, 3.29 ft), superseding figures published in WSP 1715, 1735.

no gage-height rd Ja 19 to Mar. 7, 1969, which are poor.

REVISIONS (WATER YEARS).--Revised figure
in WSP 1715, are 206 cfs Feb. 2, 1960 age height, 3.29 ft).

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

JUL

31

TOTAL
MEAN
MAX
MIN
AC-FT

0 4
0 1
0 1
0
0

0
0
0
0
Q

o
0

o
Q

o

0

Q

0

0
0

0
0
. 10
. 20
. 50

1.0
1.6
3.4
19
75

7.9
8.5
6.4
. 2 5.5
. 4 5.5

. 4 17
. 4 24
. 4 16
. 4 12
. 5 11

. 5 12

. 7f -j
f 1
. 7

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. 0
. 4
. 4
. 4

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4
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7
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4
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0 148.80 204.2 235.7 15
0 4.80 6.59 8.42 5
O 75 45 24
0 0 2.8 4.0
0 295 405 468 3

1

1

8

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. 7
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. 2
. 6
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. 4

. 0
. 8
. 3
1 3
. 9

. 6
. 6
. 0
. 80
. 50

. 20
. 71
6.4
. 50

) 161

. 30
. 20
. 10
0
0

0
0
0
0
0

1.2
1.9
. 80
. 30
. 10

0
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0
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0
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0
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0
0

4.90
. 16
1.9
0
9.7

JUN

0
0
0
0
0

TULARE LAKE BASIN

11211300 DRY CREEK NEAR LEMONCOVE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY OCT

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IB
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30
31

TOTAL 0
MEAN 0
MAX 0
MIN 0
AC-FT 0

DAY OCT

1
2
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11
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14
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16
17
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20

Zl
22
33
24
25

26
27
28
29
3;
31

TOTAL 0
CEAN 0
MAX 0
MIN 0
AC-FT 3

NOV

0
0
0
0
c

0 8. 72 16 89 173
0 8. 50 14 97 61
. TO 8. 42 14 84 49
1.2 8. 37 14 95 49
670 8. 35 14 176 70

6,370 8. 32 13 139 44 537 8. 30 12 301 36 115 8. 28 12 247 139 70 8. 27 12 158 142
48 8. 27 11 139 170

37 8. 26 13 387 147
31 8. 24 62 239 129 27 8. 23 156 176 119
22 . 24 126 161 117
19 . 24 72 189 115

17 . 23 162 193 115
16 . 22 153 179 108
14 . 21 86 326 106
14 . 21 72 410 100
14 . 19 67 385 97

13 9.6 18 67 370 93 12 36 17 65 440 86 12 30 17 61 330 82
11 102 17 60 425 76
11 134 22 56 345 74

11 61 26 56 285 72 11 44 19 54 252 71

9.6 37 17 54 222 69 9.6 34 60 256 67
9.6 70 56 207 65

8.5 168 80 63

263 28.5 27.1 57.1 243 113
6,370 168 72 162 440 173
0 6.4 17 11 84 63
16,150 1,760 1,510 3,510 14,480 6,950

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1967

NOV

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1.0

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. 8
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2.5

10. I
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2.

2

DEC JAN FE8 MAR APR MAY

8.8 6.1 14 8. 8 2.5

I
1

. 7 6.1 13 8.8 11
. 1 6.1 13 7.0
. 5 6.1 12 7.0
. 0 6.1 12 6.1

. 0 6.1 11 6.1
. 0 6.1 11 6.1
. 1 6.1 9.8 12
. 8 6.1 8.8 17
. 5 6.1 7.9 11

. 5 14 7.9 7.9
. 8 11 7.9 6.1
. 1 8.8 7.0 6.1
. 1 7.9 7.0 6.1
. 5 7.9 7.C 5.3

. 5 7.9 6.1 4.5
. 5 7.9 18 8.8
. 1 7.9 34 9.8
7.9 22 8. 8
7.9 20 7.0

. 8 7.9 19 5.3
. 9 6.1 17 4.5
. 0 6.1 16 3.7
. 9 5.3 13 3.0
. 9 5.3 12 3.0

. 0 5.3 12 3.0
. 9 7.9 11 2.5
. 9 12 9.8 2.1
. 0 11 8.8 2.1
. 0 8.8 2.1

162.9 237.8 368.0 193.4 8 5.25 7.67 12.7 6.24 2
13 14 34 17
1.5 5.3 6.1 1.8
323 472 730 384

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f I

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t j
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a I

9 I
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f j
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B j
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. 1

. 6 34.0
72 1.10
11 3.0
. 8 0
62 67

JUN

58
53
53
53
51

51
9
9
8
6

4
4
4
3
0

37
32
31
28
27

24
23
22
22
21

18
18
17
16
14

35.9
58
14
2,130

TO SEPTEMBER

JUN

0
0
0
0
0

0
0
4.2
. 34
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

4.54
. 15
4.2
0
9.0

JUL

13
13
13
13
13

11
11
11
11
11

9,6
9,6
9.5
9.2
9.0

8.8
8.6
8.0
7.0
6.4

6.0
5.6
5.2
4.7
4.2

3.8
3.4
3.0
2.8
2.7
2.5

8.05
13
2.5
495

1968

JUL

0
0
0
0
0

AUG

1.9
. 80
. 30
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0
0

3.00
. 097
1.9
0
6.0

AUG

0
0
0
0
0

SEP

0
0
0
0
0

SEP

0
0
0
0
0

TULARE LAKE BASIN

11211300 DRY CREEK NEAR LEMONCOVE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

NOV DEC JAN FEB MAR APR MAY JUN JUL

I 0
2 0
3 0
4 0
5 0

6 0
7 0
8 0
9 0
10 0

11 0
12 C
13 0
14 0

5.3
5.3
5.3
6.1
6.1

5.3
5.3
4.5
4.5
3.7

3.0
3.0
4.5
31
15 .20 20

16 12
17 7.
18 4.
19 2.

11
9 7.0
5 17
1 2,130
20 1.5 870

21 1.
22 0
23 0

1 1.450
939
200
24 .28 302

26 35 1.130
27 16
28 7.

512
9 400

170
130
100
84
100

400
200
150
110

93
112
96
BO
160

240
110
239
425
310

350
325
500
1.820

1,000
769
810
29 8.8 300
30 7.
a t«

MEAN 0 0 3.82 386
MAX 0 0
MIN 0 0

35 3.150
0 3.0
AC-FT 0 0 235 23,730

DISCHARGE. IN CUBIC FEET

I .07
2 .07
3 .20
4 .25
5 .35

6 .55
7 .45 1
8 .35 1
9 .30
10 .45

11 .55
12 .65
13 .65
14 .80
15 1.0

16 .4
17 .2
18 .9
19 .7
20 .2

21 .5
22 .4
23 .9
24 .4
25 .9

26 .4
27 .0
28 .0
29 .0
30 .0

. 9
. 9
. 4
. 4
. 4

. 9

. 7
. 0

. 0
. 4
. 9
. 4
. 9

. 0
. 5
. 5
. 5
. 5 1

. 5 12
. 5 20
. 5 12
. 5 7
. 5 25

. 5 45
. 0 13
. 0 11
. 5 8
. 5 6.

TOTAL 6 .99 117.2 268

MEAN .00 3.91 8.(
MAX 7.9 17 '
MIN .07 1.4 3

CAL YR 1969 TOTAL 40,105.98
NTR YR 1970 TOTAL 5,495.15

. 2
. 8
. 2
. 2
. 7

5.7
5.7
5.7
5.7
34

21
19
14
32
72

928
376
135
91
63

47
36
34
4 72
57

32
28
28
4 25
8 23
2 21

9 2.241.9
7 72.3
^5 928
5 5.7

MEAN 110
MEAN 15.1

441

2,740
80
24,500

PER SECOND

20
19
18
18
17

16
16
16
15
16

17
16
16
21
17

16
25
20
17
16

15
13
13
13
12

12
11
21

462
16.5
25
11

MAX 928

B72
675
540
450
370

300
259
250
245

224
208
211
189
185

1BO
177
177
171
168

218
176
162
157

154
151
151
150
146
143

257
872
143
15,770

, WATER

124
338
121
105
185

104
81
66
53
55

42
37
33
31
30

28
27
25
24
22

21
21
20
20
19

18
18
17
17
17
16

1,735
56.0
338
16

MIN 0

140 76
135 73
151 73
120 76
347 73

281 66
242 65
202 63
183 62

171 60
161 55
157 53
147 51
137 51

127 45
123 41
123 36
115 36
109 36

109 32
105 32
102 29
98 28

90 26
85 30
82 40
80 40
' 38

155 49.0
542 76
79 26
9,200 3,010

YEAR OCTOBER 1969

16 11
15 10
15 9.7
14 8.8
14 8.4

14 7.9
13 8.4
13 .4
12 .4
12 .4

12 .9
12 .9
12 .4
14 .4
13 .0

12 .6
12 .6
12 .2
12 .8
12 .8

12 .8
13 .8
12 .3
12 .4
11 .0

11 .5
14 .0
13 .0
12 .0
12 .6
. 6

383 1B6.0
12.8 6.00
16 11
11 1.6

AC-FT 10,900

34 14
32 14
30 12
26 12
26 10

32 9.2
32 B.6
60 8.3 .
72 7.7

49 7.1
45 6.B
38 6.B
29 7.7
24 6.B .

45 6.0 2.
49 5.6 1.
36 5.6 1.
32 5.4 1.
28 5.4 1.

24 5.0 1.
24 4.8
23 4.4
22 4.2

19 4.2
18 4.4
18 5.4
17 4.4
16 4.2

31.7 7.03 2.
72 14 4
16 3.6

. 35
. 35
. 25
. 20
. 10

0
0
0
0
0

0
0
0
0
0

. 02
. 07
. 15
. 30
. 25

. 45
. 55
. 55
. 55

. 30
. 15
. 10
. 10
. 10

. 17
. 55
0
1,890 432 123 10

TO SEPTEMBER 1970

. 4 .65
. 4 .55
. 4 .45
. 4 .35
. 2 .25

. 2 .20
. C .20
. 80 .10
. 2 .10
. 4 .20

. 4 .20
. 4 .15
. 4 .10
. 4 .10
. 2 .07

. 4 .07
. 6 .04
. 6 .04
. 4 .02
. 4 .02

. 4 0
. 2 0
. 80 0
. 80 0
. 80 0

. 80 0
. 65 0
. 65 0
. 80 0
. 80 0
0

35.30 3.86 0 0
1.18 .12 0 0
1.6 .65 0 0
. 65 0 0 0

TULARE LAKE BASIN

11213500 KINGS RIVER ABOVE NORTH FORK, NEAR TRIMMER, CALIF.

DRIANAGE AREA.--952 sq mi.

PERIOD OF RECORD.--October 1926 to December 1928, October 1931 to September 1970. Prior to September 1965, pub-lished as Kings River above North Fork. Monthly figures only for some periods, published in WSP 1315-A.

GAGE.--Water-stag :order. Datum of gage 1,001.3 ft above mean sea level (river-profile survey). March

bank at datum 2.00 ft higher.

AVERAGE DISCHARGE.--41 years, 1,446 cfs (1,048,000 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (6,300 cfs), water years 1966-70

Date

May

Dec.
Mar.
May
July

Wtr y
1966
1967
1968

Time Disch.
7, 1966 - *5,460

6, 1966 0900 *41,000
16, 1967 1700 6,760
25, 1967 0100 12,100
3, 1967 0030 16,700

r Date

Sept. 18, 30, 1966
Nov. 2-5, 1966
Sept. 26-30, 1968

Period of record: Maxii

G.H.
7.12

15.12
7.53
9.16
10.27

Annu

num di

Date

May

Jan.
Jan.
Apr.
June

al minim

scharge,

29, 1968

19, 1969
25, 1969
22, 1969
2, 1969

urn daily di

Discharge
122
100
113

59,100 cfs

Time
0400

2300
0300

schari

Dec.

Disch.
*5,550

17,300
35,000
6,400
19,600

;e , water

Wtr yr
1969
1970

23, 1955

G.H.
7.15

10.40
14.00
7. 30
11.43

years

Date
Oct. 4
Sept. 23

(gage

Date
June 15
June 23

Jan. 16
June 1

1966-70

- 12, 1968
, 1970

height, 18

, 1969
, 1969

, 1970
, 1970

.26 ft,

Time
0400
0400

1200
0300

present

Disch.
11,100
13,300

*6,980
6,840

Dis

datum)
ally, 7

G.H.
9.15
9.54

7.70
7.65

charge
107
193

, from

Jan. 14, 1963.

REMARKS.--Records good. No gage-he ecord Jan. 24-29, 1969. No regulation or diversion above station. See

1966-70 are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1395: 1938(M), 1951(M). WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECQNDi MATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

1
2
3
it

6
7

9

12

14

16
17
18

20

22
23

25

26
27
28
29
30
31

MEAN

MIN AC-FT

HTR YR

OCT

280
271

265
256

247

238

220

247
244

202
195 1

190 1

188 L
185
182
178
178

228

178
14,010 32

1966 TOTAL

NOV

172
172

170
168

166

164

476

536
866

432
,450

,340

,090
960
858
801 1
753 I

549

164
,680 34

385,045

DEC

661
661

628
600

580

570

514

432
408

424
392

400

392
388
388
,110
,060

556

388
,190

MEAN

656
612

585
585

580

514

496

484

408
392

376

373
362
345
345

489

345
30,080

1,055

388
384

612
518

428

428

388

388

388

412
432

440

432
416
428

419

376
23,270

MAX 4,700

416
420

472
476

504

759

939

904

864

877
981

1,030

1,050
1,130
1,260
1,420

850

416
52,270

MIN 122

2,760
2.920

3,040
3,180

3,220

2,190

1,920

2,440

2.590

1,670
1,680

2,430

3,140
3.260
3,300
3,200
3,400

2,571

1,670
153,000

AC-FT

4,190
4,190

4,600
4,700

3,920

3,020

3,660

4,050

4,500

3,830
4,010

4,010

4,010
3.990
3,880
3,660
3,120

3,883

2,540
238,800

763,700

JUN

1,930
1,920

2,160
2,240

1,890

2,380

2.690

2,080

2,160

1.760
1.530

1,320

1,360
1,450
1,500
1.480
1,420

1,958

1,320
116,500

JUL

1.240
1.100
1,020

932
877

753

580

540

SIS
514
509

514
50«

504

496
476
460
448
452

660

448
40,600

AUG

527
639
644

496
448

380

320

295

280
271
280

247
235

215

208
202
192
185
182

329

178
20.210

SEP

178
170
162
154

148
144

136

128

130

127
124
122

144

136
130

127

127
128
125
125
122

137

122
8,140

TULARE LAKE BASIN

11213500 KINGS RIVER ABOVE NORTH FORK, NEAR TRIMMER, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
4
5

6
7
B
9
10

1
2
3
4
5

6
7
B
9
0

1
2
3
4
5

6
7
B
9
0
1

TAL
AN
X
IN
C-FT

AY

1
2
3
4
5

6
7
B
9
10

11
12
13
1*
15

16
17
IB
19
20

21
22
23
2*
25

26
27
26
29
30
31

OTAL
EAN
AX
IN
C-FT

TR YR

120
120

122

122
122
120
119
116

116
116
116
116
114

113
113
111
111
106

106
108
106
106
106

10*
103
103
103
101
101

3.490
113
122
101
6,920

QCT

694
634
560

509

488
468
440
420

366
360
370
366
356

336
331
320
310

301
301
298
266

280
277
274
274

268

11,823
381

23,450

101
100

103 32
119
160
152

132
132

134

146
164
150
136
411

422
304
268
232
220

208
206
710
2,180
870

6,462 63
282 2
2,180 32
100
16,780 166

DISCHARGE,

NOV

265
259

253

256
256
256
253

244

232
236
266

274
260
436
428

356
342
331
317

310
3C4
314
295

8,797 12

17,450 23

,200
,650
,970
. 860

. 900
,550

,170

. 100
. 050

981
953

911
651
813
783
747

741
661
656
656
656

,754
,702
,200
612
,100

IN

DEC

352
400

420
400
400
360

376

277
307

345
376
386
392

396
416
428

444
440
437
416

384

,081

,960

540 1
518
514
509

516 1

536
536

532
532

1,190
1,150
918
1,310
1.160

1,240

1.160

1,910

25,856 27
634
2,480 1
500
51,290 54

CUBIC FEET PER

JAN

373
356

310
304
310
314

376

328
435

366
362
359
352

359
359
356

359
388
362
362

396

11.066 14

21,950 29

N 2,626 MAX

,010

988
981

,070 1

953 4
911 3

884 2

825 2
625 2

795 1
63B 1

795 1

771 1

I

,482 50
982 1
,640 4
771

,510 100

X 32,200

SECOND.

FEB

388
396

366
364
376
376

400

373
356

585
626
555
672

789
723
663
672

661

666
678

,653 20

,460 39

14,100

753

759
777

,550

,140
,950

,690

,180
,100

,890

. 600

,520

,410

,526 5

. 590

,500

,750
,660

,660

,660
,640

,610

,6BO 5,730

,730 5,320

,640 6,960
,400 7,560

11.300

9,660

9,060
8,130

3,660

3,420

2.590
2,360

1,940

1,450

1,150
1,060

,660 6,230

,030 6,290
,830 6,230

,530 9,640

,740 6,160 10,200
,830 9,380 11,700

,800 10,500 11,000

,680 10,400 11,800

,700 9,220 12,100

,470 6,130 13,600

,050 166,170 262,170

,140 ,960 10,600 13,600
741 ,370 1,420 5,260
,200 9 ,270 329,600 520,000

MIN 100 AC-FT 872,700
M|N 100 AC-FT 2,026,000

MATER YEAR OCTOBER 1967 TO SEPTE

MAR APR MAY JUN

688 1,240 3,240 ,720
666 1,120 3,400 .970

617
700
644

960 2,640 ,600

1,060 2,320 ,640

585 1,440 2,260 ,540

606 ,510
585 ,620

,010 ,890
,690 ,890
,560 ,000

622 ,340 2,010 ,240
595 ,150 2,640 ,070
585 ,060 3,440 ,990
5S5 ,020 3.900 ,900

565 946 4,050 ,660
580 864 3,420 .530
550 918 2.540 ,490
555 96B 2.200 ,450

600 1,560 3,320 ,280

825 2,930 4.600 ,120

,140 3,790

,145 41,960 90,950 60,835

550 664 1.560 995
. 960 83,270 160,400 120,700

6,000

7,610
7,430

6,630

5,700
5,640

5,260

5,520

4,940

4,990

242,650

14.100
4,600
461,700

MBER 1968

JUL

664
625
783
747
705

672

838
1,010

670
771
700
661
62B

606
585
555
532
514

492
464
464
444
432

432

628

795

20.233
653
1.010
432
40,130

2,360

2,320

2,260
2,250

1,960

1,700
1,670
1,560
1,620

1,920
1,590
1,450
1,260
1,200

73,600

4,460
1,200
146,000

AUG

730
600
540
465
445

360

355
340

325
310
300
290
277

265
253
241
226
223

215
210
202
185
170

162

154

150

9.283
299
730
150
16,410

795

694

656
622

656
656

753
729
723
711

672
644
634
666
741

27,959

1,940
62?
55,460

SEP

150
150
150
150
146

152
156
158
158
156

154
152
152
146
127

125
124
122
120
119

119
119
119
119
116

113
113
113
113
113

4,026
134
158
113
7,990

TULARE LAKE BASIN

11213500 KINGS RIVER ABOVE NORTH FORK, NEAR TRIMMER, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

AY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

EAN
AX
IN
C-FT

TR YR

AY

L
2
3
4
5

6
7
8
9
10

L
2
3
4
5

6
7
3
9

1
2
3
4
5

6
7
8
9

1

AN

N

AL YR

OCT

12
10

07
07
07
07
07

07

352

224
217
211
2C1
198

19A
198
193

217

352
1C7

11,000 20

NOV

217
204

321
302
291
283
302

367

400
386
378
378
352

287

478
2C4
,490 23,

1969 TOTAL 1,296,015

DISCHARGE,

OCT NOV

430

374

344

333

310

302

810

452

'.22
400

382

400

408

1969 TOTAL

340

4CO

404

404

3B2

333

314

1,301,145

DEC

272
257

224
224
220
211
211

241

287 8
310 4
325 2
477 2
824 18

648 13

575 4

824 18
211
350 185

MEAN 3

IN CUBIC

DEC

245

23?

227

211

45? 1

680

314

MEAN 3

461

510
51D
500
490
452

408

,890
. 540
,880
,800

,800

,050

,800

,900

822
,551

FEET

JAN

281

208

255

,040

916

6?9

,565

1,700 2,

1.320 1,
1,100 1,
957 1,
888 1,
824 1,

811 1,

832 1,

770 It
779 1,
3,900 1,
3,780 1,

2,380 2,

2,230 2,

3.900 3.

73,900 102,

MAX 18,800

PER SECOND, M

FEB

581 1.

542

495

480

MAX 18.800

050

330
250
220
200

080

550

510
580
710
860

000

480

660

800

WIN

ATER

050
804

726

700

732

MIN

3,860 6,080

3,180 6,020
2,970 7.240
2.860 8,450
2,840 9,570

3,550 9,410

4,480 10,400

6,020 11,900
5,990 11,700
4,890 12.700
4,310 13,900

4,170 14,100

4.730 13,300

6,020 16,400

241,100 621,500

107 AC-FT 2,571

YEAR OCTOBER 1969

930 1,620

1,510 2,320

1,510 3,120

1,020 4,830

951 5,090

201 AC-FT 2,581

JUN

17,600

14,100
13,000
10,800
7,650

6.600

8,610
10,200

10,600
11.500
10.600
10.300

8,610
8,260

17,900

JUL

8,900

6,710
8,520
8,320

8,260
8,040
7,810
7,910
8,070

7,880

7,780
7.910

7.910
7,110
6,720
6,150

5.120
4,730

5,150

9,120

640,500 455,600

,100
,000

TO SEPTEMBER 1970

5,400

4,120
4,170

2,050

3,400

3,640

,000

1,650

1.920
2,160

1,470

1.200
1,200

1.120

889

889
810

1.402

810

AUG

5,040

4,290
4,340
4.050

3.340
2,860
2,620
2,510
2,880

3,280

2,310

1.920
1,800

1,580
1,500
1,500
1.500

1.310
1.220

1,010

5,040
1,010
151,800

AUG

619

536
515
490

480
470

439
430

417
400
378

340

375
354

468

340

SEP

980
972
972
972
930

895
937
972
965
916

869
850
810
772

732

587
570
553

515
500
480
466

448
444
430
439

716
980
430
42,620

SEP

322
305

245
235
230

225

220
215

210
200

235
205

200
198
193

263
257

235

240

193
14,310

Tributary 2A 2158.3

V

Pine Flat Lake

O22IO
I.OI3POO acre-feet
Storage began 1951

*

6

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Ji __________

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S C

Balch Afterbay £_____ Balch Div Re«.
318 acre-feet fj _ (Black Rock Reservar!
Since 1928 1^60 acre-feet
Since 1927

Dinkey . Creek

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^2135 Kings River

Kings River 2185

EXPIANATION

60 g ing station
Nvmb*n art ffcos* given in ffw
t lotion dot crip h'oni of tfio roporf

D
Powerhouse

Stream, open flume
showing direction

Penilack, tunnel, cloMO1 Bum.,
kr pipe shewing direction of flew

FIGURE S -Schematic diagram showing diversions and storage in Kings Rn

TULARE LAKE BASIN

11214000 NORTH FORK KINGS RIVER BELOW MEADOW BROOK, CALIF.

DRAINAGE AREA.--37.7 sq mi.

1970. Monthly discharge only for
WSP 1315-A. Records for Jan. 1-23,

GAGE.--Water-stage recorder. Datum of gage is 8,144.66 ft above mean sea level, unadjusted Gas 6 Electric Co.).

AVERAGE DISCHARGE.--28 years, 71.3 cfs (51,660 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (400 cfs), water year

Date

May 6,
May 2 3 ,

Dec. 6,
May 24,
July 2,

1966
1966

1966
1967
1967

Time
2000
2000

1930
1930

Disch.

558 *627

490
924

*1,680

. H.
. 35
. 47

. 22
. 93
. 62

Date
May

May
June
June
June

July

27,

10,
15,' 2

22,
1,

1968

1969
1969
1969
1969
1969

Time
2030

2000
2030
2000
2130
2100

Disch.
505

665

*2,040
819
1,010
819

G.H.
4.31

4.43
5.65
4.63
4.84
4.63

Date
Jul v

July
July

May
May
Mav

13,
18,
21,

17,
23,
31,

1969
1969
1969

1970
1970
1970

Time
2000
2130
2130

1900
2030
1930

Disch.
1,260
862
1,490

747
679
665

G.H.
5.08
4.68
5.27

4. 54
4.45
4.43

May 20, 1968 2030

Wtr yr Date
1966 Sept.28, 1966
1967 Oct. 1, 18-21. 23, 1966
1968 Several days

Period of record: Maximum
extended above 800 cfs; minim
Flood of Dec. 23, 1955, re

scharge
1.0
1.0
1.0

Wtr yr Pate
1969 Oct. 1-3, 8-11, 1968
19 7 0 Sept.27-30, 1970

Discharge
1.1

discharge, 2,040 cfs June 2, 1969
im, 0.3 cfs Sept. 12-14, 1924.
iched a stage of 5.85 ft, from floo

REMARKS.--No regulation or d

COOPERATION.--Gage-height re rd and 21 discharge

gage-height

rements for

height, 5.65 ft), from rating curve

s (discharge, 2,000 cfs).

rd Oct. 18 to Dec. 15, 1966.

ater years 1966-68 furnished by

1969-70 collected by Pacific Gas 5 Electric Co., under general supervision of the alogical Survey, in con-

REVISIONS (WATER YEARS).--WSP 1315-A: 1922(M). WSP 1515: Drainage area. See also PERIOD OF RECORD.

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

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28
29
30
11

TOTAL
IE AN
MAX
MIN

4.8 2.1
4.5 2.1
4.2 2.1
4.0 2.1
3.8 2.1

3.B 2.1
3.5 2.0

3.Z 2.0
3.0 2.0
3.0 2.0

?.8 2.1
2.B 2.3
2.6 4.2
2.6 5.4

3.5 7.6

3.8 13
3.8 22
3.8 30
3.5 26
3.0 23

2.3 17
2.6 25
2.6 31
2.4 29
2.4 27

2.4 26
2.2 25
2.2 24
2.2 23
2.1 23
2.1

96.0 406.7

3.10 13.6
4.8 31
2.1 2.0

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12.3
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12
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13
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13
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13
13

11.9
13
11

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13
13
13
12

13
13
14
16
22

24
26
30

39

45
42
44
46
40

43
54
72
72
66

73
95
105
127
143
172

49.5
172
12

210
230
245
251
251

260

269
240
200

159
144
141

185

251
275
215
159
137

139
144
161
200
257

314
318
303
300
334

224
334
137

366
386
382
382
399

430

390
366
358

286
278
300

362

378
404
417
374
362

354
354
378
390
374

358
330
310
289
230
188

353
430
188

72
61
57
61
70

61

59
46
46

66
75
70

37

22
17
27
32
11

99
86
76
67
62

62
64
65
61
57

24
75
57

51
45
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35
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25
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IB
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9.7
9.7
8.8

9.2
11

18.5
51
8.4

42
72
58
47
36

28
21
14
10
8.4

7.2
6.4
5.8
5.0
4.8

4.5
4.0
5.4
4.8
4.8

4.5
3.B
3.2
2.8
2.6

2.2
1.8
1.3
1.7
1.7
1.7

13.4 1
72
1.7

TULARE LAKE BASIN

11214000 NORTH FORK KINGS RIVER BELOW MEADOW BROOK, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV EEC JAN FEB MAR APR MAY JUN JUL

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31

MEAN 1
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. 4 I.
. 3 1.

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. 3 3.
. 2 2.
. 2 1.

. 5 I.

. 4 2.
. 3 2.

. 2 3.

. 1 3.
. 1 3.
. 1 20

. 2 7.

. 2 4.
. 2 4.

. 2 3.
. 2 4.
. 2 100
. 2 55

. 3

24 9.1
. 5 10

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23 !

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19 t

IB }
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17 2

r 48.9 IB

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34

35

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27

26
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30

28

27
27

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30
33

29.6

3B
40
38

36
36
37
36

37

48

329

71
51
43

40

35
34

30
2B
28
27

30

53.0

26
25

25
26
2B
28

2B

26
30

29

29
28
27

27

26
28

26
30
28
27

27.3

25
26

54
92
116
BB

70
92

205

303
354
394

530

671
627

61$
546
485

362

26B

222
257

322
412
453
480

458
435

510

652
627
639

773

745
796

812
B60
884

$63

l.OBO
994

697
585
536
510

658
633

536

422
408
366

326

300
304

286
248
240

200

518
1.100

175
157
148

125

98
B2
72
6B

64
B8

76

62
51
46

57

62
98

BO
56
43

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79.2
175

33
Bl
144
105
82

46
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34.0
144

AC-FT 52,550

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

NOV DEC JAN FEB MAR APR MAY JUN JUL

1 16 3.0
2 15 2.B
3 14 2.B
4 13 2.B
5 12 2.B

6 11 3.0
7 10 3.2
8
9
10

11
12
13
14
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16
17
18
19
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21
22
23
24
25

26
27
28
29
30

. 2 3.2
. B 3.0
. 8 3.2

. 4 3.2
. 6 3.0
. 2 3.0
. 8 5.B
. 1 5.4

. 8 4.8
. 4 4.5
. 4 4.8
. 0 6.4
. 8 11

. 8 13
. 8 11
. 5 10
. 2 9.2
. 0 8.8

. 0 7.6
. 0 6.8
. 5 6.8
. 5 6.B
. 2 7.6

MEAN 7.23 5.64
MAX 16 13
MIN 3.2 2.8

9.7 10 13
16 9.
20 9.
18 9.
17 9.

20 9.
18 9.
18 8.
16 8.
16 8.

16 8.
16 B.
14 8.
11 B.
9.0 8.

10 9.
9.2 9.
10 9.
10 9.
11 9.

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9.7

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10 9.7 27
10 10 24
11 11 27
11 12 30
12 13 31

14 13 32
15 11 3D
16 11 34
14 11 3B
11 11
11 13

13.5 9.83 17.8
20 13 38
9.0 8.0 9.7

40
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27
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33

27
24
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22
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22

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22
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19
17

IB
21
IB
21
26

31
38
52
72
8B

31.1
B9
17

75
60
51
52
5B

47
50
64
81
98

117
106
100
104
114

95
B2
65
59
56

50
47
SB
72
106

152
195
225
242
269

98.3
269
47

257
257
245
23B
240

208
198
1B5
16B
146

137
152
120
112
105

117
163
220
292
346

330
242
1B5
172
215

300
350
358
334
272
240

223
35B
105

240
245
230
202
155

111
99
111
104
92

92
95
96
93
93

92
89
77
71
64

54
48
43
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34
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25
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93.8
245
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18 20
16 14
15 12
13 10
13 8.4

12
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9.2
B.O
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5.B
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4.B
4.5
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4.0
4.2
6.1
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WTR YR 196B TOTAL 15,84B.9 MEAN 43.3 MAX 35B MIN 1.0

AC-FT 98,030
AC-FT 31,440

TULARE LAKE BASIN

11214000 NORTH FORK KINGS RIVER BELOW MEADOW BROOK, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY OCT

1 1.1
2 1.1
3 1.1

5 1.2

6 1.2
7 1.2
9 1.1

10 1.1

11 1.1
12 1.2
13 6.1
1* 22
15 12

16 13
17 16
18 IS
19 13
20 11

22 9.1

24 9.1
25 9.5

26 9.5
27 9.1
28 S.7

30 12

MAX 22
MIN 1.1
AC-FT 457

DAY OCT

2 5.
3 5.

5 4.

7 4.
8 4.
9 3.
10 3.

11 3.
12 3.
13 3.
1* 3.
15 8.

16 2*

IS IS
19 16
20 17

21 17
22 18
23 21
2* 20
25 15

26 15
27 1*
28 13
29 1*
30 13

TOTAL 3*0.2
MEAN 11.0
MAX 24
MIN 3.1

CAL YR 1969 TOTAL
HTR YR 1970 TOTAL

10 12 20
17 12 20
44 11 18

26 9.9 20

20 9.9 23
19 9.5 25
23 9.1 25

27 8.3 21

25 9.1 20
28 11 20
24 12 21
20 13 27
23 22 28

31 35 25

33 29 22
31 20 25
28 19 35

28 16 110

23 16 120
17 22 200

17 35 230
15 42 120
12 36 85

12 26 67

10 8.3 18
1,420 1,160 3,470

DISCHARGE, IN CUBIC FEET

NOV DEC JAN

14 4.7 5.2
14 4.3 5.0

13 4.0 4.5

24 4.3 5.0
27 3.7 5.0
23 3.5 6.5
25 3.5 9.1

25 3.5 8.0
23 4.0 7.0
22 4.3 7.0
20 4.0 10
19 3.7 23

17 3.5 44

12 3.1 25
13 3.3 21
12 6.4 18

11 10 21
9. 9.0 23
7. 8.0 20
7. 7.0 17
7. 12 16

6. 9.5 16
6. 8.0 15
5. 7.0 14
5. 6.5 14
5. 6.2 14

427. 168.8 432.1
14. 5.45 13.9
2 12 44
5. 3.1 4.5

69,743.40 MEAN 191

35
34
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26
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35
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35
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26

22
1,480

PER SECOND,

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15
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12
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12

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383
13.7
16
12

MAX 1,500

27
25
24

23

22
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18
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22
22

22

26
31

31
41
57

79

18
1,820

NIN 1

HATER

MAR

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46
61
76

87

64
58

1,071
34.5
87
14

MIN

114
101
81

80

83
86
88

97

119
140
150

130

140

199
229

254

251
199

194
194
211

302

79
9,630 42

. 0 AC-FT 3

YEAR OCTOBER

APR

51
64

86

99
117
146
169

125
94
77

67

58
54
49

47
45
43
45
66

64

44
48

2,345 10
78.2
169
43

3.1 AC-FT

327
314
266

227

298
436
515

623

576
551

596

630

658
672

803

,030
,060

,030
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,260

227
,550

2,860

1969 T

MAY

112
148

192

173
182
232
243

237
349
436

515

533
463
406

431
486
527
527
486

458

458
463

,775
348
564
71

138,300

JUN

,500
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836

406

381
436

701

623

576
658

731

716
694

596
576
533

583

1,500
381
45,610 27

D SEPTEMBER

JUN

469
401

336

282
279
306
235

171
148
125

126

178
209
222

222
206
182
169
156

152

88
70

6,695 1
223
497
70

JUL

637
616
596

551

527
491
497

509

521
533

491

463

458
431

503

298
246

214
201
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211

716
189
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1970

JUL

58
58

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53
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35.8
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169
152
132

112

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70

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126
101

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169
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3,970

AUG

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9.1

7.9
7.5
6.8
6.1

5.7
5.4
5.0
5.0
4.7

4.7

5.4
5.7
5.4

4.7
4.3
3.7
3.1
2.9

2.7
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2.9
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178.9 3
5.77
14
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SEP

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. 86
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. 86

b.07
. 20
2.0
. 86

TULARE LAKE BASIN

11214600 HELMS CREEK BELOW COURTRIGHT DAM, CALIF.

DRAINAGE AREA.--39. 7 sq mi.

PERIOD OF RECORD.--October 1958 to September 1970.

GAGE. --Water- stage recorder and broad-cres
6 Electric Co. survey).

AVERAGE DISCHARGE. --12 years, 77.8 cfs (56

1966 70 are contained in the following

Wtr yr Date Di
1966 July 13, 1966
1967 Apr. 30, 1967
1968 July 3, 1968
1969 Aug. 29, 1969
1970 Oct. 1, 1969

Period of record: Maximum discharge
6.52 ft June 2, 1961; minimum daily dis

REMARKS. --No gage-height record July 14 to Reservoir 500 ft upstream (see station

COOPERATION. --Gage-height records and 17 d

collected by Pacific Gas 6 Electric Co.

REVISIONS (WATER YEARS). --WSP 1715: 1959. year 1959, superseding those published

Nov. 7, 1958.... 58 Nov. 8, 1958

Month

NTR YR 1959. ....

,370 acre-ft per year

scharge G.H.
293 4.36
786 5.56
656 5.12
1,340 5.81
870 5.29

, 1,340 cfs Aug. 29,
charge, 0. 70 cfs Nov.

Sept. 30, 1970. Sin
11214550). No divers

Revised figures of
in WSP 1635, are give

.... 7.6 Nov

), adjuste

Date
Feb.
Aug.
Aug.
Nov.

Aug.

1969 (gage
8, 1968.

ce October
ion above

discharge,
n herewith

. 10, 1958

Cfs -days

2.559.2

e of gage is

d for storage

Mi

27 to Mar. 3,
9, 1967
24, 1968
8, 1968
27, Aug. 30 t

height, 5.81

1958, flow r
station. See

ater years 19

the Geologica

in cubic fee

. . . . 6.2

Mean Maxiir

7.07

7,840 ft (from Pacific Gas

nimum daily
Discharge
1966 26
25
2.7
.70
o Sept. 1, 1970 2.4

ft); maximum gage height,

egulated by Courtright
schematic diagram of Kings

t per second, for the water

Nov. 12, 1958.... 6.0

lum Minimum Runoff in
acre-feet

58 .9 5.120

DISCHARGE, IN CUBIC FEET PER SECOND,

NOV DEC JAN FEB

WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

2
3
4
5

6
7
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9
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14
15

16
17
18
19
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21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN

WTR YR

30
30
30
29

28
28
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28
28

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28
28

28
28
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28
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28
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28
28

28
28
28
28
28
28

877
28.3
30
28

1966 TOTAL

27
27
27
27

27
27
27
27
27

27
27
27
27
27

27
27
28
27
27

27
28
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27

27
27
27
27
27

815
27.2
28
27

26.175

27
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27
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27
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28
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847
27.3
28
27

MEAN
HE IN

27
27
27
27

27
27
27
27
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27
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27
27
27
27

838
27.0
28
27

111
71.7

27
27
27
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27
27
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27

27
27
27
27
27

27
26
26

754
26.9
27
26

MAX 290

26
26
27
27

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27
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27
27
27

27
27
27
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27

27
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27
27
27
27
27
27

834
26.9
27
26

MIN 22
MIN 26

27
27
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29

29
29
29
29
29

839
28.0
29
27
1.660

AC-FT 80,470
AC-FT 51,920

3?
1.940

185
290
290

290
290
290
290
290

290
290
290
290
290

290
290
290
290
290
287

,811
187
290

287
287
287
287
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287
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287
287
287
287
284

284
284
284
284
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284
284
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284
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284
284
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281

8,840
285
287
281
17,530

281
281
281
281
281

281
281
281
278
278

278
119
32
32
32

,777
126
281

TULARE LAKE BASIN

11214600 HELMS CREEK BELOW COURTRIGHT DAM, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

1
2
3
<t
S

6
7
8
9
10

11
12
13
1ft
15

16
17
18
19
20

21
22
23
24
25

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27
28
29
30
31

TOTAL
MEAN
MAX

MIN
AC-FT

CAL YR
HTR YR

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15 .

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN

MIN
AC-FT

CAL YR
WTR YR

OCT

32
32
32
32
32

32
32
31
31
31

31
31
31
31
31

31
31
31
31
31

31
31
31
31
31

30
30
30
30
30
30

962
31.0
32
30
1.910

1966 TOTAL
1967 TOTAL

1

OCT

30
30
27
25
26

26
26
26
26
43

26
26
26
26
26

26
26
26
26
27

27
27
27
27
27

31
39
37
37
36
36

897
28.9

25
1.780

1967 TOTAL
1968 TOTAL

NOV

30
30
30
30
30

30
30
30
30
30

30
30
30
30
30

30
30
30
30
31

30
30
30
30
30

29
29
32
31
31

903
30.1
32
29
1.790

26.458
50.723

DISCHARGE

NOV

36
37
36
36
36

36
36
36
36
36

36
33
33
33
33

33
33
33
33
33

33
33
33
33
32

32
32
32
32
32

1.018
33.9

32
2.020

50.822.0
43.954.3

DEC JAN

31 31 31 31
30 31
30 31
31 31

37 31
31 31
31 31
31 31
31 31

31 31
31 31
31 31
31 31
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30 31
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30 31
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31 32
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31 30
31 30
31 30
31 30
31 30

957 953
30.9 30.7
37 32
30 30
1.900 1.890

MEAN 72.5 MAX
MEAN 139 MAX

. IN CUBIC FEET Pi

DEC JAN

32 32
32 32
32 32
32 32
33 32

33 32
33 237
32 404
32 390
32 379

32 214
32 35
32 35
32 35
32 35

33 35
33 35
33 35
33 35
33 35

33 35
33 35
33 35
32 35
32 35

32 36
32 36

33 36
33 36
32 36

1,006 2,52?
32.5 81.4

32 32
2,000 5,000

MEAN 139 MAX
MEAN 120 MAX

FEB

30
30
30
30
30

30
30
30
30
30

30
30
30
30
30

30
30
30
30
30

30
30
30
30
30

30
30
30

840
30.0
30
30
1.670

290 MIN
706 MIN

[R SECOND,

FEB

36
35
35
34
34

35
35
35
35

35
35
35
35
35

35
36
36
36
37

37
36
36
36
36

36
36

36
. . . . . .

1.028
35.4

34
2,040

706 MIN
625 MIN

MAR

30
30
30
30
30

30
30
30
30
31

31
31
31
31
31

33
32
32
32
32

32
32
32
32
32

32
32
32
32
32
32

969
31.3
33
30
1.930

26
25

MATER

MAR

36

36
36
36

36
36
36

36
36
36
36
36

35
35
35
35
35

35
35
35
35
35

35
35

35
35
35

1.100
35.5

35
2,180

25
2.7

APR

32
32
32
32
32

32
32
32
32
32

32
32
32
32
32

32
32
32
32
32

32
32
32
32
32

32
32
32
32
453

1,381 7
46.0
453
32
2,740 15

AC-FT 52,480
AC-FT 100,600

YEAR OCTOBER

APR

36

35
35
36

35
35
35

35
35
35
35
35

35
35
35
35
35

35
35
46
33
33

33
33
33
33
33

1,052 1
35.1

33
2,090 2

AC-fT 100,8
AC-FT 87,1

MAY

706

700
695
690

690
695
695
690
690

279
31
31
31
31

31
32
32
32
32

32
33
33
33
33

34
34
35
35
35
35

,891
255
706
31
,650

1967

MAY

33

33
33
33

33
3<t
34

34
35
35
35
35

35
35
35
35
35

35
35
36
36
36

36
36
36
36
36
36

. 075
34.7

33
,130

00
80

JUN

35

36
36
36

37
37
38
38
3fl

39
39
39
39
40

40
40
41
42
4?

4?
43
43
43
44

44
210
470
200
45

1,951 7
65.0
470
35
3,870 15

TO SEPTEMBER

JUN

36

36
36
36

36

36
36
36

36
36
36
36
36

36
36
36
82
232

287
284
281
281
281

281
354
42R
424
41fl

4.281 17
143

36
8,490 35

JUL

45

296
706
554

347
162
78
216
299

238
258
265
407
480

418
353
296
270
243

219
204
188
170
164

151
136
127
119
112
105

. 671
247
706
45

,220

1968

JUL

527
625
620
568
568

572

558
576
550

558
568
576
586
576

59fl
581
590
590
586

586
576
572
576
572

558
568
568
563
581
600

. 848
576
625
5?7
,400

AUG

100

94
94
91

91
88
45
25
188

390
400
410
410
494

550
460
356
320
287

302
317
341
353
400

460
452
529
513
635
684

9,963
321
684
25

19,760

AUG

508
568
576
581
576

573
572
517
568
563

550
545
545
533
477

563
550
537
490
514

499
437
40
2.7
3.7

4.8
27
7.5
6.6
6.4
6.5

11,946.2
385

2.7
23.700

SEP

595

625
615
640

625
610
620
610
635

640
651
646
646
646

630
630
640
656
668

651
646
646
635
646

320
30
30
30
30

16,282
543
668
30

32,300

SEP

6.5
7.0
6.6
6.5
6.2

6.1
6.1
6.0
6.0
6.0

5.9
5.8
5.8
5.9
5.9

5.9
5.8
5.«
5.8
6.0

6.1
6.1
6.1
6.0
5.9

5.9
5.8
5.8
5.8
6.0

181.1
6.04
7.0
S.B
359

TULARE LAKE BASIN

11214600 HELMS CREEK BELOW COURTRIGHT DAM, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1969

NOV DEC JAN FEB MAR APR MAY JUN JUL AUG

1 6.0 2 5.9
3 5.9
4 5.9
5 5.9

6 5.9
7 5.6
B 5.9
9 5.9
10 5.9

11 5.9
12 6.2
13 10
14 30
15 18

16 12
17 11
18 10
19 9.3
20 8.5

21 8.0
22 7.4
23 .1
24 .9
25 .8

26 .8
27 .8
28 .6
29 6.6
30 7.0
31 6.6

5.4
14
79
33
22

8.8
5.1
. 70
1.
2.

3.
3.

4.)
4.
3.

4.
4.
4.
5.
6.

6.
7.
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7.
8.

8.
8.
8.
9,

TOTAL 256.5 296.10
MEAN 8.27
MAX 30
MIN 5.8
AC-FT 509

CAL YR 1968 TOTAL
WTR YR 1969 TOTAL

9.87
79
. 70
587

41,892.
47,563.

9.0
9.0
9.0
10
10

10
10
10
10
10

10
10
10
10
10

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10
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10

10
10
10
10
10

10
10
10
10
10
10

307.0
9.90
10
9.0
609

90 MEAN
60 MEAN

10
10
10
10
10

10
10
10
10
10

10
10
10
10
10

10
10
10
18
17

17
17
17
16
16

15
15
15
15
15
15

388
12.5
18
10
770

114 MAX
130 MAX

15
15
15
15
15

15
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15
15
15

15
15
15
15
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15
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15
15

15
15
15
15
15

15
15
15

420
15.0
15
15
833

625 MIN
986 MIN

DISCHARGE. IN CUBIC FEET PER SECOND,

DAY OCT

1 640
2 832
3 825
4 825
5 818

6 818
7 413
8 81
9 81
10 BO

11 80
12 BO
13 80
14 80
15 80

16 80
17 80
18 80
19 80
20 80

21 80
22 79
23 79
2fc 79
25 77

26 79
27 79
28 77
29 77
30 77
31 77

TOTAL 7,273
MEAN 235
MAX 840
MIN 77

AC-FT 14,430

CAL YR 1969 TOTAL
WTR YR 1970 TOTAL

NOV

77
76
76
76
76

76
76
76
75
75

75
75
74
74
74

75
74
73
73
73

73
73
72
72
72

72
72
72
72
72

2,221
74.0
77
72
4,410

58,247.
38,994.

DEC

7
6
6
6
6

6
6
6
68
68

68
68
66
66
66

66
65
65
64
64

65
64
64
64
64

64
64
64
63
63
63

2,049
66.1
70
63

4,060

0 MEAN
9 MEAN

JAN

63
63
63
3
4

4
4
4
4
3

3
3
3
3
4

4
4
4
4
4

4
4
4
4
4

4
4
3
3
3
63

1,971
63.6
64
63
3,910

160 MAX
107 MAX

FEB

63
63
63
63
63

63
63
62
62
63

63
63
63
62
61

61
61
61
61
61

61
61
60
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1,727 1
61.7
63
60
3,430 3

9B6 MIN
B40 MIN

15
15
16
16
16

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16
16

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16
14

14
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14
14

16
15
14
14
15

16
16
16
17
17
17

479
15.5
17
14
950

. 70
. 70

WATER

MAR

60
59
59
59
60

59
59
59
59
59

58
58
58
58
58

58
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SB
58
58

SB
SB
SB
58
58

SB
SB
58
SB
58
58

,610
58.4

58
,590

10
2.4

17
17
20
21
19

IB
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17
IB
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18
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IB
18

18
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19
19

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20

20
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20

566
16.9
21
17
1.120

AC-FT 83
AC-FT 94

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21
21
21
21

22
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22
22
23

23
24
24
25
25

26
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29
31

32
33
35
37
39

41
44
46
48
50
51

933
30.1
51
20
1,850

,090
,340

YEAR OCTOBER 1969

APR

58
58
58
58
58

SB
SB
364
361
353

349
349
349
345
342

331
331
320
310
163

40
41
42
43
44

45
46
46
46
47

5,113
170

40
10,140

AC-FT 115
AC-FT 77

MAY

47
47
49
51
214

349
349
349
349
349

349
349
361
361
368

372
372
380
380
384

384
548
644
644
701

740
720
707
688
638
621

12,864
415

47

25,520

,500
,350

53
55
57
59
61

62
64
66
69
72

74
75
77
80
85

88
90
91
92
95

98
101
104
107
110

113
117
117
116
117

2,565
85. 5
117
S3
5,090

TO SEPTEM

JUN

320
24
29
31
324

496
431
2BO
310
134

88
80
79
79
77

71
64
61
58
54

49
44
40
43
34

32
33
27
24
23

3,439
115

23
6,620

119
119
142
116
116

116
117
113
113
113

113
113
113
114
116

116
116
117
117
117

117
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3,623
117
142
113
7,190

3ER 1970

JUL

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9.6
8.8
8.8
9.1

8.0
7.4
6.6
5.4
S.O

6.6
8.8
8.8
8.0
6.6

353.3
11.4
24
4.8
701

117
117
116
116
117

117
117
119
119
119

119
119
119
119
119

119
119
119
119
119

119
349
901
917
B62

855
901
855

974
941

11,024
356
966
116
21,670

AUG

4.7
4.5
4.4
4.3
4.1

4.0
3.7
3.6
3.4
3.1

2.9
2.8
2.7
2.7
2.6

2.6
2.5
2.8
2.9
2.B

2.8
2.7
2.6
2.5
2.5

2.5
2.4
2.5
2.5
2.4
2.4

94.9
3.06
4.7
2.4
188

69.
90
86!
92!
92!

90? 93:
911
901
90?

92!
911
89!
893
89!

862
BBS
893
917
901

901
832
92B
693
893

893
855
885
82!
727

26,706
890
933
727
52,970

SEP

2.
2.
2.
2.
2.

2.
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2.
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79.7
2.66
2.7
2.4
158

170 TULARE LAKE BASIN

RESERVOIRS IN TULARE LAKE BASIN, CALIF.

11214550 COURTRIGHT RESERVOIR NEAR NELSON MOUNTAIN, CALIF.

LOCATION.--Lat 37°04'40", long 118°58'05", in NWa sec.7, T.10 S., R.28 E., Fresno County, Sierra National Forest, at left end of dam on Helms Creek, 2.5 miles upstream from mouth, 4.6 miles east of Nelson Mountain, and
9.7 miles west of Blackcap Mountain.

DRAINAGE AREA.--39.7 sq mi.

PERIOD OF RECORD.--October 1958 to September 1970.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Pacific Gas § Electric Co.).

EXTREMES.--Maximums and minimums (contents in acre-feet, elevation in feet) for the water years 1966-70 are con-tained in the following table:

Maximum Minimum
Wtr yr Date Contents Elevation Date Contents Elevation
1966 June 14-17, 1966 94,900 8,165.10 Mar. 12, 1966 57,080 8,132.76
1967 July 13, 1967 124,200 8,184.55 May 11, 1967 51,760 8,126.49
1968 June 3-10, 1968 76,000 a8,150.10 Aug. 27 to Sept. 30, 1968 0
1969 July 23, 1969 108,900 8,174.80 Oct. 1 to Nov. 5, 1968 0
1970 Oct. 1, 1969 34,000 8,103.98 June 10 to Sept. 30, 1970 0

a Occurred June 5, 7, 8, 1968.

Period of record: Maximum contents, 124,200 acre-ft July 13, 1967 (elevation, 8,184.55 ft); no contents in 1961-62, 1968-70.

REMARKS.--Reservoir is formed by a rockfill dam completed in 1958. Usable capacity, 123,300 acre-ft between ele-vations 7,902 (invert of tunnel) and 8,184 ft (elevation of spillway). Dead storage negligible. See sche-matic diagram of Kings River basin elsewhere in this report.

COOPERATION.--Record of contents furnished by Pacific Gas § Electric Co. in connection with a Federal Power Corn-

11214800 WISHON RESERVOIR NEAR CLIFF CAMP, CALIF.

DRAINAGE AREA.--177 sq mi.

PERIOD OF RECORD.--December 1957 to September 1970.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Pacific Gas § Electric Co.).

and minimums (contents in acre-feet, elevation in feet) for the water years 1966-70 are con- the " " -

Minimum
Wtr yr Date
1966 June

1967 July
1968 Aug.
1969 July
1970 June

Period
1960.

12,
7,
1,
4,
11,

of

1966
1967
1968
1969
1970

record:

127
128
126
129
127

Maximum content

,500
,800
,500
,100
,100

s, 129

6,548.
6,550,
6,547,
6,550.
6,548.

,700 acri

,95
. 15
. 97
,51
. 57

;-ft

Date
Jan. 14,
Jan. 9,
Dec. 23,
Mar. 6,
Apr. 3,

July 29, 1958

1966
1967
1967
1969
1970

(elevation,

17
9
9
11
15

6,551.1 ft)

,200
,580
,850
,900
,800

; no

6,397.47
6,380.15
6,380.80
6,385.75
6,394.41

contents in

REMARKS.--Reservoir is formed by a rockfill dam completed in 1957. Capacity, 128,600 acre-ft between elevations 6,317 (bottom of slide gates) and 6,550 ft (operating crest of spillway gates). Dead storage negligible.
Water is diverted to Haas powerhouse for power. See schematic diagram of Kings River basin elsewhere in this report.

COOPERATION.--Record of contents furnished by Pacific Gas 6 Electric Co. in connection with a Federal Power Com-mission project.

TULARE LAKE BASIN

RESERVOIRS IN TULARE LAKE BASIN, CALIF.

MONTHEND ELEVATION AND CONTENTS, WATER YEARS OCTOBER 1965 TO SEPTEMBER 1970

CONTENTS

(ACRE-FEET)

CHANGE IN
CONTENTS

(ACRE-FEET)

11214550 COURTRIGHT RESERVOIR

TION CONTENTS CHANGE IN ET1 (ACRE-FEET) CONTENTS (ACRE-FEET)

11214800 WISHON RESERVOIR

OCT. 31, 1965.......... 8,134.0 58,800 -1,700
NOV. 30................ 8,134.3 59,000 +200
DEC. 31................ 8,134.0 58,800 -200

CAL YR 1965.......... - - -5,400

JAN. 31, 1966.......... 8,133.2 57,900 -900
FEB. 28................ 8,132.5 57,300 -600
MAR. 31................ 8,133.6 58,400 +1,100
APR. 30................ 8,149.6 75,400 +17,000
MAY 31................ 8,164.4 94,000 +18,600
JUNE 30................ 8,164.7 94,400 +400
JULY 31................ 8,156.0 83,100 -11,300
AUG. 31................ 8,141.4 66,300 -16,800
SEPT.30................ 8,134.3 59,000 -7,300

WTR YR 1966.......... - - -1,500

OCT. 31................ 8,132.2 57,000 -2,000
NOV. 30................ 8,131.6 56,400 -600
DEC. 31.... .... 8,134.2 59,000 +2,600

CAL YR 1966.......... - - +200

JAN. 31, 1967.......... 8,134.5 59,300 +300
FEB. 28................ 8,134.3 59,100 -200
MAR. 31................ 8,137.7 62,500 +3,400
APR. 30................ 8,138.7 63,500 +1,000
MAY 31................ 8,148.0 73,600 +10,100
JUNE 30................ 8,180.8 118,100 +44,500
JULY 31................ 8,184.0 123,200 +5,100
AUG. 31................ 8,169.9 101,700 -21,500
SEPT.30................ 8,144.8 70,000 -31,700

WTR YR 1967.......... - - +11,000

OCT. 31................ 8,142.7 67,700 -2,300
NOV. 30................ 8,141.5 66,400 -1,300
DEC. 31................ 8,140.4 65,300 -1,100

CAL YR 1967.......... - - +6,300

JAN. 31, 1968.......... 8,135.4 60,200 -5,100
FEB. 29................ 8,134.8 59,600 -600
MAR. 31................ 8,135.4 60,200 +600
APR. 30................ 8,142.6 67,600 +7,400
MAY 31................ 8,150.0 75,800 +8,200
JUNE 30................ 8,142.0 67,000 +8,800
JULY 31................ 8,093.0 27,000 -40,000
AUG. 31................ 7,898.0 0 -27,000
SEPT.30................ 7,898.0 0 0

WTR YR 1968.......... - - -70,000

OCT. 31................ 7,902.2 0 0
NOV. 30................ 7,964.0 562 +562
DEC. 31................ 7,968.0 676 +114

CAL YR 1968.......... - - -64,620

JAN. 31, 1969.......... 7,974.3 884 +208
FEB. 28................ 7,986.5 1,420 +536
MAR. 31................ 7,994.2 1,870 +450
APR. 30................ 8,053.7 10,500 +8,630
MAY 31................ 8,139.0 63,800 +53,300
JUNE 30. .... 8,170.9 103,200 +39,400
JULY 31................ 8,174.3 108,100 +4,900
AUG. 31................ 8,160.5 88,800 -19,300
SEPT.30................ 8,106.5 35,800 -53,000

WTR YR 1969.......... - - +35,800

OCT. 31................ 8,082.4 21,300 -14,500
NOV. 30................ 8,074.3 17,500 -3,800
DEC. 31................ 8,065.1 14,000 -3,500

CAL YR 1969.......... - - +13,320

JAN. 31, 1970.......... 8,055.3 10,900 -3,100
FEB. 28................ 8,044.1 8,110 -2,790
MAR. 31................ 8,035.8 6,420 -1,690
APR. 30................ 8,015.3 3,650 -2,770
MAY 31................ ,993.7 1,840 -1,810
JUNE 30................ ,902.2 0 -1,840
JULY 31................ ,902.2 0 0
AUG. 31................ ,902.2 0 0
SEPT.30................ ,902.2 0 0

WTR YR 1970.......... - - -35,800

6,425.0
6,413.3
6,401.5

6,402.0
6,403.5
6,428.2
6,500.1
6,545.8
6,547.2
6,530.5
6,514.9
6,486.1

6,441.8
6,406.7
6,400.6

6,391.2
6,407.7
6,428.0
6,385.3
6,473.4
6,547.1
6,546.1
6,527.4
6,514.7

,450.2
,394.8
,382.4

6,392.0
6,391.2
6,407.4
6,453.4
6,510.2
6,523.3
6,547.7
6,537.6
6,509.6

6,480.2
6,464.7
6,439.0

6,434.3
6,388.8
6,389.8
6,395.6
6,495.1
6,550.0
6,545.8
6,520.8
6,534.2

6,508.6
6,474.2
6,421.1

6,531.6
6,496.5
6,467.2

31,000
24,900
19,100

19,300
20,000
32,800
82,500
124,400
125,700
109,500
95,200
71,000

40,500
21,600
18,700

14,300
22,100
32,600
11,700
61,300
125,700
124,700
106,600
95,100

45,600
15,900
10,500

14,700
14.300
21,900
47,600
91,100
102,800
126,200
116,200
90,600

66,400
55,100
38,900

36,200
13,300
13,700
16,300
78,300
128,600
124,400
100,600
112,900

89,700
61,800
29,000

24,700
24,100
18,400
27,100
116,800
125,800
110,500
79,500
56,800

- 29,400
- 6,100
- 5,800

- 7,500

+200
+700
+12,800
+49,700
+41,900
+1,300
- 16,200
- 14,300
- 24,200

+10,600

- 30,500
- 18,900
- 2,900

- 400

- 4,400
+7,800
+10,500
- 20,900
+49,600
+64,400
- 1,000
- 18,100
- 11,500

+24,100

- 49,500
- 29,700
- 5,400

- 8,200

+4,200
- 400
+7,600
+25,700
+43,500
+11,700
+23,400
- 10,000
- 25,600

- 4,500

- 24,200
- 11,300
- 16,200

+28,400

- 2,700
- 22,900
+400
+2,600
+62,000
+50,300
- 4,200
- 23,800
+12,300

+22,300

- 23,200
- 27,900
- 32,800

- 9,900

- 4,300
- 600

- 5,700
+8,700
+89,700
+9,000
- 15,300
- 31,000
- 22,700

- 56,100

TULARE LAKE BASIN

11215000 NORTH FORK KINGS RIVER NEAR CLIFF CAMP, CALIF.

DRAINAGE AREA.--181 sq mi.

PERIOD OF RECORD.--August 1921 to September 1970. Monthly discharge only for some pe WSP 1315-A.

ods, published

GAGE.--Water-stage
Power Corp.).

r. Datum of gage
Xov. 24, 1922, at

AVERAGE DISCHARGE.--49 years, 363 cfs (263,000

EXTREMES.--Maximums and mi
1966-70 are contained i

6,143.95 ft above mean sea level (levels by San Joaquin Light 5
ite 1 mile upstream at different datum.

- ft per year), adjusted for storage and diversion.

imums (discharge in cubic feet per second, gage height in feet) f the water years the following table:

Wtr yr
1966
1967
1968
1969
1970

Date
Nov. 23, 1965
July 13, 1967
Feb. 20, 1968
June 8, 1969
Jan. 16, 1970

Discharge
271
3,980

G.H.
4.75
10.92
3.38
9.24
4.97

Mini
Date
Dec. 10-14, 1965
Jan. 2, 8, 9, 1967
Dec. 9, 1967
Mar. 13, 14, 1969
Jan. 5-7, 1970

daily

8.0
7.1

1921-57 (prior to regulation by Wishon Reservoir): Maximum discharge, 14,000 cfs Dec. 11, 1937 (gage height, 18.0 ft, from floodmarks), from rating curve extended above 4,200 cfs on basis of velocity-area studies; minimum, 0.6 cfs Dec. 30, 1930.
1957-70: Maximum discharge, 4,880 cfs May 28, 1958 (gage height, 11.75 ft); minimum daily, 0.8 cfs
Dec. 14, 1957.

COOPERATION.--Gage-height re and 14 discharge
ion with a Feder

nents the wate 1966-67 furnished by Pacific
rds for the water years 1968-70

with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 1715: 1951, drainage area.

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1945 TO SEPTEMBER 1966

1 1
2 1
3 1
4 1
5 1

6 1
7 1
8 1
9 1
10 1

11 1
12 1
13 1
14 1
15 1

16 1
17 1
13 1
19 1
20 1

21 1
22 1
23 1
24 1
25 1

26 1
27 1
28 1
29 1
30 1
31 1

MEAN 16.
MAX 1
MIN 1

16
16

I

6
6
6

6
5
6
7
6

6
6
8
3
2

6
4 .
4
6 .
1 8.

9 8.
3 8.
0 8.
5 8.
5 8.

9 8.
8 8.
6 9.
6 9.
1 i£.
11

29.4 8.3
130 1
15 7.
AC-FT 1,020 1,750 51

10
9.5
9.0
9.0
9.3

9.2
9.0
9.0
9.0
9. 1

9.2
9.3
9.4
9.4
9.6

9.2
8.8
8.6
9.3
9.2

9.0
9.0
8.3
8.3
8.8

8.8
8.8
3.6
8.6
9.2
8.8

9.06
10
3.6
557

CAL YR 1965 TOTAL 5,883.8 MEAN 16.1 MAX

9.2
9.2
9.2
9.2
9.4

9.6
9.2
9.0
8.8
3.3

8.6
9.0
9.2
9.0
9.2

9.4
9.6
10
10
11

12
2
2
2
1

1
1
11

9.95
12
8.6
553

130
130

11
11
10
9.8
10

12
14
15
15
25

24
29
32
27
24

24
20
20
19
20

20
21
22
20
19

21
24
26
25
26
26

20.1
32
9.8
1,230

MIN 7.0
MIN 7.0

26
24
22
21
18

17
16
16
15
41

24
22
17
15
14

14
14
15
15
14

13
12
12
12
12

12
11
11
11
11

16.6
41
11
986

AC-FT 11
AC-FT 11

11
11
11
11
11

11
11
11
12
13

12
12
12
12
12

12
13
13
13
13

13
13
13
13
13

13
13
14
14
14
15

12.4
15
11
764

. 670
,630

JUN

IB
18
18
18
18

18
19
19
19
19

18
13
18
18
18

18
13
18
18
18

18
18
18
13
18

18
18
18
18
18

13.1
19
18
1,030

JUL

18
18
18
18
18

18
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18
19
17
18
17

17
17
17
17
17

17
17
17
17
17

17
17
17
17
17
18

542
17.5
19
17
1,080

552
17.8
18

TULARE LAKE BASIN

11215000 NORTH FORK KINGS RIVER NEAR CLIFF CAMP, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND. HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

B.O
8.6

8.0
8.0
8.6

JUL

3.040
2.890
2,690
2,400
2,210

974
780
1,560
1,150
1,090

978
944
1,630
1,730
1,170

992
858
478
314
20?

24
25

26
27
28
29
30
31

MEAN
MAX
MIN

DAY

1
2
3
4
5

6
7
8
9
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11
12
13
14
15

16
17
18
19
2C

21
22
23
24
25

26
27
28
29
30
31

MEAN
MAX
MIN
AC-FT

15
15

15
15
15
15
15
15

15.5
16
15

OCT

16
17
18
18
18

13
17
17
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17
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16

16
16
16
15
15
15

16.7
18
15
1,030

15
15

16
16
40
19
17

16.8
40
15

DISCHARGE

NOV

15
16
15
15
15

15
16
16
15
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16
15

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16
18
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14

14
15
15
15
16

15.2
18
14
906

10
10

9.8
9.4
9.2
9.2
8.8

41.0
522
8.6

, IN

DEC

15
15
15
12
6.7

4.2
4.2
4.0
3.9
4.3

4.6
4.3
5.2
8.7
8.7

8.5
8.5
9.2
9.0
8.7

8.7
9.2
9.8
10
11

11
11
11
10
9.8
9.5

8.73
15
3.9
537

13
15

15
15
14
20
35
32

12.1
35
8.0

CUBIC FEET

JAN

9.5
9.2
9.0
9.0
9.0

B.7
8.7
9.0
9.2
10

9.8
10
10
10
19

14
13
12
12
12

12
13
13
13
13

12
13
12
12
11
12

11.3
19
8.7
692

12
12

12
12
13

397 1
14.2
19
12

PER SECOND,

FEB

11
12
13
12
12

12
12
12
13
13

12
12
11
12
12

12
24
19
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33

25
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17
18
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16
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15.9
33
11
912

30
25

22
25
28
25
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19

. 012
32.6
290
12

MIN 8.
MIN 8.

MATER

MAR

15
14
14
14
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15
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13.4
15
11
823

MIN 3

14
13

18
18
14
13
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497 1,
16.6 «
20
13

6 AC-FT 12,
0 AC-FT 97,

YEAR OCTOBER

APR

14
15
13
13
16

13
12
12
11
11

12
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10
10

9.8
9.8
9.0
8.7
8.5

8.3
8.0
7.8
7.8
8.0

8.0
8.0
8.3
8.5
8.7

10.3
16
7.8
615

. 9 AC-FT 9

64
54

50
45
40
37
32
30

513
8.8
78
15
000

830
790

1967

MAY

8.7
8.7
9.0
9.0
9.0

9.2
9.2
9.2
9.5
9.5

9.8
10
11
13
12

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11
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12
14

10.6
14
8.7
650

,500

954
1,070

924
1,400
2,390
2,560
2,990

13,786 28,
460
2,990 3,
23
27,340 56,

TO SEPTEMBER

JUN

15
15
14
12
12

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12.6
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748

16
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452
918
040
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430

1968

JUL

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422
13.6
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837

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SOB
16.4
17
16
1,010

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468
15.1
16
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928

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505
16.8
19
16
ItOOO

SEP

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13
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13
13

415
13.8
15
13
823

TULARE LAKE BASIN

11215000 NORTH FORK KINGS RIVER NEAR CLIFF CAMP, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY DCT NOV

1 13 10
2 13 11
3 13 14
4 13 11
5 13 11

6 13 10
7 12 10
8 12 10
9 12 10
10 12 10

11 12 10
12 12 12
13 13 10
14 14 10
15 12 12

16 12 12
17 12 12
18 12 12
19 12 11
20 12 10

21 11 9.
22 11 9.
23 11 9.
24 11 9.
25 11 9.

26 11 9.
27 11 9.
28 11 9.
29 11 8.
30 12 B.
31 11

MEAN 12.0 10.
MAX 14 1
HIM 11 8.

9.0 9.8 16
9.0 9.8 16
8.7 10 15
8.5 11 15
8.5 12 15

B.3 13 17
8.3 13 16
8.3 12 14
8.3 11 13
8.7 9. 3 13

11 9.2 13
9.0 9.S 13
8.5 42 12
9.5 26 12
20 17 12

1* 13 11
11 12 11
10 13 11
10 163 10
9.2 86 9.S

8.7 211 9.5
8.S 46 9.5
9.2 26 9.8
12 31 12
11 379 25

10 199 13
9.2 42 11
9.2 27 10
9.0 23
9.2 20
9.5 18

9.7B 49.8 13.0

8.3 9.2 9.5
AC-FT 736 616 602 3.060 723

DISCHARGE, IN CUBIC FEET PER SECOND,

DAY DCT NOV DEC JAN FEB

1 15 14 13 8.5 13
2 15 1<
3 15 1'
4 15 1«

11 8.3 13
11 7.B 12
11 7.6 13
5 IS 14 11 7.1 13

6 IS 16 11 7.1 13
7 IS 1<
8 15 1
9 15 1

10 7.1 13
10 7.6 13
> 10 21 13
10 IS IS 10 33 14

11 IS 14 10 16 16
12 IS 1'
13 15 I'
14 15 1<

9.8 13 20
9.8 12 17
, 9.S 24 16
15 17 14 9.5 23 15

16 20 14 9.5 18S 14
17 19 1
18 17 1
19 16 1

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TULARE LAKE BASIN

11215800 TEAKETTLE CREEK AT SITE NO. 3, NEAR PATTERSON MOUNTAIN, CALIF.

LOCATION.--Lat 36°57'40", long 119°01'35", in N£!» sec.21, T.ll S., R.27 E., Fresno County, Si National Forest,

Rock Reservoir.

DRAINAGE AREA.--0.86 sq mi.

PERIOD OF RECORD.--October] 1969 (discontinued).

GAGE.--Water-stage recorder, 90° sharp-crested V-notch weir, and sharp-crested Cipolletti weir. Dati 6,705.4 ft above mean sea level (levels by U.S. Forest Service). Prior to Oct. 1, 1961, at datum
lower.

AVERAGE DISCHARGE.--12 years, 1.43 cfs (1,040 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet) for the wa 1966-69 are contained in the following table:

im of gage is
4.00 ft

Wtr yr Date
1966 Nov. 14, 1965
1967 Dec. 6, 1966
1968 May 15, 1968
1969 Jan. 25, 1969

Discharge G.H.
6.58 1.48
90.0 3.69
2.62 .79
29.5 2.66

Date

Several days
do.

Oct. ll', 1968

Minimum daily
Discharge
. 26

Period of record: Maximum discharge, 99.0 cfs Feb. 1, 1963 (gage height, 3.81 ft); minimum daily, 0.08 cfs Sept. 6, 12-15, 1961.

studies to develop and test methods of managing forest and other lands for improved water yield,
matic diagram for Kings River basin elsewhere in this report.

DISCHARGE, IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

»Y OCT NOV DEC JAN FEB MAR APR MAY JUN JUL

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2 . 5
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12 . 8
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14 .40
15 .56

16 .56
17 .49
18 .47
19 .45
20 .42

21 .40
22 .40
23 .38
24 .38
25 .38

26 .36
27 .36
28 . 6
29 .6
30 . 6
31 .6

MEAN . 1
MAX . 6

AC-FT 25

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1.42
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3.2

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1.3 .70
1.2 .70
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1.2 .67

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1.3 .64
1.3 .67
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1.2 .64

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l.l .62
1.0 .62
. 99 .62
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. 92 .56
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. 92 .54
. 89 .54

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I. 00 .57
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TULARE LAKE BASIN

11215800 TEAKETTLE CREEK AT SITE NO.3, NEAR PATTERSON MOUNTAIN, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. MATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

31

TOTAL
MEAN
MAX
WIN
AC-FT

7.73
. 25
. 27

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. 30 5
.40 1
.64
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. 59

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.42
.40
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.40
2.4
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18.65 14
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DEC J/U

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I .

j B

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. 6 1.
. 6 1.
. 6 1.
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. 5 2.
. 5 1.

.62 40.
. 73 1.3

FEB MAR

1.5 1.5

1.4 1.5
1.4 1.5

1.4 1.6
1.4 1.6
1.5 1.5

1.5 1.4
1.6 1.4
1.6 1.5
1.6 2.0
1.5 2.0

1.5 12
1.5 6.2
1.5 4.8
1.5 4.3
1.5 3.9

1.5 3.8
1.5 3.7
1.5 3.6
1.5 3.4
1.6 3.2

1.5 3.1
1.4 3.1
1.5 3.1
2.9
2.8
2.9

41.5 90.3
1.48 2.91

APR

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1.9

63.9
2.13

MAY

1.9

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2.0

3.3
3.5
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3.0
2.9
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3.5
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4.9
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6.7
7.6
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9.7
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202.7
6.54

JUN

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9.0

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9.7
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291.4
9.71

JUL

7.2

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4.8
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120.3
3.88

AUG

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NOTE. ND GAGE-HEIGHT RECORD OCT 8 TO NOV. 6, DEC. 16 TO JAN. 27.

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NOTE. NO GAGE-HEIGHT RECORD DEC. 30 TO FEB. 6.

TULARE LAKE BASIN

11215800 TEAKETTLE CREEK AT SITE NO. 3, NEAR PATTERSON MOUNTAIN, CALIF .- -CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

1 .20 .27 ,27
2 .20 .32 .27
3 .20 .74 .27
4 .21 .42 .29
5 .21 .34 .27

6 .21 .31 .29
7 .20 .31 .29
8 .18 .29 .27
9 .18 .29 .27
13 .18 .29 .29

11 .17 .27 .31
12 .20 .49 .29
3 .62 .36 .29 I.
4 1.0 .32 .29
5 .34 .38 .54

6 .29 .32 .40
7 .27 .32 .36
8 .26 .40 .36
9 .26 .40 .36 7.
0 .24 .38 .36 3.

1 .24 .36 .36 7.
2 .24 .34 .36 3.
3 .23 .34 .36 2.
4 .23 .32 .36 2.
5 .23 .29 .36 22

6 .23 .29 .36 13
7 .23 .29 .36 6.
8 .23 .27 .36 5.
9 .24 .27 .36 4.
3 .41 .27 .36 3.
1 .29 .36 3.

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TR YR 1969 TOTAL 1,378.25 MEAN 3.78 MAX 22 MIN .17 AC-FT 2,730

TULARE LAKE BASIN

11215820 TEAKETTLE CREEK TRIBUTARY NO. 2 NEAR PATTERSON MOUNTAIN, CALIF.

DRAINAGE AREA.--0.85 sq mi.

PERIOD OF RECORD.--October 1957 to September 1969 (discontinued).

6,905.4 ft above mean si
lower.

AVERAGE DISCHARGE.--12 yea;

EXTREMES.--Maximums and minimums (discharge in cubic feet pe 1966-69 are contained in the following table:

el (levels by U.S. Forest Service). Prior to Oct. 1, 1961, at datu

24 cfs (898 acre-ft per year).

Wtr yr Date
1966 May 4, 5, 1966
1967 Dec. 6, 1966
1968 May 15, 1968
1969 June 3, 1969

Discharge
a3.5

2.1
26

3.62
. 94
2.57

cond, gage height in feet) for the

Minimum daily
Date
Sept.28-30, 1966
Oct. 18-23, 1966
Sept.17, 18, 25-30, 1968
Oct. 1-11, 1968

Discharge

Max daily.

Period of record: Maximum discharge
Dec. 5, 1957, Sept. 12, 1961.

70 cfs Dec. 6, 1966 (gage height, 3.62 ft); minimum, 0.04 cfs

REMARKS.--Records good except those for periods of no gage-height record, which are fair. No regulation or diversion above station. This station was operated in connection with studies to develop and test methods of managing forest and other lands for improved water yield. See schematic diagram of Kings River basin else-where in this report.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

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MEAN
MAX
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AC -FT

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. 92 2.
1.0 2.
. 96 2.
. 99 2.

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. 2 2.
. 3 2.
. 4 2.
. 5 3.

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JUL

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16.88
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AUG

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6.85
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14

NOTE. NO GAGE-HEIGHT RECORD NOV. 3 TO DEC. 7.

TULARE LAKE BASIN

11215820 TEAKETTLE CREEK TRIBUTARY NO. 2 NEAR PATTERSON MOUNTAIN, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR MAY JUN JUL

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TOTAL MEAN
MAX
MIN
AC-FT

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5.71
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1.4

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l.B
. 76
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12.13
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1.8
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24

NO GAGE-HEIGHT

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1.0
2.4
. 81
11

40
7.9
4.6
3.6

2.3
2.1
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1.3
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1.2
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107.81
3.48
40
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214

RECORD SEPT

1.1
1.0
1.0
1.0
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1.0
1.1
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1.1
1.3
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30.44
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1.4
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60

1-30.

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29.2
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1.1
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7.2
4.1
3.0
2.8
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2.5
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2.2
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2.1
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60.41
1.95
7.2
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120

1.9
1.9
l.B
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l.B

l.B
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49.4
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B.B
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160.0
5.16
10
1.5
317

7.5
7.Z

7.6

7.9
8.5
8.6
9.0

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9.3

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315.3
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132.2
4.26
9.3
2.0
262

2.0
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43.27
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2.0
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DISCHARGE, IN CU8IC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

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92 .34
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82 .32

JUL

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NOTE. NO GAGE-HEIGHT RECORD NOV. 10 TO FEE. 1.

TULARE LAKE BASIN

11215820 TEAKETTLE CREEK TRIBUTARY NO. 2 NEAR PATTERSON MOUNTAIN, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1961

MAR APR MAY

TO SEPTEMBER 1969

JUN JUL

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1968 TOTAL

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MEAN

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. 90
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4.1
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3.8
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1.3
13

8.4
3.7
2.5
2.0
1.7
1.6

1.71
13
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1.1
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MAX 1.6

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. 9 .86

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2.5 .99 .59

5.31 1.47 .74
9.9 2.3 .92
2.4 .96 .59
326 90 44

TULARE LAKE BASIN

11215830 TEAKETTLE CREEK TRIBUTARY NO. 2A NEAR PATTERSQN MOUNTAIN, CALIF.

DRAINAGE AREA. --0. 27 sq mi.

PERIOD OF RECORD. --October 1957 to Septe 1969 (discontinued).

GAGE.--Water-stage recorder and 90° sharp-crested V-notch weir. Datum of gage is 6,924 ft above mean sea 1 (levels by U.S. Forest Service). Prior to Oct. 1, 1961, at datum 4.00 ft lower.

AVERAGE DISCHARGE.--12 years, 0.44 cfs (319 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet) for water years 1966-69 are contained in the following table:

Wtr yr Date
1966 Nov. 23, 1965
1967 Dec. 6, 1966
19b8 June 7, 1968
1969 Jan. 25, 1969

Period of record: Maximu
for many days in 1960-62.

2.9
60
1.5
18

G.H.
1.06
3.61
. 81
2.21

Minimum daily
Date

Sept.17, 28-30, 1966
Several days
Aug. 9-18, 1968
Oct. 1-4, 8-10, 1968

Discharge
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. 04
. 02
. 02

discharge, 60 cfs Dec. 6, 1966 (gage height, 3.61 ft); minimum daily, 0.01 cfs

. No regulation or
elop and test methods of

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1965 TG SEPTEMBER 1966

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2.80
.090
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.07
5.6

NOV

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1.4

1.2
.98
l.l
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1.1
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13.04
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DEC

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9.8

1.4 M1N

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12.07
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Z4

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1.0
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26.95
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1.2
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AC-FT 215

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TULARE LAKE BASIN

11215830 TEAKETTLE CREEK TRIBUTARY NO.

DISCHARGE, IN CUBIC FEET PER SECOND,

2A NEAR PATTERSON MOUNTAIN, CALIF .- -CONTINUED

WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

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MEAN
MAX

AC-FT

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DISCHARGE

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YEAR OCTOBER

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NOTE. NO GAGE-HEIGHT RECORD JAN. 10 TO MAR. 4.

TULARE LAKE BASIN

11215830 TEAKETTLE CREEK TRIBUTARY NO. 2A NEAR PATTERSON MOUNTAIN, CALIF.--CONTINUED

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DISCHARGE, IN CU6IC FEET PER SECOND, WATER YEAR OCTOBER

OCT NOV DEC JAN FEB MAR APR

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. 02 .25 .05 .08 .3 .40 .62
. 02 .09 .05 .09 .2 .40 .79
. 03 .07 .05 .10 .1 .40 .62

. 03 .06 .05 .10 1.0 .37 .76
. 03 .06 .05 .10 .90 .36 .76
. 02 .05 .05 .11 .62 .36 .76

. 02 .05 .05 .10 .70 .36 .76

. 03 .05 .06 .12 .62 .35 .86
. 04 .12 .05 .12 .60 .35 .99
. 28 .07 .05 .80 .58 .35
. 27 .07 .06 .60 .58 .36

. 05 .07 .10 .41 .50 . 8
. 04 .06 .08 .40 .46 .0
. 04 .10 .07 .40 .45 . D
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. 04 .08 .07 .5 .44 . 2

. 04 .07 .07 .7 .40 .40

. 03 .07 .07 .6 .4 .45

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. 03 .05 .09 .0 .4 .62
. 03 .05 .07 .0 .41 .67
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1968 TO SEPTEMBER 1969

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NOTE. NQ GAGE-HEIGHT RECORD DEC. 22 TO JAN. 16, JAN. 18 TO FEB. 12, FEB. 14 TO MAR. 13.

TULARE LAKE BASIN

11215840 TEAKETTLE CREEK TRIBUTARY NO. 1 NEAR PATTERSON MOUNTAIN, CALIF.

DRAINAGE AREA.--0.77 sq mi.

PERIOD OF RECORD.--October 1957 to September 1969 (discontinued).

6,407.7 ft above mean sea level (levels by U.S. Forest Service). Prior to August 1959, at datum 4.00 ft lower.

AVERAGE DISCHARGE.--12 years, 1.32 cfs (956 acre-ft per year).

Wtr yr Date
1966 Nov. 23, 1965
1967 Dec. 6, 1966
1968 May 15, 1968
1969 Jan. 25, 1969

Discharge G.H.
6.3 1.45
142 4.49
2.0 .92
41 3.C

Minimum daily
Date

Sept.29-30, 1966
Several days
Sept.11, 12, 26, 27, 1968
Oct. 9-11, 1968

Period of record: Maximum discharge, 142 cfs Dec. 6, 1966 (gage height, 4.49 ft); minimum daily, 0.06 cfs Sept. 12, 13, 1961.

DISCHARGE! IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

NOV OEC JAN FEB MAR APR MAY JUN JUL

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1.5

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2.0

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2.6
3.0

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1.1
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3.0

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55 2.8

64 2.8

86 3.5

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TULARE LAKE BASIN

11215840 TEAKETTLE CREEK TRIBUTARY NO.

DISCHARGE, IN CUBIC FEET PER SECOND,

OCT NQV DEC JAN FEB

1 NEAR PATTERSON MOUNTAIN, CALIF.--CONTINUED

HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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MEAN
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2.0 .96 .84
1.9 .92 .70

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DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

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TULARE LAKE BASIN

11215840 TEAKETTLE CREEK TRIBUTARY NO. 1 NEAR PATTERSON MOUNTAIN, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECONO, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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TOTAL 191.53
TOTAL 1,274.45

MEAN
MEAN

MAX 1.
MAX 30 MIN .15 AC-FT 2,530

TULARE LAKE BAS-IN

11216500 NORTH FORK KINGS RIVER ABOVE DINKEY CREEK, AT BALCH CAMP, CALIF.

DRAINAGE AREA.--250 sq mi.

PERIOD OF RECORD.--October 1919 to September 1930 (published as "above Dinkey Creek"), March 1960 to September 1970. Records for water year 1920 incomplete, yearly estimate and monthly discharge only for some months, published in WSP 1315-A.

GAGE.--Water-stage recorder. Concrete control since Apr. 15, 1966. Altitude of gage is 1,240 ft (from river-profile nap). October 1919 to Sept. 30, 1930, and Mar. 24, 1960, to Apr. 14, 1966, at site 100 ft downstream at different datum.

AVERAGE DISCHARGE.--11 years (1919-30), 387 cfs (280,200 acre-ft per year), prior to storage and diversion. EXTREMES.--Maximums and minimums (dis
1966-70 are contained in the folio

Maximum
Wtr yr Date
1966 May 24, 1966
1967 Dec. 6, 1966
1968 Jan. 25, 1968
1969 Jan. 25, 1969
1970 Feb. 23, 1970

icharge in cubi
>wing table:

Discharge
838
12,600
241
7,770
406

c feet per s<

G.H.
3.16
9.40
2.14

2.51

' ^

Date
Mar.
Jan.
May.
Apr.
Jan.

12,
11,
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17,
14,

Minimum daily

1966
1967
1968
1969
1970

Discharge
7.1
6.4
5.3
8.5
6.2

REMARKS.--No gage-height record Dec. 1, 1968, to Feb. 28, 1969. Flow regulated by Courtright and Wishon Reser-voirs (see elsewhere in this report), Black Rock Reservoir (capacity, 1,000 acre-ft), Balch Afterbay (capac-ity, 125 acre-ft), and by Haas and Balch powerplants. Diversion from Balch Afterbay to Kings River power-house began Mar. 1, 1962. See schematic diagram of Kings River basin elsewhere in this report. Water-quality records for the water years 1967-70 are published in reports of the Geological Survey.

COOPERATION.--Gage-height record and 36 discharge
Gas § Ele

rements for the water years 1966-68 furnished by Pacific

nection with a Federal Power Commission project.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

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6 I
7 1
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* r
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6 L
7 If
8 IS
9 If
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L8 6.0 10 15
L7 8.C 8.2 12

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18 7.8 8.0 LL
18 7.8 7.8 11
18 8.5 7.5 11

IB 11 7.3 10
18 12 7.3 10
18 12 7.5 ID
19 12 7.5 9.0
18 LO 8.2 8.5

23 8. 25 8.5
23 8. 20 8.5
24 8. 19 8.5
20 8. 93 8.2
L8 9. 96 8.2

L7 8. 80 8.5
18 8. 52 8.5
25 8. 72 8.2
28 8. 117 9.2
19 B. 93 8. B

19 8. 81 8.5
18 8. 137 8.2
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21.3
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TULARE LAKE BASIN

11216500 NORTH FORK KINGS RIVER ABOVE DINKEY CREEK, AT BALCH CAMP, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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TOTAL
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MAX
MIN
AC-FT

QCT

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1966 TOTAL

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DEC

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47
169
18
1,710

7,680
409
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13
9.8

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DISCHARGE, IN CUBIC

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8.3 9.2
12 8.6

6.4 8.3
6.9 8.1
10 8.6
46 10
40 9.2

9.2 8.1
7.8 9.4
8.0 8.8
8.6 8.3
8.1 8.3

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29 7.8
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12 7.8
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6.4 7.8

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21 8.0
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32 8.0

13.3 8.16
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243
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265
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274
377
490
440
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372
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784
694
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800

980
1,130
1,240
684
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YEAR OCTOBER 1967

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536 3,
608 2,

502 1,
550
562 2,
580 1.
594 1,

601 1,
601 1.
562 1,
544 2,
580 1,

601
678
664
678

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1.350
1.630
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1.810
1,830
2,940
3,260
3,340

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TO SEPTEMBER

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TULARE LAKE BASIN

11216500 NORTH FORK KINGS RIVER ABOVE DINKEY CREEK, AT BALCH CAMP, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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DISCHARGE

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7.0

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249

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187
38
108
4,950

612
515
150
77
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4CB
4,950
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1C FEET

JAN

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TULARE LAKE BASIN

11216800 ROCK CREEK AT DINKEY CREEK, CALIF.

LOCATION.--Lat 37°05'24", long 119°09'39", in W-iSVk s 0.4 mile northwest of town of Dinkey Creek and 0.5

=.5, T.10 S., R.26 E., Fr
ile upstream from mouth.

County, ight bank

DRAINAGE AREA.--7.60 sq mi.

PERIOD OF RECORD.--July 1960 to September 1970.

GAGE.--Water-stage recorder and low-flow concrete control. Altitude of gag

AVERAGE DISCHARGE.--10 years, 19.5 cfs (14,130 acre-ft per year).

EXTREMES.--Miximums and minimums (discharge in cubic feet per second, gage height in feet].

Annual maximum discharge (*] and peak discharges above base (70 cfs], water year

6,150 ft (from topographi nap] .

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DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

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TULARE LAKE BASIN

11216800 ROCK CREEK AT DINKEY CREEK, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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3* 8-3 15 16 23 2B 123 25 3.T 1.0
< " 8-1 I* 13 23 29 117 22 3.5 1.9

280 7.5 17 15 22 34 128 21 3.3 .90
136 7.3 18 16 21 60 151 19 3.3 .70
62 7.2 18 18 20 90 144 17 3.1 .50
*l 7.2 19 19 21 88 142 15 3.0 .30
33 T.3 21 18 21 66 1*9 1* 2.9 .30

2* 7.9 23 15 20 46 146 13 2.7 .30
2* 8.3 24 32 21 40 131 12 2.6 .30
23 8.7 23 23 21 44 114 11 2.5 .20
21 8.7 21 25 24 68 114 9.B 2.4 .20
19 8.7 18 22 23 100 119 9.1 3.4 .20

19 8.9 17 244 19 144 110 B.9 4.2 .20
18 8.5 15 232 21 163 121 8.3 2.6 .10
18 8.1 16 125 22 1BO 124 7.9 2.3 2.1
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17 8.3 17 67 24 199 108 6.6 2.0 .80

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11 11 15 48 IB 229 74 5.5 .7 1.3 11 23 14 42 17 216 67 6.1 .8 .90

9. 18 14 37 18 210 60 7.2 .8 .60 ~>- 16 15 3B 21 199 54 6.5 .2 .50
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9. 15 38 15 176 44 5.7 .80 1.0
9. 20 32 14 147 40 5.2 .50 .80
8. 27 33 113 4.7 .50

82.0 10.7 17.6 49.3 21.3 122 103 12.5 2.48 .81 1,280 27 24 244 34 234 151 36 4.5 2.1 7-0 7.2 14 13 14 16 40 4.7 .50 .10

IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

. 56 2.9 5.0 33 41 22 .2 .46 .06 .01
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2.7 7.2 37 16 22 7.6 .0 .09 .06 .02
3.4 7.2 34 21 24 7.2 .88 .08 .04 .02

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4.8 5.1 34 28 28 6.2 .64 .07 .03 .01
5.0 5.6 39 35 28 5.6 .56 .07 .03 .01
4.2 5.6 36 44 26 5.1 .56 .06 .03 .01
3.2 6.2 48 24 5.0 .51 .06 .02 .01
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TULARE LAKE BASIN

11216800 ROCK CREEK AT DINKEY CREEK, CALIF.--CONTINUED

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YEAR OCTOf

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YEAR OCTOBER 1969

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TO SEPTEMBER

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1970

JUL AUG

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SEP

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2 .26 .85 1.
3 .09 .80 1.
4 .40 .75 1.
5 .40 .95 1.

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9 .07
10 .01

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12 .10
13 .36
14 .38
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20 .2

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23 .4
24 .3
25 .2

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28 .0
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31 .90

TOTAL 48.80 8
MEAN 1.57

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?10 13 28 28
5 B6 13 33 22
48 13 30 25
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. 0 50 42 9.6 26 26
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. 2 U 79 9.6 43 28
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. 4 6.4 16 32 31 9.6

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. 7 .38 .02
. 5 .36 .02
. 5 .34 .02
. 3 .34 .04

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. 9 .30 .0
. 8 .26 .0
. 8 .24 .0
. 0 .22 .0

. 7 .20 .01
. 5 .18 .01
. 4 .18 .01
. 3 .14 .01
. 2 .12 .03

. 0 .10 .04
. 0 .12 .03
. 6 .90 .12 .01
. 3 .90 .1C .01
. 0 .85 .12 .01

. 6 .80 .09 .04
. 3 .70 .06 .05
. 6 .70 .06 .05
. 6 .61 .05 .04
. 5 .57 .04 .03

. 5 .57 .04 .02
. 3 .61 .05 .02
. 5 .51 .05 .Cl
. 4 .45 .05 .01
. 3 .42 .03 .01
6.0 14 26 8.8 ~ .-.<. ....

. 90 268.25 859.6 364.2 787 1,178 1,031.4 166.1 40.51 5.08 .81
. 83 B.65 27.7 13.0 25.4 39.3 33.3 5.54 1.31 .16 .027

MIN .01 .75 .90 3.3 9.6 11 22 8.8 3.3 .42 .02 .01

AC-FT 34,660

TULARE LAKE BASIN

11218400 NORTH FORK KINGS RIVER BELOW DINKEY CREEK, NEAR BALCH CAMP, CALIF.

LOCATION.--Lat 36°52'47", long 119°07'40", in Wi'-i sec.22, T.12 S., R. 26 E., Fresno County, Sierra Nati Dinkey Creek, and 9 miles east of

DRAINAGE AREA. --387 sq mi.

PERIOD OF RECORD. --March 1960 to Sep

GAGE. --Water-stage recorder. Altituc

EXTREMES. --Maximums and minimums (di

Wtr yr
1966
1967
1968
1969
1970

P
exte

REMARKS,

sion

COOPERA
Gas
coll

DAY

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31

MEAN
MAX
MIN
AC -FT

Date
Nov. 24
Dec. 6
Apr. 28
Jan. 25
Jan. 16

eriod of
nded abo

- - Flow r

city, 1,
from Bal

[ION.--G

cted by

OCT

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32

31
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36

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31
32

31

31
31

30

32.5
45
29
2,000

1965
, 1966
, 1968
1969
1970

record: Ma>
ire 4,900 cfs

egulated by
000 acre-ft)
ch Afterbay

ge-height re

Pacific Gas

DISCHARGE,

NOV

30

29
30
30

30
31
34
298
395

588
563
628

183

133

995
1.C60
390

271

208
190

239
1,060
29
14,240 8

Maximum

imum dis

Courtrigh
, Balch A
to Kings

cord and

5 Electri

IN CUBIC

DEC

159

135
136
133

125
131
121
117
105

96
92

97

97

84
89
93

90

92
280

224

130
280
84
,020 8

ember 1970.

le of gage is 1,035 ft (from river-profile map).

charge in cubic feet per second, gage height in feet) for the water years wing table:

Minimum daily
Discharge G.H. Date Discharge
2,180 7.10 Sept. 17, 18, 24-29, 1966 25
22,100 17.53 Oct. 1, 16, 1966 26
547 4.05 Sept. 1-4, 6-23, 26-30, 1968 14
15,000 14.31 Oct. 1-6, 1968 14
5,740 9.89 Sept. 9, 1970 25

harge, 27,400 cfs Feb. 1, 1963 (gage height, 19.20 ft), from rating curve daily, 14 cfs Aug. 26-30, 1964, Sept. 1-4, 6-23, Sept. 26 to Oct. 6, 1968.

t and Wishon Reservoirs (see elsewhere in this report) , Black Rock Reservoir fterbay (capacity, 125 acre-ft), and by Haas and Balch powerplants. Diver-River powerhouse began Mar. 1, 1962. See schematic diagram of Kings River

20 discharge measurements for the water years 1966-67 furnished by Pacific

c Co.

FEET

JAN

23

134
132
127

123

119
120
122

133
123

168

166

134

160

151

116
101

109

134
191
101
,250

MAX

PER SECOND,

FEB

103

11
07
10

99

102
102
100

101
106

110

116

132

119

120

120

113
167
99
6,260 17

1,060 MIN

al su

MATER

MAR

120
109

149
142
200

262

280
313
304

318
282

280

288

355

311

373

500
546

661

288
661
109
,730

25

pervision of Geolo

YEAR OCTOBER 1965

APR MAY

743 688
805
813
783

757
710
B31

605

469

545

657
705

439

412

431

609

671

634
618

628
831
399
37,380

AC-FT 137

701
691
720

656
598
596

504

483

495

493
491

446

422

419

345

328

270
251

499
772
205
30,650

,500
,500

gical Survey,

TO SEPTEMBER

JUN

195
181
171
163

152
178
162
178
167

147

125

114

108
103

89

85
80
78

73

68

63
61

118 4
195
59
7,030 2,

in c

1966

JUL

57
56
55
53

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48
49
48

46

44

41

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37

36
35
34

32

32
32
31
31
31

291
1.6
5T
31
560

onnection

AUG SEP

32 29
33 29
32 28
34 2B
32 27

29 27
28 27
28 27
27 27
27 27

27 27

32 27

31 26

31 26
30 25
29 25
29 26
29 28

28 28
29 27
29 26
28 25
28 25

28 25
28 25
28 25
28 25
28 26

913 797
29.5 26.6
34 29
27 25
1,810 1,580

TULARE LAKE BASIN

11218400 NORTH FORK KINGS RIVER BELOW DINKEY CREEK, NEAR BALCH CAMP, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

1
2
3
4
5

6
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11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN
MAX
MIN
AC-FT

DAY

1
2
3
4
5

6
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9
10

11
12
13
14
IS

16
17
18
19
20

21
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24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX

HTR YR

OCT

26
27
28
29
30

29
29
30
32
29

28
27
29
31

28
29

29

29
29
29
29
29

29
29
29
29
29

28.8
32
26

OCT

58
56
53
51
50

49
47
46
45

44
43
41
43
43

41
41
40
40
40

39
40

39
39
39
39

39

1,353
43.6
58

29
29

29
29 3

30 14
37 2
50
42
33

30
30
30
29

63
39

166

103
72
58
50
47

39
416
338
128

70.7
416 14
29

DISCHARGE,

NOV

38
37
37
37
37

39
38
38
38

38
37
37
40
45

43
41
40
96
100

63
57

51
49
51
51

DEC

86
286

211
,680

,900
. 140
786
525
424

367
324
298
268

244
235

233

210
191
182
173
165

139
145
150

920
,900
86

IN CUBIC

DEC

60
63
69
64
92

66
65
61

66
67
56
43
52

51
48
57
58
56

57
65

82
84
84
79

66

1,469 2,011 2
49.0 64.9
100 92

1968 TOTAL 38,321 MEAN 105

137
134

130
133

126
120
119
120
125

124
134
139
176

135
130

124

247
236
192
266
248

225
211
300

646
119

FEET PER

63
60
55
53
53

51
51
52

66
63
64
63
115

148
100
87
83
82

88
93

141
165
120
119

88

. 707 4
87.3

MAX

370
296

250
254

257
262

261
285

301
301
297
283

223

223

217
220
218
209
220

216
218

370
206

,900

SECOND

82
84
92
95
98

91
92
94

87
88
85
83
79

81
169
201
175
362

258

229
215
250
248

,635
160

225
231

225
204

205
207

228
230

248
370
423
321

1,210
885
714

661

573
507

509
490

2.310
204

MIN 26

. HATER

246
204
199
202
204

166
188
159

151
166
148
142
137

148
141
139
130
133

133

180
189
218
268

332

5,575
180

432 MIN 14

420

430
442

415
526

425
429

450
407
397
487

468
584
598

573

627
555

589

543
363

15,090

794

460

721
647

714
1,030

1,530
1.610

1.080
928
897
1.110

2,450
2,580
2,740

3,080

2,970
3,270

3.070

2.740
2.530

58,428

3.420

175,800
AC-FT 523,800

YEAR OCTOBER 1967

347
283
236
238
276

234
260
287

388
388
357
359
377

311
296
246
229
225

204

208

342
393
413
432

9,035
301

AC-FT

404
399
375
352
357

285
262
264

246
242
218
240
262

252
233
246
254
256

254

194

188
196
189
177
159
144

7,774
251

76,010

JUN

1,470

1,780
1,970

1.680
1.950

2.050
2.090

2.140
2,130
1,960
1.850

2.330
2,270
2.340

2.580

3,110
3,170

3,180

4,120
4,280

JUL

,350

,690
,480

,620
,790

,180
,070

. 100
. 850
,110
,480
. 980

. 120
876
665

606
489
380
384
289

224

276
225
186

73,060 51,261

4.590 4,590

TO SEPTEMBER 1968

JUN JUL

137 30
131 29
126 28
111 27
104 26

102
121
99

81
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73
69
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71.7

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16
18
18
18

685
22.1
32

151

130
125

119
115
110
106
102

98
94
92
89
92

95
96
96
88
81

106
81
76
74
80

84

70
67
64

3,020

160

AUG

7
7
6
6
6

16
15
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16
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19
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20
17

15
15
15
15
15
15

502
16.2
20
15

SEP

67
70
71
68

66
62
60
60
59

58
55
55
54
52

51
51
66
96
66

58
58
61
61
68

62

53
56
64

1,844

96
51

SEP

14
14
14
14
15

14
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15
15

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14
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423
14.1
15
14

TULARE LAKE BASIN

11218400 NORTH FORK KINGS RIVER BELOW DINKEY CREEK, NEAR BALCH CAMP, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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27
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29
30
31

TOTAL
MEAN
MAX
MtN

DAY

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11
12
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14
15

16
17
18
19
23

21
2?
23
24

26
27
28
29
30
31

MEAN
MAX
MIN

OCT

14
14
14

14

14
15
15

15

15
15
16
16
16

16
16
17

17

17
17
17
18
18

18
17
17
18
30
34

526
17.0
34
14

39
39
39
39
39

39
39
39
38

40
39
38
38
44

243
230
114
85
81

74

65

61

57
55

53
52
50

64.4
243
38

26
23
179
127
70

52
42

39

37
57
73
50
65

70
71
81

79

60
57
53

42

37

1,803
6C.1
179
23

DISCHARGE

49
45
46
45
46

ICO
112
91
83

89
89
87
84
81

102
84

68
66

65

59

55
53

50
50

69.3
112
45

41
37

36
34

35
35

32

79
47
46
75
193

179
91
77

61

101
182

101

83
80

2,319
74.8
193
32

78
79

89
101

118
125

93

88
85
277
413
239

172
140
301

1,530

724
7,820

1,700

623
533

1,103
7,820
78

, IN CUBIC FEET

49
41
42
41
40

42
41
41

41
42
41
40
39

39
39

48
158

371

157

251
142

9?
87

102
486
39

84
78
71
64
61

64
70
70

196
151
136
287
223

1,010

358
304

351

303

303
298

210
197

350
2,970
61

483
430

379
477

L.040
513

345

371
338
312
296

477
404
348

307

L.200
1,180

570

497
1,200
296

PER SECOND

193
183
183
185
187

181
187
196

184

198
244
236
213
205

238

182
173

206

258
263

- - _

209
324
163

451
3B2

328
305

303
283

268

252
252
245
234

252
279
317

321

385
433

556

B47

386
960
234

, WATER

83
88
89
96
19

221
235
237

214

196
193
225
268
281

307

251
234

285

410
374

3C7

488
193

MIN 38

1,010 2,900
1,190 2,910

936 2,590
994 2,770

888 3,220
684 3,630

638 4,330

B12 4,340
926 4,560
985 4,450
926 4,410

752 4,630
921 4,810
1,130 4,850

1,690 4.500

1,690 5.040
1,550 5,010

1.440 5,000

2,480 4,780

1,243 4,253
2,460 5,040
638 2,590

YEAR OCTOBER 1969

252 331

314 470
331 503
371 550

430 567
424 503
430 503

540 574

556 513
517 424

385 672
341 769

294 852

287 720
273 635

256 631

338 506
301 506

283 430

556 852
252 331

AC-FT 739,800

JUN

3,940
3,930

3,540
3.380

3.200
3,830
4,670

2,990

2,650
2.560
2.850
3,340

3,890
3.480
3,150
3,040
3,060

3,300
3,350
3,160

2,230

2,380

3,226
4,670
2.170

JUL

2.640
2,550
2.180
1.960
2,320

2.100
1,660
1.610
1,650
1,590

1,670
L.480
1.530
1.550
1.330

1.120
875
526
668
620

696
407
324

285
285

184

1,150
2,640
170

TO SEPTEMBER 1970

JUN JUL

404 80

331
290
271

254
232
218

271

223
201

194
185

154

138
130

125
117
111
104
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97
101
94

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439
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72
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AUG

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141
134
127

122
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101
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89.5
158
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AUG

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SEP

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45.6
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SEP

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27
27

816

28
25
1,620

TULARE LAKE BASIN

II2I8500 KINGS RIVER BELOW NORTH FORK, NEAR TRIMMER, CALIF.

LOCATION.--Lat 36°52'29", long 119°08'27", in NEk sec.21, T.12 S., R.26 E., Fresno County, on right bank 0.8 mile downstream from North Fork, 2.4 miles southwest of Balch Camp, and 8.5 miles southeast of Trimmer.

DRAINAGE AREA.--1,342 sq mi.

PERIOD OF RECORD.--October 1951 to September 1970. Prior to January 1952 monthly discharge only, published in WSP 1735. Published as "below North Fork" October 1951 to September 1960.

GAGE.--Water-stage recorder. Datum of gage is 942.42 ft above mean sea level (levels by Corps of Engineers). AVERAGE DISCHARGE.--19 years, 2,211 cfs (1,602,000 acre-ft per year), adjusted for change in contents in Wishon and Courtright Reservoirs.

EXTREMES.--Maximum and minimum discharges for the water years 1966-70 are contained in the following table: Maximum Minimum daily Wtr yr
1966
1967
1968
1969
1970

Date
May 7, 1966
Dec. 6, 1966
May 29, 1968
Jan. 25, 1969
Jan. 16, 1970

Discharge
6,910
63,300
5,940
39,900
13,600

Date
Nov. 11, 1965
Nov. 24, 1966
Sept.29, 1968
Oct. 6, 1968
Sept.13, 20, 1970

Discharge
200
292
114
108
275

Period of record: Maximum discharge, 85,200 cfs Dec. 23, 1955 (gage height, 23.08 ft), from rating curv extended above 22,000 cfs on basis of slope-area measurement of peak flow; minimum daily, 97 cfs Jan. 13,
1963.

Flood of Nov. 19, 1950, reached a stage of 21.6 ft, from floodmarks (discharge, 74,200 cfs).

inflo*

pow Ma

quality records for the water years 1966-70 are published in reports of the Geological Survey. COOPERATION.--Twenty-two discharge measurements furnished by Kings River Water Association. Records of di to Kings River powerplant furnished by Pacific Gas 5 Electric Co.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

»Y

1
2
3
4
5

6
1
a
9
10

11
12
3
4
5

6
7
8
9
0

1
2
3
4
5

6
7

e
9
30
31

EAN

IN
C-FT
EANt

AL YR
TR YR

OCT

,260
,090
,170
,170
,140

,140
,140
,100
,130

907

743

723

270

744
727
728

TOO
230
224
682

685
703

485

773

NDV

660
694
681
697
697

203
203
617
573

200

203

,870

,690

,910
,550
783

,020
,080
,700
,820

,760
,340

,340

1,158

206 200
47,550 68,880
268 1,058

1965 TOTAL 953,853
1966 TOTAL 584,417

ADJUSTED *

DEC

1,230
1,270

966
813

1,200
1,160
1,090
1,200

683

982

916

869

490
510
711

754
779
570
482

472
705

1,830

950

472
58,390
851

MEAN
MEAN

983
896

1,160
1,080

1,070
1,140
763

989

1,030

730

701

590
634
622

575
545
565
570

575
600

540

769

459
48,530 37
780

OBSERVED

2,613 MAX
1,601 MAX

770
751

595
525

969
851
795

621

525

638

669
578
510

565
664
620

640

679

510
,690
682

9,800
6,100

812
738

709
667

617
640
905

1,250

1,430

1.460

1,330
1,240

1.360

1,690

1,480

2,490

1,359

617
83,560
1,582

MIN 200
MIN 200

3,450

3,740
3,590

3,780
3,850
3,900

3,260

2,830

2,840

3,000

2,320

2,360

4,000

4,300

3,380

2,320
201,100
4,501

AC-FT
AC-FT

5,190

5,260
5,620

5,760
6,100
5,530

4,380

4,220

4,510

5.480

4,980

5,320

5,100

3,970

4,966

3,310
306,600
5,972

1,892,000
1,159,000

JUN

2,560
2,380
2,070
2.170

2,600

2,870

2.710

3,270

2,920

2,320

2,180

1,740

1,480
1,900

1,820

2,358

1,480
140,300
2,386

JUL

1,290
1,170
1,090
1,550

1,560

1.450

1.230

1,150

1.220

1,090
1,080
1,060
1,050

1,030
1.110
1.100
983
1,110

1,020
1.150

986
962

1.182

892
72,670
734

AUG

890
1,200
1,190
1,100

1,060

973

806

864

862

827
624
810
885
813

857
857
631
813
804

741
755
666
726
738

873

668
53,680
367

SEP

779
701
703
649

693

636

474
688
641

732

710
753
612
723
667

753
761
707
516
642

677
617
622
690
676

20.284
676

474
40,230
147

WTR YR 1966 MEAN 1,613 AC-FT 1,168,000

t ADJUSTED FOR CHANGE IN CONTENTS IN WISHON AND COURTRIGHT RESERVOIRS.

TULARE LAKE BASIN

11218500 KINGS RIVER BELOW NORTH FORK, NEAR TRIMMER, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1964 TO SEPTEMBER 1967

1
2
3
4

6
7
8
9
10

11
12
13

15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL

MAX
MIN
AC-FT

AC-FTt

WTR YR

OCT

685

729

3G6
684

780

669

578

578
680
635
683
635

664

689
711
706
608

704

20,419

780
306
40,500

8,000

778

827

745

644

727

801
847
630
196
757

633

341
1.470
3,240

23,982

3,240
196
47,570

28,070

1967 TOTAL 1,536

ADJUSTED

DEC

10,700 ,

3,900

2,280

2,110

2,070
2,040
2,020
1,820
1,760

1.550 1,

1,470 1,
1,580 1,
1,580 2.

127,570 43,

45,600 3,
1,090
253,000 86,

252,700 82,

,933 MEAN 4,

t

510 1,

844 1,

696 1,

850 1,

B44 1,
720 I,
746 I,
866 1,
915 1,

780 1,

800 1,
720 I,
080

852 41.

780 2,
642 1.
980 82,

880 90,

OBSERVED

211 MAX

540

450

660

540

440
380
340
350
300

340

200
300

730

490
090
770

370

45,

1,240

1,400

3,160

2,370

7,160
7,150
5,510
4,140
3,350

2.920

2,550
2,870
2,560

83,410

7,160
1,200
165,400

179,300

600 MIN

3,380

3,020

2,940

3,400

3,230
3,150
3,140
3,390
3,350

3,220

3,400
3,260
2,720

90,010
3,000
3,450
2,090
178.500

3,320

3,980

5,900

4,340

5.550

7,140
8,720
9,880
10,800
11,800

15,500

14,200
13,200
12.400

261.160
8.425
15.500
2.550
518.000

158,600 577,700

196 AC-FT 1,325,
196 AC-FT 3,049,

JUN JUL

8, 790 19,100

8,620 15. BOO

8.960 12,300

10,500 11,100

10,900 11,700

10.800 12.400

11,600 11,500
11,400 10.700
12.800 9,220
13.300 8,280
12,100 7,490

15,600 6,290

16,300 6,390
17,400 6,200
17,800 6,270

366,620 323.150
12,220 10,420
19,000 19,100
7,700 5,630
727,200 641,000

836,100 645,100

000
000

AUG

5,410

4,400

3,840

3,270

3.190

3,180

3,150
3,110
3.160
2.880
2,770

2,750

2,550
2,530
2.190
2,200

100,320
3,236
5,410
2.110
199,000

159,400

SEP

2,190

2.620
2,840

2,310
2,150

1,980

1.620
1.640

1,600

1,570
1.530
1,570
1.820
1,780

1.620

1.630

1.580
1.580
1.550
1,580

54,710
1,824
2,840
1,470
108.500
1,097
65,300

WTR YR 1967 MEAN 4,259 AC-FT 3,084,000

+ ADJUSTED FOR CHANGE IN CONTENTS IN WISHON AND COURTRIGHT RESERVOIRS.

TULARE LAKE BASIN

11218500 KINGS RIVER BELOW NORTH FORK,

DISCHARGE, IN CUBIC FEET PER SECOND. WATER

NOV DEC JAN FES MAR

NEAR TRIMMER, CALIF.--CONTINUED

YEAR OCTOBER 1967 TO SEPTEMBER 1968

APR MAY JUN JUL

1
2

4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28

30
31

TOTAL 3
MEAN

WIN
AC-FT 7
MEANt

,600
,550

,420

,410

,340
,310

,290
,290

,220

,230
,220
,200
,190
,180

,180
. 180

,170
,160

. 160
,150

,140

,280
,267

7,910
425

1,120

1,120

1,120

1.120

1,120

1.030

847

833

844
920

B86
957

915
432

364
747

27,323
911

54.200
390

924

783
450

830

443

519

465
664

742

515
530

624
658

460

19,920
643

39,510
537

558

413
407

704

736

795
533

448

445
550

504
543

639

16,052
518

31.840
503

986

450
455

717

720

,020
,420

,210
,250
,180
917

. 160
,290

25,564
882

50,710
864

III ;£

1,040 ,410
882 ,380

B07 ,180

855 .380
817 ,400

813 ,150
778 ,210
684 ,210

808 ,340
890 .760

1.650

29,145 54,120
940 1.804

57,810 107,300
1,074 2,360

2,780
2,660

2,550

1,920

3,480
4,080

3,600
2,750
2.610

3.330
4,230

3,700

98,740
3,185

195,900
4,025

2,330
1,880
1,800
1,750

1,570

2,010

2,150
2.140

1,960
1,710
1,850

1,780
1,810

1,030

65,500
2,183
4,060
1,030
129,900
2,232

1,030

833
744
860
1,430

1,270

674

868
821
539

714
7*2
611
727

695
522

951
1,020
1,300

28,319
914
1,680
470
56,170
644

330

320

270
240
300
240
894

523
714

801

583
655
816

650
932
803
618

839
847

827
835
172

28,021
904
1,370
172
55,580
302

150
152
689
708
875

735
304
299
669
502

823
739

132

892
743
681

137
124
675
702
616

710
859
116
114
725

16,156
539
892
114
32,050
108

ADJUSTED t

CAL YR 1967 MEAN 3,974 AC-FT 2,877,000
WTR YR 1968 MEAN 1,122 AC-FT 814,300

t ADJUSTED FOR CHANGE IN CONTENTS IN WISHON AND COURTRIGHT RESERVOIRS.

TULARE LAKE BASIN

11218500 KINGS RIVER BELOW NORTH FORK, NEAR TRIMMER, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

NOV DEC JAN FEB MAR APR MAY JIM JUL

1
2
3
4

6
7

9
10

11
12
3
4
5

6
7
8
9
20

21
22
23
24
25

26
27
28

3C

TOTAL

MAX
M1N
AC-FT

AC-FTt

824
777
659

108

750
603

829
108
118
1,030
1,120

916
799
732
363
258

685
626
432

219
216
578

678

18,387

1,120
108
36,470

12,250

343
650
725

729

335
334

685
763
920
764
908

562
500
755
918
831

448
425
727

665
80S
359

428

19,640

920
334
38,960

28,200

504
669
529

747

523
585

839
771
728
687
902

1,360
871
947
698
995

758
907
1,250

1,180
1,150
882

1,020

24,388

1,360
254
48,370

32,300

887
982
630

963

1,070
964

744
511

1,200
2,120
1,460

1.320
1,180
1,480
15,400
6,680

3,710
4,310
26.600

19,400
8,780
5,930

3,920

142,823

26,600
511
283,300

280,800

2,520
2.27C
1,930

2.950

2.080

2.080
2.09C
1.99C
1,930
2.900

2.680
2,240
2.13C
1,910
1,590

1,250
5,420
4.980

3,560
2,940
2,900

69,520

5,420
1.250
137,900

115,500

2.460
2,720
2,140

2,020

1.530

1,470
1,570
1,440
1,400
1,340

1.300
1,710
1,860
1,870
1.870

1,800
2,290
2,800

3,050
3,420
3,950

4,800

72,090

5.320
1.300
143,000

143,900

5,540
5,450
4,880

5,050

3,780

4,040
4,750
5,290
5,160
4,820

4,630
4,950
5,440
5,570
6,350

8,510
7,410
6,540

6,220
6,600
7,310

8.960

174.610

8,960
3,780
346,300

357,500

9,760
10,000
9,580
8.860

9,520
10,700

15,200

15,700
15,500
15,900
15,900
15,300

15,600
16,400
17,000
16,600
16,200

17,900
19,000
19,600

20,200
20,000
19,400

20,700

480,940

20,900
8,520
953,900

1,068,000

OBSERVED

WTR YR 1969 TOTAL 1,902

ADJUSTED

,978

t

MEAN 5,214 MAX 26,600 MIN 108 AC-FT 3,775

22,100
21,800
21,500
20.300

19,000
19,100

17,300
12.400

11.100
10.800
11,500
13,800
15,000

15,100
13,200
11,700
12,800
13,800

14,900
15,200
14,700
14.100

12,400
11,500
11,000

11,500

451,900

22,100
10,800
896,300

986,700

,000

12,600
12,700
12,100
11,400

11.300
10.800

10. 500
10,700

10.700
10.700
12,300
12.000
10.200

9,820
9,370
8,880
9,540
9,700

9,330
8,430
,000
,220

,760
. 660
,130

,230

29 ,640

1 ,700
,130
592,400

592,900

6,120
5,710
5,250
5,280

4,180
3,600

3,490
3,850

4,690
4,140
3,670
3,510
3,360

3.310
3,250
3. 14O
2,900
2,710

2.480
2.410
2,410
2,410

2,330
2.210
2,110

1,950

105,650

6,120
1,910
209,600

166,600

1,890
1,850
1,860
1,740

1.130
1,150

1.790
1.440

1.780
1,600
1,710
1,620
1,600

1.550
1.480
1.410
1,370
1.340

1.350
1,330
1.320
1,290
1.280

1.250
1.260
1,270

1,270

44,390

1,890
1,050
88,050

47,430

t ADJUSTED FOR CHANGE IN CONTENTS IN WISHON AND COURTRIGHT RESERVOIRS.

TULARE LAKE BASIN

11218500 KINGS RIVER BELOW NORTH FORK, NEAR TRIMMER, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

17
18

20

21

24
25

27
28
29
30
31

MAX
KIN

MEANt
AC-FTt

WTR YR

CAL YR
WTR YR

1
1
1
1

1
1
1

1

1
1

1
1

1

1

1
1

1
1
1
1
1

1

33

OCT

270
150

020
120

080
862
020
010
878

680
190

100

080

410
330

280
250
270
220
080

862

549
770

NDV

5B2
890

1.110
1,050

1,200
1,150
1,1*0
1,060

1,060
836

1,030

934

907

783

582

477

28,410

1970 TOTAL 673

ADJUSTED

1969 MEAN 5,322
1970 MEAN 1,718

DEC

1,080
1,060

1,010
1,050

884
616
994

982
1.000

,910

,060

,200

616

31,910

1
1

1

1
1
1

4
2

1

1

1

95

,100 1,000 1,580 1,820 1,910 7,060

665 1,080
,790 1,080

,000 1,240
,500 1,010
,470 885

,640 1,600
,430 1,400

,600 800

,420 800

,320

. 230 2,810 3,060 5,460
,380 3.190 3,710 4,520

,400 2,840 3,020 3.250
,460 2,460 4,070 3.100

,720 ,680 7,080 3,170

,460 ,720 5,920 3,600

,480 ,780 6,620 3,550

,100 1,890 6,920 2,260

,900 56,420 8

OBSERVED

,247 MEAN 1,845 MAX 8,660

AC-FT 3,853,000
AC-FT 1,244,000

5,960 127,700 389,300 253,800

WIN 511 AC-FT 3,851,000
WIN 275 AC-FT 1,335,000

1,860
1,810

2,310
2.780

1,890
1,800

1,780

1.780

1,470

1,620
1,550

1,100

93,700

1,060
1,160
1,220

886
1,110

1, 180

1,180
1,190

869

1,060

1,130

1,280
669

1.200

421
550

421

527
32,380

888
812
968
927

414

796
744

725

275
687

610

668
320
275

728
650
682
619
805

284

549
502

968
275

227
13,510

t ADJUSTED FOR CHANGE IN CONTENTS IN WISHON AND CDURTRIGHT RESERVOIRS.

TULARE LAKE BASIN 201

11220000 BIG CREEK ABOVE PINE FLAT RESERVOIR, NEAR TRIMMER, CALIF.

LOCATION.--Lat 36°54'S9", long 119°14'37", in NEV sec.4, T.12 S., R.25 E., Fresno County, on right bank 2.4 miles upstream from mouth and 2.7 miles northeast of Trimmer.

DRAINAGE AREA.--70.0 sq mi (revised).

PERIOD OF RECORD.--October 1953 to September 1970. Prior to October 1960, published as "above Pine Flat Reser-

AVERAGE DISCHARGE. --17 y
(23,200 acre-ft per y

EXTREMES. --Maximums and

Annual maximu

Date Time Di
Nov. 24, 1965 0200 *1
Dec. 29, 1965 0900

Dec. 3, 1966 0200 1
Dec. 6, 1966 0800 *7
Jan. 24, 1967 1330
Jan. 30, 1967 2200 1
Mar. 13, 1967 0300
Mar. 16, 1967 1400 2
Apr. 4, 1967 1900
Apr. 7, 1967 0900
Apr. 18, 1967 1100

Wtr yr Date
1966 Many days
1967 Oct. 1, 2, 1966
1968 Many days

Period of record:
extended above 4,400
years.

REMARKS. --Records excell

COOPERATION. --Twelve dis

OISCH«

1 2.7 2.7
2 2.4 2.7
3 2.0 2.7
4 2.0 2.9
5 2.2 3.1

6 2.4 3.3
7 2.4 3.3
8 2.0 3.3
9 1.9 3.5
10 2.0 3.8

11 2.2 4.0
12 ?.4 4.2
13 2.4 4.6
14 2.5 34
15 3.1 67

16 5.4 69
17 5.2 133
18 4.4 75
19 4.0 74
20 3.8 32

21 3.5 22
22 3.3 18
23 2.9 134
24 2.9 482
25 2.7 154

26 2.7 81
27 2.7 53
28 2.7 43
29 2.9 37
30 2.9 33
31 2.7

TOTAL 89.3 1,585.1

MAX 5.4 482
MIN 1.9 2.7

ears

ear)

mini

m di

sch.
,2bO
605

,190
,590
640
,890
962
,000
660
878
630

, 52.8

mums (d

scharge

G.H.
5.15
4.17

5.06
8.43
4.17
5.69
4. 76
5.85
4.28
4.64
4.22

Annu

cfs (38,

ischarge

(*) and

Date
May

Dec.

Dec.
Dec.
Jan.
Jan.
Jan.
Jan.
Feb.
Feb.

al minim

250

in

pe

10

S

16
25
13
19
21
25
6
15

urn

acre-ft per year;

cubic feet per se

ak discharges abov

, 1967

, 1967

, 1968
, 1968
, 1969
, 1969
, 1969
, 1969
, 1969
, 1969

daily d

Discharge

Max
cfs

ent.
ic d

char

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on basi

This
iagram

ge meas

29
28
27

24

21
20
19
18
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; median of yearly mean discharges

cond, gage height in feet).

e base (500 cfs) , water years 1966

ch. G.H. Date Time
555 4.07 Feb. 24, 1969 1800
Feb. 28, 1969 1700
167 2.85 Apr. 3, 1969 0100
Apr. 5, 1969 1900
625 4.21
595 4.15 Jan. 10, 1970 0600
742 4.42 Jan. 14, 1970 1900
630 8.11 Jan. 16, 1970 1100
570 8.09 Jan. 24, 1970 0900
400 10.43 Mar. 1, 1970 2400
b82 4.32
796 4.51

ater years 1966-70

yr Date
Oct. 1-4, 1968
Sept. 14, 15, 1970

1969 (gage height, 10.43 ft), from t gage height 9.21 ft; no flow at

ne Flat Lake. No regulation or di

iver Water Association.

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35 18 9.8
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56 28 12

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35 14 4.9

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TULARE LAKE BASIN

11220000 BIG CREEK ABOVE PINE FLAT RESERVOIR, NEAR TRIMMER, CALIF.--CONTINUED

DISCHARGEt IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

2

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MEAN
MAX
HIN

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MEAN

MIN

. 40 1.7

. 80 1.7
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. 0 6.2
. 0 4.4
. 0 3.3

. 80 3.1

. 60 2.9
. 0 2.7
. 1 2.7

. 3 3.3

. 5 5.2
. 5 4.0

. 3 16
. 5 14
. 7 15
. 7 9.1
. 7 7.1

. 3 6.4

. 5 6.7
. 3 33

1.17 6.79
1.7 33 4
. 40 1.7

DISCH4RGE,

6.8 5.3
7.1 5.3
7.1 5.3
7.1 5.0
7.4 5.3

7.4 5.6
7.4 5.6
6.8 5.6
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6.2 5.9

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5.9 6.5

5.3 6.8
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5.0 40

5.3 15
5.6 12
5.9 11
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70

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178
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78

64

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IN CUBIC

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187
77
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225

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237

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FEET

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299

PER SECOND,

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39.8

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127

580
376
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986

381
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226
223
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986

WATER

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YEAR OCTOBER

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1967 TO

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JUN

172

164
186

166

152
144
138

136

129
122
117

112

103
98

91
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66

118
186
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SEPTEMBER

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14
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TULARE LAKE BASIN

11220000 BIG CREEK ABOVE PINE FLAT RESERVOIR, NEAR TRIMMER, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND,

NOV DEC JAN FEB

WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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MAX
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DAY

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0 20 5.0
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. 60 6.2 5.0
. 91 4.9 4.9
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1.0 4.0 4.7
1.0 3.9 4.9

. 91 3.7 38
. 91 6.5 19
1.5 12 19
8.8 8.0 29
7.4 18 172

3.6 19 285
2.7 11 52
2.2 9.8 30

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DISCHARGE, IN CUBIC

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4.6 8. 1

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4.6 24 2
4.6 18 2
4.7 15 2

5.0 15 2
4.9 14 2
4.9 13 2
4.7 12 1
5.0 12 1

39 16 11 1,
48 14 11
18 13 11
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388
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FEET

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53
237
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710
459
208
125

88
83
70
246
117

87
95
86
71
64

155
710
16

310
289
271

302

575

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279

274
307
281
250
518

398
305
328
340
307

337
367

656

553

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250

M»X 5,300

PER SECOND,

FEB

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MIN 0

MATER

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YEAR OCTOBER

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1969 TO

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TULARE LAKE BASIN

11220500 SYCAMORE CREEK ABOVE PINE FLAT RESERVOIR, NEAR TRIMMER, CALIF.

LOCATION. --Lat 36°SS'13", long 119°18'32" downstream from Little Dry Creek, 1.7

DRAINAGE AREA.- -56.1 sq mi.

PERIOD OF RECORD. --April 1953

lies northwest of Trimmer, and 4.8 miles upstream from mouth.

Flat Reser-

Df gage is 1,141.96 ft above mean sea level (levels by Corps of Engi

23.0 cfs (16,660 acre-ft pe edian of yearly mean discharges, 10 cfs

GAGE.--Water-stage reco:

AVERAGE DISCHARGE.--17 ;
(7,200 acre-ft per yi

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (300 cfs), water year

Date
Dec.

Apr.
Apr.
Apr.
Apr.

1966
1967
1967
1967
1967
1967
1967
1967
1967
1967
1967

0900
1200
1500
2100
0500
1300
1500
2000
0800
0330
1700

*463

4,140
1,130
405
1,820
650
1,160
307
882
1,050
520
376

8.26
4.91
3.42
5.90
4.09
4.98
2.97
4.52
4.80
3.80
3.30

Date
Apr.
Apr.
Apr.

Dec.

Jan.
Jan.

Time
19, 1967 0300
21, 1967 2330
24, 1967 0200

5, 1967 1230

772
720
437

122

G.H.
4.33
4.23
3.54

1.93

1968
1968
1969
1969
1969
1969
1969

0100
1730
2200
1900
0500
0700
2400

3.86
3.14
4.56
8.61
7.16

*16,800 a!3.83
1,590 5.15

544
341
906
4,620
2,910

Date
Feb.
Feb.
Feb.
Mar.
Mar.

Apr.
Apr.

Jan.
Jan.
Mar.
Mar.

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1969
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1969

1970
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1970
1970

Time
1700
1500
1600
0100
0500
2100
1930

1600
1030
2200
2130

Disch.
430
5,720
795
385
367
391
894

645
*2,960
768
570

2.92
4.08

a In gage well; 15.32 ft, from flo

No flow for long periods in each
Period of record: Maximum dis
15.32 ft, from floodmarks), from
gage heights 9.78 and 13.83 ft; n

rge, 16,800 cfs Jan. 25, 1969 (gage height, 13.83 ft in gage well, ing curve extended above 5,200 cfs on basis of slope-area measurements low for several months in each year.

thi rt.

COOPERATION.--Nine discharge measurements furnished by Kings River Water Association. REVISIONS.--WSP 1930: Drainage area.

DISCHARGE. IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

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1.3
29
8.6
10
1.2

. 60
. 50
23
98
43

26
9.5
5.6
4.0
3.2

9. CO
98
. 30
536

3.0
2.6
2.4
2.1
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2.1
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11
6.1
4.3
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3.6

6.7
4.0
4.0
201
1T6
267

23.8
267
2.1
1.460

75
37
25
20
17

16
15
14
13
11

11
9.5
8.7
8.0
8.0

7.3
6.7

6.7
6.7

6.1
6. 1
6.1
6.1
5.6

5.1
5.1
5.1
5.1
24
26

13.6
75
5.1
838

24
21
15
14
16

112
43
27
19
18

15
14
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12
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11
10

B.7
8.0

7.3
7.3
7.3
13
18

12
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9.5

IK. I
112
7.3
I. 010

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4.

6.8
1
4.
41

4.0
4.0
4.0
4.0
4.0

4.0
4.0
4.0
4.0
16

10
8.0
7.3
5.6
5.1

4.7
4.7

8.7
7.3

5.1
4.7
4.3
3.6
3.2

3.2
3.0
2.6
2.4
2.1

5.08
Z 16

r 2.1
3 302

1.9
1.9
1.7
1.5
1.3

1.3
1.3
1.3
1.3
3.2

4.7
3.2
2.1
1.7
1.3

1.2
1.2

. 90
. 70

. 50
. 50
. 50
. 50
. 50

. 40
. 20
. 20
. 20
. 20
. 20

1.25
4.7
. 20
77

JUN

. 10
. 10
. 10
. 10
. 10

. 10
. 10
. 20
. 20
. 10

. 10
. 10
. 10
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

. 050
. 20
0
3.0

31

TOTAL
MEAN
MAX
HIN
AC-FT

TULARE LAKE BASIN

11220500 SYCAMORE CREEK ABOVE PINE FLAT RESERVOIR, NEAR TRIMMER, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR MAY JUN JUL

0 .40 3.6 92 12 119 100 34
C 15 3.6 59 11 150 95 29
0 66 3.3 47 II 97 89 27
0 5.2 3.0 43 17 313 89 26

Q 742 3.0 36 16 303 81 27

r 300
179

3.3
3.3
3.0
3.0
3.0

3.0
3.0
3.0

10
9.9

161
529
232
146
119

294
151
117
0 7.
0 6.

C b.
0 5.
0 5.
0 4.
0 4.

0 4.
r 4.
0 4.
J 4.
0 3.

C 4.
. 10 4.
. 50 3.
. 60 3.
. 50 3.
3.

. 057 1

0 .<

3.0
3.0

3.0
3.0
3.0
3.0
3.0

10
80
24
415
218

2
3
2
1 2
4 5
3 2

3 60.5

0 3.0

15
14

14
14
12
12
12

11
11
11
10
26

18
12
10

23.7

10

346
130

561
198
103
72
62

55
51
47
46
42

41
38
38
58
45
166

89.2

9.9

103
169

132
103
364
463
347

350
448
286
368
249

202
175
16B
127
108

230

97

55 20
52 18

51 18
48 16
47 14
45 14
43 14

43 13
41 12
38 12
37 11
36 10

35 9.9
34 9.4
34 8.8

34 6^7

35 ______

57.4 18.2 2

34 6.7

. 2 .10
. 5 .10

. 8 .10
. 0 .10
. 0 .10
. 0 .10
. 8 .10

. 8 0
. 6 0
. 5 .10
. 5 .10
. 4 .10

. 4 .10
. 4 .10
. 2 0
. 2 0
. 4 0
. 2 0

80 .16

. 2 0
72 9.7

. 10
0

. 10
. 10
. 40
. 50
. 30

. 20
. 30
. 50
. 50
. 40

. 40
. 40
. 40
. 40
. 40

. 22

0
13

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 196B

NOV DEC JAN FEB MAR APR MAY JUN JUL

. 40
. 40
. 30

. 10
. 10
. 10

. 24
. 24
. 24
. 32
. 42

. 42
. 50
. 36
. 28
. 28

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. 36
. 36
. 42
. 42

. 42
. 50
. 50
. 66
. 66

. 66
. 58
. 42
. 42
. 50

. 50
. 50
. 66
. 66
. 66 1
. 66

. 66 13
. 66 6.2
. 66 4.3
. 66 3.6
. 66 39

. 66 12
. 66 6.2
. 58 5.2
. 66 4.6
. 66 4.0 1

. 74 4.0 2
. 74 4.0
. 74 4.3
. 74 3.3
. 74 3.0 1

. 74 3.0
. 84 3.0
. 84 5.6
. 8 8.3
. 2 7.3

. 6 5.6
. 4 5.6
. 2 7.3
. 2 8.8
. 2 8.3

. 2 7.8
. 2 6.7

. 3 18 5. 9.5
. 0 14 5. 18
. 0 14 5. 11
. 6 12 5. 8.3
. 6 9.9 5. 7.8

. 6 8.8 5. 8
. 6 7.8 5.
. 6 7.3 18
. 6 7.3 18
7.8 15

6.7 9.9
. 9 6.2 8.8
. 3 6.7 11
. 9 10 12
7.3 8.8

. 4 6.7 16
. 7 40 32
. 9 26 18
. 6 14 13
. 6 14 12

. 2 15 10
. 9 12 9.4
. 9 9.9 B.8
. 6 9.4 B.3
. 6 B.3 8.3

. 9 7.3 7.8
. 3 6.7 7.3
. 4 5.6 12 6.2 6.7
. 4 5.2 9.9 5.6 6.2
4.9 8.3 6.2

. 46 1.35 6.91 7.77 11.2 10.2 5.23
. 66
. 24
28

. 0
. B
. B
. 6
. 6

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. 5
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. 5
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. 5
. 8
f 5
7
. 9

. 6
. 0
. 5
, 2
. 8

. B
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. 8
. 6
. 5

. 5
. 4
. 1
. 94
. 74
. 66

. 99
12 39 38 40 32 18 6.7
. 58 3.0 3.6 5.6 5.2 2.0 .66

. 58
. 42
. 32
. 28
. 28

. 32
. 36
. 36
. 36
. 24

. 20
. 11
. 07
. C7
. 07

. 07
. 04
. 02
. 02
. 02

. 02
. 02
. 01
. 01
. 01

0
0
0
0
0

. 14
. 58
0
8.5

AC-FT 2,720

TULARE LAKE BASIN

11220500 SYCAMORE CREEK ABOVE PINE FLAT RESERVOIR, NEAR TRIMMER, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
IB
19
20

21
2
2
2
2

2
2
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC -FT

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN
MAX
MIN
AC-FT

CAL YR 196
WTR YR 197

OCT NOV

0
0
. 25
. 36
. 26

. 32
. 36
. 36
. 42
. 42

. 66
. 50
. 50
3.6

1.6
. 58
. 42
. 36
. 36

. 36
. 36
. 42
. 42
. 42

. 36
. 36
. 36
. 36
. 42

0 15.61
0 .52
0 3.6
0 0
0 31

. 50
. 42
. 36
. 36

. 36
. 36
. 36
. 36
. 50

3.3
1.6
31
112

165
18
8.3
6.7 2,
6.2

4.3 1,
3.6
3.3
9.9
122 3,

132 I,
36
24
36
17

762.04 13,
24.6

9.9
7.8
6.7
5.6

4.9
4.6
4.3
4.0
4.0

3.6
133
208
38

22
16
474
800
597

950
671
225
330
330

200
376
274
218
184

260.2
428

. 36 3.6
1.510 26,300

DISCHARGE, IN CUBIC FEET

OCT NOV DEC JAN

. 45 2.0 3.2 6.1
. 53 2.0 3.2 5.6
. 62 2.0 3.6 5.0
. 72 2.0 3.2 5.0
. 53 2.0 3.2 5.0

. 53 12 3.2 5.0
. 62 20 3.6 5.0
. 62 6.6 3.6 5.0

. 72 4.1

. 72 3.6
. 72 3.2

. 72 3.2
. 3 3.2

. 5 3.6
. 6 3.2
. 5 3.2
. 0 3.6

. 7 3.6
. 7 3.6
. 7 3.6

. 7 3.6

. 0 3.6
. 0 3.6
. 0 3.2
. 0 3.2
. 0 3.2

1.42 4.19
4.6 20
. 45 2.0

9 TOTAL 32r812
D TOTAL 5,029

4.1

4.1
4.1

4.1
3.6

3.6 1
3.6
3.6
4.6

11
22
8.4

74

25
11
8.4
7.2
6.6

8.55
74
3.2

. 27 MEAN
. 95 MEAN

79

26
19

161
71

360
192
68
39

25
21
19

24

18
27
24
18
16

75.7
1,360
5.0

89.9
13.8

12B
112
9B
B2

674
262
190
155
132

142
108
92
272

201

223
281
204

197
212
360
2,640
1,220

311
402

9,749
348

82
19,340

PER SECOND

FEB

14
14
14
13
12

11
11
10

10
9.6

32
18

14
50
23
18
17

14
14
14
12
11

11
11
64

17.1
64
9.6

MAX 3,330
MAX 1,360

446
278
285
228

196
184
166
159
202

159
162
157
135
130

128

130
118
112

205
128
115
108
100

92
90
88
85
82

4,899
158

82
9,720

, WATER

214

57
128
147

66
50
39

29
27
25
23
22

21
20
19
18
17

16
15
15
14
14

14
12
12
12
12

42.2
214
10
2,590

MIN
MIN 0

78
141
168
95

254
168
138
118
108

102
98
92
88
85

75

68
66
63

61
60
66
65
58

53
48
47
45

2,880
96.0

45
5,710

50
47
45
45

44
41
41
39
39

37
34
33
33
32

30

28
27
27

26
25
22
21
20

20
20
19
18
16

973
31.4

1,930

YEAR OCTOBER 1969

9.6

9.6
9.0
9.0

9.0
8.4
8.4

8.4
8.4
9.6
12
10

9.6
9.0
9.0
8.4
8.4

9.0
9.0
9.0
8.4
7.8

7.8
10
9.1
9.3
8.7

9.01
12
7.B
536

16 AC-FT
AC-FT

8.2

7.2
7.0
6.5

6.4
6.7
6.6

5.7
6.0
6.0
5.9
5.5

5.2
4.6
4.4
4.3
4.3

4.5
4.3
. 0
. 5
. 1

. 8
. 7
2.5
2.4
2.6

5.02
8.2
2.4
308

65,080
9,980

JUN

16
16
16
15

16
16
16
33
42

2D
16
16
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15
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13
13
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10

9.0
9.0
9.0
8.4

471.0
15.7

JUL

7.8
7.2
6.6
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5.0
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4.6

4.6
4.1
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3.2
3.2

3.2
2.8
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2.2
2.0
2.0
1.7
2.0

2.2
3.2
2.2
1.7

113.1
3. 65

934 224

TO SEPTEMBER 1970

2.0

1.3
1.1
1.0

. 89
. 76
. 73

3.4
2.8
2.3
1.9
1.5

1.3
1.1
. 91
. 84
. 67

. 52
. 36
. 20
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1.19
4.6
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71

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5.0

1.5
1.3
1.1
. B4
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19.15
. 62

38

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0
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SEP

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. 16

. 21
. 45
. 62
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12.98
. 43

26

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0

TULARE LAKE BASIN 207

11221000 PINE FLAT LAKE NEAR PIEDRA, CALIF.
(Formerly published as Pine Flat Reservoir near Piedra)

LOCATION.--Lat 36°49'58", long 119°19'29", in HE't sec. 2, T.13 S. , R.24 E., Fresno County, near center of Pine Flat Dam on Kings River, 1.9 miles upstream from Mill Creek, 3.5 miles northeast of Piedra, and 16 miles

DRAINAGE AREA.--1,545 sq mi.

PERIOD OF RECORD.--October 1951 to September 1970. Prior to October 1965, published as Pine Flat Reservoir near Piedra.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Corps of Engineers). Prior to
Apr. 8, 1952, nonrecording mercury gage on dam at same datum.

EXTREMES.--Maximums and minimums (contents in acre-feet, elevation in feet) for the water years 1966-70 are con-tained in the following table:

Maximum Minimum
Wtr yr Date Contents Elevation Date Contents Elevation
1966 May 26, 1966 697,000 894.92 Sept.30, 1966 211,200 763.82
1967 July IS, 1967 1,009,000 952.76 Oct. 6, 7, 9, 1966 208,300 762.67
1968 May 31, 1968 739,100 903.51 Sept.29, 1968 305,900 796.77
1969 June 9, 1969 999,500 951.17 Oct. 1, 1968 308,000 797.44
1970 June 4, 1970 933,316 939.81 Sept.30, 1970 498,940 850.38

Period of record: Maximum contents, 1,009,000 acre-ft July 15, 1967 (elevation, 952.76 ft); minimum since
gross pool elevation first obtained, 305,900 acre-ft Sept. 29, 1968 (elevation, 796.77 ft).

REMARKS.--Lake is formed by a gravity-type concrete dam; regulation of discharge from lake began Dec. 4, 1951.

REVISIONS.--WSP 1930: Drainage area.

Capacity table, water years 1966-70 (elevation, in feet, and contents, in acre-feet)

760 201,424 820 383,550 890 673,401
780 255,450 840 457,750 920 824,151
800 316,150 860 538,750 950 992,551
960 1,053,000

CONTENTS. IN ACRE-FEET, AT 2400. WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL

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2
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14
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16
17
IB
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20

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22
23
24
25

26
27
28
29
30
31

MAX
MIN

(t)

w (tt)
WTR YR

421.300
423.300
425,300
427,400
429,500

431,600
433,600
435.600
437,600
439,600

441,200
448,400
443,700
444,600
446,100

446,400
446,900
448,100
449,300
450,500

451,700
452,600
452,800
452,700
453,600

454,600
455,600
456.500
457,300
457,800
457,700

457.800
421.300

+38,400
1,563

458.400
459,300
459,900
460,600
461.400

461.200
460.900
461.600
462,400
463,400

463,600
464,500
465,000
467,000
470,800

474,300
478,800
482,700
485,700
487,200

488,500
490,500
496,900
505,400
509, 60U

513,300
516,000
518,200
520,900
523,500

523,500
458,400

+65,800

1966 MAX 697,000

525,800
528,100
530,500
532,300
533,800

536,000
538,100
540,000
542,100
544,300

545,700
546,900
548,500
550,200
551,800

553,300
554,500
555,000
555,700
556,900

558,100
559,300
560,600
561,300
561.700

561,900
562,600
563,700
568,600
573,700
577,500

577,500
525,800

+54,000

579,700
581,300
583,600
585.400
587,100

588,800
590,600
591,700
592,700
594.500

595,900
597,300
598,700
600,000
600,800

601,600
602,400
603,200
603,800
604,400

604,900
605,400
605,700
606,200
606,600

607,000
607,400
607.500
607,700
608,700
609,300

609,300
579,700

+31,800

MIN 392,000 t
MIN 211,200 t

609,900
610,600
611,100
611.600
612,100

614.200
615.800
617.100
618,300
619,800

620,800
621,700
622,500
623,500
624.500

625.300
626.000
626,800
627,100
627,000

627,300
627,100
627,000
627,200
627,000

625,500
623,300
620,900

627,300
609,900

+11,600

+189,000
- 208,100

618,000
614,800
611,400
607,900
604,300

600,500
597,300
594,000
590,800
587,900

585,900
583,700
582,300
580.000
576.600

573,300
569,500
565,600
561,800
557,800

554,300
550,700
547,700
544.800
541.600

538.000
535,100
532,600
530,800
529,300
528,500

618.000
528,500

- 92,400

527,900
527,900
528,000
528,500
530,400

533,800
537,500
541,100
544,500
548,300

551,000
552,900
555,000
556,800
559,000

561,900
565,600
569,100
571.700
573,300

575,000
576,400
577,900
579,500
583,100

592,900
598,100
603,100
608,300

608,300
527.900

+79,800

614.200
621,200
627,900
634,500
641,400

648,600
656,000
662,000
666,300
670.300

672.600
674.500
676.100
677,800
679,400

682,100
685,200
688,500
691,300
693,500

694,200
694,900
695,800
696,600
696, POO

696.400
695,200
693.500
690.500
686.200

697.000
614.700

+77,900

681,000
675,400
669,200
662,500
656.000

650.000
645.300
641.600
637.200
632.900

628.700
624,600
620,900
616,900
611,200

603,900
596,700
589,800
582,700
575,800

568,700
561,400
553,800
546,400
538,800

524,600
517.900
511.100
504.400

681,000
504,400

- 181,800

497,500
489,900
481,900
474,100
467,100

461,600
457,600
453,300
448.500
443.700

428,600
432,800
426,400
419.900
413.800

407,500
401,300
394,900
388,300
381.800

374.900
367.900
361.100
354,000
347,200

335,300
330.600
326.200
322.600
321.600

497,500
321.600

- 182,800

320,300
318,700
317,700
316,900
316,000

315,000
313,800
312,500
311,100
309,300

307,200
305,100
303,100
301,000
299,200

297,600
295,900
294,400
292,600
290,600

288.800
2*6.900
284,800
283,000
281,200

277.600
275,700
273,900
272,000
270,200

320,300
270,200

- 51,400

268,400
266,300
264,100
261,700
259,400

257,100
254,500
252,100
249,700
247,500

244,900
242.700
240,300
238,000
235,600

233,200
231,000
228,700
226,800
225,000

223,400
221,800
220,100
218,300
216,900

214,400
213,300
212,100
211,200

268,400
211,200

- 59,000

t ELEVATION, IN FEET, AT END OF MONTH. 1 CHANGE IN CONTENTS, IN ACRE-FEET.
tt EVAPORATION, IN ACRE-FEET.

TULARE LAKE BASIN

11221000 PINE FLAT LAKE NEAR PIEDRA, CALIF.--CONTINUED

CONTENTS. IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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MAX
MIN

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CAL
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210,500
209,900
209,400
209,700
208,500

208,300
208,300
208,500
208,300
208,700

210,200
210,900
211,700
212,600

213,400
214,500
215,500
216,600
217,600

218,700
219,700
220,800
221,900
223,100

225,500

227,800
228,800
230,000

230,000
208,300

231,200 275,100
232,300 277,400
233,400 284,500
234,500 287,400
235,600 318,500

236,900 438,400
238,200 463,100
239,700 474,500
241,200 482,400

245,100 498,100
246,200 502,600
247,500 507,000
248,800 511,100

250,300 514,900
251,900 518,400
253,200 522,100
253,500 525,400
254,800 528,500

256,400 531,500
257,700 534,600
259,000 537,900
259,500 540,900
260,600 543,600

261,700 548,800

270,200 554,200
273,200 556,800
559,400

273,200 559,400
231,200 275,100

YR 1966 MAX 697,000 MIN
YR 1967 MAX 1,009,000 MIN

ELEVATION, IN FEET, AT END OF

561,800
564,300
566,900
569,300
572,000

574,600
577,200
579,300
580,600

583,100
584,000
585,200
586,500

587,700
588,400
589,400
590,600
592,000

595,300
598,400
601,100
607,000
611,700

618,700

627,300
636,600
646,800

646,800
561,800

208,300
208,300

MONTH.

652,700
656,900
660,400
663,700
666,900

670,000
672,600
675,700
678,600

687,300
690,400
693,700
696,600

699,300
701,900
704,200
706,000
707,500

708,800
709,900
710.600
711,100
712,000

708,100

712,000
652,700

t -18,
t +454,

702,500
699,100
695,900
692,500
689,000

685,700
682,300
678,900
675,700

673,000
677,900
680,400
682,300

698,300
713,000
724,500
733,000
740,000

746,200
752,700
757,900
762,500
766,700

772,900

777,200
778,200
780,400

780,400
670,900

100
800

781,800
783,200
783,800
786,900
791,800

795,800
803,900
810,400
816,100

836,100
841,300
844,600
847,600

849,300
850,200
852,100
854,900
856,600

858,600
860,700
860,900
861,900
861,400

858,300

851,500

861,900
781,800

840,800
836,300
831,900
827,200
821,900

815,900
810,800
806,400
802,700
799,200

784,200
775,200
776,800
759,900

755,500
753,400
754,200
757,800
763,200

771,000
780,900
792,000
802,400
813,300

830,300

840,800

844,900

844,900
753,400

842,700
838,000
833,300
829,700
827,200

823,500
822,100
822,600
824,700
828,100

831,900
836,100
839,100
840,000
841,500

844,300
846,700
851,800
857,400
860,400

867,400
876,200
884,200
892,700
902,200

921,900

944,700

957,600
822,100

969,900
979,100
986,100
990,500
993,900

994,300
995,300
999,100
l.OOOM
1.001M

,002M
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999,900
996,500
992,700

988,700
987,100
985,500
984,300
982,000

976,900

970,400

963,100

1.009M
936,100

958,300
952,600
946,600
940,400
934,400

928,100
921,000
913,700
906,300
899,100

891,900
885,000
878,200
871,300
863,800

856,300
848,600
840,700
832,600
824,000

815,200
806,900
798,500
790,700
783,600

770,600

756,600

742,800

958,300
742,800

736,800
731,900
727,400
723,500
720,000

715,900
711,600
706,900
702,800
698,900

695,600
692,500
689,700
686,900
684,400

681,600
678,800
676,300
674,500
672,600

670,100
668,800
667,800
667,400
667,100

666,800

666,100

736,800
666,000

2,578

tt EVAPORATION, IN ACRE-FEET.
M EXPRESSED IN THOUSANDS.

CONTENTS, IN ACRE-FEET, AT 2400. WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

NOV DEC JAN FEB MAR APR MAY JUN JUL

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MIN

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(tt)
CAL YR
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666,200
666,200
666,400
666,900
667,300

668.000
668.000
667,000
665,800
664,600

663,400
662,300
661,300
660,500
659,800

660.000
660,800
661,500
662,200
662,200

661,300
660,400
659,400
658,200
657,000

655,800
654,700
653,500
652,400
651,200
650,000

668,000
650,000
894,050
- 16,000
1,832

1967 MAX
1968 MAX

651,400
653,000
654,700
656,500
658,200

660,100
662,200
664,400
666,400
668,500

670,500
672,400
674,400
675,400
676,600

677,600
678,400
678,300
679,700
681,300

682,600
684,100
684,600
686,000
686,300

686.500
687,700
689,000
690,500
692.800

692.800
651.400
885,030
+42,800
78

009,000
739,100

694.600
695,700
696,800
698,100
700,400

702,300
702,800
702,500
7U1.500
700,400

700,000
699.700
699,700
699,300
699,000

698,900
698,600
699,400
700.000
700,200

699,700
699,500
699,400
699,000
698,500

698,500
698,900
699,200
699.300
699.700

702,800
694,600
895,460
+6,800
331

MIN 561
MIN 305

699(500
699,400
699,100
698,600
698,100

697,300
696,000
694,800
693,500
692,700

692,400
691,500
690,300
689.200
688,800

688,500
687,900
687,000
686,900
686,200

685,200
684,100
683,100
682,100
681,500

680,900
681,100
680,700
680,500
680,300
680,400

699,500
680,300
891,480
- 19,200
336

,800 t
,900 t

681.000
681,100
681,100
681,200
681,500

81,400
81,300
80,800
80,800
81,000

81,200
81,900
82,700
83,400
684,300

685,100
686,500
687,700
688,900
691,000

693.500
695.800
698,300
700,400
702,000

703,900
705,700
706,900
707,000

707,000
680,800
896,990
- 26,600
462

+140,200
- 359,400

706,100
704,500
701,800
698,900
695,900

692,500
689,500
687,200
684,900
682,800

680,600
678,300
676,200
673,900
671,800

670,300
669,000
667,900
666,300
664,500

662,700
661,600
660,600
659,600
658,800

657,900
657,200
656,700
656,400
656,000

706,100
655.700
886,250
- 51,300
904

656.200
656,400
656,300
656,700
657,300

658,200
658,400
659,100
659,600
660,400

661,600
662,700
663.600
663.900
664.500

664,700
664,400
663.700
662, SOO
662,000

660.500
659.100
657.900
656.700
656.000

657,300
659.600
662.700
666.200
670.000

670,000
656,000
889,290
+14,300
1,541

674.400
678,800
682,900
686,400
690,400

693,600
696.300
698. flOO
701.100
702.900

704.700
706.400
708,100
709,300
710.500

712.000
713,400
715,900
719,700
723,600

728,000
730,500
730,600
730,400
729,400

730,300
732.400
735,000
737,100
739,000

739,100
674,400
903,510
+69,100
2,246

738.600
738,300
738.400
737.800
736,500

733,400
729,700
725,500
720,700
715,500

710,000
704,300
698, Son
692,000
684,900

678,100
671,100
663,800
655,900
647,700

639,100
630,200
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594,000
585,100
576,800
567,900
558,100

738. 60n

558, ion
864,550
- 181,000
2,880

549,700
540,900
532,600
523,700
515,300

506,900
498,500
492,600
487,600
482,900

477,200
471,000
464,300
457,500
451,700

447,100
442,600
438,600
434,400
429,600

424,400
419,700
414,900
409.500
404,200

398,800
393,200
387,700
383,300
379.600

378.500
818,560
- 179,600
2,787

377.900
377,600
377,400
377,000
376,400

375,300
374,400
373.400
372,400
371 ,100

369,200
367,900
366.800
366.200
365.600

365.100
364,400
363,300
362.100
361,500

360,300
359,300
358.700
357.900
356,800

355.800
354,800
353.600
352.400
351.600

349,200
810,070
- 29,300
2,382

346,800
344,400
342,900
341,700
340.600

339,100
336,800
334,100
331.700
329, SOO

32S.100
326.600
325,100
323,300
320,800

319,200
317.800
316.600
315,700
314,300

312.200
310,100
308,900
308.400
308,000

307.700
307,600
306,600
305,900
306,600

305,900
796,990
- 42,600
1,959

t ELEVATION, IN FEET, AT END OF MONTH, t CHANGE IN CONTENTS,'IN ACRE-FEET, tt EVAPORATION, IN ACRE-FEET.

TULARE LAKE BASIN

11221000 PINE FLAT LAKE NEAR PIEDRA, CALIF.--CONTINUED

CONTENTSt IN ACRE-FEET. AT 2400, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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MAX
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308,000
309,500
311,000
312,300
312,900

313,000
313,900
314,800
316.200
317,400

318,800
319,200
319,600
321,500
323,700

325,600
327,300
328,700
329.400
329,900

331,000
332,400
333,800
335,000
335,800

336,300
336,700
337,600
339.200
340,600
342.100

342,100
308.000
807,940
+35,500
989

YR 1968 MAX
YR 1969 MAX

343,500
344,400
345,500
346,900
346,600

350,000
351,500
352,900
353,600
354,200

355,500
357,200
359,000
360.700
362,600

363,900
364,900
366,300
368,100
369,800

371,500
373,100
373,900
374,700
375.900

377,100
378,400
378,900
379,700
380,300

380,300
343,500
819,090
+38,200
323

739,100
999,500

CHANGE IN CONTENTS,
EVAPORATION, IN ACR

CONT

OCT NOV

710,431
708,480
706,483
704,295
702.061

699,735
697,170
694,803
692,585
690,323

688,113
685,714
683,462
681,070
678,732

676.064
677,826
676,635
675,350
673, 9T1

672,926
671,834

670,412
669,891

669,322
668,801
668,328
668,044
667,524
666,662

710,431
666,862
888,620
- 45,669
1,519

665,587
664,124
663,039
662,333
661,626

661,956
662,992
663,935
664,737
665,398

665,917
666,248
666,484
666,615
666,862

666,626
666,909
667,146
667,571
667,950

668,139
668,139

667,902
667,902

668,092
668,234
668,470
668,849
668,849

668,849
661,626
889,040
+1,987
863

380,900 421,700
381,600 423,200
382,900 424,900
383,800 425,800
384,900 426,900

385,900 428,500
386,300 430,000
386,300 431,700
386,700 433,400
387,500 435,000

388,700 436,100
389,600 436,700
390,600 439,600
392,100 445,100
394,400 448,200

398,000 450,600
399,500 453,000
400,900 458,700
401,800 512,300
402,900 531,200

403,900 575,500
404,800 595,200
405,800 605,400
406,800 617,800
409,900 696,800

413,100 745,700
415,100 765,200
416,600 775,700
417,800 780,300
419,400 782,400
420,900 763,200

420,900 783,200
380,900 421,700
830,290 912,190
+40>600 +363,300
197 139

MIN 305,900 t
MIN 308,000 t

AT END OF MONTH.
IN ACRE-FEET.
E-FEET.

DEC JAN

669,370 690,516

669,606 690,708
669,370 690,756
669,275 690,853

668,423 691,286
667,666 691.719
667,619 692,201
667.619 692.923
667,382 696,542

666,957 699,057
667,335 699,250
668,234 698,863
668,612 700,849
669,512 702,255

670,649 727,027
671.739 734,660
672,831 735,655
674,399 735,357
676,825 734,263

679,829 732,772
682,646 731,730

684,324 731,234
686,625 729,995

687,921 728,560
688.209 726,977
688.689 725,200
689,218 723,622
689,650 722,883
690,179 722,637

690,179 735,655
666,957 690,516
893,510 900,180
+21,330 +32,458
435 332

MIN 421,700 t

783,100
782,400
761,600
780,000
760,000

784,100
785,000
785,100
784,400
783,000

781,300
779,600
777,600
775,400
776,300

776,200
774,700
774,300
773,600
772,100

770,700
768,400
767,200
769,200
807,400

814,500
816,300
818,900

618,900
767,200
919,020
+35,700
231

- 278,700
+405,900

FE8

722,683

723,474
724,411
726,780

729,302
731,284
732,921
735,108
737,249

739,692
742,091
744,745
746,952
748,862

751,379
755,012
757,896
760,634
763,225

765,516
767,657
769,393
770,774
771,388

771,132
769,751
769,496

771,388
722,883
909,520
+46,859
528

+269,279

820,900
820.000
816,700
815,700
811,400

806,700
800,800
794,700
788,100
762,000

775,200
766,900
762,500
755,900
748,900

741,700
734,800
728,500
722,300
716,000

710,600
704,200
696,000
692,200
686.800

681,700
677,100
672,900
669,300
666,600
664,600

820,900
664,600
888,140
- 154,300
819

MAR

770,825

775,181
776,722
779,396

781,045
782,696
784,452
786,417
788,541

790,461
792,227
794,152
796,027
797,854

799,630
800,832
802,036
803.031
803.398

803.293
803.241
803.293
803,064
803,031

803,608
804,447
804,237
803,293
803,346
803,555

804,447
770,825
916,100
+34,059
1,088

662,700
661,000
659,500
656,200
657,100

658,900
656,900
653,100
649,200
644,300

639,800
636,900
634,500
631,700
627,400

622,500
617,600
613,600
610,100
607,900

607,100
607,300
607,700
604,900
600,100

594,600
589,800
565,900
583,000
561,200

662,700
561,200
869,850
- 83,400

APR

803,398

802,979
801,774
800,726

800,989
801,774
802,927
804,657
806,967

609,228
810,966
813,267
814,766
615,612

816,246
816,670
816,088
615,400
814,872

814,290
813,974
813,445
813,287
812,812

812,865
813,234
613,498
813,657
814,185

816,670
800,728
918,120
+10,630
1,626

561,700
581,500
560,700
576,300
575,500

574,800
576,600
582,000
590,800
602,600

615,800
628,200
641,300
654,400
666.200

678,400
692.800
708,200
722,100
734,800

748,300
763,600
776,600
796,000
815,300

834,700
853,600
871,400
891,200
910,600
926,100

926,100

938,550
+344,900

MAY

814,343

816,617
619,053
821,759

625,428
828,093
830,762
833,062
835,686

837.188
637,510
837,564
639.766
844,234

849,635
656,033
863.275
868,743
673,020

876,429
881,004
886,035
891,694
896.426

900.333
905.204
910,539
915,498
919,793
923,135

923,135
814,343
938,020
+108,950
2,990

942,700
958,600
970,800
978,500
984,300

989,500
994,300
999,100
999,500
991,700

980,900
970,200
961,600
958,200
957,400

956,600
952,100
944,900
941,000
940,400

941,600
945,000
950,000
953,600
956,500

956,600
955,600
953,500
951,600
951.800

999.500

943,030
+25,700

JUN

927,222
930,580
932,575
933,316
932, SIR

931,264
929,156
927,109
926,483
925,064

922,568
919,623
915,611
910,877
905,426

899,886
894,364
889,195
884,706
880,010

875,384
871,538
867,483
863,330
858,425

852,831
848,013
842,025
835,901
829,320

933,316
829,320
920,970
- 93,815
3,408

953,300
955,600
956,700
961,300
965,400

969,900
973,400
976,400
980,200
964.200

987,100
989,200
994,400
997,500
997,600

997,200
995,700
994,600
995,500
996,500

998,000
998,700
998,000
996,000
993,300

969,500
985,200
979,900
976,100
972.300
968.700

998,700

945,940
+16,900

JUL

822.875
816,194
809,649
803,241
796,340

789,527
782,438
775,643
768,832
763,022

756,782
749,667
742.892
735.904
726.362

720,816
713,216
705.753
697,944
690,516

662.935
674,827
666,248
657,537
648,510

640,705
635,068
629,639
624,462
619,627
616,309

822,875
616,309
877,710
- 213,011
3,445

965,700
962,400
958,500
955,100
951,600

947,100
942,000
936,600
931,200
926,700

923,800
920,100
915,400
910,700
905,700

900,700
895,800
890,700
885,200
879,200

873.100
866,600
860,600
654,700
849,300

844,200
839,100
834,100
829,200
824,300
819.500

965.700
819,500
919,120
- 149,200

AUG

612,503
608,664
605,018
601.563
598,030

594,686
591,707
588.249
584,670
581,718

579,213
576,495
573,872
571,211
568,079

564,914
561,800
559,041
556,289
553,545

551,149
547,609
544,209
541,666
539,299

536,684
534,454
532,187
527,877
524,292
522,131

612,503
522,131
856,030
- 94,178
3,341

814,700
809,900
605,100
799,800
794,300

787,900
781,500
776,700
771,700
766,800

763,100
759,500
755,900
752.400
749,200

746,200
743,600
740,900
737,900
735,500

733,200
731,000
729,000
726,800
724,600

722,200
719,700
717,100
714,300
712,500

814,700
712,500
898,120
- 107,000
2,716

SEP

521,093
520,385
519,891
519,311
517,490

515,591
514,024
512,913
511,926
511,022

510,078
508,479
506,801
505,902
505,044

504,799
504,881
504,881
503,902
502,642

502,516
502,109
501,784
501,418
501,459

500,605
499,468
499,468
499.265
498.940

521.093
498.940
850,380
- 23,191
2,592

t ELEVATION, IN FEET, AT END OF MONTH, t CHANGE IN CONTENTS, IN ACRE-FEET,
tt EVAPORATION, IN ACRE-FEET.

210 TULARE LAKE BASIN

11221500 KINGS RIVER BELOW PINE FLAT DAM, CALIF.

LOCATION.--Lat 36°49'50", long 119°20'07", in Nlft sec.2, T.13 S., R.24 E., Fresno County, on right bank 3,200 ft downstream from Pine Flat Dam and 2.9 miles northeast of Piedra.

DRAINAGE AREA.--1,545 sq mi.

PERIOD OF RECORD.--October 1953 to September 1970. Monthly and yearly discharges only and adjusted flow for some periods, published in WSP 1735.

GAGE.--Water-stage recorder and concrete control since Sept. 1, 1956. Datum of gage is 556.97 ft above mean sea level (levels by Corps of Engineers). Prior to Oct. 1, 1956, at site 0.2 mile downstream at datum 3.48 ft
lower.

AVERAGE DISCHARGE.--17 years, 2,279 cfs (1,651,000 acre-ft per year), adjusted for change in storage and evapora-

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet) for the water years 1966-70 are contained in the following table:

Maximum

Wtr yr Date
1966 June 16, 1966
1967 July 3, 1967
1968 June 21, 1968
1969 June 3, 4, 8, 9, 1969
1970 June 26, 1970

Discharge G.H.
6,050 7.12
15,400 10.05
6,760 7.41
17,100 10.73
6,480 7.33

Minimum daily
Date Discharge
Nov. 26, Dec. 30, 1965 26
Dec. 10, 1966 28
Dec. 6, 1967 55
Jan. 24, 1969 33
Feb. 18, 1970 34

Period of record: Maximum discharge, 17,100 cfs June 3, 4, 8, 9, 1969 (gage height, 10.73 ft); minimum daily, 1.1 cfs Feb. 26, 27, 1962.

REMARKS.--Records excellent. Flow regulated by Pine Flat Lake 0.6 mile upstream (see station 11221000) and by Wishon and Courtright Reservoirs (see elsewhere in this report). See schematic diagram of Kings River basin of the Geological Survey.

COOPERATION.--Forty-nine discharge measurements furnished by Kings River Water Association.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE. IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

1
2
3
4
5

6
7
a
9
10

ll
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT
MEAN*
AC-FTt

OCT

203
82

76
76

76
76

86

75
74
74

126
121
116
116

116
158
212
206
205

205
204
208

264

4,169
134

8,270
279
17,130

NOV

335
330

324
265

114

92
85
63

50
50
50
50

50
50
49
39
28

49

3,928
131

7,790
1,144
68,090

DEC

76
76

107
107

122

125
128
128

140
140

L40
150
ISO
226

32

4,620

9,160
933
57,370

JAN

218
262

Z71
Z70

276

391
383
336

213
303

324
352
352
352

384

9,268

18,380
813
49,960

FEB

357

216
229

68
68
86

347
474

727
858

15,217

30,180
762
42,340

MAR

2,510

2,530

2,810
3,160

3,400
3,390

3.200
3.310

3,310

90,850

180,200
1,665
102,400

APR MAY JUN JUL AUG

2.700 2.110 5,440 4,990 1,580

2,280 2.360 5,020 3,480

1 830 3 870 6 020 4 240

1,910 4,040 5,830 4,270
1,890 4,090 5,780 4,340

1,700 4,790 5,640 4,590
1,660 4,870 5,410 4,580

5,380 1,390

64,320 116,050 160,680 129,030 5

4,633 6,034 2,373 787
275,700 371,000 141,200 48,370 2

. 560
,570

,710

,900

,660
. 660
. 600
. 790

. 820
,750

,650

,690
,640

,890 5

,560

405
.,900 1

SEP

,790

,860

,860
. 880
,870
,850
,830

,850
. 920

,920
,840
,800
. 710

. 560
,470

,250

,190

,150

,190

177
J.560

CAL YR 1965 TOTAL 863,076
WTR YR 1966 TOTAL 701,172

MEAN 2,365
MEAN 1,921

MAX 7,150
MAX 6,020

MIN 26
MIN 26

AC-FT 1,712,000
AC-FT 1,391,000

t ADJUSTED FOR CHANGE IN CONTENTS IN WISHON AND COURTRIGHT RESERVOIRS, PINE FLAT LAKE, AND FOR EVAPORATION FROM PINE FLAT LAKE.

TULARE LAKE BASIN

11221500 KINGS RIVER BELOW PINE FLAT DAM, CALIF.--CONTINUED

DISCHARGE) IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

I
2
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11
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13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN
MAX
MIN

MEANt
AC-FTt

CAL YR

CAL YR

OCT

986

967
933

715
668
544

304
304
324

150
136
111
110
123

140
156
110

72
72
71
71
72

71

71
72

70

71

70

71
71
71

51

50

51
51
51

64
65
80
89
90

334 64.6
986 90
61 5C

128
7,900 27

1966 TOTAL

,970

705

ADJUSTED

1966 MEAN 1,930

99
77

47

104

28

59
79
94

178

215
209
209

211
211
208
207
207

142
222
28

209
209

232

233

233

235
235
235

258

256
206
216

153
188
139
79
46

200
259
34

294,800 95,830

OBSERVED

,144 MEAN 1,932

t

AC-FT 1,397,000
,242,000

212
141

152

171

131

138
138
144

602
690

2,060
2,410
2,470

2,470
54

96,790

MAX 6,

3,040
3,030

3,030

2,950

2,800
2,270
1,730

222
3C3

1.020
1,570
1.700
2.120
2.360

3,120
197

204,500

020 MIN
000 MIN

2,210
1,900

686
747
658

296
325
BOS

3,700

4.690
4,930
5,080
5,260
5,340

5,340
296

5,760
6,260

7,550
8,210
8,670

8,840
9,080

9,280

10,500
10,400
10,300
10,200
10,100

10,500
5,380
538,800

207,800 599,600

28 AC-FT 1,399,
28 AC-FT 2,733,

JUN

9,930
9,860

9,360
9,200
9,030

9,100
9,070

10.500

10.900
11,600
12,100
12.200
12.800

12.800
9.030

830,500

000
000

JUL

15.000
14,800

10,700
10,500
10,000

9,830
9,840

9,130

7,540
7.630
7,690
7,650
7,620

15,000
6,990

643,200

AUG SEP

7,930 4,600
7,730 4,600

7,080 4,190
7,020 4,020
6.960 3.910

6.910 3,510
6,660 3,270

6,910 2,960

6.070 1,720
5,610 1.710
5,750 1,730
5.6BO 1,710
$,610 1,600

7,930 5,190
5.610 1.600
419,000 187,500
2,653 1,178
163,100 70,080

t ADJUSTED FOR CHANGE IN CONTENTS IN WISHON AND COURTRIGHT RESERVOIRS, PINE FLAT LAKE, AND FOR EVAPORATION FROM PINE FLAT LAKE.

TULARE LAKE BASIN

11221500 KINGS RIVER BELOW PINE FLAT DAM, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

1
2
3
4
5

6
7
B
9

1!)

11
12
13
14
15

16
17
IB
19
20

21
22
23
24
25

26
27
28

31

WTR

1,490
1,440
1,300
1,150
1,130

1,050

1,790
1,850
1,870

1,850
1,830

1,580

1,110
782

782
1,150

1,570

1,700
1,770

1,740
1,700
1,700

1,700

355
324
234
217
217

169

87
87
88

75

203

241
333

257

243

2GB
220

286
244
173

YR 1968 TOTAL 627,

ADJUSTED +

106
122
153
14B
88

. 000
,000
,000

,000

605
605

800

800

647
511
516

492

468 507 1,840 1,640 1,520 3,860 546 524 1,800 1,390 1,480 4,040

1,010 516 2,020 1.220 1,400 4,260

680 1,740 3,620

OBSERVED

5,670 1,580
5,550 1,500

4,110 1,490

2.890 1,140

3,010 1,120

3,340 1,230
3,390 1,220

2,920 1,240
1,790 1,370

1,330
1,330

1,380

1,610
1,580

1,380
1,380

1,260

1,210

988
866

666

308

1.221
1,610

72,640

624 MEAN 1,715 MAX 6,380 MIN 55 AC-FT 1,245,000

828,400

TULARE LAKE BASIN

11221500 KINGS RIVER BELOW PINE FLAT DAM, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

1
2
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6
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10

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14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MAX
M1N

AC-FT*

CAL YR

WTR YR

87
76
76

75
76

50

50

51
5?

51
51
51
51
51

51
51
51
51
54

51
51

51

52 ~

132

15,970 32

1968 TOTAL

52
52
53

48
48

49

49

49
50

49
50
50

60
68
89

81

100
160

163

177

,030

570

125
128
134

189
309

312

297

313
301

295
396
389

400

184
281

319

413

41,780

,154

ADJUSTED +

1969 MEAN 5,805 AC-FT

224 3, SCO
226 3,500

257 3,750

264 3,920

36 4,300

198 3,840
58 3,560
41 3,720

36 2,080
556 3,300

3,180

3,530 4,000

393,400 201,400

OBSERVED

MEAN 1,558 MAX

4,203,000

3,990 7,200
4,470 7,070
4,830 7,160

5.2BO 6, BIO

5,380 6,850

5,610 7,980
5,700 8,050
5,830 8,250

5,940 9,250
6,060 9,330

6.4BO 9,930

6,620

6,620 10,200

184,700 396,400

6,380 MIN 48 A

10,300
10.300
10,400
10,400

9.9BO
9,940

9,820

10,400
10,600

10, BOO
11,000

11,200
11,200
11,200
11,200
12.200
14.300

14,300

18,150
1,116,000

iC-FT 1,131
,C-FT 3,719

14,700
16,000
17,000

16,800
16, BOO

16,600

15,200
14,700

14,400
13,800

12,800
12,500
12,400
12,100
11,700

17.000

1,015,000

,000,000

JUL

11.300
10,500
10,000

B.510
B.480

B.B20

9,000
9,010

9,030
9,020

8,510
8,510
8,500
8,220
B.020
7,900

11,700

9,538
586,500

AUG

7,310
7,120
6,910

6,210
6,130

6,080

5,640
5,710

5,740
5,670

4,930
4,860
4,700
4,580
4,510
4,350

7,490

170,300

SEP

4,340
4,350
4,450

4,380

4,220
4,260

3,440

3.3BO
3,310

2.810
2,620

2.460
2.400

2,330

2,420
2,470
2,530
2,490
2,110

4,470

829
49,300

TULARE LAKE BASIN

11221500 KINGS RIVER BELOW PINE FLAT DAM, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14

16
17
18
19
20

21
22
23

25

26
27
28
29
30
31

MEAN

HIN

MEAN*
AC-FTt

CAL YR

CAL YR
WTR YR

OCT

2,190
2,190
2,140
2,080
2,050

2,200

2,180
2,170
2,120
2,150

2,090
2,000

1,840
1,820

1,810
1,820
1,680

1,500

1,500
1,480
1,430

1.420
1,390

1.903

1,390

572
35,150

NOV

38C
360

420
400

764

898
1,020
1,000
994

971
928

868
887

901
915
915

915

845

814

772

987

739

29,870

ADJUSTED

1969 MEAN 5,819
1970 MEAN 1,803

DEC

618
866

,100
,060

. 130

1.110
784
434
442

451
451

404
308

292
610
,000

,000

. 003

,000

,000

811

292

35,360

JAN FE8

1,000 968

1,000 661
717 100

403 56

1,200 56
1.200 56

929 55

2,450 58
2,450 53

2,420 513

2,430 909

2,440 1,550

1,710

116,500 61,960

OBSERVED

AC-FT 4,213,000
AC-FT 1,305,000

MAR APR MAY JUN JUL

1,410 2.100 1.620 5,020 5,480

546 2,010 2,450 5,510 5,810

618 1,850 3,050 5,250 5.400 716 1,800 3,090 5,310 5,400

863 1,870 3,590 5,310 5,500

1,670 1,780 4,170 5,840 5,790

1,980 1,700 4,300 6,090 5,720

2,090 1,640 4,190 6,050 4,320

2,080 1,590 4,520 5,640 3,860

100,600 132,400 396,800 254,900 98,830

AUG

2,930

2,880

2,480

2.400
2,410

2.400
2.390
2.400
2.400
2,400

2,320

2,260

2,180
2,500
2,270
1,870

76.240

1.870

477

29,360

SEP

1,310

1,240

1,280

1,160

1,120
1,110
1,080

712
626
600
789
828

851
818
804
788
788

655
657
655

28,576
953

600

225
13,380

ADJUSTED FOR CHANGE IN CONTENTS IN WISHON AND COURTRIGHT RESERVOIRS, PINE FLAT LAKE, AND FOR EVAPORATION FROM PINE FLAT LAKE.

TULARE LAKE BASIN

11221700 MILL CREEK NEAR PIEDRA, CALIF.

DRAINAGE AREA.--127 sq mi (revised).

PERIOD OF RECORD.--October 1957 to September 1970. November 1938 to September 1957 in reports of Kings River

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 550 ft (from topographic map). Pric July 14, 1958, at site 150 ft upstream at present datum.

AVERAGE DISCHARGE.--13 years, 44.5 cfs (32,240 acre-ft per year); median of yearly mean discharges, 18 cfs (13,000 acre-ft per year).

Date
Dec.

Dec.
Jan.
Jan .
Mar.
Mar.
Mar.
Apr.
Apr.
Apr.

30,

6,
24,
30,
13,
16,
31,
4,
7,
11,

1965

1966
1967
1967
1967
1967
1967
1967
1967
1967

Time
0700

1000
2000
2300
0700
1600
2300
2300
1200
0600

Disch. *288

11,000
642
2,070
664
924
490
1,110
988
970

G.H.
3.77

a9.53
4.29
5.74
4.32
4.65
4.04
4.86
4.72
4.70

Date
Apr.
Apr.
Apr.
Apr.
May
May

Feb.

Dec.
Jan.

15,
19,
22,
24,
5,
10,

18,

26,
14,

1967
1967
1967
1967
1967
1967

1968

1968
1969

Time
2000
1600
0300
0500
2200
0700

0400

1100
0500

Disch.
522
1,060
1,090
720
401
376

*56

306
601

G.H.
4.10
4.80
4.83
4.40
3.88
3.82

2.83

3.65
4.23

Date
Jan.
Jan.
Jan.
Feb.
Feb.
Mar.
Apr.

Jan.
Mar.
Mar.

19,
21,
25,
6,
24,
1,
5,

16,
2,
5,

1969
1969
1969
1969
1969
1969
1969

1970
1970
1970

Time
1500
1900
0730
2100
1900
0200
2100

1930
0200
0200

Disch.
9,700
5,450
*9,860
1,310
9,030
1,380
2,250

*4,000
1,050
791

G.H.
b9.65
6.96
9.24
3.62
9.5
3.38
3.77

6.17
4.61
4.37

a In gage well; 10.2 ft, fr
b Backwater from debris.

nth

REMARKS.--Reco diagr River basin elsewhere in this report.

COOPERATION.--Fifteen discharge measurements furnished by Kings River Water Association.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY OCT

31

TOTAL
MEAN
MAX
WIN
AC-FT

NOV DEC JAN FEB

0 .2 84 20
0 .8 49 21
0 .3 36 19
0 .8 29 17
0 .8 26 18

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2.7 5.8 13 17
4.% 5.8 13 16
15 5.8 13 17
29 6.2 13 18

23 B.5 13 18
14 8.5 13 17
9.8 8.5 12 17
7.8 115 12
6.7 190 21
129 27

121.3 610.4 651 682
4. 04 19.7 21.0 24.4
29 190 84 63
0 4.8 12 16

MAR

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JUL

TULARE LAKE BASIN

11221700 MILL CREEK NEAR PIEDRA, CALIF.--CONTINUED

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353

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102
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129
476
771

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FEB

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DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

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WTR YR 1968 TOTAL 3,192.87 MEAN 8.72 MAX 50 AC-FT 6,330

TULARE LAKE BASIN

11221700 MILL CREEK NEAR PIEDRA, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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TOTAL
MEAN
MAX
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. 80 10 9.4

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640

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PER SECOND

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226
22,140

MIN

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MAR

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487
186
189
427

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148
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116
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YEAR OCTOBER 19

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WTR YR 1970 TOTAL 10,199.64 MEAN 27.9 MAX 1,950 AC-FT 20,230

218 TULARE LAKE BASIN

11224500 LOS GATOS CREEK ABOVE NUNEZ CANYON, NEAR COALINGA, CALIF.

LOCATION (REVISED) .--Lat 36°12 I 53", long 120°28'11", in NWijSE% sec.5, T.20 S., R.14 E., Fresno County, on right bank 50 ft downstream from highway bridge, 1.1 miles upstream from Nunez Canyon, 3.0 miles downstream from White Creek, and 8.1 miles northwest of Coalinga.

DRAINAGE AREA.--95.8 sq mi.

PERIOD OF RECORD.--May 1945 to September 1970.
WSP 1315-A.

GAGE. --Wate -stage recorder. Altitude of gage

ior to October 1949 monthly discharge only, published in

1,100 ft (from topographic map). Prior to Aug. 2, 1959,

AVERAGE DISCHARGE.--25 years, 4.29 cfs (3,110 acre-ft per year); median of yearly mean discharg 1.0 cfs (720 acre-ft per year).

EXTREMES.

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2400
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140
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44

40
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239

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a 11.30 ft, from floodraark.

No flow for long periods in each year.
Period of record: Maximum discharge, 4,360 cfs Feb. 24, 1969 (gage height, 10.34 ft in gage well,
11.30 ft, from floodraark); maximum gage height,11.2 ft Jan. 25, 1969; no flow for long periods in each year.

REMARKS.--Records good except those for periods of no gage-height record, which are poor. Minor diversions for irrigation and stock ponds.

REVISIONS (WATER YEARS).--WSP 1215: 1950. WSP 1735: 1952(M), 1956(M). WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

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1965 TOTAL 816.90 MEAN
1966 TOTAL 1,034.90 MEAN

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MAX 226

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NOTE. NO GAGE-HEIGHT RECORD HAY 17 TO JUNE 30.

TULARE LAKE BASIN

11224500 LOS GATOS CREEK ABOVE NUNEZ CANYON, NEAR COALINGA, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1966 TO SEPTEMBER L967

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TOTAL
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AC-FT

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I.TR YR 1967 TOTAL 3,656.40 MEAN 10.0 MAX 859 MIN 0 AC-FT 7,250

NOTE. NO GAGE-HEIGHT RECORD DEC. 16 TO JAN. 19.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

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WTR YR 1968 TOTAL 120.49 MEAN .33

TULARE LAKE BASIN

11224500 LOS GATOS CREEK ABOVE NUNEZ CANYON, NEAR COALINGA, CALIF.--CONTINUED

DISCHARGEt IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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. 20 .52 .8" .40
. 30 .52 .80 .40

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46

130
78
65
54
43

32
40
38
36
174

62
37
58
46
36

27
35
99
2,190
948

580
430
470

212
2,190
27

PER SECOND

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304
230
170

135

130
115
105
105
96

92
92
B8
76
72

57
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42
36
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29
2B

25
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24
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81.0
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22

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62
9.0
95

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23
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79

88
51
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14 235
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27 1,260

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. 9 .80 0 0 .05
. 9 .60 0 .05 .05
. 6 .60 0 .05 .05
. 6 .60 0 .05 .05

. 4 .60 0 .05 .05
. 4 .BO 0 .10 .05
. 4 .BO 0 .35 0
. 4 .80 .05 .10 0
. 2 .60 .10 .10 0

. 2 .50 .10 .05 0
. 2 .40 .10 .05 0
. 6 .40 .10 .05 0
. 9 .40 .20 0 0
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. 9 .30 .10 0 0
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58 .36 .035 .027 .011 0
. 2 1.2 .20 .10 .05 0

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NOTE. NO GAGE-HEIGHT RECORD OCT. 31 TO DEC. 2.

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Gaging station
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222 SAN JOAQUIN RIVER BASIN

11226000 NORTH FORK SAN JOAQUIN RIVER BELOW IRON CREEK, CALIF.

LOCATION (REVISED).--Lat 37°37'07", long 119°13'29", in SEh sec.4, T.4 S., R.25 E., Madera County, Sierra National Forest, on right bank 0.2 mile downstream from Iron Creek and 27 miles northeast of town of Ba
Lake.

DRAINAGE AREA.--35.5 sq mi.

GAGE.--Water-stage recorder. Altitude of ga
recording gages at approximately present

6,800 ft (from topographic map). Prior to May 22, 1922, non-
at different datums.

AVERAGE DISCHARGE. --18 years (1921-28, 1958-69), 114 cfs (82,530 acre-ft per year).

EXTREMES. --Maximums and minimums (discharg cubic feet per second, gage height in feet) for the 1966-69 are contained

Wtr yr Date
1966 Aug. 1, 1966
1967 July 13, 1967
1968 May 20, 1968
1969 June 2, 1969

Period of record:
curve extended above 1

in the

Max

Maximu
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following table:

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Discharge
813
2,300
750
1,350

m discharge recordc
f s ; minimum, 0.40 *

G.H.
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7.50
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daily

. 10, 1965
. 2, 5, 1966
. 12, 13, 1967
. 11, 1968

Discharge
6.6
2.1

rded, 3,860 cfs July 24, 1956 (gage
" " v. 13, 1955, Jan. 17, 1963.

5.8

height, 8.15 ft), from rating

REMARKS. --Records good except those for
No storage or diversion above stati

COOPERATION. --Gage-height

iod of no gage-height record May 7 to June 13, 1968, which are fa

charge measurements furnished by Southern California Edison Co.,

REVISIONS (WATER YEARS).--WSP 1345: 1925-26(M), 1927, 1928(M). WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND. HATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

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62
78
76
77

74
63
70
65
57

77
100
104
98

297
309
313
321
330

338
338
348
285
223

144
144
177
235

325
321
229
160
127

146

235
325

405
453
420
410
405

448
505
436
343
356

330
375
410
400

426
442
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431

448

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167
151
162
185
208

196
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211
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278
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317
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297
232
226
301
257

174

167
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8.2
7.4

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TOTAL
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HTR YR

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1965 TOTAL
1966 TOTAL

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MEAN
MEAN

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104

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22

MAX 885
MAX 505

196
220

2,528
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250
24

MIN 7.8
MIN 6.6

334
356

7,906
264
370
127

AC-FT 96
AC-FT 75

313
241

12,398
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505
199

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185
169

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SAN JOAQUIN RIVER BASIN

11226000 NORTH FORK SAN JOAQUIN RIVER BELOW IRON CREEK, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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MEAN 20.1 15.3 22.2
MAX 62 35 32
MIN 8.7 6.6 16

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PER SECOND

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827 10
27.6
32

YEAR OCTOBER

116
81
71
83
74

67
89
97
138
187

214
177

190
171

86
70

57

51
50
74

237
257
282
313
325

138
325
50

26

48
105
183
189

85
63
69
96
178

415
475
499
580

768

718
678

670

329
768

300

1967

325
293
268
285
25D

211
200
210
200
180

190
190

155
160

190
260

480

320
210
180

350
460
570
520
450

275
570
150

214

279
281

285
431
517
548

574
535
487
561
663

867
940
795
750

831

813
867

849

649
1,180

TO SEPTEM

JUN

430
480
460
380
280

220
190
180
170
180

200
220

220
235

230
220

200

175
165
160

135
135
135
120
90

220
480
90

JUL

1.27D

1,130
980

97D
885
76B
686

718
813
1,050
718
607

523
523
505
448

436

442
470

448

675
1,270

1ER 1968

JUL

85
80
77
74
72

68
68
72
210
190

105
71

64
62

59
54

54

52
49
47

45
49
62
171
136

78.4
210
45

AUG

325
330

285
264

235
205
180
185
211

211
211
214
196
172

309
260
190
164

151

138
167

146

104

199
330

AUG

67
54
50
45
38

34
32
31
30
30

28
28

28
22

20
IB
IB

112

56
41
33

20
19
19
19
22

34.6
112
18

SEP

16
11

31
44

111
97
90
81
60

52
54
57
56
53

44
67
78
58

43

57
56

47

45

70.2
144

SEP

21
21
21
21
21

21
20
19
19
17

16
15
14
13
12

12
11
12
12
11

11
9.4
8.1
7.8
7.5

7.2
6.9
7.2
7.2
7.2

13.6
21
6.9
810

SAN JOAQUIN RIVER BASIN

11226000 NORTH FORK SAN JOAQUIN RIVER BELOW IRON CREEK, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY

2
3
4

7
8
9
10

11
12

14
15

16
17
18

20

21
22
23
2*
25

26

28

30

MAX
KIN

6.
6.
6.

6.
6.
6.

5.8
7.2

45
3*

40
50
48

4?

38
35
41
45
43

39

35

44

50
5.8

49
114
81

55
76
105
98

79
79

45
52

56
58
74

64

61
60
59
50
38

33

26

24

114
24

23
23
23

22
20

18

20
22

22
24

32
32
28

24

23
22
22
28
31

25

28

23

32
18

20
21
32

44
38

28

26
27

34
30

28
26
27

80

95
64
50

64

72

47

31

95
20

25
24
24

23
25

24
25

23
24

24
25
24

23

22
22
21

15

25

28

32
15

26
24
22

21
20

19
19

19
19

21
24
27

28

25
24
26

29

38

74

122

35.8
154
19

136
109
94

61
57

83
122

126
90

84
113
145

237

305
325
271

128

134

227

338

151
338
57

330
254
193

505
574

663
710

635
600

628
686
702

642

678
768

777

759

759

630
912
193

59,080

JUN

1,020
1,000
912

813
663

325
470

670
678

614
453
395

621

656
710

600

542

458

635
1,020
325

JUL

568
561
548

505
548

542
587

529
517

505
475
511

542

574
652

431

380

293

506
663
293

AUG

282
289
268

174
166
177
174

272
196

177
164

164
208
150

114

111
104

102

86

71

159
289
59

SEP

67
68
64

64
68
68
55

48
40

36
35

33
31
31

28

23
22

25

26

24

28

41.1
68
22

SAN JOAQUIN RIVER BASIN

LOCATION.--Lat 37°30'38", long 119°11'47", Forest, on right bank at Miller Crossin

11226500 SAN JOAQUIN RIVER AT MILLER CROSSING, CALIF

SE
2.4

. ll, T.5 S., R.25 E., Madera County, Sierra National ownstream from North Fork, 4.6 miles east of Clover of Bass Lake.

DRAINAGE AREA.--249 sq mi.

PERIOD OF RECORD.--October 1921 to September 1928, October 1951 to September 1970. Monthly disc some periods, published in WSP 1315-A. Prior to October 1954, published as Middle Fork San J Miller Bridge.

GAGE.--Water-stag
recording gage

4,570 ft (from topographic map),

r).

ge only for
uin River at

or to Mar. 24, 1922, non-

AVERAGE DISCHARGE.--26 years, 599 cfs (434,000 acre-ft per ye

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (2,000 cfs), water years 1966-70

Date Time Disch. G.H.
May 6, 1966 2100 *2,980 15.14
May 22, 1966 2200 2,580 14.79

Dec. 6, 1966
Mar. 16, 1967
May 22, 1967
July 1, 1967 1700 "7,680 18.10

Date Time
May 20, 1968 1900
May 28, 1968 2000

Jan. 26, 1969 0800
Apr. 22, 1969 2130
June 2, 1969 2000
June 14, 1969 2200
June 22, 1969 2200

Wtr yr Date
1966 Sept. 17, 1966
1967 Oct. 26-31, 1966
1968 Sept, 28, 29, 1968

)is
2,
'2,

2,
2 ,
'8,

4,
4,

w

r

169
170

ch.
300
550

540
350
390
640
990

ate

yr

G.
14.
14.

14.
14.
18.
16.
16.

r yea

Date
Oct.
Sept

H.
48
73

72
53
44
36
58

rs

Date

July 22,

Dec. 21,
May 17,
May 22,
June 2 ,
June 21,

1966-70

1969

1969
1970
1970
1970
1970

Time

1800

1730
2130
2200
2230
2200

Disch.

3,760

2,010
*3,830
3,160
3,010
2,000

G

15

14
15
15
15
14

Discha
11
.28

, 1968
- 30, 1970

.H.
.04
. 75

. 17
.80
.27
. 14
. 16

rge
38
52

1961.

eriod of record: Ma
ove 5,200 cfs

Annual minimum daily discharge, a

harge, 16,600 cfs Dec. 23, 1955 (gage height, 21.28 ft), from ratin
of contracted-opening measurement of peak flow, minimum, 19 cfs Nov

REMARKS.--Records good except those for period of no gage-height record Nov. 1, 1966, to May 24, 1967, wh

COOPERATION.--Gage-height record and 25 discharge measurements furnished by Southern California Edison Co

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND OCTOBEH 1965 TO SEPTEMBER 1966

1
2
3
4
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6
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14
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19
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21
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23
24
25

26
27
28
29
30
31

TOTAL
MEAN

MIN
AC-FT

WTR YR

112
111
107
106
102

100
99
100
100
100

98
96
95
94
118

109
106
109
104
98

93
91
88
86
84

82
81
80
79
78
76

96.2

76
5.910 15

1965 TOTAL
1966 TOTAL

75
74
73
72
72

70
69
68
68
66

67
69
108
262
252

372
398
710
420
305

249
262
817
668
462

406
328
290
284
266

2S7
817
66
,280 1

282 f 646
182.558

246
244
260
258
244

225
219
214
221
208

196
201
189
175
1S4

146
144
142
140
132

128
132
122
124
136

146
140
138
162
180
200

180

122

MEAN

160
145
140
140
150

160
175
181
176
198

198
191
192
203
203

191
180
172
172
159

164
158
150
150
145

142
144
140
141
153
154

165

140

500 MAX

156
1S3
1S6
159
161

176
180
172
165
164

158
161
156
154
153

153
162
168
168
172

183
198
201
196
184

186
183
188
. . . . . .

- - - - - -

170

153

4.020
2.430

189
180
168
167
178

186
199
217
234
424

391
409
511
484
475

463
400
412
409

385
415
478
524
S17

598
686
790
875

1.130

446

167

MIN 52

1.320
1.410
1.410
1.470
1.490

. 550
,550
,620
,510
,320

1,010
880
820
895
1.110

1,420
1,560
1.290
970

730
755
825
1.020
1.390

1.630
1.640
1.630
1.580

1,276

730

AC-FT 362,

1,830
2.010
1,990
1,990
2.110

2.430
2.220
1.860
1.B40

1,760
1.680
1,790
1.940
1,910

2,010
2,100
2,190
2,100

2,080
2,150
2,110
2,010
1.980

1.970

1.960 l.aso
1,650

1.180

1.952

1.180

100

1,020
934
855
880
940

1,020
994
922
982

1,060
1.110
1,160
1,210
1,110

1,110
1,010
900
1,100
1.020

875
72^
654
622
614

637
642
670
654

900

602

566
511
454
424
409

391
361
319
290

2RO
270
260
256
250

240
238
238
242
258

262
258
252
254
260

256
234
226
226
224
224

301

224

364
572
492
316
290

198
179
167
160

151
145
138
139
141

139
138
146
142
131

120
112
109
104
102

98
93
S9
R7
85

176

83

6
5

66.

5

SAN JOAQUIN RIVER BASIN

11226500 SAN JOAQUIN RIVER AT MILLER CROSSING, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAT

1
2
3
*

s

6
7
a
9
10

11
12
13
14
IS

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
IS
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN
MAX

MIN
AC-FT

WTR YR

OCT

56
57
58
56
55

54
53
52
50
48

47
46
44
43
42

39
35
36
33
33

34
35
35
34
33

31
31
31
31
31
31

1,294
41.7
58
31
2,570

NOV

4,050 8
135

8,030 16

1967 TOTAL 180,177
1968 TOTAL 355,646

OCT

186
J72
198
204

]80

172
155
145
141
134

128
125
122
121
115

110
107
103
101
98

97
95
94
91
89

87
86
84
84
81
79

122
204
79
7,510

1968 TDT

DISCHARGE,

NOV

78
76
76
76
76

76
76
75
74
72

72
71
70
89
126

97
90
90
155
180

135
121
112
108
110

104
94
99
89
87

95.1
180
70
5,660 7

\L 129,834

DEC

,525 4
275

,910 8

MEAN 494
MEAN 974

IN CUBIC

DEC

110
ISO
45
45
45

40
40
42
41
43

141
130
125
125
105

90
90
100
110
100

90
90
95
110
150

170
190
170
150
140
120

129
190
90

JAN FEB

,185 5,320
135 190

,300 10,550

MAX 2,430
MAX 6,270

MAR

9,920
320

19,680

APR

5,400
180

MAY

4,480

4,480
4,220
3,650
3,280
2,960
2,440

68,200
2,200

10,710 135,300

JUN

1.770
1.500
1.590
1,840
1,830

1.940
. 580
,980
,270
,320

,600
,530
,180
,080
. 570

. 940
. 440
. 020
. 680
. 480

. 280
,130
,810
,730
,960

,020
,080
,240
,670
,920

11 ,980
,799
,920
,500
226,100

JUL

6.270
6.060
5.600
5,230
4,750

4,400
4.220
3,800
3,390
3,080

3,130
3,320
3,78
3,91
3,27

3.26
2.88
2.67
2.54
2.26

2.11

2,08
2,01
2,02
2,08

2,030
1,900
1,830
1,820
1,760
1.640

99.100
3,197
6,270
1.640
196.600

AUG

. 510
. 460
. 440
. 330
. 240

1.110
962
845
800
885

865
840
855
830
770

845
1.060
956
785
684

676
620
584
580
632

604
544
500
445
433
439

26.129
843
1,510
433
51.830

Sf P

439
488
488
600
730

568
488
430
388
328

285
265
260
252
240

224
214
240
280
240

212
202
208
212
238

208
210
208
200
198

9,543
318
730
198
IS, 930

MIN AC-FT 357,400
MIN AC-FT 705,400

FEET PER SECOND, WATER

JAN FEB

111 140
106 160
96 163
90 162
80 160

80 151
75 146
75 145
70 168
75 174

75 150
75 145
75 147
80 146
115 138

110 149
100 275
105 252
110 285
120 850

135 560
139 421
141 415
139 412
145 376

139 379
126 382
110 376
120 346
140
ISO

,307 7,773
107 268
150 850
70 138
,920 6,560 15,420

MEAN 965 MAX 6,270
MEAN 355 MAX 1,980

MAR

358
305
305
319
316

268
248
258
236
228

212
226
228
228
216

224
230
226
208
196

206
220
214
234
256

265
278
376
532
624
672

*Z87

672
196
17,680

MIN
MIN 41

YEAR OCTOBER 1967

APR

512
445
445
468

400
430
516
612
750

910
880
785
840
850

692
580
484
451
418

388
367
409
508
636

890
1,060
1.140
1,320
1,430

20,276
676
1.430
367
40.220

AC-FT 699
AC-FT 257

MAY

,430
,330
. 360
,340

. 130
,080
,110
,070
962

998
980
790
805
850

910
962
1,130
1,480
1,790

1,590
1,160
905
820
986

1,370
1,750
1.980
1.930
1.680
1.550

38,688
1.248
1,980
790
76,740

000
500

TO SEPTEMBER 1968

JUN

1.720
1.650
1.480
1,200

860
750
750
67?
705

795
885
875
895
950

956
935
875
875
805

705
660
652
620
568

544
540
532
442
367

25.863
862
1.720
367
51.300

JUL

322
310
295
290

275
275
288
495
457

346
295
278
262
254

250
244
224
216
208

202
198
193
182
175

174
179
206
340
442
295

8.501
274
495
174
16.860

AUG

220
202
186
165

149
138
132
130
127

125
116
127
134
111

99
94
84
125
242

186
152
126
107
91

86
82
78
76
78
82

4,112
133
262
76
8,160

SEP

84
84
81
78
76

74
74
73
71
69

65
62
60
58
58

54
52
52
52
52

51
49
47
45
43

42
42
41
41
42

1,772
59.1
84
41

3,510

SAN JOAQUIN RIVER BASIN

11226500 SAN JOAQUIN RIVER AT MILLER CROSSING, CALIF.--CONTINUED

DISCHARGE* IN CUBIC FEET PER SECOND* MATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

1
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19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL MEAN
MAX MIN
AC-FT

CAL YR
WTR YR

42
41
40
40
40

40
40
40
39
39

38
40
126
125
118

111
122
130
120
115

108
99
100
107
108

101
99
97
94
114
116

2,589
83.5
130
38

96
106
547
288
232

195
175
191
250
265

238
285
228
172
214

228
222
240
248
224

212
206
204
191
152

143
142
122
116
120

6,252 4

5*7
96
5,1*0 12*400 8

1968 TOTAL
1969 TOTAL

OCT

1*1
138
131
121
117

111
107
102
100
97

93
90
90
88
151

572
325
212
196
184

160
170
186
182
163

159
146
139
14S
145
148

4t909
158
572
88
9,740

1969 TOTAL
1970 TOTAL

132*579
424,487

DISCHARGE,

NOV

1*8
151
151
146
138

175
202
196
184
193

204
204
212
204
196

184
141
130
135
135

131
121
111
109
108

100
98
91
92
89

4.479 5
149
212
89
8,880 10

426,033
189,433

114
107
112
107
106

106
107
103
99
102

114
107
120
127
216

196
165
ISO
135
125

120
130
150
165
190

216
200
242
218

185

. 534

242
99
,990

MEAN
MEAN

179
175
189
258
252

260
256
246
218
191

187
216
322
385
334

260
228
226
830
837

1,030
688
56*
520
1,500

1,590
676
600
470

375

14,472 6

1,590
175
28,710 13

362 MAX

335
295
268
260
254

246
250
240
240
258

252
252
232
230
240

244
234
234
230
222

212
208
204
151
232

30S
280
258

,866

335
151
,620

1,980
1,163 MAX 6.940

IN CUBIC FEET PER

DEC

86
89
86
85
84

88
85
83
82
85

88
88
88
86
83

83
77
82
98
468

775
457
285
244
464

278
22*
187
182
180
163

. 533
178
775
77
,970

MEAN
MEAN

JAN

157
139
127
102
98

93
85
80
226
308

220
216
206
283
248

956
592
415
349
325

616
684
488
640
391

334
349
290
265
254
238

9,774 6
315
956
80
19,390 13

1,167 MAX
519 MAX

SECOND

FEB

228
214
216
232
234

230
244
250
2*8
236

246
288
283
278
268

256
268
246
228
218

210
208
208
212
212

230
246
288

,725
240
288
208
,340

6,940
2,860

254
300
270
234
244

224
206
198
191
184

180
175
172
17*
182

212
254
300
300
288

265
275
316
328
358

421
532
644
785

1.170

10,581

1,170
172
20,990

MIN 38
MIN 38

, MATEH

MAR

316
319
298
265
285

278
295
290
263
256

242
242
288
343
349

370
427
394
325
300

334
385
433
516
608

644
572
528
548
500
415

11,628
375
644
2*2
23.060

MIN 77
MIN 52

1.220 2,070
1,110 2,050
925 1,760
845 1,480
925 1,680

770 2,360
628 3,020
596 3,470
616 3,900
664 4,100

1,100 4,170

1,080 4,170
845 3,860

810 3,970
950 4.380
1,210 4,500
1.250 4,250
1,640 4,140

1,920 4,430
2,120 4, 860
1,920 5,020
1,340 5,230
1,110 5,340

1,040 5,230
1.180 5.370
1,440 5,200
1,760 5,420

6,100

35,014 125,510

2,120 6.100
596 1.480
69.450 248.900

tC-FT 263,000
AC-FT 842,000

YEAR OCTOBER 1969

APR MAY

370 536
403 705
451 1,000
480 1,230
596 1,440

755 1,360
775 1,100
770 1,150
880 1,170
1,080 1,340

1,110 1,120
980 890
825 1,080
668 1,580
564 2,000

508 2.400
460 2,840
448 2,860
472 2,520
448 2,090

427 2,070
385 2,290
367 2,550
388 2,470
484 2,380

552 2,400
484 2,340
421 2.160
418 2.240
442 2.410
2.450

17,411 56,171
580 1,812
1,110 2,860
367 536
34,530 111,400

AC-FT 845,000
AC-FT 375,700

6,380
6,940
6,490
5,910
5.810

5,530
5,210
4,640
3,670
2,730

2,310

3,910
4,010

3,840
3,140
2.740
3,240
3,650

3,690
4,050
3,910
3,530
3,470

3,020
2,850
2,590
2,480

118,170

6,940
2.310
234,400

3,010
3,070
3,000
2,870
2,780

2.660
2.580
2.620
2,700
2,700

2,760
3.130
2,760
2.470

2,360
2,250
2,250
2,330
2,340

2,420
2,530
2,200
2,000
1,770

1,600
1,480
1,350
1,440

1,390

72,920

3,130
1.350
144.600

1,240
1,220
1,210
1,170
1,050

905
800
750
730
750

835
735
700
680

664
730
656
564
544

500
472
468
484
488

436
388
352
328

290

21,305
687
1,240
290
42,260

290
298
300
300
280

272
2S2
290
300
275

228
212
204
195

187
179
72
67
63

57
46
41
41
139

139
138
132
151
148

6,274
209
300
132
12,440

TO SEPTEMBER 1970

JUN

2,400
2,460
2,410
2,100
1,930

1,920
1,850
1,890
2,020
1,490

1.300
1,250
1,100
930
820

860
1,050
1,250
1,520
1,670

1,720
1,660
1,570
1,510
1,430

1,420
1,680
1,270
940
795

46.215
1.541
2.460
795
91,670

JUL

775
820
865
810
885

956
925
850
810
688

680
632
640
648
656

636
556
552
552
556

556
524
451
409
376

388
382
334
313
322
290

18,837
608
956
290
37.360

AUG

256
236
224
224
228

218
214
208
191
177

172
189
195
195
191

186
179
172
170
170

163
152
142
134
126

127
134
138
139
134
126

5,510
178
256
126
10,930

SEP

117
108
101
97
93

87
85
84
82
82

85
85
85
81
78

74
70
66
63
63

62
60
58
57
55

54
53
52
52
52

2,241
74.7
117
52
4,450

SAN JOAQUIN RIVER BASIN

11228500 GRANITE CREEK NEAR CATTLE MOUNTAIN, CALIF.

DRAINAGE AREA.--47. 8 sq mi.

PERIOD OF RECORD.--October 1921 to September 1928, May 1952 to September 1970 (no winter records). Monthly dis-charge only for some periods, published in WSP 1315-A.

recorder. Altitude of gage is 6,800 ft (from topographic map). Prior to May 14, 1922, non-
at present site at different datum.

AVERAGE DISCHARGE.--? years (1921-28), 110 cfs (79,640 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet) for the water years 1966-70 are contained in the following table:

r yr Date
66 May 6,
67 July 13,
68 Apr. 29,
69 July 22,
70 May 16,

Period of
curve extende

MARKS. --Re cord

OPERATION. --Ga
connection wi

VISIONS. --WSP

AY OCT

1 3.3
2 3.1
3 2.9
4 2.7
5 2.6

6 2.6
7 2.4
8 2.3
9 2.2
1C 2.1

11 2.0
12 ?.0
3 2.0
4 2.0
5 3.6

6 3.4
7 3.0
8 3.0
9 3.2
0 2.9

1 2.8
2 2.5
3 2.4
4 2.3
5 2.1

6 2.1
7 2.0
8 1.9
9 1.9
0 1.8

TAL 76.9
AN 2.48
X 3.6
IN 1.8
C-FT 153

Maximum recorded
Di
1966
1967
1968
1969
1970

record: Maximum discharge
d above 1,100 cfs; no flow

s good. No regulation or

ge-height record and 22 di
th a Federal Power Conmiss

1445: Drainage area.

NCV DEC JAN

1.7
1.7
1.7
1.6
1.7

1.7
1.7
1.6
1.7
1.7

1.7
1.8
4.6
12
14

32
34
90
39
35

30
25
100
80
55

4C
32
30
28
26

726.9
24.2
ICO
1.6
1,44C

scharge G.H. Date
992 7.78 Sept. 29, 30
2,450 9.02 Oct. 1-31,
830 7.60 Aug. 10-13,
1,510 8.28 Oct. 1-5,
1,460 8.24 Sept. 17-21,

Minimum daily

, 1966
1966
Sept. 16-26, 1968
1968
28-30, 1970

recorded, 3,140 cfs Dec. 23, 1964 (gage height, 9.49 ft), at times in 1924, 1926.

diversion above station.

scharge measurements furnished by Sou
ion project.

FEB MAR APR MAY

600
615
595
632
605

610
650
595
505
517

513
489
521
530
509

517
534
561
525
509

501
465
465
438
406

417
389
326
534 255
575 199
149

15,142
4BB
650
149
30,030

Discharge
. 20
. 20
. 10
. 22
. 14

from rating

them California Edison Co., in

TO SEPTEMBER 1966

JUN JUL

131 22
112 IB
115 16
126 14
12B 13

124 12
158 12
141 11
151 11
166 9.5

149 8.3
133 7.5
133 6.7
126 6.2
113 5.8

106 5.3
92 4.8
74 4.5
81 4.5
72 4.3

59 4.0
45 3.7
37 3.5
34 3.3
32 3.2

32 2.9
29 2.5
29 2.6
27 2.4
24 2.2

AU6 SEP

. 8 .60
. 3 .60
. 2 .70
. 7 .60
. 0 .50

. 4 .40
. 8 .40
. 8 .40
. 5 .40
. 4 .30

. 3 .40
. 2 .40
. 1 .40
. 1 .50
. 0 .50

L.O .50
. 80 .50
. 60 .60
. 60 1.4
. 60 1.7

. 50 1.2
. 40 .80
. 40 .60
. 30 .50
. 30 .40

. 30 .40
. 30 .30
. 30 .30
. 30 .20
. 30 .20

2,779 229.2 38.90 16.70
92.6 7.39
166 22
24 2.2
5,510 455

1.25 .56
4.2 1.7
. 30 .20
77 33

SAN JOAQUIN RIVER BASIN

11228500 GRANITE CREEK NEAR CATTLE MOUNTAIN, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

1 .20
2 .20
3 .20
4 .20
5 .20

6 .20
7 .20
8 .20
9 .20
10 .20

11 .20
12 .20
13 .20
14 .20
15' .20

16 .20
17 .20
18 .20
19 .20
20 .20

21 .20
22 .20
23 .20
24 .20
25 .20

26 .20
27 .20
28 .20
29 .20
30 .20
31 .20

OTAL 6.20
EAN .20
AX .20
IN .20
C-FT 12

1

1
1
1

15

1

31

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER

1 5.4 I.
2 5.0 1.
3 7.4 1.
4 12 1.
5 10 1.

6 10 1.
7 8.3 1.
8 6.7 1.
9 5.7 1.
10 5.4 1.

1 4.7 1.
2 4.3 1.
3 4.0 I.
4 3.7 3.
5 3.2 8.

230
147
114
116
125

103
123
165
225
303

363
336
298
309
298

6 3.2 6.0 238
7 3.2 5.
8 2.9 5.
9 2.6 11
D 2.6 17

1 2.6 13
? 2.4 11
3 2.6 9.
4 2.4 9.

1 185
3 139
128
121

116
116
161
3 225
5 2.1 8.0 303

6 2.1 7.0 428
7 2.1 6.
8 2.1 5.

9 1.8 5.(

) 472
> 115 476
255 500
0 1.6 6.0 282 488

AN 4.31 5.09 245
X 12 1
N 1.6 1.

J 500
? 103
- FT 265 3C3 14,580 18

51 369
54 290
60 372
73 484
69 484

92 468
179 668
288 750
333 806

177 758
149 743
157 701
219 782
354 929

504 ,140
596 ,310
680 ,380
729 ,150
848 ,280

,010 ,430
893 ,220
,120 ,100
,250 ,220
,060 .260

965 ,210
938 ,240
766 ,310
680 ,400
632 ,520

,714 28,564
507 952
,250 1,520
51 290
,170 56,660

1,590 126
1.4BO 112
1,260 111
1,200 96
965 81

93B 70
798 58
668 48
600 43

600 46
674 43
966 42
722 39
596 41

568 66
508 130
476 149
405 66
351 63

327 51
312 68
280 40
270 31
280 34

250 42
219 29
205 29
191 19
175 16
155 15

18.593 1,848
600 59.6
1,590 149
155 15
36,880 3,670

1967 TO SEPTEMBER 1968

464 252
408 255
393 220
408 173
372 137

278 88
290 8
306 8
278 7
212 7

222 8
202 8
141 7
157 7
218 74

250 69
282 65
327 55
399 51

330 35
225 31
163 28
157 24
242 21

339 17
387 15
378 12
330 11

260 10 255

293 77.7
464 255
141 10
,040 4,620

. 4 1.8
. 4 1.8
. 7 1.2
. 0 1.0
. 3 .80

. 3 .60
. 7 .50
. 0 .30
. 7 .20
1 .10

. 7 .10
. 7 .1C
. 7 .10
. 2 .2C
. 2 .60

. 9 .70
. 6 .60
. 1 .60
. 8 1.

. 3 < .
. 2 3.
. 1 2.
. 90 2.
. 80 1.

. 70 1.
. 60 1.
. 50 1.
. 50 .0

1.1 .80 1.8 .70

3.31 1.18
10 4.7
. 50 .10
203 73

14
15
19
17
20

15
12
11
9.6

7.4
6.7
6.0
5.7
5.7

5.4
5.0
10
19
13

9.6
9.2
9.2
11
13

9.2
7.4
6.4
6.0
5.7

J12.0
10.4
20
5.0
619

SEP

. 80
1.8
2.4
1.3
. 90

. 80
. 70
. 60
. 50
. 50

. 30
. 20
. 20
. 20
. 20

. 10
. 1C
. 10
. 10
. 10

. 1C
. 10
. 10
. 10
. 10

. 10
. 20
. 20
. 20
. 20

. 44
2.4
. 10
26

SAN JOAQUIN RIVER BASIN

11228500 GRANITE CREEK NEAR CATTLE MOUNTAIN, CALIF. -- CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

I
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
19
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
WEAN
MAX
MIN
AC-FT

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
19
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL

("EAN
MAX
WIN
AC-FT

. 22
. 22
. 22
. 22
. 22

. 34
. 34
. 34
. 34
. 34

. 34
. 59
6.9
24
11

7.1
7.4
16
16
15

13
11
10
11
11

9.2
7.9
7.1
6.7
U
15

220.02
7.10
24
. 22
436

OCT

1.2
1.1
1.1
. 92
l.l

1.1
1.1
l.l
. 92
. 92

. 79
. 79
. 71
. 79
6.6

148
54
29
20
16

15
16
25
27
23

22
19
16
1 8
20
23

509.32
16.4
149
. 79

1,010

12
19
109
75
60

49
43
57

190 leg
76
72
58
42
43

48
53
69
75
7C

66
63
61
54
42

39
35
32
30
29

1,956
61.9
190
12
3,680

DISCHARGE,

MOV

25
26
25
23
19

19
22
25
25
29

848
T98

798
920
729
736
650

592
568
528
532
588

592
560
548
532
524

488
500
492
476
444

428
440
557
417
369

336
282
282
303
329

315
435
298
218
178

137
126
10B
112
110
93

11,029
356
592
93
21,880

71
69
69
66
54

44
36
32
29
32

30
31
28
26
24

22
26
33
24
19

15
13
12
12
11

10
7.9
7.1
6.0
5.7
5.0

B68.7
28.0
71
5.0

1,720

4.7
4.3
4.3
4.3
4.0

3.7
6.0
6.4
6.0
6.0

5.0
4.0
3.5
2.9
2.4

2.1
l.B
l.B
1.6
1.6

1.6
1.6
1.3
1.3
1.3

1.2
1.1
1.1
1.3
1.6

89.9
2.99
6.4
1.1
178

IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DEC JAN f=EB MAR APR MAY JUN

612
584
516
476
469

408
384
354
469
280

219
218
169
638 123
814 96

947 125
974 190
975 220
662 265
560 265

612 255
743 220
766 186
694 161
600 142

612 134
568 195
564 112
592 77
662 60

7,971
266
612
60
15,810

JUL

54
55
50
52

55
47
41
35
33

28
23
22
20
18

17
15
12
10
9.8

9.0
8.2
7.5
6.1
5.1

4.8
15
9.0
6.7
6.1
7.8

736.1
23.T
55
4.8
1,460

AUG

7.1
6.4
6.1
5.8

5.8
5.4
5.1
4.B
4.5

4.2
3.9
3.9
3.6
3.6

3.3
3.0
2.7
2.7
2.4

2.4
2.1
2.1
1.6
1.4

1.2
1.2
I.I
. 79
. 69
. 59

106.96
3.45
7.5
. 59
212

SEP

. 35
. 29
. 29
. 29

. 24
. 24
. 20
. 20
. 20

. 17
. 17
. 17
. 17
. 17

. 17
. 14
. 14
. 14
. 14

. 14
. 17
. 17
. 17
. 17

. 17
. 17
. 14
. 14
. 14

5.88
. 20
. 42
. 14
12

LOCATION.--Lat 37°16'27"

in gatehouse at entra

SAN JOAQUIN RIVER BASIN

11229500 WARD TUNNEL INTAKE AT FLORENCE LAKE, CALIF.

long 118°58'23", in NW'a sec.l, T. 8 S., R. 27 E. , Fresno County, ce to tunnel.

GAGE.--Water-stage recorder, concrete level (levels by Southern Californi

;ter. Datum of gage is 7,213.89 ft abov

AVERAGE DISCHARGE.--45 years

EXTREMES.--Period of record:

277 cfs (200,700 ac

Maximum daily disch

e-ft per year).

rge, 1,990 cfs Apr

REMARKS.--Records sxcellent.
igton Lake
is report.

rd tunnel diverts from Florence Lake Joaquin Rive

REVISIONS (WATER YEARS).--WSP 1515: 1931.

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

1
2
3

7
8

10

2

4

6

8
9
0

1
2

4
5

6

8
9
0

AN
X
N

524
516
512

504

520
533

516

499

482

425
409
393
373
351

326
298

216
146

54

32
30
28

355
533

26 1
25
26

24
22

22 I

22 2

73 I

146
187
178
146
117

ICO
99

169
190

191

150
136
126

93.2
197

15
39
. 80

. 80
. 90

33

50

33

b6
55
6
0
2

3
3

2

4
3
1

74.1
276

103
128
140

88
89

83

77

76

75
72
6B
66

61

54

53

50
49
50

76.9
140

55

5
4

3

1

6

54
55
57
58

72

65

65

61.2
72

70
81

116

157

187

162
140
146

200

182

240
272
304

151
350

MIN

491
475

550

586

491

502
514

439

469
466
473

508
5B6

. 50 AC-FT

351
361

380

388

437

253

677

685
700
720

436
720

297,600

351
351

351

563

762

295

443

444
400
381

413
822

333
381

381

331
331

378

378

376

371

417

441
439
439

387
443

434
432

410

381
380

378

414

480

470

376

410
409
409

423
484

510
502

453

423
426

419

459

470

452
448

410

453

457
446
435

448
510
410

SAN JOAQUIN RIVER BASIN

11229500 WARD TUNNEL INTAKE AT FLORENCE LAKE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

CAY

1

3
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16
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21
22
23
24
25

26

28
29

MEAN
MAX
MIN

DAY

1

3
4

6

8
9
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11
12

14
15

17

19
20

21
22
23
24
25

27
28

30

HEAN

UN

OCT

425

477
453
464

468

410
17B
54

30
28
23

19

18
16
16

15

14
14
14
14
14

14

13
13

136
477
12

OCT

573

568
566

588

580
577
588

591
588
582
579
575

607

350
348

347
347
343

339

134
332

342

477

331

NOV

12

13
13
14

13

IB
20
20

20
20
20

17

20
22
IB

50

41
40
35
30
29

28

105
248

36.3
248
12

NOV

343

340
337

334

327
326
323

319
316

310
400

5CC

5C2
497

333
171
497

491

466
343

3C

DEC

92

114
109
173

213

183
587
620

64B
633
361

140

134
130
123

116

IC6
93
91
90
89

87

77
79

184
648
5.0

DEC

57

82
79

68

73
71
65

64

40
44

53

54
61

68
6ft
65

63

64
64

54

JAN

71

66
67
68

60

58

58

62
67
70

72

72
71
69

6B

80
7
10
12
12

16

168
160

91.1
186
58

JAN

50

43
42

40

39
39
39

40

44
48

52

49
43

48
48
48

48

46
44

50

FEB

149

124
11B
120

123

130

151
152
150

113

107
103
105

101

94
96
95
94
91

87

93

117
152
87

FEB

51

54
55

53

50
5C
52

49
51

48
45

51

76
122

144
118

113

102
ICl

MAR

96

105
97
99

98

100

103
89
9B

158

416
527
407

243

209
208
205
182
163

146

155
143

527
89

MAR

99

88
87

86

77
76
72

71
78

73
75

74

77
72

72
77

79

85
100

158

APR

118

107
107
107

109

123

118
126
135

120

128
125
117

118

117
116
118
110
114

126

116
1O9

136
107

APR

187

145
140

129

129
148
177

225
241

236
258

210

157
140

127
115

172

371
459

470

MAY

109

116
130
132

140

27B

239
262
246

355

633
623
648

577

548
518
533
693
788

816

859
874

894

MAY

268
101

145

158

163
166
169

173
175

178
178

178

183
186

188
191

48
44

40
38

34

JUN

899

,080
,080
,070

,090

,090

,110
. 120
,130

,140

978
711
679

2.5

204
538
544
542
542

542

712
552

1.140

JUN

31
30

416

425

421
421
419

419
419

417

419

421
421

421
421

488
529

525
525

523

JUL

532

400
241
614

1.060

1.180

1,550
1,610
1,610

1,640

1,650
1>6SO
1,660

1,650

1.250
729
1,010
1.100
1,300

1,380

1.520
1,180

1.660

JUL

497
495

489

484

482
504
514

512
510

506

499

493
491

486
480

471
480

486
489

623

AUG

475

1,150
1,020
B4B

759

723

611
661
739

737

669
562
808

626

625
625
623
625
625

623

621
620

1,150

AUG

606
598

664

331

329
327
326

323
323

321

316

313
312

312
312

304
302

298
295

315

SEP

611

609
609
555

489

491

491
488
4B8

538

560
533
533

528

526
528
528
550
562

560

579
577

611
482

SEP

326
324
319
316

343

335
331
3*5

34B
343

355

348

398
351

339
329

56
40

27
24

21

21

SAN JOAQUIN RIVER BASIN

11229SOO WARD TUNNEL INTAKE AT FLORENCE LAKE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

1 20 2BC
2 20 358
3 IB 163
4 IB 108
5 17 88

6 16 33
7 7.9 .66
B .39 131
9 .39 106
10 .39 81

11 .39 76
12 .39 79
13 .39 77
14 .39 76
15 .39 78

16 .48 92
17 .48 95
18 .48 95
19 .48 96
20 .48 88

21 .57 82
22 142 Bl
23 120 82
24 .66 8
25 .66 1

26 .66 B
27 .93 2
28 .75 4
29 .75 2
30 .84 57

MEAN 12.6 95.6
MAX 142 358
PIN .39 .66
AC-FT 776 5,690 4

DISCHARGE,

1 493 552

3 495 525
4 493 527
5 489 546

6 486 546
7 480 525
8 477 534
9 473 538
10 473 536

11 470 475
12 480 376
13 491 225

15 498 80 17

16 510 74 20
17 508 58
18 506 49
19 502 57
20 497 60

21 489 55
22 486 52
23 498 44
24 504 40
25 497 40

26 491 40
27 95 38
28 04 32
29 08 32
30 06 15
31 29

MAX 529 552
MIN 47D 15

53 95 552 188
44 88 508 188
48 84 544 123
48 85 564 152
44 90 304 169

47 97 59 123

44 95 .66 102
44 88 .75 98
41 77 .75 95

40 73 196 90
38 74 532 88
47 92 284 86
52 124 135 83
55 115 115 84

67 103 110 89
74 91 117 99
79 90 120 110
B? 124 114 106
71 120 108 106

62 140 105 102
64 18B 102 97
70 220 95 104
81 .84 73 123
71 .75 71 138

83 .84 131 161
95 .93 161 188
113 .93 229 225

108 615 312

113 615 564 380
38 .75 .66 83

IN CUBIC FEET PER SECOND, WATER

. 32 48 82 82

. 30 40 75 88
. 30 36 78 87

. 30 36 81 91
. 30 39 84 98
. 30 39 89 100
. 30 41 88 90
. 39 47 82 87

. 39 53 81 82
. 39 60 84 81
. 39 68 81 83

9 72 74 100

8 58 74 105
80 76 116

39 68 96

31 68 102
42 66 112

C6 66 182

1C5 72 212
104 74 201
92 77 173

88 152

20« 180 89 212
. 30 27 65 81

425
398
355
319
359

294

218
223
216

265
366
439
430
339

312
351
421
434
582

850
878
697
544

500
529
613
728
816

878
216

863
907
863
767
680

685

613
470
332

353
368
159
35
34

34
34
34
34
33

33
33
33
33

33
33
33
33
32

907
32

39 AC-FT 214,200

YEAR DCTCBER 1969

109
117
127
136

196
216
218
239
274

292
788
273

178

162
L40

135

131
120

155

131

126

292
109

134
169
239
285

376
414
371
319
355

376
375

312

251

255

307
181

721

905

921

1,010
124

JUN

32
31
32
32
32

31
31
31
31
30

30
30
323
478
478

480
482
754
963
1,030

,030
,030
,030
,030

,030
. 140
,190
,180
,180

1,190
30

JUL

1,180
821
674
691
691

691
690
693
608
3.0

259
409
480
482
364

323
380
512
517
517

517
398
353
457

515
517
558
650
676
674

I. It
3

0
0

TO SEPTEMBER L970

JUN JUL

1,120 529
1,120 527
1,130 473
1,140 504

796
802
653
498
504

5C6
468

552

552

234

218
237

1,013

6C4

1,140
218

375
404
489
615
718

682
664

340

428

477

475
475

572

482
482

718
268

AUG

674
676
676
676
691

775
690
584
640
742

780
778
778
681
646

645
628
628
626
626

626
625
621
620
620

618
616
548
520
518
516

780
516

AUG

486
482
482
479

578
574
572
381
187

558
554

513

470

356

L79
L79

133
119

123
123

578
119

SEP

514
512
512
508
506

506
506
518
526
524

526
524
524
522
520

334
350
322
208
285

237
429
493
489
486

484
480
477
489
498

526
208

SEP

113
95
87
86

68
67
80
88
88

428
644

637

631
626

644
650

646
664

639
633

655

678
67

SAN JOAQUIN RIVER BASIN

11229600 FLORENCE LAKE NEAR BIG CREEK, CALIF.

LOCATION.--Lat 37°16'26", long 118°58'23", in NWs sec.l, T. 8 S., R.27 E., Fr in gatehouse of Ward tunnel intake near dam on South Fork San Joaquin Riv
Big Creek.

DRAINAGE AREA.--171 sq mi.

PERIOD OF RECORD.--November 1925 to September 1970. Pri

GAGE.--hater-stage recorder. Datum of gage is at mean

Wtr yr
1966
1967
1968
1969
1970

a Occurred July 3, 1966.
b Occurred Aug. 7, 1967.
c Occurred Nov. 1, 1966.
d Occurred June 24, 1968.

October 1931, published in WSP 721.

irel (levels by Southern California Ediso

. --Ma
d in

Date

July
Aug.
June

Aug.
July

the following

2, 3, 1966
6, 7, 1967
22-24, 1968
11, 1969
16, 1970

table:

Maximum
Cont
62
64
45
64
63

ents
,400
,700
,900
,900
,400

E
a

b
d

- feet, ele

evation
,325.40
,327.84
,311.44
,328.00
,326.40

Date
Nov.
Oct.
Dec.
Oct.
Nov.

11
31
14
7
29

Mir

, 12, 1965
to Nov. 3, Nov. 6
, 1967
, 1968
, 1969

'

limum

1966

Contents E
259
244 c
299
267
282

e con

evation
,224.74
,224.55
,225.18
,224.83
,225.01

during perioi
NOTE. --Pr:
contents for 1926-39

REMARKS.--Lake is formed by a multiple-arch concrete dam; storage began in April 1925. Usable capacity,

level.

COOPERATION. --Re

Ca pacity t

,224
,227
,230
,235
,240
,245

201
495
887
1,770
2,980
4,670

,250 6,
,255 8,
,260 11,
,265 14,
,270 17,
,275 21,

CONTENTSf IN ACRE-FEET, AT 2400,

DAY

1
2
3
4
5

6
7
8
9
13

11
12
13
14
15

16

ie
19
20

21
22
23
24
25

26
27
28
29
30

MAX
MIN

ft)

CAL YR

OCT

8,000
7,100
6,200
5,300

14,400
13,500
12,500
11,600
10,700

9,790

8,010
7,150

5,540

3,910

2.50C

1,920
1,390
946
581
335

287
279

272

18,900
268

1965 MAX

NCV

267
267
267

265

263
263
261

259

290
363

381

366
489
500
484
486

472
449

421

5CO
259

62,900

DEC

801
1,030
1,240

1,440

1,810
2,000
1.820

1,410

759
511

319

319
316
312
312
312

312
312

302

2,000
302

MIN 259
MIN 259

JAN

410
410
406

381

366

361

357

351
350

342

341
340
337
335
333

331
330

327

410

t -6
t -12

FEB

328
329
329

329

337

337

336

336
336

335

335
335
335
336
336

336
336

337

,880
,090

650
950
600
600
800
100

,280
,290
,300
,310
,320
,330

24,600
32,000
39,900
48,300
57,300
66,800

t)

HATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

MAR

334
333
332

331

329

394

391

463
426

389
374

373
403
444
429
419

443
484

571

700

APR

1,060
1,190
1,410

1,630

2,150

2,190

1,830

1,010
806

1,040
715

619
see
602
680
923

1,330
1,790

2,720

3,450

MAY

7,250
8,900
10,600

12,300

15,800

18,500

19,500

21,300
22,500

31,200
32,800

34,500
36,300
38,300
39,600
41,200

42,700
44,000

46,000

47,200

JUN

48,800
49,400
50,000

50.7CO

51,900

53,200

54,000

54,900
55,100

56,700

59,400
60,100

60,500
60,600
60,800
60,800
60,900

61,100
61,300

61,800

62,000

JUL

62,400
62,300
62,300

62,100

61,800
61, $00
61,200

60,900

60,100
59,700

58,800

57,500
57,100

56,700
56,400
56,000
55,600
55,300

54,800
54,300

53,200
52,700

62,400
52,200

AUG

51,200
50,700
50,300

49,800

48,900
48.400
47,800

47,300

45,900
45,200

43, 700

41.500
40.700

40.000
39,200
38.600
38,000
37,300

36,700
36,000

4,600
3,800

1,800
3,100

SEP

31,300
30.400
29,500
28.600

27,800
27,000
26,200
25,400
24,600

23,800
23,000
22,100
21,200

19,400

17,700
16,800
16,000

15,200
14,400
13.600
12,800
12.000

11.200
10,300
9,430
8,540
7,710

32.300
7,710

ELEVATION, IN FEET, AT END OF MONTH. CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11229600 FLORENCE LAKE NEAR BIG CREEK, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEET, AT 2400, MATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
4

6

8

11
12
13

16
17
18

22
23
24
25

26

28
29
iO

MIN

(t)

CAL
MTR

t
t

5,080 244
4,130 247

2,250 244

657 255

265 256
262 254

253 258
251 252
250 260

249 304

249 292
249 288

247 618
246 513
245 406

244 244
7,224.56 7,226.23

YR 1966 MAX 62,400
YR 1967 MAX 64,700

ELEVATION, IN FEET,
CHANGE IN CONTENTS,

413
409

2,680

4,170

534

415
412

389

383
384

368
370
361

358
7,225.78 7

MIN 244
MIN 244

AT END OF

342

340
338

350

414

482
481
471

338
,226.80

t
t +37,

MONTH.

434

441

418

400

399

______

398
7,226.17 7

- 6
290

387

400

452

672

454

433
422
413

383
,226.29

189

413
412

422
425

412

406

405
399
402

389
7,226.19

470

735
794

580
670
876

2,450

15,400

24,100
25,300
26,300

406
7,283.13 7,

24,000

24,100
24,800

28.4CO
28,900
29,700

37,900

56,900

57,100
57,700
57,800

23.900
320.50

56,200

55,700
55,400

60,200
62,400
63,100

63,700

62,800

62,200
62,600
62,800

55,400
7,326.57

64.70C

64,600
64,300

64,300
64,300
64, 100

64.200

62,700

61,600
61,000
60,500

60,000
7,322.85

59,600

59,200
58,900

58,000

57,000
56,500
55,800

53,700

51,000

49,600
48,800

4B,10C

46,600
45.800
45,000

45,000
7,306.18

IN ACRE-FEET.

CONTENTS, IN ACRE-FEET, AT 2400,

DAY

?

4

6

8
9
10

11
12

15

16

18

20

22

25

26

28
29
30

MAX
MIN

It)

WTR

OCT NOV

44,200 19,300
43,300 18,700
42,500 18,100
41,600 17,500

37,700 15,100

35,800 13,900

34,800 13,300
33,800 12.8CO

31,700 11,700

29,600 10,000
28,500 9,110
27,700 8,220

26,500 6,490

25,300 5,700

23,600 2,780

23,000 1,900

20,600 331

44.2CO 19,300
19,900 331

- 25,100 -19,570

YR 1968 MAX 49,500

DEC

329
355
355
350

339

334

332
321

303

319
319
320

331

332

332
332

332

331

355
303

0

MIN 279

330
329

326

324
323
323

322
322

321

323

324

324

323
323

322

330
320

- 6

t -44

326
327

328
328
328

328
328

32B

327

331

429
416

412

452
326

+69

,720

MATER YEAR OCTOBER 1967 TO

379

363

365

363
360

366

361

376

364
368

369

493
360

+99

477

441

532

613
635

634

611

534

510
588

745

1,750
428

+1,260

4,080

10,000

11,200

11,800
12,300

13,000

13,600

15,100

22,900
24,100

25.900

37,800
2,620

+36,050

SEPTEMBER 1968

JUN

42,300

46,500

46, SCO

46,600
46,700

47,200

48,000

48,700

49,4CO
49,200

48,900

49,500
39,900

+9,500

JUL

46,200

42,700

42,000

41,600
41,000

39,800

38,500

37,200

33.300
32,800

32,400

32.000

46,800
30,900

- 16,400

AUG

29,600
28,700

25,900

25,000

24,600
24,100

23.300
22,800

22,300

21,400

16,800
18,300
17,700

17,200

16,100

15,000

30,300
14.400

- 16,500

SEP

13,200
12,700
12,100

9,670
9,070
8,450

7,820
7,190

5,960
5,280

4,630
3,910
3.210

1,800

619
387
335
312

300

286
281
279

13,800
279

- 14,120

t ELEVATION, IN FEET, AT END OF MONTH, t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11229600 FLORENCE LAKE NEAR BIG CREEK, CALIF.--CONTINUED

1

3
4

6
7

9
10

11
12

14
15

16
17

19

21
22

24
25

27
28

31

PIN

1 +)
It)

272 413

337 383

389 373
418 388

725 398

1,242 385

1,296 350

1,546

+1,270 -1,200

340 395 954 678 691 1,210 57,759 56,599 64,310 $5,051

420 5,614 601 507 1,156 57,173 54,537 63,197 59,339 40,219

412 4,258 792 57,833 64,368 57,517

CAL YR 1968 MAX 49,500 MIN 269 t +81
WTR YR 1969 MAX 64,821 MIN 269 t +38,220

t ELEVATION, IN FEET, AT END OF MONTH,
t CHANGE IN CONTENTS, IN ACRE-FEET.

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCT08ER 1969 TO SEPTEMBER 1970

CAY CCT NQV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP

4
5

7

9
1

1
2

5

6
7

9

1

N

)
)

37,727

35,178

32,655
31,806

30,112

28,361

26,538

21,544

19,364

17,191

13,627

11,769

11,769
7,260.28
- 26,700

10,775

7,920

5,088

2,091

732

359

324

311

3C2

29C

288
7,225.45
- 11,470

388 318 363 368 424 471 35,625 60,574 57,871 43,869

712 305 369 388 529 1,023 41,674 62,624 53,833 43,483

321 373 427 34,217 58,440 43,970

7,225.40 7,225.93 7,225.80 7,226.41 7,226.59 7,292.92 7,323.37 7,321.21 7,304.97 7,272.78
- 5 +52 -13 +67 +21 +33,750 +26,300 -2,100 -14,400 -24,400

MIN 288 t -91

t ELEVATION, IN FEET, AT END OF MONTH. t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11230000 SOUTH FORK SAN JOAQUIN RIVER NEAR FLORENCE LAKE, CALIF.

DRAINAGE AREA.--171 sq mi.

PERIOD OF RECORD.--October 1921 to September 1970. Monthly discharge only for some periods, published in WSP 1315-A. Prior to October 1925, published as "near Lake Florence."

GAGE.--Water-stage recorder, Parshall flume, and concrete control. Altitude of gage is 7,200 ft (from topo-graphic map) .

AVERAGE DISCHARGE.--49 years, 317 cfs (229,700 acre-ft per year), combined flow of South Fork San Joaquin River and Ward tunnel at intake.

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet) for the water years 1966-70 are contained in the following table:

Maximum Minimum daily
Wtr yr Date Discharge G.H. Date Discharge
1966 Aug. 2, 1966 14 9.40 Sept.12-15, 1966 2.9
1967 June 30, 1967 3,230 14.92 Jan. 24, 1967 3.3
1968 July 6, 1968 9.8 9.10 Nov. 29, 1967 2.5
1969 June 2, 1969 3,530 15.23 Many days 3.2
1970 July 14, 1970 21 9.57 Sept.30, 1970 1.7

Period of record: Maximum discharge, 4,320 cfs June 6, 1940 (gage height, 15.38 ft); no flow at times.

COOPERATION.--Gage-height record and 37 discharge measurements furnished by Southern California Edison Co., in connection with a Federal Power Commission project.

DISCHARGE! IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN juu AUG s 1
2
3
4

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

2122

2425

27
28
29
30
31

TOTAL

MAX

AC-FT

CAL YR
WTR YR

5.2
5.1
5.1

5.3
5.3

S.I
5.1

5.4
S.5
5.4
5.4

5.2
5.1
5.0

4.2

4. a

152.4

5.5

302

1965 TOTAL
1966 TOTAL

3.8
3.4
3.4

3.4

3.4
3.4

3.4
3.4

4.2
3.9
3.8

3.5

108.5

4.3

215

1.735.50
1,579.10

3.5
3.7

3.6

3.8
3.8

3.8
3.7

3.4
3.4
3.4

3.4

3.4

108.3

3.8

215

MEAN
MEAN

3.3
3.3

3.4

3.4

3.4
3.5

3.2
3.2
3.2

3.1

3.3

100.4

3.5

199

4.75 MAX
4.33 MAX

(XI\j r

3.3

3.3

3.2
3.1

3.2

3.2
3.3
3.3

3.3

91.2

3.3

181

9.0
6.9

3.2
3.2

3.6

3.5
3.6

3.4

3.4
3.4
3.4

3.4

3.4

105.3

3.6

209

MIN .10
M1N 2.9

3.5 4.2 5.2
3.5 4.5 5.2

3.8 4.3 5.8

3.8 4.3 6.0

3.4 4.3 6.1

3.4 4.4 6.1
3.5 4.4 6.2
3.5 4.5 6.2

3.5 5.0 6.2

5.1

106.4 139.8 178.7

3.8 5.1 6.3

211 277 354

AC-FT 3.440
AC-FT 3.130

6.2
6.2

6.1

6.1

5.9

5.9
5.9
5.8

6.8

6.3

197.3

6.9

391

6.0
5.9

5.6

5.6

5.6

5.6
5.5
5.5

5.4

5.3

5.3

173.0

6.4

343

5.2
5.1

S.n

5.0

3.8

2.9

2.9

3,n
3.3
3.3

3.1
3.1

3.4

117.8

5.3

234

SAN JOAQUIN RIVER BASIN

11230000 SOUTH FORK SAN JOAQUIN RIVER NEAR FLORENCE LAKE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

OCT NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
4
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6
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8
9
10

11
12
13
14
15

16
17
IB
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
HIN
AC-FT

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
2B
29
30
31

TOTAL
MEAN
MAX

MIN AC-FT

3.4

3.4
3.4

3.4
3.4

111.5
3.60
4.4

221

OCT

4.2

5.3
5.2
5.2
5.2

5.2
5.1
5.2
5.2

5.1
5.1
5.1
5.1
5.1

5.0
5.0
5.2

5.1

5.1
5.1
5.1
5.1
5.1
5.0

157.1
5.07
5.7
4.2
312

3.5

3.5

3.4 3.4

3.4 3.5

103.4 115.6 106.2
3.45 3.73 3.43
3.9 6.6 3.B

205

DISCHARGE

NOV

3.B

3.6
3.6
3.5
3.5

3.5

3.4
3.4

3.3
3.4
3.4
3.2

3.2
3.1
3.1

2.9

2.5
2.9

95.6
3.19
3.8
2.5
190

229 211

, IN CUBIC FEET

DEC JAN

3.3 3.3

3.3 3.3
3.3 3.3
3.3 3.3
3.3 3.3

3.3 3.3

3.3 3.3

3.3 3.3
3.3 3.3
3.3 3.3

3.3 3.3
3.3 3.3

3.3 3.3

3.3 3.3
3.3 3.3

102.3 102.2
3.30 3.30
3.3 3.4
3.3 3.1
203 203

3.4

95.2
3.40
3.4

189

PER SECOND

FEB

3.3
3.3
3.3
3.3

3.3

3.3

3.3
3.3
3.5

3.6
3.6

3.3

97.9
3.38
3.9
3.3
194

5.0

3.4

109.4
3.53
5.0

217

MATER

MAR

3.3
3.4
3.3

3.3

3.3

3.4
3.3
3.3

3.3
3.3

3.3
3.3

102.5
3.31
3.4

203

3.4 3.8

3.4 3.7

3.4 3.8

3.4 4.7 2
3.4 4.8 2

3.4 5.4 2
3.4 5.2 2
3.4 5.2 3

102.1 128.7 20
3.40 4.15
3.5 5.4

203 255

5.2
5.2

5.2

5.2
5.2

5.3

5.4

661

,160
300

. 550
. 570
. 600
080

. 287.1
676
3.080

40.240

3.060
3,090

2,850

2.970
1,740
1,520
1,210
432

8.5
8.5
8.6
8.7
671

910
262

243
465

488
925
620
532
528

310
205
90
429
553
572

30,858.2
995
3,090
8.5
61.210

YEAR OCTOBER 1967 TO SEPTEMBER 1968

APR MAY JUN JUL

3.3 4.7 7.1 7.2

3.3 5.2
3.3 5.3
3.3 5.4

3.3 5.5

3.3 5.6

3.3 5.6
3.3 5.6
3.3 5.8

3.3 6.1
3.3 6.1

4.2 6.6
4.3 6.8

104.7 176.9
3.49 5.71
4.3 6.8

208 351

7.3
7.1
6.3

6.0

6.0

6.0
6.1
6.1

6.1
6.1
6.1
6.1
6.1

7.3
7.3

196.6
6.55
7.3

390

7.2
7.2
7.2

7.1

7.1

7.0
7.0
6.8

6.8
6.8
6.8
6.8
6.8

7.0
6.8

217.0
7.00
7.3

430

1,010
119
8.9
8.9
9.1

64
104
73
26
9.7

10
20
11
9.5
8.9

8.9
9.1

17
26

26
25
26
22
20

20
20
20
16
15
15

1.787.6
57.7
1.010
8.9
3,550

AUG

6.7

6.5
6.5
6.5

6.4

6.4

6.3
6.3
6.3

6.2
6.2
6.2
6.1
6.1

6.0
6.0

196.0
6.32
6.7

389

15
15
11
10
10

10
10
10
10
10

7.5
5.2
5.2
5.1
5.1

5.1
5.0

5.1
5.0

5.0
4.9
4.9
4.8
4.6

4.6
4.6
4.6
4.5
4.5

211.6
7.05
15
4.5
420

SEP

5.8
5.8

5.7
5.6

5.5
5.5
5.4

5.3

4.5

4,4

4.3
4.2
4.2
4.1

3.9
3.7
3.5
3.4
3.4

3.3
3.3

135.0
4.50
5.8

268

SAN JOAQUIN RIVER BASIN

11230000 SOUTH FORK SAN JOAQUIN RIVER NEAR FLORENCE LAKE, CALIF.--CONTINUED

OISCHARGEt IN CUBIC FEET PER SECONOi WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

1
2
3
4
5

6
7
8
9
10

11
12
13
1*
15

16
17
IB
19

22
23
24
25

26
27
2B
29
30

TOTAL
MEAN
MAX
MIN
AC-FT

HTR Yl

DAY

1

3

6

8

10

11
12
13

15

16

18
19
20

21
22
23
24

26

28
29
30
31

TOTAL

MAX MIN
AC-FT

CAL YR
HTR YR

3.3

3.3

3.8
3.5

3.5

3.6

3.6
3.6

108.2
3.49
3.8
3.3
215

OCT

6.2
6.2
6.1

5.9
5.9
5.8
5.8

5.8
5.8
5.8

6.0

5.8

5.6

5.5
5.5
5.4
5.4

5.2
5.2
5.1
5.1
5.0

175.3
5. 65

4.9
348

1969 TOTAL
1970 TOTAL

4.0 3.3 3.3 3.3 3.3 3.4 4.0

3.3 3.3 3.3 3.3 3.3 3.5 4.2

3.3 3.3 3.3 3.3 3.2 3.3 4.4

3.S 3.3 3.3 3.2 3.2 3.6 5.6

3.S 3.3 3.4 3.2 3.3 3.8 6.1

3.3 3.3 3.4 3.2 3.2 3.9 2.470

3.3 3.3 3.3 3.3 3.5 4.0 2.820
3.3 3.3 3.3 3.5 4.1 2.930
3.3 3.3 3.3 3.7 4.2 2.990

101.5 102.6 105.2 92.5 102.2 111.6 27.105.0
3.3B 3.31 3.39 3.30 3.30 3.72 B74

3.3 3.3 3.3 3.2 3.2 3.3 4.0
201 204 209 1B3 203 221 53.760

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1969

NOV DEC JAN FEB MAR APR MAY

3.8 3.4 3.4 3.4 3.5 3.4 3.4

3.4 3.6 3.4 3.4 3.5 3.4 3.6

3.1 3.7 3.4 3.4 3.5 3.6 3.7

3.4 3.5 3.5 3.4 3.4 3.4 5.6

3.4 3.6 3.6 3.4 3.6 3.4 5.8 3.4 3.5 3.5 3.4 3.6 3.4 5.9 3.4 3.5 3.6 3.4 3.6 3.4 6.1

3.4 3.5 3.5 3.5 3.4 3.6 6.3

3.4 3.5 3.4 - 3.4 3.4 6.4
3.4 3.5 3.4 « 3.4 3.4 6.5
3.5 3.4 3.4 6.6

99,3 110.6 109.6 95. 8 108.0 103.3 148.6 3.31 3.57 3.54 3.42 3.48 3.44 4.79

197 319 217 190 214 205 295

132, 035. T MEAN 362 MAX 3,310 MIN 2.9 AC-FT 261,900 1,928.2 MEAN 5.28 MAX 14 MIN l.T AC-FT 3,820

3.220
3.310
3.270
3.140
3.050

3.000
2.950
2.880
2.630
2.020

1.620

1.740
1.900
2.1BO

2.0BO
1,710
1.210
1.190

1.580
1.780

1.440

980
840
680
790

SB, 210
1.940

680
115,500

925
1.180
1,170
1.170
1.300

1,340
1.230
1.120
1,010
1.420

1.900

1.760
1.740
1.450

1.560
1.600
1.330
1.540

1.850
1.940
1,800
1.380

795
611
532
566

41,474
1,338

532
82.260

598
715
650
5B6
330

Bl
12
IS
27
32

315
354
28
14
16

12
9.2
B.6
13

19
33
36
36

36
38
36
36
38

4.1B0.1
135
715
B.6
8,290

40
30
9.2
B.B
8.B

9.0
8.5
B.4
8.3
8.2

8.0
7.1
6.7
6.6
6.6

6.6
6.5
6.5
6.5

6.4
6.4
6.4
6.3

6.3
6.2
6.?
6.2
6.2

269.9
9.00
40
6.2
535

TO SEPTEMBER 1970

JUN

6.6

6.8

6.8
6.8
7.1

7.5
7.9

8.2
8.8
8.8
B.B

8. 8
B.R
9.0
8.8
B.B

231.1
7.70

458

JUL

8.8
B.B
B.7
B.7
B.B

B.B
9.0
9.1

8.8
8.7

8.7
8.7
8.7
8.7
8.6

8.6
8.6
8.5
8.5
B.S

272.3
8.7B

540

AUG

8.4
8.4
8.4
8.3
8.3

8.2
8.2
8.1
7.8

14
13

13
13
13
13

13
13
13
13
12

307.3
9.91
14

610

SEP

12
12
12
12

12
12
12
11
11

8.7

2.3

2.2
2.2

2.1
2.1
2.0
1.9

1.9
1.9
1.8
1.8
1.7

167.0
5.57
12

331

SAN JOAQUIN RIVER BASIN

11230500 BEAR CREEK NEAR LAKE THOMAS A. EDISON, CALIF.

eyed), Fresno County, Sier
upstream from mouth, 2.1

DRAINAGE AREA.--52.5 sq mi.

PERIOD OF RECORD.--October 1921 to September 1970. Monthly discharge only for some periods, published in WSP 1315-A. Prior to October 1954, published as "near Vermilion Valley."

GAGE.--Water-stage
Edison Co.).

Datum of gage is 7,366.94 ft abo 2! (levels by Southern Californi

AVERAGE DISCHARGE. --43 years,

EXTREMES. --Maximums and minimu

Date
May 26

May 24
June 29

July 13

Wtr yr
1966
1967
1968

P
1.2

Annual maximum disc

Time Disch.
, 1966 2200 *405

, 1967 1900 840
, 1967 2000 *1,400
, 1967 2000 1,100

Date

Sept. 17, 1966
Nov. 5, 6, 1966
Sept. 25-30, 1968

eriod of record: Maxim
cfs Sept. 29 to Oct. 5,

See schematic diagram of Sa

COOPERATION. --Gaize-heieht reco

ms (discharge in cubic feet

yearj.

per second, gage height in f<

harge (*) and peak discharges above base (440 cfs) , water

G.H. Date Time

4.93 May 27, 1968 2100

5.75 June 2, 1969 2030
6.55 June 14, 1969 2200
6.15 June 22, 1969 2130

Annual minimum daily discha

Discharge
4. 2
4.2
3.5

urn discharge, 1,680 cfs July
1924.

n Joaquin River basin elsewh

Disch. G.H. Date
*420 5.10 July 13,

*1,390 6.54 May 17,
804 5.69 May 23,
882 5.82 May 31,
June 27,

rge, water years 1966-70

Wtr yr Date
1969 Oct. 4-9, 11, 1961
1970 Sept. 29, 30, 1970

26, 1956 (gage height, 7.12

ere in this report.

;et).

years 1966-70

Time Disch.
1969 2100 1,050

1970 2030 570
1970 2130 565
1970 2230 *650
1970 0400 605

Dis
?

ft) ; minimum recorde

G.H.
6.09

5.26
5.25
5.42
5.33

charge
3.5
5.9

d,

ion.

in

connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 611: 1922(M). WSP 1345: 1931-35. WSP 1515: 1922-30. WSP 1930: DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

Drainage

DAY

1
2
3
4
5

6

8
9
10

11
12
13
14
15

17
18

20

21
22
23
24
25

26
27
28
29
30

I"EAN
PAX

("IN

WTR YR

OCT

15
14
14

13

13

13
13
12

12
12
12
12
14

14
14

12

12
11
11
1C
10

10
9.5
9.5
9.5
9.5

12.0
15
9.5

1966 TOTAL

9.5
9.5
9.0

9.0

8.5

7.8
7.8
7.8

7.8
9.0
10
16
23

37
37

39

24
24
30
32
52

47
42
38
36
32

22.7
52
7.8

24,965.

28
27
29

30

27

2->

24
24

22
22
21
20
18

16
17

17

17
16
16
16
15

16
16
17
19
20

21.0
31
15

1 MEAN

20
13
IB

17

18

19
17
17

16
16
16
16
16

14
U

13

12
13
12

12

12
11
11
12
13

14,9
20
11

68.4

12
11
12

14

17
19
16

14
16
16
15
15

15
15

16

16
17
13

17

17
17

______
__ _

15.3
19
11

MAX 334

16
16
15

16

19
19
24

30
32
36
38
36

32
34

30

31
39

49

56

83
96

39.3
117
15

WIN 4.2

143
53
53

72

80
60
128

103
90
85
90
105

150
123

31

77
73

141

172

177
190

134
190
73

AC-FT

217
244
280

280

289

289
256
277

241
206
220
235
250

310
322

262

247
271

295

334

295
253

273
334
206

49,520

JUN

182
150
150

172

180

180
160
170

2C9
232
262
271
241

217
217

238

206
172

145

162

167
155

189
271
139

JUL

145
125
103

94

94

78
73
63

56
50
48
48
46

44
45

49

52
52

52
52

48

4
4

63.
14
4

AUG

45
49
*6

40

37

29
27
25

24
23
21
21
21

22
39

31

27
24

20
18

17
15

14
12

26.7
49
12

SEP

11
9.5
9.0

8.2

7.8

6.8
6.0
5.7

5.4
5.4
5.4
5.0
4.8

4.2
4.5

11

10
9.0
8.5
8.2
7.8

7.8
7.8
7.8
7.1
6.4

7.32
11
4.2

SAN JOAQUIN RIVER BASIN

11230500 BEAR CREEK NEAR LAKE THOMAS A. EDISON, CALIF.--CONTINUED

DISCHARGE! IN CUBIC FEET PER SECOND. HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

1
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14
IS

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31

MAX
MIN

DAY

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2
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11
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13
14
15

16
17
18
L9
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
WIN

6.0
6.0
6.0
5.7
5.7

5.7
5.7
5.7
5.4
5.4

6.0
6.4
6.0
5.7
5.4

5.4
5.4
5.0
5.0
5.0

5.0
5.0
5.0
5.0
5.0

5.0
5.0
5.0
4.8
4.8
4.5

6.4
4.5

OCT

54
48
44
38
34

31
30
28
27
26

25
24
23
22
21

20
19
19
18
18

18
17
17
16
15

L5
15
15
15
14
13

739

54
13

4.5
4.5
4.5
4.5
4.2

4.2
4.5
6.8
6.4
6.8

7.4
7.1
6.4
5.7
6.0

7.4
6.8
6.4
7.4
13

8.5
12
12
12
10

11
11
34
53
30

53
4.2

DISCHARGE.

NOV

12
12
12
12
12

12
12
12
10
12

L2
11
1C
12
14

12
12
12
14
19

16
15
15
15
15

13
12
12
10
13

382

19
10

23
21
21
30
33

65
89
100

55

42

30
29

30
30

30
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26
24
23
22
21

20

20
20
19
18

100
18

IN CUE

DEC

12
19
21
19
17

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16
16

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11
10
11

12
12
1?
14
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15
14
12
12

21
10

8
8
8
8
8

IB

17

17

19

23
24

24
24

20

23
27
33
38

51

34

34
36

781

51
16

1C FEET

JAN

10
10
10
9.5
9.0

9.0
9.0
9.0
9.0
9.0

9.0
0
0
0
0

2
1
0
0
0

10
10
10
9.5
10

9.5
8.5
9.0
10
10
10

12
8.5

33
30
28
31
36

33

36

42

41

31

29
28

31

27

27
26

25

27

883

42
25

PER SECOND,

FEB

10
11
11
11
11

11
10
10
10
10

10
10

It)

10
9.5

1C
11
13
14
22

26
24
22
23
24

23
24
25
24

9.5

29
31
31
28
26

30

31

34

50

88
87

49

46

48
41

36

36

32

1,274

88
26

MATER

MAR

19
14
18
18

18
16
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16
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15
16
15
15
16

15
15
15
16
15

15
16
15
16
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17
19
27
39
38

14

MTN 1C
WIN 3

32
31
27
28
30

32

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32

38

35

36

33

33
32

31

33

33

1,001

39
27

31

32
37
37

44

105

92

136

253

400

480
555

635

585

480

390

8,134

635
31

YEAR OCTC8ER 1967

APR MAY

30
27
27
28

24
25
28
37
50

69
66
56
60
70

54
41
31
26
24

22
20
22
29
46

83
107
130
143
172

20

AC-FT
. 5 AC-FT

172
180
187
170

136
132
121
109
105

109
107
85
70
64

80
113
134
232
259

250
184
128
109
134

214

342
330
304

64

113,900
33,970

JUN

235

214
238
198

187

330

386

370

575
726

630

762
744

685

774
810
846

1,000

15,545

1,000
187

TO SEPTEM

JUN

307
304
277
2C6

148
121
119
109
101

107
130
143
145
170

182
184
172
167
153

134
119
117
111
1C5

S9

92
80
66

66

JUL

1,070

1.020
978
882

732
732
675

580

738

580
525

500

480
485

435

495
455
490

425

19,743

1,090
400

iER 1968

JUL

56
56
52
50

50
49
49
108
190

117
87
70
63
56

53
46
43
40
38

36
33
32
30
29

28

41
46
92

28

AUG

378

342
326
304

280
238
206
200
195

235
195

182
192

155

145
143

148

153
136
121

99

6,161 2,

378
99

AUG

80
61
52
44
38

33
30
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26
25

24
22
24
28
24

23
21 <
19 <
18 4
17 «

15 «
17 <
15 1
14 3
12 3

11 3

9.5 3
8.5 3
8.2 3

80 9
8.2 3

SEP

139

139
162
160

128
107
97
88
77

53
50

48
45
48

52

46
48

50

64
60
59

59

122

162
45

»EP

3.0
i.5
.8
.4
. 1

. 8

. 8
.4
4

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30
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15

SAN JOAQUIN RIVER BASIN

11230500 BEAR CREEK NEAR LAKE THOMAS A. EDISON, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND. HATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY (

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4
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6

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12
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14
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17
18

20

23
24

. 8 12
. B 16
. 8 37
. 5 34
. 5 29

. 5 23
. 5 22

. 5 27

.fl 26
. 0 24
24
28

36
33

31

28
29
24
25 20

27 12 20
28 12 17

TOTAL 280.5 769

MAX 18 38
MIN 3.5 12

16
15
17
16
14

15
14

13

14
17
16
19

23
31

22

19
18
20
23

36
36

634

12

23
22
?0
24
25

28
29

25

20
20
27
29

22
22

25

37
51
130
87

65
74

1,222

20

41
33
31
28
26

26
36

33

26
26
24
24

30
28

28

24
23
24
30

60
44

875

23

40
39
33
30
26

24
24

21

20
20
19
19

24
28

26

24
27
30
35

54
66

1,126

19

132
123
103
105
111

85
73

72

136
143
121
94

117
134

220

277
232
160
145

172
212

268

4,381

69

289
277
229
184
195

274
374

545

530
580
570
535

645
635

600

720
720
774
822

816
840

18,152

184

JUN

1,010
1,090
1,070
1,020
972

942
900

625

390
505
585
665

490
395

580

696
685
640
6C5

510
475

19,757

362

JUL

600
60S
610
560
575

565
540

545

600
720
720
600

560
570

605

620
595
550
485

400
358

17.093
551

358

AUG

362
370
346
318
301

256
223

209

292
226
209
200

198
195

157

139
134
134
136

111
101

6,240
201
370
78

SEP

77
7B
78
77
73

69
67

69

57
53
50
46

43
39

37

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1,495
49.8
78
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DISCHARGE, IN CUBIC FEET PER SECONOi

NCV DEC JAN FEB

MATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

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30
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TOTAL

MAX
MIN
AC-FT

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27
26
24
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16
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38
34
31
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27

25
25
25
24
24

24
21
21
19
19
19

732

38
15
1,450

19
19
19
19
16

18
25
26
25
26

24
23
22
21
20

21
14
14
14
15

15
15
14
IS
14

14
14
12
13
12

538

26
12
1,070

12
13
12
14
15

12
11
10
9.2
9.2

9.2
9.5
10
10
10

10
10

11
12
20

19
22
17
19
24

25
20
17
16
15
13

436.1

25
9.2
865

12
10
10
10
10

15
20

45
64

78
115
155
160
148

337
244
180
162
117

73
6C
39
28
29

26
24
23

21
20

2,282

337
10

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32
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48
57
69

70
56
49

43
34

70
19

MIN 5.9

33
35
41
47
56

69
66

80
97

88
75
61
52
43

37
33
32
35
31

30
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38

39
33
29

2B

97
28

AC-FT

37
57
94
109
128

130
101

113
130

115
81
113
212
277

346
395
420
382
334

338
400
445
435
410

415
415
405

470
495

495
37

63,050

500
475
465
410
370

378
378

358
298

256
247
214
175
139

142
193
259
307
410

425
435
405
4CO
386

386
495
322

193

335
500
139

187
205
217
208
238

298
250
220
214
211

199
172
166
166
152

155
142
139
137
132

125
116
100
94
85

82
119
150

94
78

160
298
78

68
59
56
55
54

51
50
48
44
42

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36.9
68
20

18
17
16
15
13

15
12
12
12
12

12
11
11
10
9.9

9.5
9.0
9.0
8.6
8.1

. 7
. 7
. 2
. 2
.2

6.9
6.5
6.2
5.9
5.9

10.3
18
5.9

SAN JOAQUIN RIVER BASIN

11231000 LAKE THOMAS A. EDISON NEAR BIG CREEK, CALIF.

DRAINAGE AREA.--90.0 sq mi.

PERIOD OF RECORD.--October 1954 to September 1970.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Southern California Edison Co.).

EXTREMES.--Maximums and minimums (contents acre-feet, elevation in feet) for the water years 1966-70 are con-tained in the following table:

Maximum

Wtr yr Date Contents Elevation
1966 Oct. 1, 1965 108,600 ,653.51
1967 Aug. 9, 1967 125,300 ,642.63
1968 Oct. 1, 1967 121,000 ,640.33
1969 Aug. 14, 1969 125,300 ,642.62
1970 Oct. 1, 1969 113,200 ,636.04

a Occurred Mar. 15-21, 1966.

rd: M

Minimum

. 11-22, 1966
. 31, 1967
t.30, 1968

Contents
32,400
14,000
47,200
5,080
24,600

Elevation
a7,583.43
7,565.44
7,595.17
7,553.09
7,576.44

REMARKS.--Lake is formed by an earthfill dam; dam completed and storage began Oct. 12, 1954. Usable capacity, 125,000 acre-ft between elevations 7,508.9 (invert of outlet works) and 7,642.5 ft (top of gates in service spillway) above mean sea level. Water is released for diversion to Ward tunnel via Mono Creek diversion
works. See schematic diagram of San Joaquin River basin elsewhere in this report. Figures given herein represent usable contents.

COOPERATION.--Record of contents furnished by Southern Californi
Commission project.

Edi with a Federal Power

Capacity table, wate 1966-70 (elevation, in feet, and

7,550
7,555
7,560
7,570

3,570
6,150
9,520
18,100

7,580
7,590
7,600
7,610

28,500
40,500
53,800
68,600

ntents,

7,620
7,630
7,640
7,64J

in acre-feet)

85,000
102,400
120,400
126,000

CONTENTS, IN ACRE-FEET. AT 3400, WATER YEAR OCTOBER 196S TO SEPTEMBER 1966

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3
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IS

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29
30
31

MAX
MIN

(+)
(t)

CAL
WTR

108,600
108,500
108,400
106,300
108,200

108,100
108,000
107,900
107,800
107,700

107,600
107,500
107,400
107,100
106,600

106,400
106,100
105,800
105,500
105,200

105,200
105,000
104,300
103,600
103,300

102,800
102,200
101,400
100,600
99,800
99,000

108,600
99,000
7,628.07 7

YR 1965 MAX
YR 1966 MAX

98,100
97,600
96,900
96,300
95,400

94,500
93,700
93,100
92,600
92,100

91,700
91,300
91,000
90,800
90,500

90,300
89,900
69,600
89,200
88,800

88,400
88,200
88,000
87,700
87,300

87,000
86,600
86,300
85,900
85,500

98,100
85,500

121,600
108,600

85,100
64,800
84,400
64.000
83,700

83,700
83,700
83,800
83,800
83,600

83,100
82,500
82,000
81,300
80,600

79,900
79,200
78,500
77,800
77,100

76,300
75,600
74,900
74,100
73,400

72,700
72,000
71,500
71,600
70,900
70,400

85,100
70,400

MIN 7
HIN 32

69,700
69,000
68,300
67.700
67,000

66,300
65,600
64,900
64,200
63,500

62,800
62,100
61,400
60,600
59,900

59,200
58,600
57,900
57,200
56,400

55,700
55,100
54,300
53,600
52,900

52,200
51,500
50,600
50,200
49,500
48,900

69,700
48,900

,600 t
,400 t

48,200
47,500
46.800
46,100
45,500

44,800
44,100
43,400
42.700
42,000

41,300
40,600
39,800
39,100
38,400

37,700
37,000
36,300
35,600
34,900

34,200
33,600
33,200
33,200
33,100

33,100
33,000
32,900
_ -.- _
»>

48,200
32,900

+23,500
- 16,500

32.900
32,800
32,800
32,700
32,700

32,600
32,600
32,500
32.500
32,500

32,400
32,400
32,400
32,400
32,400

32,400
32,400
32.400
32,400
32,400

32.400
32,400
32,500
32,600
32,600

32,700
32,800
32,900
33.100
33,300
33.600

33,600
32.400

34,100
34,600
35,100
35,600
36.100

36,600
37,200
37,800
36,400
39,000

39,400
39.800
40.200
40,500
41,000

41,500
42,000
42,500
42.900
43,300

43,600
43,900
44,200
44,500
45.100

45.600
46,300
46.900
47,500
48,200

48,200
34,100

46,900
49,700
50,600
51.500
52,400

53,400
54,500
55,400
56,300
57.200

58.000
58.600
59.300
60.200
61,000

61.900
62,800
63,800
64,700
65.600

66,400
67,300
68,200
69.000
70,000

70,900
71,700
72,600
73,400
74,100
74,600

74,600
48,900

75,200
75,600
76,000
76.400
76,800

77.300
77.800
78.200
78.700
79.100

79.600
60.100
80,700
81,300
81,700

82.300
82.800
83.300
63.900
84.400

84.800
85,200
85,600
85,900
86,200

86,500
86,900
87,300
87,700
88,000

86,000
75,200

68,200
88,400
88,700
88,900
89,100

89,300
89,400
89,600
89,700
89,900

90,000
90,100
90,100
90,200
90,300

90,400
90,500
90,600
90,700
90,800

90.900
91,000
91.100
91.200
91.300

1.400
1,500
1,600
1,700
1,700
1.800

91,800
88,200

91,900
92,100
92,200
92,200
92,300

92,400
92.400
92,500
92,500
92,500

92,600
92,600
92,600
92,600
92,600

92,700
92,700
92,700
92,700
92,700

92.700
92,700
92,700
92,700
92,700

92,700
92.700
92,700
92,700
92,600
92,600

92,700
91,900

+ 800

92,600
92,600
92,600
92,600
92.500

92,500
92,400
92,500
92,400
9?, 400

92.400
9?. 300
92.300

92,200
92,200

92.200
92,200
92,200
92,200
92,200

92,200
92,200
92,200
92,200
92,200

92,200
92,100
92,100
92,100
92,100

92,600
92,100
7, 624. 13
- 500

+ ELEVATION, IN FEET, AT END OF MONTH, t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11231000 LAKE THOMAS A. EDISON NEAR BIG CREEK, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEET. AT 2400

DAY

12
3

4
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6
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8
9
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11
IS
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IS

16
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25

26
27
28
29
30
31

MAX
MIN

(t)
(t)

CAL
WTR

OCT

92,100
92,100
92,000
92,000
91,900

91,900
91,900
91,900
91,700
91,200

90,700
90,300
89,800
89,300
88,800

88,400
88,200
88,200
87,800
87, 400

87,300
87,100
86,900
86,800
86,800

86,700
86,700
86,700
86,700
86,600
86,600

92,100
86,600

- 5,500

YR 1966 MAX
YR 1967 MAX

NOV

86,600
86,600
86,600
86,500
86.500

86,500
86,500
86,500
86,400
86,400

86,400
86,400
86,400
86,100
85,600

85,000
84,200
83,400
82,700
82,100

81,300
80,600
79,900
79,100
78,400

77,700
77,000
76,500
76,000
75,300

86,600
75,300

- 11,300

92,000
125,300

DEC

74,500
74,100
73,400
78,800
72,800

73,800
73,400
73,600
73,800
73.900

74,000
74,000
74,000
73,600
73,000

72,600
72,100
71,600
71,100
70,600

70,100
69,700
69,200
68,700
68,200

67,700
67,200
66,700
66,200
65,800
65,300

74,500
65,300

- 10,000

MIN 32
MIN 14

JAN

64,800
64,300
63,800
63,300
68,800

62,200
61,700
61,200
60,600
60,100

59,600
59,800
58,700
58,100
57,600

57,100
56,600
56,100
55.600
55,200

54,900
54,500
54,100
53,900
53,400

53,000
52,600
52,200
51,800
51,400
50,700

64,800
50,700

- 14,600

,400 t
,000 t

FEB

50,000
49,400
48,700
48.000
47,400

46,700
46,000
45,300
44,500
43,800

43,100
48,400
41,600
40,900
40,200

39,400
38,700
37,900
37,800
36,400

35,700
34,900
34,200
33,500
32,700

38,000
31.200
30,500

50,000
30,500

- 20,200

- 5,100
+28,900

, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

MAR

39,700
29,000
28,200
27,500
26,700

26,000
25,200
24,500
23,800
23,500

23,500
23,600
23,400
22,700
22,000

22,000
22,200
22,200
21.800
21.100

20.400
19,800
19,100
18,400
17,700

17,000
16,300
15,600
15.000
14,300
14,000

29,700
14,000

- 16,500

APR

14,100
14,200
14,200
14,400
14,400

14,500
14,600
14,700
14.800
14,800

15,000
15,000
15,100
15,200
15,300

15,400
15,400
15,600
15,700
15,800

16,000
16,100
16,200
16,200
16,300

16,400
16,500
16,500
16,600
16,700

16,700
14,100

+2,700

MAY

16,400
16,000
15,700
15,400
15,100

14,800
14,600
14,700
15,000
15,300

15,500
15.700
16,000
16,200
16,600

17,100
17,800
18.800
19.900
21.100

22.700
24.400
86.400
28.600
30.700

32.900
34,800
36,500
38,200
39.800
41,100

41,100
14,600

+24,400

JUN

2,200
3,000
44,000
5,000
5,800

6,700
7,800
49,000
50,500
52,000

53,700
55,400
56,900
58,400
60,000

61,800
63,900
66,400
68,700
71,100

73,900
76,700
79,800
81,800
84,500

87,100
89,300
91,100
93,800
96,600

96,600
42,800

+55,500

JUL

98,700
100,700
102,600
104,200
105,500

106,900
108,500
109,900
111,000
112.600

114,400
116,100
117.800
118.800
119,200

119,600
120,600
121,800
122,900
123,600

124,400
124,600
124,300
124,500
124,800

124,800
124,800
125,000
124,900
124,600
124,600

125,000
98,700

+28,000

AUG

124,800
125,000
125,100
125,200
125,200

125,200
125,200
125,200
125,300
125,100

125,100
125,100
125,100
125,000
125,000

125,100
125,100
125,000
125,100
125,100

125,100
125,100
125,000
125,000
125,000

125,000
125,000
124,900
124,800
124,700
124,600

125,300
124,600

0

SEP

124, 500
124, 500
124,400
124,600
124,600

124,600
124,500
124,400
124,300
124,100

123,900
123,700
123,500
123,200
123,000

122,800
122,600
122,500
122,300
122,100

121,900
121,700
121.500
121.400
121,300

121,300
121,200
121.100
121,100
121,000

124,600
121.000
7,640.33
- 3,600

t ELEVATION, IN FEET, AT END OF MONTH. t CHANGE IN CONTENTS, IN ACRE-FEET.

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

MAR APR MAY JUN JUL

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
2»
25

26
27
28
29
30
31

MAX
MIN

(t)
(t)

WTR

120,900
120,800
120,600
120,400
120,300

120,100
120,000
119,900
119,700
119,600

119,400
119,200
119,000
118,800
118,600

118,400
118,300
117,800
117,100
116,400

115,700
115,100
114,400
113,800
113,000

112,300
111,600
110,900
110,200
109,500
108,800

120,900
108,800

- 12,200

YR 1968 MA

108,100
107,500
106,800
106,100
105,400

104,700
103,900
103,200
102,500
101,700

101,000
100,300
99,500
98,900
98,300

97,900
97,600
97,300
97,000
96,600

96,100
95,600
95,200
94,900
94,500

94,100
93,700
93,100
92,500
91,800
______

108,100
91,800

- 17,000

X 120,900

91,000
90,300
89,600
88,900
88,200

87,400
86,700
86,000
85,200
84,400

83,600
82,700
81,800
80,900
80,100

79,300
78,500
77,800
77,000
76,200

75,100
74,400
73,600
72,900
72.100

71,300
70, bOO
69,800
69,000
68,100
67,300

91,000
67,300

- 24,500

MIN 14
MIN 47

66,500
65,700
65,000
64,500
64,300

64,200
64,100
64,000
63,900
63,800

63,700
63,600
63,500
63,400
63,400

63,300
63,200
63,000
62.900
62,800

62.700
62,600
62,500
62,400
62,300

62,200
62,200
62,000
61,900
61,800
61,800

66,500
61,800

- 5,500

,000 t
,200 t

61,600
61,600
61,500
61,400
61,300

61,200
61,100
61,000
60.900
60.800

60.600
60.500
60.400
60.300
60.200

60,100
60,100
60,000
59,900
60,000

59,900
59,900
59,800
69,800
59,700

59,700
59,600
59,500
59,500
. . . . . .
. . . . . .

61,600
59,500

- 2,300

+2,000
- 73,800

59,400
59,300
59,300
59,200
S9.200

59,100
59,100
59,000
58,900
58,800

58,700
58,700
58,700
58,600
58.500

58,500
58,400
58,300
58,200
58,200

58,100
58,000
57,900
57,800
57,800

57,700
57,600
57,600
57,600
57,600
57,700

59,400
57,600

- 1,800

57,700
57,700
57,700
57,700
57,700

57,700
57,700
57,700
57,700
57,800

57,900
58,000
58,000
58,200
58,400

58,600
58,800
58,900
59,100
59.200

59,300
59,500
59,600
59,800
60,000

60,300
60,600
61.000
61,500
62,100

62,100
57,700

+4,400

62,600
63,200
63,800
64,400
64,900

65,400
65,800
66,400
66.800
67,200

67,600
68,100
68.500
68,900
69,200

69,500
70,000
70,500
71,300
72,200

73,000
73,700
74,100
74,500
75,100

76,000
77,000
78,100
79,200
80,200
81,000

81,000
62,600

+18,900

81,900
82,900
83,800
84,700
85,300

85,800
86,300
86,700
87,000
87,400

87,800
88,200
88,600
89,100
89,500

90,100
90,500
91,000
91,400
91,900

92,300
92,600
92,900
93,200
93,400

93,500
93,600
93,700
93,600
93.500

93,700
81,900

+12,500

93,400
93,200
93,100
92,900
92,700

92,600
92,300
92,200
92,200
92,500

92,600
92,500
92.400
92.200
92,100

91,900
91,700
91,400
91,200
90,900

90,700
90,400
89,900
89.500
88,900

88,300
87,700
87,100
86,800
87,100
87,300

93,400
86,800

- 6,200

87,400
87,600
87,700
87,700
87,600

86,900
86.200
85,600
84,900
84.200

83.500
82.700
82.100
81,400
80,700

80,100
79,300
78,600
77,800
77,100

76,400
75,700
74,900
74,300
73,500

72,700
71,900
71,100
70,300
69,600
68,900

87,700
68,900
7,610.16
- 18,400

68,100
67,300
66,600
65,900
65,200

64,500
63,800
63,000
62,300
61,600

61,000
60,300
59,500
58,800
58,100

57,400
56,700
56,000
55,400
54,600

53,900
53,100
52,400
51,600
50,900

50,100
49,400
48,600
47,900
47,200

68,100
47.200
7,595.17
- 21,700

t ELEVATION, IN FEET, AT END OF MONTH, t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11231000 LAKE THOMAS A. EDISON NEAR BIG CREEK, CALIF.--CONTINUED

CONTENTS. IN ACRE-FEET. AT 3*00

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MAX MIN (t) (t)

CAL

t
t

OCT

46.500
45.900
45.200
44.600
43.800

43.100
42,400
42,300
42,300
42,300

42,300
42,300
42,400
42,500
42,300

42.300
42.300
42.400
42.400
42.300

42.200
42,100
42.100
42,100
42,100

2,100
1,700
1,600
1,500
1,500
1,300

6,500
1,300

- 5,900

NOV

40,900
40,900
40,800
40.500
40.200

40.100
40.100
40,000
39.700
39.400

39.100
3B.800
38,500
38.200
38,000

37,800
37,700
37,400
37,200
37,100

36,700
36,500
36.200
35.900
35.500

35.200
34.800
34,400
34,100
33,800

40,900
33,800

- 7,500

YR 1968 MAX 93,700

ELEVATION, IN FEET,
CHANGE IN CONTENTS,

DEC JAN

33,400 24,400
33,100 24,100
32.700 23. BOO
32,300 23,600
32,000 23.300

31.700 23.000
31.300 22.700
31.000 22.500
30.700 22.200
30.400 21.900

30,100 21,600
29,700 21,400
29,400 21,200
29,200 21,000
28.900 20,700

28,600 20,400
28,200 20,200
27,900 20,000
27,600 20,000
27,300 19,900

27,000 19,800
26,700 19,700
26.300 19.600
26,200 19,800
26,000 19,800

25,800 19,700
25,500 19,700
25,300 19,700
25,000 19,400
24,700 19,500
24,700 19,600

33,400 24,400
24,700 19,400

- 9,100 -5,100

MIN 24,700 t
MIN 5,080 t

AT END OF MONTH.
IN ACRE-FEET.

CONTENTS, IN ACRE-FEET

DAY

1
2
3
4
5

6
7
8
9
10

1112
13
14
15

16
17
18

1920
21
22
23
24
25

26
27
28
29
30
31

MAX

MIN

(+) it)
CAL
WTR

OCT

112,836
112,438
112.058
111.696
111,280

110,920
110,487
110,073
109.694
109,298

108,760
108,293
107,916
107,557
107,432

107,306
107,199
106,930
106,644
106,304

105,660
105,321
105,000
104,679

104,305
103,931
103,593
103,291
102,971
102,687

112,836
102,687

- 10,500

YR 1969 MAX
YR 1970 MAX

NOV

102,491
102,190
101,942
101,659
101,358

101,199
100.845
100.562
100,280
100,050

99,751
99,187
98,536
97,799
97,079

96,293
95,454
94,671
93,976
93,229

91,740
90,981
90,256
89,482

88,709
87,870
87,049
86,214
85,652

102,491
85,652

- 17,000

125,300
112,836

DEC JAN

85,601 69,627
85,567 68,916
85,567 68,163
85,567 67,397
85,567 66,651

85,567 65,941
85,584 65,233
85,635 64,592
85,635 64,057
85,567 63,408

84,718 62,744
83,957 62,069
83,196 61,413
82,422 60,893
81,631 60,288

80,895 59,831
80,126 59,259
79,345 58,676
78.681 58,093
76,019 57,443

76,652 56,293
75,933 55,651
75,214 55,067
74,661 54,376

73,981 53,713
73,284 53,113
72,464 52,444
71,789 51,781
71,088 51,105
70,354 50,436

85,635 69,627
70,354 50,436

- 15,300 -20,000

MIN 5,080 t
MIN 24,642 t

FEB

19,500
19,300
19,100
19,000
18,900

18,800
18.700
18,500
18,400
18.200

18.100
18,100
18,000
17,800
17,700

17,500
17,400
17.300
17,100
16,900

16,800
16,600
16,500
16,500
16,400

16,300
15,900
15,400

19,500
15,400

- 4,200

- 42,600
+66,000

, AT 2400,

FEB

49,672
48,943
48,201
47,465
46,692

45,951
45,214
44,493
43,764
43,037

42,304
41,624
40,925
40,177
39,485

38,722
38,086
37,345
36,607
35,887

35,183
34,448
33,720
32,995
32,292

31,593
30,935
30,341

49,672
30,341

- 20,100

+45,700
- 19,600

WATER YEAR OCTOBER 1966 TO SEPTEMBER 1969

MAR

14,800
14,200
13,600
13,000
12,300

11.700
11.100
10,400
9,790
9,140

6,880
6,950
8,990
8,740
8,370

6,030
7,710
7,420
7,120
6,640

6,580
6,290
5,960
5,660
5,410

5,170
5,080
5,160
5,300
5,470
5,730

14,600
5.080

- 9,670

APR

6,040
6,380
6,650
6,930
7,280

7,560
7,780
7,700
7,320
6,950

6,640
6,430
6.230
6.030
5.910

5,910
5.950
6,050
6,210
6,530

6.950
7.610
8.380
9.020
9,660

10,200
10,900
11,600
12,400
13,300

13,300
5,910

+7,570

MAY

14,100
14,700
15,200
15,600
16,100

16,800
17.600
18.900
20.300
22.000

23.600
25.000
26,700
26,400
30,000

31,600
33,500
35,500
37,300
39,100

41,100
43,300
45,500
47.900
50.400

53,000
55,800
58,400
61,100
63.800
66.700

66.700
14,100

+53,400

WATER YEAR OCTOBER 1969 TO

MAR

29,761
29,042
26,371
27,762
27,080

26,403
25,755
25.132
24,642
24,695

24.780
24,855
24,929
25,025
25,121

25,217
25,335
25,432
25,518
25,626

25,734
25,842
25,939
26,047
26,154

26,425
26,622
26,829
27,026
27,222
27,408

29,761
24,642

- 2,900

APR

27,596
27,795
28,061
28,327
28,593

28,851
29,120
29,389
29,670
30,034

30,386
30,716
31,062
31,327
31,582

31.824
32,057
32,256
32,479
32,644

32,855
33,031
33,184
33,351
33.553

33,791
33,958
34,113
34,339
34,520

34,520
27,596

+7,100

MAY

34,689
34,954
35,256
35,595
35,985

36,424
36,816
37,234
37,653
38.148

38.597
38.971
39,396

40,R99

41.944
43,297
44,689
45,911
47,038

48,214
49,523
51,023
52.416
53,769

55,109
56,564
57,934
59,332
60,789
62.383

62,383
34,689

+27,900

JUN

69,900
73,100
76,200
76,900
61,200

83,100
65,200
86,800
88,000
88,600

86,800
89,100
89,700
90,300
91,300

92,300
92,900
93,200
93,600
94,500

95,500
96,800
98,000
98,200
99,100

99,700
100,400
101,400
102,500
103.800

103.800
69,900

+37,100

JUL

105,500
107.500
109.300
111,000
112.600

114.500
116.100
117.600
116.800
119.700

120.600
121.300
122.200
123.000
123.400

123.700
124.100
124.200
124.300
124.400

124,400
124,400
124,200
124,000
123,900

124,000
124,100
124,300
124,600
124,900
125,000

125,000
105.500

+21,200

AU3

125.000
125.000
125.100
125.100
124,900

125.100
125.200
125.200
125.200
125.200

125.100
125.200
125.200
125,300
125.200

125.200
125,200
125,200
125,100
125,100

125,100
125,000
124,800
124,600
124,400

124,100
123,900
123,500
123.200
122.900
122.500

125.300
122.500

- 2,500

SEP

122,100
121,600
121,600
121,400
121,100

120,700
120,300
120,000
119,800
119,500

119,300
119,100
118,900
118,700
118,500

118,100
117,600
117,300
117,000
116,500

116,000
115,900
115,600
115,200
114,900

114,600
114,200
113,900
113,600
113,200

122,100
113,200

- 9,300

SEPTEMBER 1970

JUN

63,906
65,447
66,976
68,413
69,737

71,068
72,497
73,770
75,132
76,194

77,146
78,019
78,747

79,909

BO, 427
81.129
82.001
83.112
84,346

85.652
86,964
88.246
89,499
90,774

92,034
93,299
94,115
94,845
95,612

95,612
63,906

+33,200

JUL

96.345
97,062
97,693
98,378
99,063

99,786
100,526
101,128
101,871
102,474

102,971
103,540
104,091

105,090

105,518
105,910
106,358
106,769
107,163

107,521
107,862
108, IBS
106,418
108,670

108,957
109,227
109,424
109,622
109,820
109,946

109,946
96,345

+14,300

AUG

110,091
110.235
110,397
110,505
110,613

110,757
110,866
110,902
111,010
111,100

111,190
111.316
111.443

111.262

111.172
111.064
110.974
110.866
110,595

109.892
109,191
108.436
107,682
106,877

106,053
105,321
104.554
103.753
102,953
102,137

111,443
102,137

- 7,800

SEP

101,340
100,526
99,663
98,957
9R.413

97,570
96,782
95,943
95,106
94,289

93,976
93,958
93,941

93,906

93,889
93.8S9
93.8S9
93,854
93,836

93,784
93,784
93,767
93,767
93,750

93,750
93,732
93,715
93,680
93,645

101,340
93,645

- 8,500

+ ELEVATION, IN FEET, AT END OF MONTH, t CHANGE IN CONTENTS, IN ACRE-FEET.

11231500 MONO CREEK BELOW LAKE THOMAS A. EDISON, CALIF.

L SW's !

DRAINAGE AREA.--92.5 sq

PERIOD OF RECORD.--Octobe
WSP 1315-A. Prior to

1921 to Septembe Monthly discharge only for soir "near Vermilion Valley."

iods, published

GAGE.--Water-stage recorder

AVERAGE DISCHARGE.--49 year

EXTREMES.--Max!
1966-70 are

Wtr yr Date
1966 Nov. 5, 1965
1967 July 22, 1967
1968 Aug. 27, 1968
1969 July 25, 1969
1970 Sept. 5, 1970

Period of record: Ma:
Nov. 11, 12, 1954.

REMARKS.--Records good. Si
tion 11231000). No dive
this report.

Altitude of gage is 7,400 ft (from topographic map).

152 cfs (110,100 acre-ft per year), adjusted for storage,

urns (discharge in cubic feet per second, gage height in feet) for the

Mi

480
707
460
834
485

G.H.
6.52
6.94
6.48
7.17
6.47

Date

Many days
Mar. 17, 1967
Aug. 1-4, 1968
Several days
Many days

daily

rge, 1,760 cfs June 2, 1938 (gage height, 8.62 ft);

Oct. 12, 1954, flow regulated by Lake Thomas A. Edison 1 mile upstn
on above station. See schematic diagram of San Joaquin River basin <

cord and 45 discharge its furnished by Southern California Edison Co.,

REVISIONS (WATER YEARS).--WSP 1011: 1943. WSP 1515: 1956. WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

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31

MEAN
MAX
PIN

WTR YR

79

79
81

79
61
81
81
81

81
81
161
201

198
198
198
198
176

17
151

365
173

243
329
405
420
425
430

184
430
17

1966 TOTAL

44C

33
45

44
44
31
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24

24
24
24
238

238
238
238
238
238

238
238

238
238

238
238
238

278
455
238

49,327

238

238
207

16
16
16
16
192

309
309
348
360

365
390
390
390
385

385
385

400
400

400
405
287
200

410

293
410
16

MEAN 135

410

400
405

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410
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405

405
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400
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400
395

395
395

390
390
390
390

390

401
410
390

MAX

395

395
400

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400
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395
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395
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390
385

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331
400
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455 MIN

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68.9
72
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12 AC-FT

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12.7
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12.7
22
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JUN

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13
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372
12.4
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12

JUL

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403
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799

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13.T

SAN JOAQUIN RIVER BASIN

11231500 MONO CREEK BELOW LAKE THOMAS A. EDISON, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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TOTAL
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MIN

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16

ie
19
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21

23

35

26
37
26
29
30

MAX
MIN

4
4
4
4
4

14

14
128
334

238
238
338

238

58
312

100
100
100
5
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92.

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107
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117
130

102

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352
352

361
97

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395
395

359
385
385
385
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385
385

395

6,311 7
310

16

DISCHARGE,

356
348
352
361
352

370
370

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390

395
385
387

308

301
208

377

301

205

215
241
381
400
415

415
195

DEC

395

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385
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285
385
285
281
281

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281

277

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233

18

IN CUBIC

415
410
410
410
410

410
41C

430

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455
455

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455
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389

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293
293

293
293

397
297

397
305
305
305
305

305
301

343

334
3CI

377

FEET

435
430
430
3C9
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93

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93
93

435
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450
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12,390 11
439

405

PER SECOND,

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93
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93
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92

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92

93

93

92
93
93
92

92
92

455

460
460
319

68
68
333

119
331

430
430
435
435
435

430
435

435

,173
360

13

HATER

93
92
93
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93

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30.6

18

YEAR OCTOBER

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365
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77
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39
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43
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36
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25

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71.6

13

1967

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JUN

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IB

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159
375

265

1,988 12,
66.3

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TO SEPTEMBER

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53

74
100
97
128
141

141
15

JUL

663
663

325
325
330
103

16
16
16

690

597
234
83
149

315
507
696
397
372

531
531

602

732
411

16

1968

66
60
60
72
85

92
166

16

89

122
166
156

156

182
178
198

198

269

352

380
366
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184
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AUG

381
361

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233
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6,717
317

156

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136

375
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38C
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390
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420

440
11

SEP

156
160

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160
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173
93
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160
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97
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145

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415

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425
346

SAN JOAQUIN RIVER BASIN

11231500 MONO CREEK BELOW LAKE THOMAS A. EDISON, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1968 T.D SEPTEMBER 1969

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TOTAL

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WIN

OCT

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309

347

385
28
11

11

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58

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11

96
64
12
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15
243
81

39C
11

NOV

193
66

192

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137
195

195

195
195

119
198
141

208
153
208
208
2C8

208
2C8
208

2C8
29

DEC

205
205

205

205
201
201

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201
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201
201
198

198
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198

198
198
198

80

188
188

188

IBS
188
188

188

188
188

185
185
188

192
188
137

105
142
238

38

133
150

141

144
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144

98

144
144

144
144
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141
141
147

156
273
400

62

400
395

395

385
385
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43
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195
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117
59

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160
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280

496

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751
817

817
822
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712

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415

14,332

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485

480

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211
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223
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134

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

NOV DEC JAN FEB MAR APR MAY JUN JUL

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219 1 3

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253 1 2
238 1 9
226 1 0
238 1 C

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185 390
188 395

2C1 405

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178 415
185 267

253 415
134 103

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SAN JOAOUIN RIVER BASIN

11232500 JACKASS CREEK NEAR BASS LAKE, CALIF.

LOCATION. --Lat 37°

easTof ?o'wn e of

DRAINAGE AREA. --12

PERIOD OF RECORD. -

records except i
to October 1960

GAGE. --Water-stage
recording gage

AVERAGE DISCHARGE.

EXTREMES. --Maximum

Wtr yr Date
1966 Nov. 18, 1
1967 May 23, 1

Bass Lake.

1 sq mi.

October 1921 to September 1928, November 1951 to September 1 <ater year 1963). Monthly discharge only for some periods, p published as "near Jackass Meadow."

recorder. Altitude of gage is 6,900 ft (from topographic ma

- 8 years (1921-28, 1962-63), 21.2 cfs (15,350 acre-ft per ye

ained in the following tabie:

Discharge G.H. Date
65 165 7.88 Many days
67 416 9.48 do.

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968,
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County,

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Prior to

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Sierra

nued (no
SP 1315-

May 5,

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National

winter
A. Prior

1922, non-

Discha

1968 Apr. 29, 1968 117 7.27 do.

Period of record: Maximum discharge recorded, 786 cfs Dec. 23, 1955 (gag times.

COOPERATION. --Gage h ' h ddlld'h tf'hdbS

e height, 11. 37 ft) ;

nia Edis

no flow at

on Co in

REVISIONS. --WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YE»R OCTOBER 1965

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5 .10

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9 .10
10 .10

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13 .20
14 .10
15 1.4

16 1.7
17 1.0
18 .60 1
19 .10
20 .10

21 .10
22 .10
23 .10
24 .10
25 .10

26 .10
27 .10
28 .10
?9 .10
30 .10

. 10 99
. 10 101
. 10 97
. 1C 96
. 2C 95

. 20 88
. 10 87
. 10 82
. 10 75
. 1C 72

. 10 70
. 10 65
1.0 62
1 59
? 55

4 54
4 53
5 51
0 48
1 44

4 41
5 38
0 36
0 32
1 29

7 28
5 27
3 102 24
2 97 22
1 99 20

TOTAL 7.60 557.40 1,767
MEAN .25
MAX 1.7

MIN .10
AC-FT 15

18.6 57.0
115 101
. 10 17
,110 3,500

TO SEPTEMBER

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SAN JOAQUIN RIVFR BASIN

11232500 JACKASS CREEK NEAR BASS LAKE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

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TOTAL
MEAN
MAX
MIN
AC -FT

DAY

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TOTAL
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OCT

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3.2

1.6
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l.C
1.3
. 90

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43
70
24

149.00
4.97
70
C
296

DISCHARGE, IN CUBIC FEET PER SECOND,

NCV DEC JAN FEB

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. 2
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. 0
. 96

. 87
. 78
. 78
. 55
. 40

14.98
. 50
1.8
. 07
30

24
24
28
32
32

38
55
86
102
79

62
55
57
73
112

156
190
212
221
249

269
2BB
304
293
288

277
263
230
211
202
174

4,686
151
304
24
9,290

WATER YEAR OCTOBER 1967

MAR APR

61
57
46
48
51

46
52
61
68
78

90
88
84
84
82

73
60
54
4B
48

46
46
51
58
70

87
93
49 95
62 99
70 96
71

2,020
67.3
99
46
4,010

MAY

92
90
87
84
76

66
61
59
58
55

53
50
44
43
48

49
46
42
42
41

38
31
26
24
23

26
28
29
26
23
20

1,480
47.7
92
20
2,940

JUN

125
111
130
151
159

159
194
2 OB
212
2C7

215
194
178
182
197

208
222
229
207
209

223
202
88
89
88

77
74
71
68
64

5,543
185
229
111
10,990

JUL

158
144
125
112
98

84
75
68
61
55

52
51
51
49
47

43
38
34
31
26

22
20
IB
17
16

14
12
11
10
8.8
7.7

1,558.5
50.3
158
7.7
3,090

AUG

6.2
5.0
4.2
3.6
3.0

2.6
2.0
2.8
2.0
1.2

. 80
. 70
. 80
l.D
12

20
53
40
15
8.4

5.6
4.4
3.4
3.C
2.8

2.7
2.0
1.6
1.3
1.0
1.0

213.10
6.87
53
. 70
423

SEP

. 90
. 90
1.2
1.0
. 80

. 60
. 50
. 40
. 40
. 40

. 40
. 30
. 20
. 20
. 20

. 20
. 10
1.3
1.1
. 50

. 40
. 40
. 40
. 90
. 90

. 60
. 40
. 30
. 30
. 30

16.50
. 55
1.3
. 10
33

TO SEPTEMBER 1968

JUN

9
8
6
4
3

2
3
13
10
8.4

7.1
6.8
6.2
5.9
5.0

4.6
4.2
4.0
4.2
3.2

2.8
2.6
2.2
2.1
1.8

1.4
1.3
1.0
1.0
. 78

204.58
6.82
19
. 78
4D6

JUL

. 69
. 55
. 50
. 40
. 35

. 30
. 40
. 50
. 60
. 60

. 40
. 35
. 30
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. 10
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. 07

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. 05
. 04
. 07
. 10
. 15

8.35
. 27
. 69
. 04
17

AUG

. 15
. 15
. 10
. 08
. 07

. 05
. 04
. 02
0
0

0
0
. 01
. 02
. 05

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. 25
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. 10
. 09
. 08
. 07
. 06
. 06

3.01
. 097
. 40
0
6.0

SEP

. 09
. 15
. 20
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. 07

. 06
. 05
. 0*
. 04
. 04

. 02
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0

0
. 02
. 02
. 01
0

0
0
. 04
. 02
. 01

. 98
. 033
. 20
0
1.9

SAN JOAQUIN RIVER BASIN

11234500 CHIQUITO CRFEK NEAR BASS LAKE, CALIF.

LOCATION.--Lat 37°24'47", long 119°22'52", in NEWEi sec.18, T.6 S., R.24 E., Madera County, Sierra Nationa

DRAINAGE AREA.--60.1 sq mi.

PERIOD OF RECORD.--September 1921 to September 1928, Nov 1951 to September 1970 (discontinued).

October 1960, published as "near Arnold Meadow."

GAGE.--Wate 4,800 ft (from topographic map). Prior to Apr. 30, 1922
recording gage at present site a

AVERAGE DISCHARGE.--22 years (1921-28, 1954-55, 1956-70), 91.3 cfs (66,150 acre-ft

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height

Annual maximum discharge (*) and peak discharges above base (500 cfs),

Date Time
Nov. 23, 1965 0600

Nov. 28, 1966 1900
Dec. 6, 1966 1400
Mar. 16, 1967
May 23, 1967

Bi

535 7.05

*3,000 11.25

Date Time
June 21, 1967 2030

Apr. 11, 1968 2230

Jan. 21, 1969 1000
Jan. 26, 1969 0700
Apr. 13, 1969 2200

863

G.H. Date
7.86 Apr.
May
278 6.35 May
June
773 7.64
2,060 9.97 Dec.
504 6.97 Jan.

per year).

.n feet) .

/ater years

21,
890
1,850
683

ual minimum daily discharge, wate

Wtr yr Date Discharge
1966 Sept. 4, 1966 3.4
1967 (a) 4.3
1968 Sept. 7-14, 1968 3.4

a Oct. 10-14, 20, Oct. 25 to Nov. 5, 1966.

196S
197C

Date
Oct. 1-4, 8, 1968
Sept.26-30, 1970

charge
3.7

Period of record: Maximum discharge, 8,630 cfs Dec. 23, 1955 (gage height, 16.38 ft), from rating cu

REMARKS.--Re
diversion

Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

1 8.
2 8.
3 7.
4 7.
5 7.

7 7.

9 7.
10 7.

1 7.
2 7.
3 7.
4 7.

7 11

9 10

2 8.
3 8.
4 ft.

6 8.
7 7.
8 7.
9 7.
0 7.

AN 8.3
X I
N 7.
- FT 51

7. 72 48 45 45 356 260 67 22
7. 72 50 46 45 353 263 65 21
7. 70 54 46 50 344 252 64 20

7. 64 58 47 58 341 246 82 19

8. 64 56 43 68 323 216 79 20
8. 60 56 45 106 320 229 74 18

8. 59 54 39 117 260 209 60 17
8. 62 53 42 117 238 189 58 16
19 59 53 40 131 219 178 54 16
84 56 54 39 139 227 178 52 16

214 43 52 46 129 302 169 45 13

141 45 48 49 127 219 160 41 11

71 46 44 58 131 199 139 34 9.4 320 44 43 58 154 Z06 135 33 9.4 260 47 42 56 164 235 129 32 8.4

113 46 45 53 180 281 115 30 8.0
96 46 45 52 204 269 110 28 8.0
89 49 45 56 227 266 100 26 7.6
84 58 45 243 264 91 Z4 7.6
77 54 45 266 260 84 24 7.6

83.6 55.1 49.5 47.5 131 279 176 49.7 14.1 5.'
I 32C 72 58 58 302 356 266 82 23 8

; '

5 3

. 620
,480

SAN JOAQUIN RIVER BASIN

11234500 CHIQUITO CREEK NEAR BASS LAKE, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY OCT NOv DEC

I 4.
2 4.
3 5.
4 5.
5 5.

6 5.
7 4.
8 4.
9 4.
10 4.

11 4.
12 4.
13 4.
14 4.
15 4.

16 4.
17 4.
18 4.
19 4.
20 4.

21 4.
22 4.
23 4.
24 4.
25 4.

26 4.
27 4.
28 4.
29 4.
30 4.
31 4.

MEAN 4.5
MAX 5.
MIN 4.

4.
4.
4.
4.

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5.
8.
9.
9.
8.

8.

7.
7 '

50
99
196
89
221

1,880
455
238
175
147

115
108
100
96

25 96
13 95
12 95

34 86
25 80
21 79
1 8 74
16 70

16 68
17 60
195 58
218 56
79 56
57

30.4 172
218 1.880
4.3 50

CAL YR 1966 TOTAL 29,358.7 MEAN

58
59
58
58
59

54
54
56
54
56

62
64
64
64

65
60
59

79
70
74
54
65

75
84
84
125
147
152

71.0
152
54

80.4

117
102
100
100
104

106
111
113
115
125

133
133
125
113

106
108
111

102
104
104
102
102

100
104
106

110
133
100

MAX 1.880

110
115
117

lie
ICO

102
105
105
105
105

115
120
140
300

400
200

120
120
120
110
105

100
100
95
95
105
105

147
650
95

MIN 4.3

110
100
90
65
90

85
95
95
100
100

95
90
100
100

95
95

90
90
85
BO
75

80
90
85
80
75

91.2
110
75

AC-FT

BO
85
90
100
110

120
140
190
240
200

140
140
180
220

450
510

700
760
850

800

750
700
620
530
480
370

390
850
80

58,230

JUN

260
230
240
260
310

280
350
430
460
470

4BO
450
490
550

680
730

731
679
631

611

591
587
575
583
583

511
731
230

JUL

563
523
455
424
386

350
326
296
269
246

229
224
216
216

206
178
162

127
123
113

108

100
95
91
86
82
77

223
563
77

AUG

70
6B
64
60
56

53
52
49
46
45

42
40
38
40

3B
54
53
38

34
33
31

53

53
36
32
29
28
26

44.3
70
26

SEP

2*
24
28
25
24

23
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21
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21

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19
18
17

16
16
34
28
20

IB
19
27

29

22
19
18
20
18

21.9
34
16
1,300

NOTE. NO GAGE-HEIGHT RECORD MAR. 5 TO JUNE 19.

DISCHARGE, IN CUBIC FEET PER SECOND,

NCV DEC JAN FEB

HATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

MAR APR MAY JUN JUL

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MEAN
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MIN

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7 9.4
I 9.4
4 9.4
9 9.4

9 9.8
7 10
5 10
4 LO
4 10

3 10
3 10
3 10
3 15
2 16

2 13
2 12
1 13
1 36
I 34

27
1 23
1 21
C 2C

9.8 20
9.8 18
9.8 19
9.fl 18
9.8 16
9.4

L3.1 15.6
24 36
9.4 9.4

20
27
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26
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22
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17

13
16
18
17

20
24
29

4"
4?
38
35
31
27

25.0
42
13

25
22
20
19
18

17
16
15
14
16

17
18
19

35

53
50
49
47

50
50
52
52

50
45
45
44
38

34.6
62
14

38
42
49
49
49

58
54

52
50
50

49

100
93
89
214

156
154
154

143
139
139
139

91.5
214
38

141
127
127
131
129

104
100

100
100
98

91

95
89
86
87

95
95
102

115
125
147
180
199
199

116
199
86

189
154
131
133
143

164
192

222
219
201

194

152
135
113
127

115
127
141

167
201
209
216
209

165
222
113

201
196
187
182
173

133
125

121
115
111

139

127
125
129
131

108
95
87

104
111
106
98
86
80

129
201
80

75
74
68
64
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20
18
17
16
16

38.3
75
16

16
14
13
13
13

12

16
13

11
11
10

9.8

9.6
9.4
8.9
8.4
8.0

7.6
7.6
7.2
6.8

6.4
6.0
6.0
6.0
6.4
7.2

9.91
16
6.C

6.i
6.
5.
5.

5.
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4.
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168.
5.4
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3 8

«TR YR 1968 TOTAL 19,648.5 MEAN 53.7 MAX 222 MIN 3.4 AC-FT 38,970

NOTE. NO GAGE-HEIGHT RECORD DEC. 13 TO JAN. 15.

SAN JOAQUIN RIVER BASIN

11234500 CHIOUITO CREEK NEAR BASS LAKE, CALIF.--CONTINUED

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3
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7
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11
12
13
14
15

IT
18

20

22
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24

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27
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30
31

MAX
M1N

DAY

1
2
3
4
5

6

8
9

11
L2
L3
14
15

16

18
19
20

21
23

25

26

2B
29
30

TOTAL

MAX
KIN

3.T
3.7
3.7
4.0

4.0
4.0
3.7
4.0

4.0
4.3
15
4C
16

11
11

8.4

7.6
7.2
7.2

6.8
6.4
6.4

11
11

3.7

DCT

14
14
13
14
14

L4

14
14

L4
13
13
14

199

52
42
38

32
32

28

24
24
23

960

13

DISCHARGE

12
135
47
32

28
23
24
29

Z6
38
32
24
24

31
36

34

30
31
29

21
21
20

20

8.9

DISCHARGE)

NCV

22
22
21
21
20

37

42
42
44

44

32
32
32

30
28

27

24
24

950 I

20

, IN CUBIC

18
20
20
18

20
19
19
18

24
24
21
23
41

29
28

25

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32
42

37 1
40
47

35
30

18

IN CUBIC

DEC

23
23
23
22
2?

23

24
24
24

24

23
33
152

167
95

196

59
5R

22

FEET

?9
30
35
42

47
49
47
42

36
42
91
94
75

60

375

353
232
194

. 180
489
325

190

29

FEET

JAN

52
47
44
42
35

33

65

84
68
65

466

246
189
171

332
229

199

121
111

32

PER SECOND.

165
156
152
147

131
129
131
129

123
125
115
115
115

111

100

98
95
67

100
98
96

67

PER SECClsD,

FEB

102
96
96
102
98

102

110
139
127

117

111
108
106

102
104

108

______

96

WATER

91
89
87
86

87
86
84
84

82
82
80

86

104

119
137
150

194
229
272

410

79

WATER

MAR

127
139
137
125
129

127

121
123
143

171

178

178
160
154

175
187

238

216
199

266
121

YEAR OCTOBER

398

368

320
287 1
284 1
284 1

359 1
420 I
462 1

47C I

782 1
715 1
5*3 1

508 I
583 1
659 1

I

284

YE»R OCTOBER

APR

160
169
182
196
219

260

302
287
252

199

184

173
187
175

158
156

180

152
160

302
152

1968

778

683

854
. 030
. 180
. 280

. 260
. 530
. 380

. 330

. 240
,300
,300

,180
,170
,100

. 160

599

1969

MAY

178
216
266
287
305

252
240

243
209
238

332

368

353
326
293

290
284

272

206
201

368
178

TO SEPTEMBER

1.080

865

804
814
683
583

424
410
445

504

431
424
398

351
335
311

287

TD SEPTEMBER

JUN

189
182
167
150
135

121
232

121
113
125

104

51

82
84
80

68
62

53

49
46

232
46

1969

275

252

238
229
224
214

192
187
201

139

113
108
100

87
87
86

68

68

1970

JUL

42
40
38
38
38

30
3C

29
28
27

24

22

22
21
20

20
18

17

16

15
16

42
15

58 21

50 20

47 20
45 22
44 20
42 20

41 18
40 18
37 17

35 17

36 16

29 17
28 16
27 16

25 14
24 14
24 13

22

22 13

AUG SEP

4 .8
4 .8
4 .8
3 .8
3 .8

2 .2

1 .2
1C .8

1C .4
9.8 .0
9.4 .0
9.4 .0
8.9 .6

8.9 .6

8.9 .3
8.9 .3
6.9 .3

8.4 .0
8.4 .0

8.0 .0

7.6 .6

7.2 .6
7.6 .6
7.? .6

14 .2
7.2 .6

SAN JOAQUIN RIVER BASIN

11234700 MAMMOTH POOL RESERVOIR NEAR BIG CREEK, CALIF.

LOCATION (REVISED).--Lat 37°19'45", long 11

town of Big Creek.

DRAINAGE AREA.--995 sq mi.

PERIOD OF RECORD.--October 1959 to Septembe

GAGE.--Water-stage recorder. Datum of gage

EXTREMES.--Ma

ed in the following table:

el (levels by Southern California Edison Co.).

Wtr yr Date
1966 May 29, 1966
1967 July
1968 June
1969 June

Date

1970

1, 2, 1967
7, 1968
2, 3, 1969
28, 1970

a Occurred July 2, 1967.
b Occurred May 6, 1967.
c Occurred June 3, 1969.
d Occurred Mar. 31, 1970.

mum elevati

REMARKS.--Rese

3, 1969; mini

120,500
125,500
87,100
126,500
113,300

3,330.47
a3,335.00
3,297.07
c3,335.86
3,323.82

May

20, 1966
5, 6, 1967
Dec. 22, 1967
Mar. 26, 1969
Mar. 30, 31, 1970

3,139.96 ft Mar. 31, 1970.

4,710
22,700
21,800
4,720
4,600

Elevation
3,140.63
b3,202.93
3,200.89
3,140.69
d3,139.96

on, 3,333.86 ft

COOPERATION.--Re

REVISIONS.--WSP 1930: Dra

3,130
3,140
3,150
3,160
3,170

3
4
6
8
11

110
600
400
620
200

3,180
3,190
3,200
3,220
3,240

14,100
17,400
21,400
31,100
42,800

3,260
3,280
3,300
3,320
3,336

;re-feet)

56,400
72,100

109,300
126,700

CONTENTS. IN ACRE-FEET. AT 2400. MATER YEAR OCTOBER 196$ TO SEPTEMBER 1966

>AY

I
2
3
4
5

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7
e
9
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11

13
14
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16
17
18
19
20

21
22
23

25

26
27
28
29
30
31

CCT

40.300
39,900
40.100
39.600
39,400

39.600
39, SCO
40.000
40.300
40,500

40,700

41.100
41.300
40,800

40,300
40,600
40.100
34.600
39.100

38,600
38, 103
37,500

37,100

36,600
36.000
35,500
34,900
34.400
34,600

34,000
33,400
32,900
32,200
31,600

30.900
31.0CC
30.400
29.800
29,200

28,600

27,500
29,200
30,300

32,600
34,900
39,000
40,000
40,400

39,900
39.6CC
46,000

52,300

52,400
52,300
52,300
52,200
52,000

51,500
51,000
50.50C
50,500
50,000

48,900
47,500
46,000
44,500
43,000

41,300

38,300
36.700
34,900

33,000
31,200
29,100
27,000
25,200

23,400
21,500
19,900

19,900

19,900
19,900
20,100
22,000
22,500
23,100

23,100
23,100
22,700
22.300
22.500

22,400
22,300
22,200
22,100
21,800

21,300

2C.600
20.300
20,000

20,100
19,600
19,000
18,500
17,900

17,400
16,830
16,100

15.800

15,700
15,700
15,600
15.600
15.600
15,600

15,700
15,600
15,600
15,500
15,600

16.000
15.900
15,700
15,300
15,000

14,500

14.000
13,700
13,300

13.000
12,700
12,400
11,500
11,100

11,000
10,900
10,700
10,600
10,000

9,910
10,100
10,200
. .

_ .«

9,980
9,670
9,480
9,600
9,580

9,450
9.420
9,510
9.660
9,690

10,100

12,800
11,900
10,700

9,560
8.020
6.470
5.050
4,830

4.830
4,960
7,680
9,460
8,440

7,810
7,560
7,750
8,300
9,190
11,200

13,500
16,100
IB, 600
21,*00
24.000

26,700
29,500
32,400
34,700
36,500

37,100

36,900
36,900
37,700

39,600
42,000
43,500
43, 700
43,200

42,500
42,000
41,600
42,000
43,600

45,800
48.100
50,200
52.000
54,200

56,800
59,800
62,800
65,900
69,200

72,700
76,700
80,100
82,500
84,800

86,900
88,600
90,400
92.700
94.700

96.900
99,200
102.100
104,500
106,600

108,700
110,800
112,900
114,500
116,000

117,500
118,900
120.000
120,400
120,000
119,200

118,100
116,800
115,400
114,000
112,800

111,700
111.100
110,400
109,400
108,900

108,600
108, 2CO
107,900
107,600
107,300

106,700
105,900
105,300
105,000
104,200

103,500
102,600
101,400
100,200
98.800

97,600
96,300
95,100
94,000
93.400

JUL

92,700
91,900
91,000
89,900
88,900

88,300
87,600
86,800
85,900
85.100

84.200
83.300
82.400
81.500
80.400

79,400
78,200
77,100
76.000
75.000

74.100
73.200
72.400
7 1 , 400
70.500

69,800
68.700
67,600
66,500
65,400
64,300

AUG

63.200
62.700
62.200
61,300
60,400

59,900
59,500
58,800
58,100
57,400

56.700
55,900
55,200
54,500
53,700

53,000
52,300
51,700
51,100
50,600

50,200
49,700
49,000
48,200
47,500

46,700
46,500
46.300
45,800
45,500
45, 100

SEP

44,700
44,200
44,000
43. BOO
43,600

43,400
43,000
42,700
42,500
42,300

42,200
41.800
41,400
41,200
41.000

40,800
40.500
40,400
40,300
40,200

40,000
39,800
39,700
39,600
39,400

39,000
38,400
37,900
37,600
37,200

MAX 41,300 52,400 51,500 23,100 16,000 12,800 54,200 120.400 118.100 92.700 63,200 44,700
MIN 34.4CO 27,500 19,900 15,600 9,910 4,830 13,500 56,800 93,400 64,300 45,100 37,200
(t) 3,226.26 3,253.84 3,203.78 3,184.90 3,166.40 3,170.20 3,256.97 3,329.28 3,303.86 3,270.37 3,243.61 3,230.89
(}) -7,800 +17,400 -28,900 -7,500 -5,400 +1,000 +43,000 +65,000 -25,800 -29,100 -19,200 -7,900

CAL YR 1965
WTR YR 1966

MIN 5,140
MTN 4,830

} -60,400
t -5,200

t ELEVATION, IN FEET, AT END OF MONTH,
t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11234700 MAMMOTH POOL RESERVOIR NEAR BIG CREEK, CALIF.--CONTINUED

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29

31

MAX
MIN

(t)
(t)

t
t

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
IB
19
20

21

24

26
27
28
29
30
31

MAX
MIN

(t)
(t)

CAL
WTR

OCT

36,900
36,600
36.300
36,000
35,600

35,000
34,700
34,300
34,100
33, BOO

33,500
33,200
32,900
32,500
32,300

31,900
31,600
31,000
30.9CO
30,700

30,500
30,600
30,700
30,300
30,000

29,700
29,400
29,100
2B,700

28,200

36,900
28,200
3,214.36 3,
- 9,000

CCN1

NCV

27, BOO
27,500
27,200
26,900
26,600

26,300
26,100
25,800
25,600
25,300

25.000
24, BOO
24,600
24,300
24,000

24,100
24.100
24,000
23,600
24,200

24,400
24,600
24,500
24,900

24,600
24,600
26,800
30,100

30,500
23,600
218.88
+2,300

120,700

ELEVATION, IN FEET,
CHANGE IN CONTENTS,

OCT

46,500
46,000
46,200
46,200
46,000

45,500
45,200
44,800
44,100
43,700

43,400
42,600
42,100
41,400
40,700

40,100
39,500
38, BOO
38,200
37,500

36,800

35,200

33,900
33,200
33,000
32,300
31,600
30,900

46.5CO
30,900
3,219.67 3,
- 16,000

YR 1967 MAX
YR 1968 MAX

NOV

30,200
29,500
29,100
28.800
28,500

27.800
27,700
27,500
27,200

26.700
26,900
26,500
26,200
26,000

25,600
25,400
25,100
25,200
25.200

25,100

24,600

24,200
24,000
23,800
23,800
23.600

30.20C
23.600
205.00
- 7,300

125,500
86,600

DEC JAN

31,000 120,700
33,300 120,700
36,500 120,700
38,000 120, BOO
44,700 120, BOO

77,500 120,800
86, BOO 120,700
91,100 120,600
94,100 120,600
96,500 120,700

98,500 120,700
100,300 120,800
102,000 120, BOO
103,400 120, BOO
104,900 120,800

106,200 120,800
107.600 120,800
108,900 120, BOO
110,200 120,800
111,500 121,000

112,700 121.200
113,800 121.100
114.900 121,000
115,900 121,100

117,700 120,400
118,400 120,303
119,200 120,200
120.100 121,200

120,700 121.000

120,700 121,500
31,000 120,200
3,330.68 3,330.96
+90,200 +300

MIN 4,830 t

AT END OF MONTH.
IN ACRE-FEET.

DEC JAN

23,400 26,200
23,300 26,100
23,200 25,900
23,200 25,600
23,600 25,400

23,800 25,200
23,700 25,100
23,700 24,900
23,800 24,900

23.700 24,800
23,600 24.400
23,400 24,000
23,300 23,900
23,100 24,300

23,100 24,700
22,900 24.900

22,100 25,100

21,900 25,700

22,700 25,900

23,700 26,100
24,000 26,400
24,300 27,000
24,600 27,000
25,100 26,600
25,600 26,400

25,600 27,000
21,800 23.900
3,209.32 3,210.98
+2,000 +800

MIN 21,800 t
MIN 4,940 t

FEB

120,600
120,700
118,600
116,600
114.700

112,700
110,800
106,800
106,900
105,100

103,400
101,700
100.000
96,200
96,100

93,900
91,600
89,300
86,900
84,500

81,900
79,400
77,000
74,500

69, SCO
67,000
64,500

120,700
64,500
3,270.67
- 56,500

+97,600

FEB

25,900
26,000
26,700
27,500
27,700

28,000
28,100
28,300
26,800

29,200
28,600
27,800
27,000
26,100

25,400
25,500

27,700

28,600

24,000
22,200

21,200
19,300
17,400
15,400

29,200
15,400
3,184.20
- 11,000

- 95,100
- 27,200

MAR

62,100
59, BOO
57,600
55,300
52,900

50,400
46,000
45,700
43.500
41,300

39,300
38,300
37,100
35,400
34,000

44,900
52,600
56, BOO
59,000
60,200

60,900
61,600
62,200
62,400

61.800
61,100
61,300
61,200

59,900

62,400
34.000

3,264.78
- 4,600

MAR

14,900
14,000
13,300
12,700
12,000

10,200
9,550
8,640
7,600

6,510
5,790
5,740
5,690
5,620

5,580
5,540

5,390

5,270

5,140
5,080

4,980
4,940
5,060
5,260
6,920
8,160

14,900
4,940
3,158.07
- 7,240

APR

59,100
58,100
56,800
55. BOO
54.700

53.400
52,500
51,300
50.300
49,200

48,300
47,100
45,900
45,000
44.100

42.90C
41,700
40,700
39,700
38,500

37,300
35,900
34,500
33,300

31,000
30,100
29,000
28,100

59,100
26,900
3,211.99
- 33,000

APR

7,600
6,210

5,390
5,330

6,560
6,340
6,290
6,640

6,680
6,810
6,410
6,030
5,960

5,380
5,330

4,980

5,200

5,920
5,700

7,370
9,130
11,200
14,700
IB, 400

18,400
4,980
3,192.61
+10,240

MAY

25,400
24 200
23 400
22 900
22 700

22 BOO
24 200
27 400
32 100
37,100

38,400
39,400
40,400
41,900
45,400

51,900
60,800
71,300
82,600
95,600

111,300
124.500
124,800
124,600

124,300
124,000
123,500
123,300

122,500

124,800
22,700
3,332.31
+95,600

MAY

22,400
26,100

33,000
36,300

41,100
43,500
45,800
47,600

49,400
51,300
52,300
52,700
53,200

54,000
54,800

60,800

63,300

64,900
65,100

66,500
68,900
71,900
74,700
76,900
78.600

22,400
3,287.57
+60,200

JUN

121,900
121,600
121, 9CO
122,100
122,000

122,200
122,800
123,000
123,100
123,200

123,200
123, ICO
122,700
123, OCO
123,300

123,500
123,900
124,200
123,600
124,000

124,400
124,200
124,300
12 ,600

12 ,700
12 ,800
12 ,000
125,000

125,400
121, 6CO
3,334.88
+2,900

JUN

80,400
82.300

85,600
86,300

86,400
86,000
85,500
85,300

85, ICO
85,100
85,300
85,400
85,500

86,000
86,300

86,300

86,000

84,900
84,300

83.600
82,900
82,200
81,400
80.500

80 ,400
3,289.75
+1,900

JUL

125,500
125,400
125,000
124,900
124,300

123,900
123,500
123,200
122,800
122,200

122,100
122,300
122,900
122,600
122,900

122,700
122.000
121,700
121,600
121.600

121.400
121,900
121,700
121,500

121,400
121,300
121,200
121,300

121,100

125,500
121,100
3,331.03
- 4,300

JUL

79,900
79.100
78,400
77,800
76,900

75,400
74.100
73,500
72,900

72,500
72,000
70,900
69,900
69,100

68,400
67,600

64,500

63,600

60,700
59,800

58,700
57,600
57,400
56,300
56,100
55,300

55,300
3,258.50
- 25,200

AUG

121.200
120.400
120,000
119,500
118,600

117,600
116,400
114,900
113,200
111.500

110,700
110,000
109,500
108,800
108,200

107,500
107,600
107, SCO
107,100
106.100

105.100
104,400
103,500
102,600

101,200
100,200
99,100
97,800

95,200

121,200
95,200
3,305.81
- 25,900

AUG

54,400
53,500
52,500
51,000
50.000

47.800
46,600
45,400
44,300

43,200
42,000
40,800
39,700
38,500

37,600
36,300

34, 100

34,000

33,500
33,200

32,900
32,500
32,200
31,900
31,500
31,100

31.100

3,220.02
- 24,200

SEP

93.900
92,700
91,500
90,400
89,700

66,600
87,400
86,000
84,200
82.500

80,800
79,100
77,400
75,700
73,900

71,900
70,100
68,400
66,800
65,100

63,300
61,500
59,500
57,600

54,200
52,300
50,500
48,700

93,900
46.900

3,246.43
- 48,300

SEP

30.800

30,500
30,000
29,400
29,000

27,700
27,300
26.500
25,700

24,800
24,500
24,400
24.100
23.800

23.500
23,300

22.400

22.100
21.800
21.500
21.200
20.900

20,700
20,500
20,400
20.200
19,700

19,700
3,195.97
- 11,400

t ELEVATION, IN FEET, AT END OF MONTH, t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAOUIV RIVER BASIN

11234700 MAMMOTH POOL RESERVOIR NEAR BIG CREEK, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEET, AT 2*00, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

1 19,400
2 19,300
3 19,100

5 19,300

6 19,400
7 19, SCO
6 9, SCO
9 9,500

11 9,300
12 9,400
13 9,700
14 9,300
15 9,100

16 19,100
17
IB

20

21
22

24

26
27
28
29
30
31

9,100
9,200

9.3CO

9,000
8,900

9,000

9,200
9,000
B.9CO
8,900
8,900

(t) 3,193.90 3
(t) -800

CAL YR 1968 MAX

19,000
18,700
20,400

18,600

18,400
IB. ICO
17,900
17,700

17,400
16,700
16,400
16,000
15,400

15,000
14,600
14,300

13,900

13.500
13,300

12,800

12.400
12,400
12,400
12,100

,173.44 3
- 6,800

86,600

12,000
12,000

12,000

12,000
12,200
12,300
12,200

11.500
11,300
11,300
11,300
11,600

11,400
10,600
10,500

10,200

10,300
10,500

10,700

10,800
10,700
10,300
9,910
9,820

,164.88
- 2,280

WIN 4,
WIN 4,

9.650
9,640

9,760

9,630
9,650
9,480
9,250

8,790
8,820
11.200
13,500
14,100

13,900
13,700
14,500

34, 100

49,300
53,200

54,400

87,000
88,400
88,600

en, 300
88,500

3,298.61
+78,680

940 t
770 t

86,100
84,600

81,500

80,000
78,200
76,400
74,500

70,600
68,700
66,600
64,400
62,900

61,000
59,000
56.800

52,300

49,800
47,500

44,000

38,500
36,500

3,229.64
- 52,000

- 15,780
+10,500

32,400
30,200

26,900

25,200
23,700
21.300
19,100

14,400
12,200
9,790
9,230
9,100

8,900
7,070
5,640

5,750

4,960
5,170

5,000

6,400
8.350
11,200
15,300

3,183.86
- 21,200

23,400
26,200

31,800

34,200
35,200
35,900
36,500

39,200
42,500
46,500
50,000
52.000

54,000
56,900
61,400

72,700

81,000
90,200

103,100

119,000
122,400
122,600

3,332.42
+107,300

122.700
122,400

122,700

123,400
123,900
124,200
124,400

124,500
124.700
124,500
124,200
124,100

124,300
124,600
124,500

124,200

124,500
125,100

125,600

125,400
125,700
125,800
126,200

3,335.63
+3,600

126,500
126,100

125.800

125,500
125,300
124,600
124,000

123,000
123,300
123,800
124, OCO
124,100

124,000
123,200
123,000

123,400

123,600
123,900

123,500

122,800

122,300
122,200
122,400

3,332.23
- 3,800

122,500
122,400
122,300

122,200

122.100
122,100
122.000
122.000

122.400
122,500
122,900
122.500
122.100

122,100
122.100
122,000

122,200

122,300
122,500

122.000

121,100

120,500
120,400
120,600
120,600

122,900

3,330.56
- 1,800

1 20 , 400
120,400
120,300

119.800

118,400
117,200
116,500
115,800

114,500
115,200
114,700
113.900
112,900

111,900
111,000
110,100

108,100

106,900
105,700

103,100

100,500
99,100
97,600
96,100
94.400
92,700

120,400

3,303.07
- 27,900

91,000
B9.400
87,900

84,400

82.300
80,300
78,600
76.900

73,300
71,300
68,900
66,300
63,900

61,400
59,000
56,500

51,600

49,000
46,500

2,300

8,200
6,100
4.100
32,100
30.200

91,000

3,218.35
- 62,500

t ELEVATION, IN FEET, AT END OF MONTH. t CHANGE IN CONTENTS, IN ACRE-FEET.

CONTENTS. IN ACRE-FEET, AT 2400, WATER VEAR OCTOBER 1969 TO SEPTEMBER 1970

NOV DEC JAN FEB MAR APR MAV JUN JUL AUG SEP

,513
. 605

31,848 33.930 41,722

48,379 46,55b 78,767 57,230

(t) 3,220.54 3,226.02 3,248.61 3,245.85 3,165.90 3,140.15 3,140.25 3,298.08 3,320.97 3,287.80 3,261.15 3,237.68
(t) +1,200 +3,000 +14,000 -1,800 -36,500 -5,470 +20 +83,350 +22,300 -31,500 -21,600 -15,900

MIN 4,770
MIN 4,600

t +38,580
t +11,100

AT END OF MONTH.
IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11234760 SAN JOAQUIN RIVER ABOVE RHAKEFLAT CREEK, NEAR BIG CREEK, CALIF.

National
ool Dam, and
10

DRAINAGE AREA.--1,003 sq mi.

PERIOD OF RECORD.--October 1959 to Septembe

GAGE.--Water-stage recorder. Datum of gage Edison Co.).

EXTREMES.--Maximums and minimums (discharge in 1966-70 are contained in the following table

1970.

is 2,865.50 ft abov

cond, gage h<

1966
1967
1968
1969
1970

May 29, 1966
July 10, 1967
Nov. 30, 1967
June 3, 1969
Jan. 16, 1970

Di

61

G.H.
4.46
16.96
3.20
18.38
3.48

el (levels by Souther

ight in feet) for the

Minimum daily

Period of record: Max
0.3 cfs Oct. 14, Dec. 5, 1959.

18,400
92

discharge, 18,400 cfs June 3, 1969 (gage height, 18.38 ft); minlmu

Date
June 16, 1966
Nov. 12, 1966
Mar. 25, 1968
Nov. 11, 13, 14, 1968
Mar. 23 to Apr. 10, 1970

rsions through Ward tunnel (see station 11229500) and through Mono-Bear conduit to Ward tunnel

COOPERATION.--Gage-height record and 74 discharge connection with a Federal Power Commission proj

hed by Southern California Edison Co.,

OISCHARGEi IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

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KEAN
MAX
MN
AC-FT

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1,520

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9.5
9.5
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9.8
9.8
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IT
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14.9
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9.5

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12.8
2B
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12.3
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6.3
5.4
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333.7
11.9
18
5.4
662

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405
13.1
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803

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558
18.6
47
12

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39

59
59
59
60
60

60
60
60
177
151
47

1,143
36.9
177
13

11,890

JUN

13
13
13
13
13

13
13
13
13
13

13
13
8.3
2.9
2.9

2.8
8.9
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12.0
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2.8

JUL AU

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13.0 13.
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3 SEP

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12

12
12
13
13
15

380
12.7
15
12

SAN JOAQUIN RIVER BASIN

11234760 SAN JOAQUIN RIVER ABOVE SHAKEFLAT CREEK, NEAR BIG CREEK, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

1

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27
28
29

MEAN
MAX
MIN
AC-FT

CAL YR

DAY

OCT

16

16
16
16

16
16

14
14

14

14
14

14
14
14

14

14
14

14
14

14
14
14
14

14.5
16
14
891

NOV

12

12
12
12

12
12

11
12

4.8

12
12

14
13
12

17

13
15

13
13

13
13
22
25

13.4
25
4.8
799

1966 TOTAL 7,289

OCT

DISCHARGE

NOV

DEC

24

31
28
100

90
27

24
41

59

59
59

59
59

59

59

59
59

59
59
59
60

66. 3
316 1
24
4,080 25

3 MEAN

, IN CUBIC

DEC

JAN

327

325
322
325

318
360

282
286

325

360
3?7

303
303

318

816

828
491

202
121
71
503

422
, 100
71
,960

20

FEET

JAN

FEB

428

99
63
63

63
63

61
53

59

59
59

59
59

55

47
48

47
47
46
-

78.9
428
46
4,380

MAX 316

PER SECOND,

FEB

MAR

46

45
45
47

57
56

55
55

70

59
51

86
62

53

51
51

51
51
53
52

54.8
86
45
3,370

MIN

WATER

MAR

APR

52

51
58
55

53
61

53
53

52

51
53

51
50

54

52 9

52 9
52 8
51 7
51 6

53.1 2

3,160 148

2.8 AC-FT

YEAR OCTOBER

APR

MAY

49

9
9
9

8
B

50
52

50

50
50

51
36
32

61

,330

,060
,620
,740
,580

. 412

,300

JUN

3.360

2.230
2,640
3,340

2,860
4,010

5.580
5,520

5.910

4,720
5,440

6,350
6,820
7,930

8.220
8,620

9,960

10.000
10,600
11,000
11,300

6.661

396,300

JUL

13.200

12,400
11,000
9,900

8,660
7,590

5,670
4,620

3,560

5,120
4,440

5,260
4,000
2,660

1,930
2,600

2.100

2,210
1.860
1,510
1.730

4,913

302.100

AUG SEP

1,580 26

144 26
59 26
49 27

27 28
27 28

26 28
26 27

26 27

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26 27
27 27
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105 26.7
1.580 30

6,460 1,590

14,460

1967

MAY

TO SEPTEMBER 1968

JUN JUL AUG SEP

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WEAN
MAX
MIN
AC-FT

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26.9
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12.6
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11.8
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12.2
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752

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16
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46
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9
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46
45
44
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33.9
51
12
1,950

11
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9.9

11
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9.9
9.9
9.9

9.9
9.7
9.4
9.4
9.1

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11
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13.1
52
9.1
805

52 MIN

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14.0
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9.1 AC-FT

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16.1
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15.1
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18
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18
18
IB
17

15.5
18
13
950

504
16.3

430
14.3

SAN JOAQUIN RIVER BASIN

11234760 SAN JOAQUIN RIVER ABOVE SHAKEFLAT CREEK, NEAR BIG CREEK, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTCBER 1968 TO SEPTEMBER 1969

DAY

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MAX
NIN

DAY

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OCT

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OCT

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18 12 13
12 12 13

12 12 13
12 12 12
12 12 12

11 14 12
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11 12 27
11 16 22
15 22 16

12 12 83

12 12 82

12 12 28
12 17 38
12 22 78

12 17 61
12 14 35
12 15 30

12 1 » 26
) 24

> 860

18 2? 83
11 12 12

DISCHARGE. IN

NOV OE

32 1
32 1
32 1
32 1
25 1

13 1
13 1
13 1
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13 1

13 1
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CUBIC FEET

JAN

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23
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44
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16
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38
35

35
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34

35

36

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35

981

73

PER SECOND,

FEB

13
13
12
12
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MATER

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53
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51

59

69

69
70
70

4,200

7,515

4,200

4.540

,490

,030
.280

10,300
9,720

9,310

12,800

13,800

13,600
13,600
13,200

14,400

300,110

15,200

YEAR OCTOBER 1969

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31
32
33
33

JUN

16,000

15,200

13,200
12,300

6,860
8.090

6,840

7,830

6,560

5,450
4,870
4.200

3,730

261,180

16.400

JUL

4,210

3,600

3,340
3,080

4.200
3.800

3.850

3,970

2,810

1.650
1,140
664
420
458

95,071

4,210

518,100 188,600

,510
.000

TO SEPTEMBER 1970

29
29
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MJG

446
297
256
165

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32
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31
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1,997

446

3,960

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26
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26
26
26

SEP

31
31
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32

31
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31
31
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30
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31

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31
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31
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923
30.8
32
30
1,830

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24
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27
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12
30

TOTAL
MEAN
MAX

M[N

32

988
31.9
32
30

14

482
16.1
32
13

15

461
14.9
20
14

13

538
17.4
44
12

350
12.5
15
12

11

394
12.7
20
11

MIN 12

26

578
19.3
27
11

AC-FT

28

914
29.5
34
26

1.331.000

28

843
28.1
29
28

26

817
26.4
28
25

25

802
25.9
27
25

24

770
25.7
27
24

SAN JOAQUIN RIVER BASIN

11235500 WARD TUNNEL OUTLET AT HUNTINGTON LAKE, CALIF.

PERIOD OF RECORD.--October 1927 to September 1970. Monthly discharge only fo
WSP 1315-A. Prior to October I960, published as Ward tunnel at outlet.

May 24, 1956, to Sept. 30, 1968, no recorder, see REMARKS below.

AVERAGE DISCHARGE.--43 years, 475 cfs (344,100 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 2,080 cfs June 21, 1935; no flow at time
1964-65, 1968.

REMARKS.--Records good. For the period May 24, 1956, to Sept. 30, 1968, daily discharge computed as the sum o Ward tunnel intake (see station 11229500), Mono-Bear conduit, Camp Creek conduit, and corrected for change contents of Portal Forebay. Tunnel diverts from Florence Lake to Huntington Lake, receives diversions from Bear and Mono Creeks and at times from several other small tributaries of South Fork San Joaquin River. Se record for station 11229500, Ward tunnel intake at Florence Lake.

COOPERATION. --Discharge of Camp Creek cond
nished by Southern California Edison Co

DAY

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24
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27
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29
30
31

PEAN

WIN

OCT

618
608
604
597
597

588
613
626
617
608

6CO
591
583
654
685

635
620
604
582
556

439
357
642
590
346

323
187
437
466
502
464

323

DISCHARGE

NOV

475
344
382
358
471

499
466
371
280
272

164
273
282
332
436

4C7
484
478
372
431

340
387
450
457
460

456
483
447
380
368

164

, IN CUE

DEC

446
306
244
284
302

68
42
0
3.2
379

608
582
551
552
550

396
467
470
474
470

468
461
465
471
470

470
477
442
192
473
510

0

1C FEET

553

541

519
520
513
507

499

498
499

487
483
480
477

468

454

454
456

Records f

PER SECOND,

462

475

481
482
484
480

474

468
460

468
464
466

472

151

3r the

WATER

150

140

152

262

298
282

253
259
232

226

335

486

water years 1969-70 furnished by Southern California

YEAR OCTOBER 1965 TO SEPTEMBER 1966

652 700 518 523

709 742 557 481

717 697 836 441

583 698 1,050 444
643 719 688 447

649 665 538 428

714 695 7C2 465

718 ,070 632 554

724 ,010 551 494

AUG

486
503
498

393

432
467

520
505

515
514
510

481

538
522

400
494

440
423

SEP

503
525
531

446

482

411
496

482
481

480
469
470

461

328
545
438
392
423

494
442
500
487
478

SAN JOAQUIN RIVER BASIN

11235500 WARD TUNNEL OUTLET AT HUNTINGTON LAKE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

MAR APR MAY JUN JUL

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24
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27
28
29

31

PEAN
MAX
HIM

CAY

1
2

4
5

6
7
8

10

11

13
14

16

IB

20

21

23
24

26
27
28

30

MEAN

WIN

438
470
496
483

486
482
422
316
280

285
28?
266

267

279
55
97

180

118

123
54
40

45
33
6.C

54

l.C

OCT

725

720

717

727

722
723
735

722

706
710
7C8

708

718

32
54
6.0
49

64
5.0
72
5.0
82

6.0
102
1.0

351

306
485
402

430

430

424
476
440

383
508
643

1.0

DISCHARGE,

NOV

712

713

723

709

723
711
714

722

714
729
699

459

489
518
567
516

116
318
669
704

711
698

526

4B2
416
458

426

426

424
390
398

397

368

116

IN CU8IC

r>EC

509

506

526

506

518
52?
522

534

520
520
516

503

368
370
327
409

351
389
376

357
390

390

400
383

387

402

390
512
504

524

602

327

FEET

JAN

412

161

144

149

161
158
155

153

159
143

161

600
528
565
562

566
569
620

640
642

592

584
587

590

5T9

574
572
581

573

587

528

PER SECOND,

FEB

161

145

159

152

164

158

264

235

219
221

588
599
594
583

580
594

206
193

691

659
594

694

698

694
664
642

612

405

578

193

WATER

MAR

200

197
188

178

180

189

179

180
182

192
196

292

178

191
174
ISO
169

171
178

178
189

184

180

165

179

174
ISB
168

188
177

177

150

YEAR OCTOBER

APR

253
240

384

406

235

188

166
19L

371
530

L59

293
456
360
380

429

293
271

372

660

676

654

643
820
906

937
947

955

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263

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1967

MAY

362
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418

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956
1,080
1,140
1,140

1,170

1,180

1,200
1,200

825

180

253

683
675
711

670
838

902 1

180

TO SEPTEMBER

JUN

502
560

585

619

612

583

572

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738
665

653
649
559
380

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,650
,690
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,320

,480
,550

601

. 268

380

1968

JUL

708
713

727

710

719

708

728

744
796

884
890
886

512
,560
,640
,530

. 160

. 240

. 060
. 090
,220

974
1,220

941

926

921
952
945

939
902
886

873

1,087

512

AUG

729
724
726

73C

724

717

729

722

730
688

736
729
737

902
906
911
934

749

734

721
741
733

722
729

725

733

719
730
728

726
725
728

763

719

SEP

737
738
724

780
722

732

732

738

730

582
484

416
440
430

SAN JOAQUIN RIVER BASIN

11235500 WARD TUNNEL OUTLET AT HUNTINGTON LAKE, CALIF.--CONTINUED

1

3
4

6
T
8
9
10

11
12
13
1*
15

17
IB

20

21
22
23
2*
25

27

29
30
31

WEAN
MAX
HIN

2
3

5

6
7
8
9
10

11
12

14
15

16

18
19
20

21

23

25

26
27
28

30
31

MAX
f IN

335

393
407

0
0

0
0

151

0
0

10B

58

0
0

0

84

90

130

0

734
686

736

736
736
738
738
735

738

738

738
738
739

738

740

742

742

740

738

663

359

137
0

317
310

310

320

248
358

318

281

271

274

0

DISCHARGE,

738
738

742

865
727
729
730
730

514

518

502
487
SOB

536

448

483

468

497

413

262

270

221
252

251

287
484

285

250

326

355

195

195

IN CUBIC

0
0

0

0
3
0
40
122

618

694

468
469
484

500

511

519

492

486

488

0

283

146

317
264

330

315
3C7

371

183

389

728

146

FEET

4B6
458

465

469

481
476

510

663

590
615

595

596

562

550

522

521

458

725

230

187
171

318

272
290

261

52B

165

PER SECOND,

530
542

549

546

55?

531

528
530

526

506

500

517

500

484 437 SOB

509 364 724

481 610 56B
486 644 428

253 914 16

336 661 170

362 723 196

360 718 98

402 980 73

554 95

150 364 16

WATER YEAR OCTOBER 1969

540 1BO 313

185 334 569

53 361 708

28 213 698
71 200 698

166 218 730

202 168 720

293 215 819

331 256 ,220

163 ,480

550 451 1,480
117 166 217

215 1

171 1

106 1
60

68

589 1

490

,130
,140

,190

,240
,270

1,270
60

TO SEPTEMBER

. 650

854

782

712

710
704

712

712

1,650

1,460

1,650
678

,180

,180

,180
,130
556

934

,020
918

905

888
956

,010

,170
,200

. 240
556

1970

729

985

884
B87

464
529

609
619

608

577

685

742

570

985
464

1,200
1.200

1,270

1,080
1,120
1,230

1,220

1,090
1,120

1,090

974

1,030
1,030

1,020

900
840
881

1,290
B40

534

110

572
598

638
642

596
554

621

581

607

605

578

642
110

800
765

880
880
819
793
806

7B8
766

724
724

556

615

502
578
728
728
730

730

730
731

880
415

577

487
522

536

619
623

638
638

633

622
631
658

653

675

671

613

676
36 B

SAN JOAQUIN RIVER BASIN

11236000 HUNTINGTON LAKE NEAR BIG CREEK, CALIF.

LOCATION.--Lat 37°14'03", long 119°12'41", in SVk sec.14, T.8 S., R.2S E., Fresnc in gate tower of dam 1 on Big Creek, 2 miles northeast of town of Big Creek.

DRAINAGE AREA. --. 5 sq mi

PERIOD OF RECORD. --April 1913 to September 1970. Pri
WSP 1315-A; 1926-31 published in WSP 721.

GAGE.--Water-stage recorder. Datum of gage
Prior to June 19, 1920, nonrecording gage

EXTREMES.--Maximums and minimums (contents
tained in the following table:

to October 1926 monthly contents only, published in

(levels by Southern California Edison Co.).
datum.

- feet, elevation in feet) for the water years 1966-70 are co

s at mean sea

at present sit

Wtr y
1966
1967
1968
1969
1970

Date
Oct. 18-21, 1965
Aug. 7, 10, 1967
Nov. 3, 1967
Aug. 8, 1969
July 9, 10, 1970

Mi

a6,949.60
b6,950.12
6,949.60
6,950.11
d6,949.46

Date

26, 19b6
6, 1967
19, 20, 1968
Mar. 30, 1969
Jan. 9, 1970

May
Feb

42,200
9,350
49,600
11 ,900
50,100

6,911.97
6,865.31
c6,918.89
6,871.28
6,919.36

a Occurred Oct. 21, 1965.
b Occurred Aug. 10, 1967.
c Occurred Feb. 20, 1968.
d Occurred July 9, 1970.

contents for 1913-39 are

daily

REMARKS.--Lake is formed by four dams; storage began Apr. 11, 1913. Dams were raised in 1914 and again in 1917. Usable capacity, 89,200 acre-ft between elevations 6,819.9 (invert of outlet tunnel No. 1) and 6,950 ft (spillway crest at dam 1) above mean sea level. Additional storage of 600 acre-ft is not available for release. Huntington-Shaver conduit has diverted water from Huntington Lake to Shaver Lake since Apr. 21, 192 (see station 11239000). Water is used for power development in Big Creek plants. Figures given herein repre

COOPERATION.--Record of contents furnished by Southern California Edison Co., in connection with a Federal Power Commission project.

REVISIONS.--WSP 1930: Drainage area.

Capacity table, water years 1966-70 (elevation, in feet, and contents, in acre-feet)

6,860 7,430
6,870 11,300
6,880 16,400
6,890 22,900

6,900 30,900
6,910 40,200
6,920 50,800
6,930 62,600

6,940 75,300
6.950 89,200
6.951 90,610

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

1
2
3
4
5

6
1

a
9
10

u
12
13
14
15

16
IT
18
19
20

21
22
23
24
25

26
27
26
29
30
31

MAX
MIN

(+) (m
CAL YR
WTR YR

OCT

88, 400
88,300
88,300
88,300
88,300

88,200
88,300
88,300
88.400
88,400

88,400
88.300
88,200

88,400

88,500
88,500
88,600
88.600
88.600

88,300
87,700
87,800
87,800
87,400

86,900
86.500
86,200
85.900
85,700
85,500

88,600
85,500

- 2,900

1965 MAX
1966 MAX

NOV

85,200
84,800
84,300
83,900
83,600

83,400
83.200
82.800
82.200
81,600

80,700
80.100
79,700

79,500

79,500
79,600
79.800
79, 600
79,600

79,200
79,100
79,800
80,400
80,300

80,200
80,200
80,100
79,800
79,400

85,200
79,100

- 6,100

89,100
88,600

DEC

79,500
79,300
79,000
78,800
78,600

78.200
77,400
76,600
75,900
75,800

76,300
76,700
77,100

77,700

77,700
77,800
78,000
78,100
78,300

78,500
78,600
78,700
78,900
79,200

79,300
79,500
79,700
79,600
79,800
80,200

80,200
75,800

+ 800

MIN 9
MIN 42

80,500
80,900
81,300
81,600
81,500

80,300
79,100
77,900
76,700
75,800

75,100
74,400
73 , 700

72,400

71,700
71,000
70,300
69,600
68.900

68,200
67,600
67,000
66,300
65,600

64,900
64,200
63.500
62,800
62,200
61,500

81,600
61,500

- 18,700

,100 t +
,400 t

60,900
60,200
59,600
59,000
58,400

57,900
57,200
56,600
56,000
55,400

54,800
54.200
53,600
53,000
52,400

51,800
51,200
50,700
50,100
49.500

49,000
48.500
47,900
47,300
46,800

46,500
46,500
46,100

60,900
46,100

- 15,400

58,100
- 700

45,700
45,200
44,700
44,300
44,600

44,700
44,300
43,900
43,400
43,100

43,100
43,800
44,000
44,000
43,800

43,700
43,500
43,300
43,200
43,000

42.800
42.500
42.500
42,500
42,400

42,400
42,500
42,600
43,000
43,400
44,000

45,700
42.400

- 2,100

44,900
45,800
46,900
48,100
49,300

50,600
52,000
53,500
55,000
56,500

57,800
58,600
58,400
58,000
57,700

57,800
58,100
58,300
58,200
57,800

57,300
56 , 700
56,100
55,900
S6.100

56,700
57,200
57,800
58,400
59,000

59,000
44,900

+15,000

59,700
60,500
61,300
62,200
63 , 200

64,200
65,200
65,900
66.400
67,100

67,600
68,200
69,000
69.900
70,700

71,600
72,900
73,700
73,200
72,700

72,200
71,700
72,000
73,800
75,600

77,500
79,400
81,100
82,800
84,500
85,400

85,400
59,700

+26,400

85,700
85,800
85,800
85.900
86,000

86,200
86,400
86,600
86,700
86,800

86,900
87,500
87,900
87,900
87,700

87,700
87,700
87,700
87,800
88,000

87, BOO
87,600
87,600
87,600
87,800

87,900
88,100
88,200
88,200
88,200

88,200
85,700

+2,800

88,100
88,000
87,900
87,700
87,500

87,300
87,100
87,000
87,100
87,100

87.100
87.100
87,200
87,100
87.200

87.100
87,100
87,100
87,000
86,900

86,900
86,900
87,000
87,000
86,900

86,900
87.100
87,100
87,230
87,400
87,500

88,100
86,900

- 700

87,600
87,700
87,800
87,900
87,900

87,900
87,700
87,700
87,600
87,500

87,400
87,400
87,500
87,600
87,600

87,700
87,800
87,900
87,900
88,000

88,100
88,200
88,200
88,100
87,900

87,800
87,700
87,600
87,600
87,600
87 , 600

88,200
87,400

+ 100

87,700
87,800
87,900
88,100
8B.OOO

B8.100
88,000
88,000
87,900
87,900

87,800
87,800
87,800
87,900
87,900

87,900
87,900
88,000
88,100
88,100

87,800
87,900
87,800
87,700
87,700

87,700
87,600
87,700
87,700
87,700

88,100
87,600

+ 100

+ ELEVATION, IN FEET, AT END OF MONTH, t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11236000 HUNTINGTON LAKE NEAR BIG CREEK, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEET, AT 2400, MATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MAX
MIN

(t)

CAL
WTR

t
t

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
16
19
20

21
22
23

25

26
27
28
29
30
31

H1N

til

CAL
WTR

t

87,700
87,700
87,800
87,800
87,900

87,900
88,000
88,000
87,700
87,300

87,000
86,600
86.200
85,800
85,400

85,000
84.200
83,500
83,100
82,600

81,900
81,200
80,600
79,900
79,300

78,600
78,000
77,400
76,700
76,000
75,400

88,000
75,400

YR 1966 MAX
YR 1967 MAX

74,600
74,200
73,900
72,800
72,200

71,600
70,900
70,400
69,700
69,200

68,500
68,000
67,300
66.900
66.800

66,900
67,100
67,200
67.500
67,800

68,000
68,100
68,200
68,500
66,700

68,900
66,900
69,500
70,200
70,800

74,800
66,800

88,200
89,300

CHANGE IN CONTENTS,

OCT

86,100
86,300
86,500
86,800
87,000

87,200
87,400
87,600
87,900
88,100

88,300
88,200
87,600
87,100
86,600

86,000
85,400
85,400
85,500
85,800

86,000
86,200
86,400

86,800

87,000
87,200
87,500
87,700
87,900
88,100

6,949.23 6
+2,300

YR 1967 MAX
YR 1968 MAX

CONT

NOV

88,300
88,500
88,300
87,400
86,700

85,900
85, ICO
84,300
84,200
84,400

84,600
84,800
85,200
85,500
86,OCO

86,100
85,500
84,900
84,700
85,000

85,100
84,700
85,000

85,400

85,600
85,800
86,100
86,000
86, ICC

,947.82
- 2,000

89,300
88,500

71,100 67,000
72,000 66,700
72,500 66,200
73,000 66,000
74,900 65,700

77,000 65,400
74,600 65,000
73,600 64,700
73.700 64,300
73.800 64,000

73,800 63,600
73,900 63,300
73.500 63,000
73.200 62.800
72,800 62,500

72,500 62.100
71.900 61,800
71,500 61,500
71,000 61,200
70,600 61.000

70,400 61,100
70,200 60,900
69,900 60,600
69,700 60,900
69,400 60,800

69,100 60,800
68,800 60,800
68.400 60,800
66,100 61,200
67,700 61,800
67,400 62,000

77,000 67,000
67,400 60,600

MIN 42,400 t
MIN 9,460 t

IN ACRE-FEET.

62,000
61,100
60.000
58,800
57,800

56,700
55,700
55,200
54,800
54,300

54,000
53,600
53,400
52,900
52,300

51,600
51,000
50,700
50,500
50,200

49,800
49,100
48,500
47.800
47,500

47,100
46,700
46,000

62,000
46,000

- 12,800
- 1,900

ENTS, IN ACRE-FEET, AT 2400,

85,900 82,300
85,700 82,100
85,600 81,900
85,400 81,600
85,500 80,800

85,300 80,000
85,200 79,100
85,100 78,200
84,900 77,400
84,800 76,600

84,700 75,800
84,600 75,100
84,400 75,000
84,200 74,600
84,000 73,900

83,900 73,200
83,800 72,300
83,800 71,500
83,800 71,100
83,700 70,200

83,600 69,400
83,500 68,500
83,400 67,700

83,200 66,200

83,100 65.5CO
83,000 64,800
82,900 64,000
82,700 63,100
82,600 62,300
82,400 61,500

6,945.22 6,929.17
- 3,700 -20,900

MIN 9,460 t
MIN 49,600 i

60,700
60,000
59,200
58,400
57,600

56,700
55,900
55,100
54,400
53,600

52,800
52,100
51,700
51,300
50,800

50,500
50.200
49.900
49,600
49,700

49,700
49,800
50,000

50,700

50,600
50,600
50,600
50,700

6,919.88 6
- .10,800

+15,000
- 21,300

45,500
45,000
44,500
44,000
43,400

42,800
42,300
41,800
41,300
41,100

40.900
41,100
41,300
41,600
42,000

43,200
44,300
45,100
46,000
46,200

45,600
45,100
44,500
44,100
43,800

43,400
43,000
42,900
42,600
42,200
41,500

46,200
40,900

40,200
38,900
37,300
35,600
33,900

32,300
30.100
27,800
25,600
24,500

23,400
22.400
21.600
21.000
20,400

9,800
9,300
8,800
8,100
7,600

16,900
16,200
15,500
14,900
14,200

13,500
12,900
12,200
11.500
10,700

40,200
10,700

MAY

10,200
10,200
9,940
9,760
9,570

9,460
9.650
9,860
10,500
10,700

10,500
10,300
9,980
9,860
10,100

11,000
12,400
14,000
15,700
17,600

19,800
22,200
24,700
27,200
29.400

31.400
32,900
34,200
35,400
36,400
37,000

37,000
9,460

MATER YEAR OCTOBER 1967 TO

50,800
50,800
50,800
50,900
50,900

50,900
50.900
50.900
50,900
50,900

50,800
50,800
50,800
50,700
50,700

50,700
50.700
50,700
50,600
50,500

50,200
49,900
50,300

50,600

50,600
50,600
50,700
51,000
51,400
51,900

,920.95
+1,200

52,400
52.500
52,600
52,800
53,200

53,300
53.400
53.500
53,800
54.200

54,900
55,600
56,200
57,100
57,900

58,200
58,300
58,300
58,200
58,100

58,000
57,800
57,700

57,800

58,400
59,600
60,900
62,300
64,000

6,931.13
+12,100

65,300
66.100
66,700
67,600
68,400

69,200
69,700
70,300
70.800
71.200

71.700
72,200
72,500
72,800
73,000

73.300
73,700
74,400
75,100
76,000

76,900
77,500
77,600

77,900

78,300
78,700
79,200
79,600
79,900
80,100

80,100
65,300
6,943.51 6
+16,100

JUN

37,000
37,000
37,300
37,800
38,300

38,600
39,600
40,800
42,200
43,800

45,500
47,200
48,700
50,000
51.800

53,600
54,700
56,500
57,300
57,800

59,000
60,600
62,000
63,500
65.200

66,600
67,900
69.800
71,400
72,100

72,100
37,000

SEPTEM6

JUN

80,200
80,400
81,100
81,900
82.600

83,000
83,500
84,000
84,400
84,800

85,200
85,700
86,100
86,200
85,700

85,200
84,800
84,300
83,800
83,200

82,600
82,000
81,400

81,800

82,300
82,800
83,300
83,900
84,300

86,200
80,200
,946.59
+4,200

JUL

73.300
74,200
74,600
74,200
74,000

74,500
75.100
75,400
75,500
75,800

76,400
76,900
78,000
79,400
80,800

82,100
83,200
84,200
85,000
86,200

87,100
86,600
86,000
85,700
86,200

86,900
87,400
88,300
88,500
88,500
87,700

88,500
73,300

ER 1968

JUL

84.500
84,800
85,000
85,100
85,400

85.600
85,800
86,000
86,300
86,600

86.800
87,000
87,200
87,400
87,600

87,700
87.500
87,100
86,700
86,300

86,000
85,700
85,400

84,800

84,500
84,200
83,900
83,600
83,300
83,000

87,700
83,000
6,945.62
- 1,300

AUG

86,400
87,200
88.200
88.800
89,100

89,200
89,300
B9. 200
89,200
89,300

89, 100
88,900
88,900
89,000
89,000

88,800
88.700
88,900
88 , 600
88,400

88,200
88,200
88,000
88,100
88,200

88,300
88,200
88,100
87,900
87,700
87,500

89,300
86,400

AUG

82,400
81,700
81,100
80,600
80.000

79,400
78,900
76.300
77,800
77,200

76.700
76,100
75,700
75,100
74,600

74,000
73,500
73.000
72.500
72.000

71,500
71.000
70,700

70,400

0,300
0,300
0.200
0,200
0.1GQ
0,100

82,400
70,100
6,936.01
- 12,900

SEP

87.400
87,400
87.300
87,300
87,100

86,700
86,300
86.100
86,100
86,000

85.900
85,800
85,700
85,800
86,000

86,400
86,800
87,200
87,000
86,600

86,200
85,800
85,400
85,200
84,800

84,800
85,100
85,300
85,600
85,800

87,400
84,800
6,947.66
- 1,700

SEP

70,100
70,000
70,000
69,900
69,900

69,900
69,800
69,800
70,100
70,400

70,700
71,000
71,100
70,900
70,300

70,000
69,800
69,600
69,300
69,100

68,900
68,700
68,200

66,800

66,200
65,800
65.400
65,000
64,500

71.100
64,500
6,931.56
- 5,600

t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11236000 HUNTINGTON LAKE NEAR BIG CREEK, CALIF. - -CONTINUED

CONTENTS, IN ACRE-FEET, AT 2400,

NOV DEC JAN FEB

MATER YEAR OCTOBER 196B TO SEPTEMBER 1969

MAR APR MAY JUN JUL

63,999
63.369
62.950

63, ABO
63,689
63,262
62,715
62.151

61,577
61,041
60.738
60.495
5 60.252

6 59,831

B 58,738
9 58,202
0 57,845

1 57,702

4 57,325
5 56.782

6 56,230
7 55,810
8 55,739

1 54,752

55,064
55,716
56,172

56,301
55,903
55,798
55,962
56,055

56.125
56,312
56,359
56,452
56,617

56,770
56,688

56,770

57,101
57,136

57.183

57,254

57,348
57,372

57,325
57,360
57,396
57,360
57,443

57,490
57,443
57,407
57.608
57,786

58,190
58,238

58,274

58,786

58,917

59,338

59,831
59,915

60,216
60,337
60,459
60,568
60,580

60,944
61,029
61.626
62,213
62,384

64,360
65,244

66,562

68,975

68,821

67,827

64.012
63,270

60,166
58,393
57,171
55,833
54,081

52,584
52,163
51,262
50,089
48,786

43,301
41,975

40,649

35,930

35,188

31,509

) -9,700 +2,500 -1-2,300 +5,900 -34,000

L YR 1968 MAX 87,700 MIN 49,600 t -22,800
R YR 1969 MAX 89,281 MIN 12,013 } +14,500

t ELEVATION, IN FEET, AT END OF MONTH,
t CHANGE IN CONTENTS, IN ACRE-FEET.

CONTENTS, IN ACRE-FEET, AT 2400,

Y OCT NOV DEC JAN FEB

3 78,039
4 77,756
5 77,473

9 76,372
0 76,105

I 75,811
2 75,531
3 75,265
4 75,039
5 75,132

6 75,053

4 73,375

7 72,691

I 71,856

X 78,676
N 71,856
) 6,937.35 6,

L YR 1969 MAX
R YR 1970 MAX

70,907
70,700

70,519
70,325

70,118

69,540
68,962
68,413

67,878

66,347

65,708

71,608

932.02

89,281
88,351

60,713
59,566

55,111
54.185

53,829

53,267
52,970
53,004

53,187

52,561

52,561

51,835

64,148

6,920.91

MIN 12,
MIN 50,

50,679

50.145
50,590

51,441

51,599
52,175
52,992

54,983

60,410

60,786

61,601

61,601

6,929.22 6,

013 t -7,
145 t -6,

62,789

63,788
64,037

64.235

64,369
65,119
65,720

65,896

66,121

65,896

66,372

932.81 6

800
100

27,958
26,639

23,766
23,095
22,652
22,206
21.825

20,991
20,179
19,279
18,582
17,995

15,955
15,496

14,965

13,056

12.764

12,170

- 19,200

MATER

MAR

66,171

66.121
65,382

64.608

62,987
62,249
61,528

60,859

57,762

57,691

57,171

66,209

,925.53

13,012
13,173

13,323
13,041
13,017
13,323
13,654

4,039
4,959
6,034
7,104
7,664

18,032

20,381
21,881

23,758

26,235

25,982

26,306

+15,700 +

YEAR OCTOBER

APR

56,032

56,853
57,136

57,845

59,133
59,506
59,66?

59,734

57,278

56,371

59,734

6,923.70 6,

29,103
29,348

29,280
29,627
30,086
30,792
31,132

31,763
32,797
33.510
33,492
33,546

33,904

35.086
35,468
35,770

36,384

40,608

41.853

44,333

47,327

21,200

1969 TO

MAY

55,868

59,109
60,107

60,386

59,410
59,710
60,422

61,320

67,282

67,700

68,647

68,847

935.02 6

53,063
54,439

57,301
57,833
57,821
57,053
55,517

53,990
52,436
51,677
51,902
52,197

52,481

51,745
52,822
54,485

56,359
58,417

64,298

65,833

69,091

72,639

+23,400 +

SEPTEMBER

JUN

70,597

71,830
72,286

72.613

73,033
73,296
73,703

74.205

78,554

83,986

86.021

,947.79 6,

76,519
78,201

82,748
84,028
85,148
86,445
87,140

86,856
86,785
87,154
87,381
87,410

87,410

87,566
87,736
88,179

88,279
88,637

88,337

88,308

88,437

88,723

88,837

16,200

1970

JUL

87,466

88,351
88,351

88,165

88,022
87,679
87,552

87,452
87,523

87.580

87,481

87,993

88,051

88,351

949.22

86,923
89,023
89,109

89,267
89.281
89.209
89,123
89,180

89,281
89,267
89,267
89,052
89,037

89,123

88,980
88,780
88,494

88,222
87,965

87,580

87,395

87, 168

87,310

89,281

- 1,500

AUG

87,608

87,637
86,572

86,467

86,345
86,388
86,431

86,374
86,303

86.190

85,796

85,641

85,233

88,065

6,947.23

67,282
67,266
67,126
86,913

86,927
87.083
87,027
86,885
86,771

86,587
86,360
86,064
85,768
85,458

85,008

83,944
83,053
82,512

81,876
81,325

80,487

80.009

79.449

78.961

87,282

6,942.69
- 8,300

SEP

85,106

84,504
83,986

83,164
83,012

83.026

83,137
83,178
83,234

83,317
83,345

83,414

83,958
84,070

84,210

85,106

6,947.10
- 100

t ELEVATION, IN FEET, AT END OF MONTH, t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11237000 BIG CREEK BELOW HUNTINGTON LAKE, CALIF.

DRAINAGE AREA.--81.1 sq mi.

PERIOD OF RECORD.--June 1925 to Septe

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet) for the water year 1966-70 are contained in the following table:

Wtr yr
1966
1967
1968
1969
1970

Date
Nov. 24, 1965
Aug. 10, 1967
Nov. 28, 1967
Aug. 14, 1969
Jan. 16, 1970

8.7

)0
4.5

G.H.
2. 72
3.14
2. 39
3.12
2.83

Date

Many days
Jan. 15-19, 1967
Many days
Several days

Minimum daily

3ct. 7-18, Dec. 5-16, 1931.

rds good. Since 1913, flow gulated by Huntington Lake (s

COOPERATION.--Gage-height record and five discharge measurements furnished by Southern California Edison Co., in connection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 1315-A: 1943(M). WSP 1635: 1925-29. WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

CAY

2
3
4

6
7
a
9
10

n
12

14
15

16
17

19
20

22
23
24

27
28
29

TOTAL
MEAN

WIN
4C-FT

OCT

2.7
2.7
2.7

2.6
2.6
2.6
2.6
2.6

2.6

2.6
2.7

2.6
2.6

2.6
2.6

2.6
2.6
2.6

2.6
2.5
2.5

80.7
2.60

2.5
160

NOV

2.5
2.6
2.6

2.5
2.5
2.5
2.5
2.5

2.5

4.1
3.1

4.4
4.0

3.2
2.4

2.7
5.3
4.9

2.9
2.8
2.7

91.5
3.C5

2.3
181

2.7
2.7
2.7

2.6
2.6
2.6
2.6
2.4

2.4

2.4
1.8

l.l
l.l

l.l
l.l

l.l
l.l
1.0

1.0 l.l l.l

55.0 3
1.77 1

1.0
109

. 1 .0
. 1 .0
. 1 .0

. 1 .0
. 1 .0
. 1 .0
. I .0
. 1 .0

. 1 .0

. 1 .0
. 1 .0

. 1 .0.1 .1
.1 .1
. 0 .1

. 0 .1
. 0 .1
. 0 .1

. 0 .0
. 0 .0
. 0

. 9 28.8
06 1.03

. 0 1.0
65 57

1.0
1.0
1.0

l.C
l.l
l.l
1.2
1.6

1.6

1.8
1.8

1.8

1.7
1.8

1.8
1.9
1.9

2.2
2.2
2.3

51.1
1.65

1.0
101

2.5
2.5
2.5

2.3
2.3
2.2
2.2
2.8

2.4

2.3
2.5
2.6

2.5
2.5
2.5

72.9
2.43

2.2
145

2.3
2.3
2.3

2.2
2.2
2.2
2.2
2.4

2.3

2.3
2.3
2.2

2.3
2.3
2.3

70.9
2.29

2.2
141

JUN

2.3
2.3
2.2

2.3
2.4
2.4
2.4
2.4

2.3

2.2
2.2
2.2

2.2
2.2
2.2

68.3
2.28

2.2
135

ML

2.3
2.2
2.2

2.2
2.2
2.1
2.1
2.1

2.3

2.4
2.4
2.3

2.4
2.4
2.4

71.7
2.31

2.1
142

2.4
2.4
2.4

2.4
2.4
2.4
2.4
2.4

2.4

2.4
2.4
2.4

2.4
2.4
2.4

74.5
2.40

2.4
148

SEP

2.4
2.4
2.4

2.4
2.4
2.4
2.5
2.4

2.4

2.4
2.4
2.5

2.5
2.4
2.4

73.0
2.43

2.4
145

SAN JOAQUIN RIVER BASIN

11237000 BIG CREEK BELOW HUNTINGTON LAKE, CALIF. -- CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOSO, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

1
2
3
4
5

6
T
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
PAX
MIN
AC-FT

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
PEAN
MAX
MIN
AC-FT

2.4
2.4
2.5
?.4
2.4

2.5
2.4
2.4
2.4

2.4
2.4
2.5

2.4

2.5
2.4

2.4
2.4

2.4

2.4
2.4
2.4

2.4
2.4
2.4
2.3
2.3
2.3

2.41
2.5
2.3
148

OCT

2.2

2.2
2.2

2.3

2.2
2.2
2.2

1.7
1.0
1.0
1.6
2.2

2.2
2.2
2.2
2.2
2.2

2.2
2.2
2.3
2.2
2.2

2.3
2.2

2.2
2.2

2.10
2.3
1.0
129

2.3
2.3
2.3
2.3
2.3

2.3
2.4
2.4
2.3

2.3
2.3
2.3

2.3

2.5
2.3

2.4
2.8

2.4

2.3
2.3
2.3

2.3
2.4
3.0
2.6
2.4

2.38
3.0
2.3
142

DISCHARGE

NOV

2.2

2.2
2.2

2.2

2.2
2.3
2.2

2.2
2.2
2.4
2.3
2.3

2.3
2.3
2.4
2.8
2.4

2.4
2.3
2.3
2.4
2.3

2.3
2.3

2.4

2.31
2.8
2.2
138

2.4
3.4
3.4
2.7
8.4

17
5.5
4.1
3.6

3.2
3.1
3.1

2.9

2.2
1.5

1.4
1.4

1.4

1.3
1.3
1.3

1.2
1.2
1.2
1.2
1.2

2.94
17
1.2
181

, IN CUBIC

DEC

2.4

2.4
2.5

2.5

2.4
2.4
2.4

2.4
2.3
2.3
2.3
2.3

1.9
1.1
1.2
1.2
1.2

1.2
1.2
1.2
1.2
1.2

1.2
1.2

1.2

1.80 1
2.5
1.1
110

1.2
1.1
1.1
1.1
1.1

1.1
1.1
1.1
I.I

1.1
1.1
1.1

1.0

1.0
1.0

1.0
1.2

1.7

1.2
1.2
1.2

1.2
1.2
1.2
1.6
1.8

1.20
1.8
1.0
74

FEET

1.2

1.1
l.l

1.1

1.1
1.1
l.l

1.1
1.1
1.1
1.1
1.5

1.2
1.1
1.1
1.1
1.1

1.1
1.1
1.1
1.1
l.l

1.1
1.1

1.0

. 11
1.5
1.0
68

. 6
. 5
.4
.4
.4

.4
.4
.4
. 5

. 5
. 5
. 5

.4

.4
.4

. 3

. 3

. 3
. 3
. 3

. 3
. 3
. 3

U40
1.6
1.3
78

PER SECOND,

1.0

1.0
1.0

1.0

1.0
1.0
1.0

1.0
1.0
1.0
1.0
1.0

1.0
1.4
1.3
1.3
2.6

1.9
1.8
1.8
1.7
1.7

1.7
1.7

1.32
2.6
1.0
76

1.4
1.4
1.4
1.3
1.3

1.3
1.3
1.4
1.4

1.4
1.4
1.4

1.4

3.2

2.4

2.5

2.5
2.5
2.4

2.3
2.4
2.5
2.4
2.2

2.00
4.0
1.3
123

1.0

MATER

1.6

1.5
1.5

1.4

1.4
1.3
1.3

1.3
1.3
1.3
1.3
1.3

1.3
1.2
1.2
1.2
1.2

1.3
1.3
1.3
1.3
1.4

1.4
1.5

1.6

1.38
1.6
1.2
85

2.1
2.1
2.0
2.0
1.9

1.9
1.9
1.8
1.9

1.9
1.8
1.9

2.2

2.2

2.1
2.1

2.1

2.0
1.9
1.9

2.0
2.0
1.9
1.8
1.8

2.2
1.8
118

AC-FT 1,550

YEAR OCTOBER

1.6

1.6
1.7

1.6

1.6
1.6
1.6

1.6
1.6
1.6
2.2
2.5

2.7
2.6
2.6
2.6
2.5

2.4

2.4
2.4

2.4
2.5

2.5

2.10 2
2.7
1.6
125

1.8
1.9
2.1
2.1
2.1

2.4
3.0
3.7
3.8

3.3
3.2
3.5

4.6

5.8

7.8
8.7

11
12
12
13
13

12
12
12
11
11

13
1.8
413

1967

2.5

2.4
2.4

2.4

2.5
2.5
2.5

2.4
2.5
2.6
2.6
2.5

2.4
2.4
2.4
2.4
2.4

2.4

2.4
2.3

2.3
2.3

2.3

.42
2.6
2.3
149

8.3
7.8
8.3

8.7

8.3
8.3
8.3
7.8

7.8
7.6
7.1

7.1

6.9

6.5

6.0
5.6
5.4
5.2
4.9

4.7
4.5
4.3
4.1
3.9

8.7
3.9
400

TO SEPTEMBER

JUN

2.4

2.3
2.3

2.3

2.4
2.4
2.3

2.4
2.3
2.3
2.2
2.3

2.4
2.3
2.2
2.3
2.4

2.3

2.6
2.6

2.6
2.5

2.4

2.37 2
2.6
2.2
141

3.8
3.7
3.6

3.4

3.3
3.2
3.0
3.0

2.8
2.8
2.8

2.6

2.6

2.6
2.4

2.4
2.4
2.4
2.4
2.4

2.3
2.4
2.2
2.2
2.5

3.8
2.2
171

1968

JUL

2.4

2.3
2.3

2.2

2.3
2.2
2.2

2.2
2.2
2.3
2.2
2.3

2.2
2.2
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132

SEP

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2.4

2.4

2.4
2.4

2.1
2.1

2.36
2.5
2.1
141

SAN JOAQUIN RIVER BASIN

11237000 BIG CREEK BELOW HUNTINGTON LAKE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 196B TO SEPTEMBER 1969

DAY

1
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16
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IB
19
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31

MEAN
WAX

flN
AC -FT

DAY

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13
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IB
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27
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29
30
31

TOTAL
PEAN
PAX
WIN

OCT

2.2
2.4
2.3

2.4

2.0
1.9
1.9
2.1

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2.4
2.B
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2.3
2.4
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2.3

2.2
2.2
2.4
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2.31
2.8
1.9
142

OCT

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2.6

2.2

2.3
2.4

2.8

2.7
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2.5
2.5

2.4
2.4
2.4

2.4

2.3
2.4

2.3
2.3
2.2

75. C
2.42
2.8
2.2

2.3
2.5
3.2

2.4

2.3
2.4

2.3
2.7
2.5
2.4
2.5

2.5
2.5
2.6
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2.4
2.4
2.4
2.4
2.4

2.3

2.2
2.2
2.2

2.43
3.2
2.2
144

DISCHARGE,

NCV

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2.2

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2.4

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1.76
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1.1
108

IN CUBIC

DEC

2.4
2.4

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2.3
2.3

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3.7
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11

11

4.2
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3.3

3.01
11
1.1
185

FEET

JAN

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1.4

1.4

1.4
1.4

1.9

7. 3
3.6
2.8
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1.63
3.0

MIN 1.0

PER SECOND, HATER

FEB MAR

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2.1
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MIN 1.1

3.0
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3.7
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4.9
5.3

6.2
7.1
6.2
5.2
5.0

5.1

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7.4
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8.4

AC-FT

8.7 11 2.6 2.5 2.
8.7 10 2.6 2.B 2.
B.I 9.5 2.5 4.0 2.

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12.4 5
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. 5 3.0 5.

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. B 2.8 26
. 6 2.9 24
.4 2.9 23
. 3 2.9 3.

. 7 2.8 5.
.4 2.8 5.
. 0 2.8 3.
. 8 2.B 2.
. 6 2.7 2.

. 5 2.8 2.
.4 2.7 2.
. 3 2.7 2.
. 2 2.8 2.
. 0 2.7 2.

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. 9 2.7 2.
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. 7 2.6 2.
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YEAR OCTOBER 1969 TO SEPTEMBER 1970

APR MAY JUN JUL AUG SEP

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3.1
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3.0

3.0
2.9
3.0

3.1

3.1
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2.3

AC-FT

3.4 2.6 2.6 2.5 2.3 3.3 2.6 2.6 2.5 2.3

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3.4 2.6 2.5 2.3 2.3

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3.4 2.5 2.4 2.3 2.3 2.8 2.4 2.4 2.3 2.3 2.4 2.4 2.4 2.2 2.3

2.3 2.5 2.5 2.3 2.3

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59 2.49 2.37 2.30

2.2 2.4 2.4 2.2 2.2 187 154 153 146 137

2,960
1,760

SAN JOAQUIN RIVER BASIN

11237500 PITMAN CREEK BELOW TAMARACK CREEK, CALIF.

DRAINAGE AREA.--22.9 sq mi.

PERIOD OF RECORD.--October 1927 to September 1970. Records fo lished in WSP 1315-A.

mplete, yearly estimate pub-

GAGE.-- Water-st

AVERAGE DISCHARGE. --43 years

Annu

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Ap . 8
Ap . 16
Ma 5

De . 6
Ma . 16
May 24
June 21

Wtr yr
1966
1967
1968

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, 1966
, 1966

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, 1967
, 1967
, 1967

Date

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Sept. 2 7

al maximum di

Time Disch.
1930 254
1900 «287
1900 256

0900 *1,620
1800 700
1700 808
1830 788

yS

-29, 1968

, 39.5 cfs (28,620 acre-ft per

scharge

G.H.
5. 33
5.49
5.37

8. 82
7.00
7.27
7.22

Annu£

(*) and

Date

July

Apr.

Apr.
May
May
May

1 minimv

peak discharges

15, 1967

28, 1968

23, 1969
1, 1969
11, 1969
31, 1969

im daily di

Discharge
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. 30
. 17

Time
1900

2000

0100
2330
2130
1830

schar

year).

er second, gage

above base (200

Disch. G.H.
211 5.17

*148 4.72

283 5.54
336 5.78
992 7.88
*1,210 8.32

ge, water years

Wtr yr Date
1969 Oct. 2
1970 Sept. 29

e of gage i

height in f

cfs) , wate

Date
June 16,
June 19,
June 30,
July 13,

Jan. 16,
May 5,
May 9,
May 16 ,

1966-70

, 3, 1968
, 30, 1970

eet).

r years

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1969
1969
1969

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Time
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70

Disch.
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432
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238

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270
250
355

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hern

G.H.
6.91
6.25
5.57
5.34

6.05
5.50
5.40
5.90

charge
. 19
. 35

REVISIONS (WATER YEARS).--WSP 931: 1940. WSP 1315-A: 1944. WSP 1395: 1928-29, 1938. WSP 1515: 1929. WSP 1930: Drainage area.

DISCHARGE. IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

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TOTAL
PEAN
MAX
MIN

1.1
1.0
. 90
. 90
. 80

. 80
. 80
. 70
. 70
. 70

. 70
. 60
. 60
. 60
1.6

2.0
1.7
1.8
1.6
1.4

1.2
l.C
1.0
. 90
. 90

. 80
. 80
. 80
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30.80
. 99
2.0
. 60

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. 90
1.9
19
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76
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11.2
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84
99
113
130

38.3
130
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67
79
80
84

85
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96
79
70

143
132
127
147
173

205
205
169
130
114

112
118
133
156
182

198

182
176
186

165
205
112

198
196
200
210

203
188
170
156
179

143
131
130
131
127

124
124
125
121
113

104
95
92
89
81

75

60
53
48
43

128
210
43

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9.4
9.1
8.B

21.2 3
40
8.8

1.3
1.4
1.2
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. 20

210 MIN .20

SAN JOAQUIN RIVER BASIN

11237500 PITMAN CREEK BELOW TAMARACK CREEK, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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.40
1.1
.80
.60

9.4
8.0
16
13
56

1,030
230
102
71
55

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21
20
20
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20
19
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18
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53
52
49
48

47

46
46
47

38
40
44
41

45

104
126
107

JUN

211
262
325
311

300

415
420
443

JUL

336
296
264
225

203

157 1
140 1
127 1

11
12
13
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22
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TOTAL

MAX
MIN

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. 30
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.40
.40
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.30 2

10.20 10

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. 30

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. 70
. 60
.60

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29
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48
43
41
37

34
33
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IB
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10
22

2,170.4

1,030
8.0

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19
18
18

18
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18
18

20
24
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637

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27
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44
52

180

147
117

97
94
84
77

67
72

307
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46
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49

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41
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42
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37

84
75
77
104

210

327
355
388

524
539
560
530

509
485

38

443
437
398
374

420

515
461
491

479
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405
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211

121
115
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100

98

58
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MEAN 1
MAX
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23 44 108 23
23 37 106 22
24 39 103 20
23 42 92 19

21 37 75 18
19 40 68 20
19 49 5 22
18 60 6 18
16 76 2 16

16 88 0 15
16 92 8 14
15 8 51 13
14 8 54 11
14 8 56 10

12 7 55 9.4
14 6 56 8.6
13 54 59 8.3
12 53 61 7.6
12 52 60 6.9

13 48 58 6.2
14 4B 50 5.8
14 52 41 5.4
15 61 7 5.2
18 75 7 4.9

20 94 1 4.3
25 109 1 3.9
32 117 8 3.6
45 120 35 3.4
59 115 30 3.2

2 21.6 68.2 60.1 11.8 3 62 120 113 25 9 12 37 28 3.2 1 1,330 4,060 3,700 700

.9 .54 .2'
. 7 .49 .22
.6 .46 ,2i
. 3 .41 .22
. 1 .39 .2f

.0 .37 .2C
. 7 .32 .1
.8 .30 .1
.0 .30 .!<
.9 .28 .!<

. 1 .30 .1
.8 .30 .1
.6 .41 .1
.6 .44 .1
. 5 .44 .1

.4 .44 . 2<

. 3 .44 .2(
.2 .41 .1
. 1 .44 .1
. 0 .49 .1

.90 .62 .1
.81 .70 .2
. 73 .64 .2
. 67 .51 .2
.64 .39 .2

. 2 .37 .1
. 6 .35 .1
. 9 .32 .1
. 9 .30 .1
. 6 .26 .1
. 6 .24

. 58 .41 .21
4.0 .70 .2
. 56 .24 .1
97 25 1

SAN JOAQUIN RIVER BASIN

11237500 PITMAN CREEK BELOW TAMARACK CREEK, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

1 .20 1.0
Z .19 2.0
3 .19 14
4 20 8.6
5 .20 5.1

6 .22 4.1
7 .24 3.4
8 .22 3.2
9 22 3.4
10 .22 J.9

11 .2? 3.6
12
13 1.
14 5.

28 4.8
» 4.7
Z 3.6
15 2.5 3.6

16 1.4 4.6
17 1.
18
19
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22 .
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26
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28
29
30 I.

4.2
0 5.0
1 6.2
C 6.2

2 6.2

6 5.2
1 4.9
6 4.1

6 4.3
6 4.3

6 3.8
4 3.3
3.6

TOTAL 24.24 140.2
MEAN
MAX 5
KIN

8 4.67
2 14
9 1.0
AC-FT 48 278

3.6
3.4
3.2
2.8
2.5

3.1
3.1
3.1
3.1

3.2
3.6
3.4
3.4
4.1

4.1
4.1
4.1
4.1
4.1

3.B

3.7
5.0
5.0

5.0
5.0
5.0
5.0
5.0
5.0

120.0
3.87
5.0
2.5
238

5.3
5.2
5.2
S.5
6.2

8*.0
8.3
7.6
6.9

6.6
6.9
8.3
9.4
11

a
9.0
8.0
14
16

22
20
18
16
33

50
45
38
30
25
20

482.3
15.6
50
5.2
957

UTR YR 1969 TOTAL 38.219.04 MEAN 105

DISCHARGE, IN CUBIC FEET

1 1.9 2.9
2 1.
3 1.
4 1
5 1.

6 1.
7 1.
8 1.
9 1.
10 1.

11 1.
12 1.
13 1.
14 1.
15 6.

16 16
17 12
18 8.
19 6.
20 5.

21 5.
22 5.
23
24
25

26
27
28
29
30
31 3.

7 2.8
6 2.8
6 2.7
7 2.7

7 3.8
7 4.7
6 4.7
5 4.4
5 4.7

5 4.9
5 5.1
5 5.1
6 5.3
0 6.2

6.2
4.4
0 4.8
2 4.7
5 4.7

3 4.7
1 4.5
6 4.3
2 6.9
0 5.2

8 4.6
6 4.1
4 4.6
2 3.6
1 3.4
0

EAN 3.86 4.45
AX 1
IN 1.

6 6.9
5 2.7
C-FT 237 265

CAL YR 1969 TOTAL 38,432.

3.4
3.3
3.2
3.1
3.2

3.2
3.1
3.1
3.0
2.8

2.8
2.9
3.0
2.9
2.7

2.7
2.6
. 7
. 7
1

2
2
1
I
2

1
1
.8
. 0
8.1
8.0

7.88
24
2.6
485

00 MEAN

7.0
5.0
3.5
3.0
2.5

2.0
2.5
4.3
5.0
8.0

6.8
6.6
6.8
10
9.5

210
190
94
55
40

50
59
45
41
34

30
25
24
23
23
22

33.8
210
2.0
2,080

105

20
20
20
20

20
19
18
18

18
18
18
18
18

18
18
17
16
15

14
14
14
14
14

14

14

481
17.2
20
14
954

MAX 814

PER SECOND

20
19
18
18
18

17
18
18
18
18

19
22
20
19
20

18
18
18
18

16
16
16
17
17

18
16
16

18.0
22
16
1,000

MAX 814

14
14
14

14
14
14
14

14
14
14
14
14

14
15
15
15
15

15
15
16
16
18

22

29
36
45
58

579
18.7
58
14
1,150

71
64
71

55
52
52
52

59
77
92
95
83

82
103
126
136
173

206
230
232
157
125

121

190
230
278

3.566
119
278
52
7,070

256
223
266

420
465
510
515

579
680
590
566
533

560
611
605
578
563

602
626
647
704
692

684

668
728
750
814

17,057
550
814
223
33,830

MIN .19 AC-FT 75,810

, WATER YEAR OCTOBER 1969

19
19
17
17
18

18
18
18
18
16

16
16
17
21
24

30
30
25
28

28
30
35
44

63
59
56
55
52
47

30.2
63
16
1.850

MIN 1.3

43
48
55
63
77

90
94
98
100
132

133
127
109
77
68

58
57
60
57

55
48
49
56

71
56
50
52
58

72.4
133
43
4,310

AC-FT

72
98
133
144
170

160
144
146
166
178

141
124
152
215
246

256
244
205
176

162
169
170
162

137
135
124
118
112
109

160
262
72
9,860

76,230

JUN

718
695
661

66
72
00
30

94
98
52
415
415

10
24
14
42
38

324
338
320
302
276

250

212
209
216

12,186 3
4C6
793
209
24,170 6

TO SEPTEMBER

103
89
76
65
59

54
48
53
107
61

51
45
45
47
41

33
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22
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19
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16
19
17
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15

JUL AUG

192 19
178 17
166 16

151 13
150 12
139 11
132 11

125 11
12D 9.8
146 9.0
139 8.3
115 7.6

103 7.2
90 7.2
82 6.9
79 6.2
72 5.5

64 5.3
65 5.1
61 4.9
50 4.6
44 4.3

37 4.0

37 3.8
30 3.6
28 3.5
25 3.3

,239 279.9
104 9.03
215 22
25 3.3
,420 555

1970

JUL AUG

13 2.1
13 2.0
12 1.8
12 1.7
11 1.6

9.8 1.5
9.4 1.4
8.7 1.2
8.7 1.1
9.4 1.1

8.3 1.0
7.6 .97
7.3 .88
6.9 .82
5.9 .79

4.9 .73
4.4 .73
4.2 .73
4.0 .67

3.8 .62
3.6 .60
3.4 .57
3.2 .52

2.9 .49
2.9 .49
2.8 .49
2.6 .47
2.4 .44
2.2 .44

42.5 6.41 .94
107
15
2,530

13 2.1
2.2 .44
394 58

SEP

3.1
3.0
2.8
2.7
2.6

2.6
2.6
2.5
2.3
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2.1
2.0
1.9
1.9
1.9

1.9
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i.a
2.1

2.2
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1.9
1.6
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1.4
1.4
1.3
2.8
2.4

64.4
2.15
3.1
1.3
128

SEP

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24

SAN JOAQUIN RIVER BASIN

11239000 HUNTINGTON-SHAVER CONDUIT OUTLET NEAR SHAVER LAKE, CALIF.

PERIOD OF RECORD.--October 1928 to September 1970. Monthly discharge only for October 1928, published in WSP 1315-A. Prior to October 1960, published as Huntington-Shaver conduit at outlet.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 6,680 ft (from topographic map).

AVERAGE DISCHARGE.--42 years, 221 cfs C160.100 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 1,780 cfs June 3, 4, 1938; minimum daily, 0.90 cfs Sept. 8-11, 195S, Nov. 15, 19, 26, 27, 1966.

REMARKS.--Records good. Conduit diverts from Huntington Lake to Shaver Lake, with additions from Pitman Creek

COOPERATION.--Gage-height record and S3 discharge measurements furnished by Southern California Edison Co., in

REVISIONS (WATER YEARS).--WSP 931: 1940.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

1 3
2 3
3 ^
4 3
5 3

6 1
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9
10

11
12
13
14
15

16
17
18
19
2D

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22
23
24
25

26
27
28
29
30
31

MEAN 6
MAX
MIN

»c-pr

l 1
2

5
5
8
. 4
2

2
2
9
6
4

3
2
2
2
2

22
22
22
22
22

21
20
20
20
20

19
19
19
18
17

17
16
15
16

16
15
15
14
15

15
14
14
13
14

96 23.6 17.5

. 1 1.1 13
28 1.4CO 1,080

16
16
16
15
250

764
758
750
742
595

484
481
478

474

472

468
466

457
454
451

448
445
440
436
434
432

438

15
26.92C

430
428
428
422
420

418
416
416
414
409

403
402
398

392

388

382
378

367
153
13

13
13
13
-

336

13
18,670

13
13
13
13
12

13
13
14
14
16

20
21
25

32

36

36
37

48
52
46

56
70
85
98
112
131

39.1
131
12
2,410

152
170
181
186
188

190
193
207
187
179

148
362
788

842

847

780
732

722
750
782

802
800
792
790
804

544

148
32,380

818
831
831
849
864

864
856
842
827
858

820
695
570

574

574

567
1,160
1,150

667
125
116

111
114
96
90
84
78

619
1.160
78
38,040

74 8.4
71 8.0
68
66
64

63
74
67
64
61

57
55
360
61C
367

50

18
17
16

318
35
13
12

11
10
10
9.4
9.1

98.4 4
610
9.1
5,850

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. 0 .
. 4 .

. 0
. 4
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. 4
. 1

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. 6 .
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4 .
. 4 .
. 4
1 .
« 1 .
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05 17
. 4
. 1
49 11D

1,550 MIN 1.1 AC-FT 229,300

SAN JOAQUIN RIVER BASIN

11239000 HUNTINGTON-SHAVER CONDUIT OUTLET NEAR SHAVER LAKE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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MAX
MIN

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22
27
13

5.7

13

997
1,300
599

247

238
232
230
226
0 223

222

217
0 186

72

20
20

0 19
0 12
26
27
26
24

23

22

22
21

20
22
22
22
22

23

22
21

24

24
21

25

28

30

492

646

633
553

438
438
438
434
430

421
421

415

408
403

397

390
388

381

371
367

47
44
46
50
52

232
170

702

689
588

4BB

480

464

439

648

569
812

338
222
141
91
60

47

44

45
44

45

43

254

44

48

50
75

100
90
90
115
160

370

480

796
,110

,490

,580

,530

534

.470 ,610

,530 ,580

,520 ,560
,560 ,550

,560 ,530
,580 .520
,580 ,220
,580 ,010
,600 .050

,650 ,010
,640 ,010

,640 551

,630 963
,630 878

,630 718

,630 682

631

. 589 1,118

658

684

685
685

621
619
619
617
624

581

478

422
422

427

422
421

420

17,388
561

418
421

421

418
416

191
191
191
90
34

252

374

373
373

160

34
35

7,187
240

AC-FT 319,600

DISCHARGE, IN CUBIC FEET PER SECOND,

NOV DEC JAN FEB

WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

MAR APR MAY JUN JUL

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KEAN
MAX
MIN

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3
3
3
3

3
3
3
3
3

32
90
40
38
38

36
34
84
32
32

32
32
32
32
31

31
31
31
31
28
27

108
440
27

27 1.
27 I.
243 2.
542 2.
538 2.

537 2.
534 2.
532 2
24C 2.
3? 2.

32 2.
32 2.
32 2.
33 2.
33 2.

203 2.
576 2.
572 2.
334 2.
35 2.

35 2
35 2.
34 3.
34 3.
34 3.

34 3.
18 3.
2.3 3.
2.1 3.
1.6 3.

179 2.7'
576 3.
1.6 1.

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11.
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22

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18

18
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16
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14
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14
14

15
16

17

22
27
34
46
59
63

» 23.7
63
14

58
46
38
40
44

37

59
74

90
92
88
89
86

76
67
56

48

61

98
112
117
120
115

69.4
120
37

112
109
107
104
94

71

68
64

63
60
53
56
58

56
58
61

5?

40

43
44
41
38
34
29

62.2
112
29

21
26
30
22
22

24

22
19

16
15
14
202
510

508
505
502

496

302

35
34
34
34
34

184
510
14

33
33
33
33
33

34

35
34

34
33
33
33
33

33
224
359

291

290

289
289
287
287
286
286

161
359
33

412
444
418
418
416

416

414
414

412
410
409
408
404

403
402
400

394

189

164
152
152
152
152
15?

341
444
152

152
152
152
152
152

152

152
152

153
153
275
398
397

310
238
238

238
238

236

103
27
27
28
2%

185
398
?7

HTR YR 1968 TOTAL 4C.588.5 MIN 1.6 AC-FT 80,510

SAN JOAQUIN RIVER BASIN

11239000

DISCHARGE

HUNTINGTON-SHAVER CONDUIT OUTLET NEAR SHAVER LAKE, CALIF.--CONTINUED

, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

AY OC

1 28

3 27
4 27

7 27

a 13
9 2.
10 1."

11 1.
12 1.
3 1.

5 1.

7 1.
B 1.
9 1.
0 1.

1 1.

3 1.
4 1.
5 1.

7 1.

9 1.
0

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58 3
16
1.0
13

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. 1 4.

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. 1 5.
. 1 5.
. 1 5.

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. 1 13

.1 la

. 7 IB

.a la
. 9 35

. 9 47

. 2 333
. 2 555

IB 59. (
. 4 55
. 9 4.
96 3,63(

545 1,030 73

535 675 64
525 560 69

510 260 60

480 110 55

470 BO 64
468 50 Bl

434 IB 106

) 421 IB 127
410 IB 138

390 18 384

365 IB 748

665 29 667

41 845
48 976

1,160 1,030 976
2 325 18 55
> 26,850 10,370 17,410 B

,080

,120
,090

,270

,510

,530
,5BO

,570
,580

,580

,580

,590

,590
,600

,610
,080
J.990 7

JUN JUL AUG SEP

,600 684 660 305

,490 676 65B 305
,490 667 657 305

,490 691 617 305

,480 83 637 304

,460 893 691 304
,470 941 720 303

,470 680 576 298
,470 675 610 297

,270 660 542 294

,160 657 540 291

991 35 537 289

989 55 307 289
784 66 305 2B9

,600 66 720 305
784 83 305 289
3,910 41.940 35,120 17,750

NIN .94 AC-F7 323,800

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

1
2
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5

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7
B
9
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4
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6
7
a
9
0

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2
3
4
5

6
7
a
9
0

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AN
X
N

287
287
286
286
284

284

2B3
283
282

282
280
280
280
284

297
291
287
284
283

282
280
280
279
279

277
276
276
276

275

282
297
275

27
27
27
2
2

2
2
2
2
2

2
2
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2
2

2
1

5
5
5

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. 7
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. 1
. 5
. 2
. 0

52
76
. 0

3.0 7. 21
3.0 6. 20
3.2 5. 20
3.0 4. 20
3.0 4. 20

3.0 3. 20

3.0 4. 21
3.0 5. 20
3.0 6. 20

3.0 7. 25
3.2 7. 24
3.0 7. 22
3.0 7. 22

3.0 39 22
2.7 86 21
2.7 9 20

4.0 7 20
18 1 20

Zi 9 19
22 1 18
18 0 18
14 0 18
21 4 IB

18 1 20
12 8 20
9.2 4 20
9.2 4

7.68 22.2 20.4
23 86 25
?.7 3.8 18

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19
19
20

19

21
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20

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22
25
28

30
34

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28

31
35
39
46
56

68
63
59
5B

46

32.9
68
19

45
52
61
68
81

94

102
115
134

133
113
90
76

71
64

68
64

60
58
55
61
75

Bl
68
60
55

79.0
141
45

84
114
148
163
191

184

170
187
198

792
829
886
922

941
946

915
889

880
893
897
891
1,110

. 500
,500
,500
,500

,490

768
1,500
84

490
480
480
480
200

,020

788
538
4CO

371
370
373
204

71
67

60
57

56
53
51
50
48

48
53
350
277

465
1,490
46

43
42
41
41
39

39

37
155
451

317
166
73
31

31
31

31
30

31
30
30
31
31

31
31
31
31
31
31

79.3
454
30

31
31
31
31
31

31

31
31
31

31
31
31
31
31

31
31

30
30

30
30
30
29
30

30
29
29
29
29
29

30.4
31
29

29
29
29
29
29

29

29
29
17

2.6
2.4
2.4
2.4
2.4

2.4
2.4
2.2
2.0
2.0

2.0
2.0
2.0
2.0
2.0

2.0
2.0
2.0
2.0
2.0

321.2
10.7
29
2.0

H1N 2.0 AC-FT 118,400

SAN JOAQUIN RIVFR BASIN 275

11239500 SHAVER LAKE NEAR BIG CREEK, CALIF.

LOCATION.--Lat 37°08'40", long 119°18'08", in SB's sec.13, T.9 S., R.24 E., Fresno County, Sierra National Forest,

DRAINAGE AREA.--29.1 sq mi.

PERIOD OF RECORD.--November 1909 to September 1970. Prior to January 1927, monthly contents only, published WSP 1315-A, January 1927 to September 1931 published in WSP 721.

EXTREMES.--Maximums and minimums
tained in the following table

slevation in feet) for the years 1966-70 ar

1966
1967
1968
1969
1970

Date
Oct. 1, 1965
Aug. 7-9, 1967
Oct. 1, 1967
Aug. 7, 13, 1969
July 10, 1970

Occurred Aug. 9, 1967.

113,900
135,400
114,300
135,800
127,300

Elevation
5,359.85
a5,370.07
5,360.03
5,370.23
5,366.28

Date
Mar. 24, 1966
May 16, 1967
Sept.14, 1968
Apr. 20, 1969
Apr. 3, 1970

ontents
20,900
16,800
10,100
4,870
51,000

Elevation
5,296.60
5,291.54
5,281.70
5,270.33
5,323.09

REMARKS.--Storage began prior to 1905. Original lake formed by rockfill dam (usable capacity, 5,500 acre-ft).

(since Apr. 21, 1928) through Huntington-Shaver conduit and released for power development in Big Creek

COOPERATION.--Record
Commission project

REVISIONS.--WSP 1565: Drainage are

>f contents furnished by Southern California Edison Co., in connection

:ity tab

5,270
5,280
5,290
5,300

4,750
9,190
15,600
24,000

5,310
5,320
5,330
5,3_40

34,500
46,800
60,900
76,700

5,350
5,360
5,371

94,600
114,200
137,500

CONTENTS, IN ACRE-FEET, AT 2*00, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

1
2
3
4
5

6
T
8
9
10

1L

13
1*
15

16
17
IB
19
20

21
22
23
2*
25

26
27
28
29
30
31

MAX
MIN

(t)
w

WTR

OCT

112,900
111,900
110,800
109,700
108,600

107,500
106,300
105,200
104,000
102,900

101,900

99,700
98,600
97,600

96,700
95,300
94,800
93,700
92,600

91,500
90,400
39,300
88,300
87,200

86,100
85 000
84 000
82 900
81 900
80 900

112, 9CO
80,900
5,342.45 5
- 33,000

YR 1966 MAX

79,900
78,800
77,600
76,700
76,000

75,400
74,800
74,100
73,500
72,800

72,200

71,200
71,400
71,000

71,400
71,400
71,400
71,100
70,300

69,800
69,500
70,700
71,200
70.800

70,300
69,900
69,500
69,000
68,500

79,900
68,500
,334.92
- 12,400

112,900

67,900
67,200
66,400
65,600
64,800

64,000
62,900
61,800
6C.600
59,600

58.600

56,400
55,300
54,200

53,000
51,900
51,000
SO, 100
48,900

47,800
46,600
45,500
44,300
43,300

42,100
41,000
40,000
39,300
38,500
38,000

67,900
38,000
5,313.00
- 30,500

MIN 20

36,900
35,800
34,700
33,500
32,800

33,200
33,500
33,800
34,200
34,200

34,000

33,700
33,500
33,300

33,000
32,800
32,500
32,200
32.000

31,700
31,400
31,100
30,800
30,500

30,200
29,800
29,500
29.200
29,000
28,600

36,900
28,600
5,304.66
- 9,400

,900 t

28,300
28.000
27,600
27.400
27.500

27,900
27,900
28.000
28,200
28,300

28,400
28,700
28,800
28,900
29,000

29,200
29,400
29,500
29,600
29,600

29,700
29,500
29,400
29,000
28,100

27,400
27,400
26,500

29,700
26,500
5,302.57
- 2,100

- 39,000

25,800
25,100
24,300
23,800
23,900

23,900
23,300
22,600
22,100
22,000

22,200
22,500
22,600
22,800
23,000

23,100
23,200
23,200
23,200
23,500

23,100
22,300
21,500
20,900
21.200

21,500
21,800
22,100
22,400
22,900
23,300

25,800
20,900
5,299.26
- 3,200

23, BOO
24,400
24,900
25,500
26,000

26,600
27,100
27,700
28,200
28,800

29,300
30,200
31,800
33.500
35,300

37,100
38,800
40,500
42,000
43,500

45,000
46,400
48,000
49,500
51,100

52,700
54,300
55,900
57,500
59,100

59,100
23,800
5,328.78
+35,800

60,700
62,300
64,000
65,800
67,300

68,900
70.500
72,200
73,800

77,200
78,500
79,700
80.800
81.900

83,100
83,700
84.700
86,900
89,100

91.300
93,500
94,800
95,100
95,300

95,500
95,700
95,900
96,100
96,300
96,400

96,400
60,700
5,350.97
+37,300

JUN

96,600
96,700
96,800
97,000
97,100

97,300
97.4CO
97,600
97,700

97,900

98,600
99,800
100,500

100,600
100,700
100,700
100,700
100,700

100,700
100,800
100,400
99,800
99,400

98.900
98.400
97.900
97,500
97,300

100,800
96,600
5,351.42
+900

JUL

96,900
96,600
96,300
96,000
95,700

95.300
94,900
94,600
94,300

93.700
93,400
93,100
92,800
92,400

92.100
91,800
91.500
91.000
90,700

90,300
90,000
89,800
89,400
89,190

88,800
88,500
88,200
87,900
87,600
87,300

96,900
87,300
5,346.07
- 10,000

AUG

86,900
86,600
86,400
86,000
85,700

85,300
84,900
84,500
84,200

83.500
83.200
82.800
82.500
82.200

81.800
81,500
81.200
80,900
80,600

80,300
79,900
79,700
79,300
78,900

78,600
78,400
78,200
77,900
77,700
77,400

86,900
77,400
5,340.39
- 9,900

SEP

77,200
76,900
76,700
76,500
76,400

76,300
76,000
75,800
75,600

75,500
75,400
75,100
75,000
75,000

5,000
5,000
5,000
5,000
5,000

75,000
74,900
74,900
74,900
74,900

74,900
74,900
74,900
74,900
74,900

77,200
74,900
5,338.87
- 2,500

t ELEVATION, IN FEET, AT END OF MONTH, t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAOUIN RIVER BASIN

11239500 SHAVER LAKE NEAR BIG CREEK, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEET, AT 2*00, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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24
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26
27
28
29
30
31

MAX
MIN

(t)
(t)

CAL
WTR

74 , 700
74,500
74,200
74,000
73,800

73,400
73,200
73,000
72,700
72,300

72,000
71,600
71,200
70,900

70,100
69, SCO
69,500
69,200
69,200

69,200
69,100
68,800
68,400
68,200

67, SCO
67,400
67,100
66,800
66,500
66,100

74,700
66, 100
5,333.42 5
- 8,800

YR 1966 MAX
YR 1967 MAX

65,800
65,400
65,100
64,700
64,4CO

64,200
63,900
63,500
63,200
62,800

62,500
62, ICO
61,800
61,400

60,900
60, SCO
60,200
60,200
60,100

59,800
59,500
59,200
58,900
58,600

58,200
57,900
57,800
57,700
57,400

65,800
57,400
,327.60 5
- 8,700

100,800
135,400

57,000
57,700
57,800
57,700
59,600

64,800
67,200
67,900
67,500
67,100

66,700
66,200
65,700
65,100

64,000
63,400
62,800
62,100
61,500

60,900
59,900
58,900
57,900
57,000

56,300
55,400
54,400
53,500
53,500
51,500

67,900
51,500
,323.46
- 5,900

MIN 20
MIN 16

50,500
49,600
48,600
48,300
46,700

45,700
44,700
43,700
42.700
41,700

40,700
39,700
38,700
37,700

35,800
34,800
33.800
32,800
31.800

31.300
30.700
29,900
29,200
28,300

27,300
26,500
25.600
25,400
26.000
26,400

50,500
25,400
5,302.44
- 25,100

,900 t
,900 t

26,200
26,200
26,800
27,100
27,700

28,000
28,100
27,900
27,600
27,500

27,300
27,000
26,800
26,800

26,800
26,900
27,000
27,000
27,000

26,900
26,700
26,600
26,600
26,400

26,000
25,700
25,500

28,100
25,500
5,301.53
- 900

+13,500
+34,400

25,600
25,600
25,700
26,600
27,400

27,800
27,800
27,900
28,600
29,000

29,400
29,800
30,100
30,400

32,500
33,600
34,600
35,300
36,300

37,100
37,800
38,800
39.200
39,500

39,700
39,900
40,200
40,400
40,700
40,800

40,800
25,600
5,315.33
+15,300

40,700
40,600
40.600
41,000
41,100

41,300
42,000
42,800
43,100
43,100

42,800
42,200
41,500
40,700

39,000
38,000
37,300
36,500
35,500

34, 700
33,800
32,800
31.900
30,900

30,000
29,100
28,200
27,200
26,300

43,100
26,300
5,302.32
- 14,500

25,300
24,300
23,500
22,700
21,800

21,200
20,500
20,100
19,800
19,500

18,900
18,300
17,600
17,100

16,900
17,100
17,500
18,000
18,800

19,600
20,600
22,100
24,000
26 , 200

28,700
31,300
33,800
36,300
38,600
40,900

40,900
16,900
5,315.37
+14,600

42,900
44,900
47,000
49,200
51,400

53,500
55,700
57,900
60,000
62.2CO

64,300
66,400
68,500
70.6CO

74,900
77,000
79,300
81,500
83,700

85,900
88.100
90,200
92,600
94,700

96,800
98,800
100,900
103,000
105,000

105,000
42,900
5,355.38
+64,100

107.000
109,000
110,900
112.800
114.700

116,600
118,300
120.100
121,900
123.600

125,400
127,100
128,300
129.000
130,100

130,900
131,600
132,400
133,100
133,400

133,300
133.300
133.900
134,400
134,400

134,600
134,700
134,900
135,000
135.000
135,000

135,000
107,000
5,369.88
+30,000

135,000
135.000
135.100
135.200
135,200

135,300
135,400
135,400
135,400
135,300

135,300
135,200
135,200
135.100
135,100

135,000
135,000
135,200
135,200
135,200

135,000
134,700
134,500
134,200
134,000

133,900
133,600
133,300
133,000
132,800
132,500

135,400
132.500

5,368.72
- 2,500

132.200
131,900
131,700
131,400
131,100

130,800
130,500
130,000
129,600
129,000

128,300
127,500
126,800
125,900

123,800
122,700
121,800
121,200
120,800

120,400
120,100
119,900
119,500
119,100

118,300
117,400
116,300
115,300
114,300

132,200
114.300

5,360.03
- 18,200

t ELEVATION, IN FEET, AT END OF MONTH,
t CHANGE IN CONTENTS, IN ACRE-FEET.

CONTENTS, IN ACRE-FEET, AT 2400, MATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY

1
2
3
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16
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19
20

?1
22

26
27
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29
30
31

MAX
MIN

(t)
(t)

CAL
WTR

OCT

113,300
112,300
111,200
110,200
109,200

108,200
107,100
106,100
105,100
104,100

103,100
102,300
102,100
101,800
101,600

101,300
101,100
100,400
99,400
98,300

97,300
96,300

92,200
91,200

89, 100
88, ICO
87,100

113,300
87,100
5,345.96 5
- 27,200

YR 1967 MAX
YR 1968 MAX

NOV

86,100
85, ICO
84,500
84,500
84,400

84,400
84,800
85,200
85, 100
84, 130

83, 100
82,100
81,100
80.0CC
79,000

78.3CO
78,200
78,300
78,300
77,400

76,400
75,400

71,500
70,400

68,400
67,600

86, 100
67,600
,334.35 5
- 19,500

135, "tOO
113,000

DEC

66.600
65,600
64,500
63,500
62,700

61,700
60,700
59,700
58,700
57,700

56,600
55,600
54,500
53,400
52,400

50,300
49,500
48,500
47,400

46,400
45,300

41,200
40.100

38,100
37,000

66,600
36,000
,311.32
- 31,600

MIN 16
MIN 10

JAN

35.000
33,900
32,800
31,900
31,300

30, SCO
30,300
29,700
29, 100
28,600

27,900
27,500
27,200
26,900
26,600

26,400
26,300
26,100
26,000

26,000
25,900

25.200
25,200

25,100
24,900
24,800

35,000
24,800
5,300.86
- 11,200

,900 t
,200 t

FE8

24,700
24,500
24,500
24,600
24,500

24,300
24,100
24,000
23.900
23,900

24,000
23,800
23,700
23,600
23,400

23,500
23,600
23,500
23,700

23,800
24,000

24,100
24,100

24,100

24,700
23,300
5,300.12
- 700

- 15,500
- 104,000

24,200
24.4CO
24,500
24,600
24,700

24,900
25,000
25,200
25,300
25,400

25,500
25,600
25,800
25,800
25,900

26,200
26,300
26,400
26,500

26,600
26,700

27,100
27,200

27,500
27,700
27,900

27,900
24,200
5,303.97
+3,800

28,200
28,400
28,600
28,700
29,000

29,100
29,300
29,500
29,700
29,900

30,200
30,400
30,700
30,900
31,200

31,600
31,700
31,900
32,000

32,200
32,300

32,600

33,100
33,300

33,900
34,100

34,100
28,200
5,309.72
+6,200

34,400
34.600
34,800
35,100
35,300

35,500
35,600
35,800
35,900
36,100

36,200
36,400
36,600
36,700
36,900

37,200
37,300
37,500
37,600

37,700
37,900

8,000
8,100

8,200
8,300

8,500
8,600
8,600

38,600
34 , 400
5,313.54
+4,500

8.7CO
8,700
8,800
8,800
8,900

8,500
8,200
8,200
8,300
7.9CO

37,600
37,200
36,600
36,300
37,000

37,600
37,900
38,300
38,600

39,100
39,600

39,900
39,300

38,700
38,100

36,800
36,400

39,900
36,300
5,311.65
- 2,200

35,800
35,200
34,600
34,000
33,400

32,800
32,200
31,600
31,000
30,500

29.900
29,300
28,900
28,400
27,900

26,700
26.200
25,800
25,300

24,800
24,300

23,200
22,600

22,200
21.600

20.600
20,000
19,500

35,800
19,500
5,294.90
- 16,900

9,100
8,900
8,500
8,500
8,200

17,900
17,700
17.400
16,900
16,600

16,300
16,000
15,800
15,500
15,200

14,600
14,300
14,000
13,700

13,400
13,100

13.100
13,400

13,300
13,100

12,600
12,400
12,700

19,100
12,400
5,285.86
- 6,800

13,000
13,300
13,100
12,800
12,600

12,400
12,700
13,000
12,500
11,900

11.300
10,700
10,200
10,200
10.500

10,600
10,500
10,500
10,400

10,700
11,100

11,700
11,800

11,600
11,300
11,300
10.900
10,300

13,300
10,200
5,282.04
- 2,400

t ELEVATION, IN FEET, AT END OF MONTH. t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11239500 SHAVER LAKE NEAR BIG CREEK, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEET, AT 2*00, HATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

UAT

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MAX
MIN

Ct) w
CAL
WTR

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DAY

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21
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24
25

26
27
28
29
30
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UL 1 NUV

10,000 10,200
9.S30 10.300
9,580 10,500
9,640 10.600
9.690 10,600

9,740 10,600
9,800 10,600
9,840 10,600
9,840 10.700
9,850 10,700

9,860 10,700
9,870 10,800
9,970 10,800
10.100 10,900
10,100 10.900

10,100 11,000
10,100 11,000
10,100 11.000
10,100 11,100
10,100 11,100

10,100 11.100
10,100 11.200
10,100 11.200
10,100 11.200
10,100 11,300

10.100 11,300
10,200 11.3CO
10.200 11.300
10,200 11,300
10,200 11,300
10,200

10,200 11,300
9,580 10,200
5,281.85 5,283.72
- 100 +1,100

YR 1968 MAX 39,900
YR 1969 MAX 135,800

ELEVATION, IN FEET,
CHANGE IN CONTENTS,

DEC

11,400
11,400
11,400
11,400
11.400

11.500
11,500
11,500
11,500
11,600

11.700
11,700
11,700
11,900
12,300

12,500
12,500
12.600
12,600
12,700

12,700
12,700
12,700
12,900
13,100

13.300
13,300
13.400
13,400
13,500
13,500

13,500
11.400

5,287.10
+2,200

MIN 9,
MIN 4,

AT END OF

13,600
13,600
13,700
13,700
13,800

13,900
13,900
14,000
14,100
14,100

14,100
14,200
14,800
15,200
15,400

15,500
15,700
16,300
19,400
21,400

25,200
26,000
26,500
27,300
31,000

33,800
34,300
34,400
34,800
35,600
35,800

35,800
13,600
5,311.16
+22,300

580 t
970 t +

MONTH.

36,000
36,100
36,200
36,300
36,600

36,800
36,800
37,200
37,500
37,500

37,400
37,300
37,200
37,100
37,100

36.900
36,700
36.600
36,300
36,100

35,800
35.400
35,300
35,400
35,100

34,700
35,000
36,400

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37,500
34,700
5,311.67
+600

- 22,500
111,500

37,400
38.100
38,300
38.300
38,000

37,600
37,000
36,200
35,400
34,600

33,600
32,600
31,400
30,300
29,200

28,100
26,700
25,900
24,900
23,800

23,000
22,000
20,900
20,000
19,000

18,100
17,300
16,900
16.000
15,300
14,800

38,300
14,800
5,288.88
- 21,600

14,300
13,700
13.100
12,500
12,100

11,600
10,800
10,100
9,300
8,600

7,950
7,340
7,040
6,550
5,980

5,460
5,110
5,170
4,970
5,030

5,460
6,350
7,470
8,410
9.180

9,880
10,700
11,600
12,800
14,300
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14,300
4,970
5,288.22
- 500

16,000
17,600
19,200
20,700
22,300

24,200
26,300
28,400
30,800
33,400

36,100
38,900
41.500
44,100
46,600

49,100
51,600
54,100
56,600
58,900

61,300
63,700
66,000
68,800
71,200

73,500
75,800
78,100
80,300
82,600
84.900

84,900
16,000
5,344.75
+70,600

87,200
89,300
91,300
93,300
95,200

97,100
99.2CO
101,100
103,200
105,100

106.900
108,600
110,400
112,200
114,200

116.100
117,900
119,700
121,500
123,300

124,600
125,900
127,100
127,900
128,700

129,500
130.200
130,900
131, 7CO
132,100

132,100
87,200
5,368.51
+47,200

132.200
132,300
132,500
132,500
132.600

132,700
132,800
133,000
132,900
131.800

132,300
132,900
133,500
134,100
134,500

134.600
134,700
134,800
135,100
135,200

135,200
135,300
135,300
135,300
135,300

135,500
135,500
135,500
135,500
135.600
135,600

135,600
131,800
5,370.15
+3,500

135,600
135,700
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135,700

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5,368.74
- 3,100

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127,400

126,800
126,300
126,300
126,400
126,400

126.300
126,300
126,200
126,200
126,200

126,200
126,100
125,900
125,300
124,700

124,100
123,500
122,900
122,400
121,800
______

132,000
121,800
5,363.67
- 10,700

IN ACRE-FEET.

CONTENTS, IN

121,643 117,230
121,497 117,189
121,289 117, 1C7
121,122 117,024
120,913 117,024

120,392 117,148
120,226 117,086

119,626 116,983
119,439 116,963
119,253 116,839
119,294 116,613

119,253 116,202
119,149 115,609
119,046 114,751
118,839 113,753
118,673 112.698

118,528 111,504
118,342 110,415

118,012 108,228
117,848 107,154

117,642 H6.C21
117,498 104,916
117,436 103,815
117,415 102,681
117,354 101,572

UCl

ICC, 506
99,388
98,291
97,181
96,244

92,438

89.0B9
87,998
86,876
85,818

84,715
83,636
82,518
81,527

79,926
78,972

76,943
76,424

75,473
74,446
73,391
72,348
71,310

ACRE-FEET

69,198
68,124
67,058
66,007
64,948

61,753
61,362

61.647
61,738
62,158
62,443

63,806
64,338
64,613
64,857

65,330
65,575

66,301
66,517

66,687
66,965
67,137
67,262
67,340

, AT 2400

67,575
67,716
67,811
67,936
68,014

8,422

8,848
9,102
9,245
69,357

69,516
69,690
69,484
68,500

66,517
65.528

63,594
62,594

61,647
60,674
60,033

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, HATER YEAR OCTOBER 1969 TO SEPTEM8

59,452
58,565
57,666
56,830
55,913

53,129
52,401
52,527

52,793
52,457
52,667
52.877

53,087
53,227
53,409
53,535

53,875

54,388
54,616

54,844
55,072
55,232
54,916
54,317
53.381

52,359
51,341
51,093
51,327
51,574

51,835

52,485

53,563
53,918
54,175
54,417

54,616
54,075
54,274
54,474

54,873

55,478
55,696

56,000
56,246
56,029
55,985
56,203

56,072
56,043
56,420
56,800
57,255

58,506
58,935

61,918
63,533
65,269
67,027

68,832
70,634
72,462
74,216

77,584

82,641
84,715

87.563
90,468
93,341
96, 187
99,080
101,941

104,758
107,094
109,090
111,101
112,779

119,439

121,685
122,373
123,065
123,485

123.631
123,757
123,862
123.988

124,219

124,513
124,597

124,745
124,787
125,442
125,970
126,033

ER 1970

JUL

126,118
126,202
126,287
126,350
126,435

126.519
126,582
126,794

126.392
125,611
124,660
123,610

122,645
121,580
120,517
119,439
118,404

117,333

114,976
114,996

114,894
113,834
112,758
111.666
110,576
109,511

AUG

108.369
107,233
106, 179
105,094
104,011

101,883
100,758
9,600

6.359
5,273
4,285
3,624

92.963
92,307
91,637
90 , 966
90,321

89,62?
88,979

87,653
86,984

86,320
85,657
85,016
84,362
83,689
83,042

SEP

82.361
81,717
81,045
80,390
79,722

9,108

8,072
7,921

77,584
77,533
77,516
77,314
77,061

76,842
76,825
76,808
76,792
76,775

76,758
76,741

76,708
76,691

76,691
76,474
76,241
76,024
75,357

VAX
MIN

(t)
(t)

121,643 117,333 100,506 69,198 69,690 59,452 56,246 101,941 126,033 127,156 108,369 82,361 117,251 101,572 70,264 61,362 60,033 52,401 51,093 56,043 104,758 109,511 83,042 75,357 5,363.72 5,361.62 5,353.65 5,336.05 5,335.73 5,329.39 5,326.89 5,353.84 5,365.69 5,366.28 5,357.67 5,343.68
- 4,500 -15,700 -32,300 -2,800 -7,500 -6,600 +2,800 +45,700 +24,100 -16,500 -26,500 -7,600

CAL YR 1969 MAX 135,800 MIN 4,970 t +56,800 WTR YR 1970 MAX 127,156 MIN 51,093 t -46,400

t ELEVATION, IN FEET, AT END OF MONTH.
t CHANGE IN CONTENTS, IN ACRE-FEET.

11241950 REIHNGER LAKE NEAR AUBERRY, CALIF.

DRAINAGE AREA.--1,295 sq mi.

PERIOD OF RECORD.--November 1950 to September 1970. Pr WSP 1930.

to October 1965, monthend contents only, published in

GAGE. --Water-st

EXTREMES. --Maxi
tained in th

Wtr yr
1966
1967
1968
1969
1970

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P

Mar.

Date
Nov. 9
Sept. 4
Oct. 27
Mar . 5
Apr. 14

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eriod of

3, 1956

elevations 1
8,914 acre-f

COOPERA

e follow!

, 1965
, 1967
, 1967
, Apr. 20
, 1970

r. 5, 196

(elevati

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able cont

sion pro;

1,360
1,365
1,370

minimums
ng table:

Maxim

, 1969

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Maximum

on, 1,347

nvert of

9,650
11,200
12,900

CONTENTS, IN

DAY

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30
31

MAX MINI (t)

m

CAL YR
WTR YR

OCT

24,100
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24,400
24,600
25,000

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25,300
25,100
25,300
25,400

25,300
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25,400
25,400

25,300
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24.800
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24.500
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24.300
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24,400
24,200
23,200
22,900
24,900

25,000
25,300
25,400
25,400
25,400

25,700
22,900

0

1965 MAX
1966 MAX 25,900

DEC

25,400
25,400
25,400
25,400
25,400

25,800
25,700
25,700
25,700
25,600

25,700
25,600
25,800
25,800
25,800

25,800
25,200
24,300
24,300
25,100

25,000
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25,100
25,200
25,300

25.300
25,300
24,200
24,500
24,000
24.000

25. BOO
24.000

- 1,400

MIN
MIN 13

(contents in acre-feet, ele

urn

26,000
26,000
26,100
26,000
26,000

1,402.72
1,402.82
1,402.98
al,402.68
1,402.70

contents, 26,100 acre-ft Ju

. 98 ft) .

tunnel) and

ACRE-FEET,

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24.700
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24. BOO
25,100
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+1,200

1,403.0 ft (top

1,375 14
1,380 16
1,385 18

Pate
May 28
Sept. 30
Sept. 29
Sept. 30
Oct. 1

le 15, 1963

of radial

,600
,500
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AT 2400, WATER YEAR OCTOBER

FEB MAR

25,200 25,400
25,300 25,200
25,300 25,200
25,300 24,900
25,500 24.600

25.200 24,600
25,100 24,700
25,200 25,400
25.300 25,600
25.200 25.600

25,200 25.700
25,300 23.900
25.300 22,000
25,200 23.000
25.300 24.500

25.300 25,000
25,200 24,700
25,200 24,500
25,200 24,900
25,200 24,600

25,200 24.600
25.200 25.000
25.200 23, BOO
25.100 22.700
25.100 23,800

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+200 -300

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+400

s by Sout

set) for

, 1966
, 1967
, 1968
, 1969
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, Oct. 29

?ates).

1965 TO

MAY

25,500
25.500
25,600
25.600
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25,600
25,600
25,600
25,700
25,600

24,700
23,400
22,900
22,900
22,900

22,600
22,000
20,700
19,500
IB, 700

17,500
16,300
15,200
14,100
13,700

13,700
13,800
13.400
14,400
16,000
16,600

25,700
13,400

- 8,900

hern California Edison Co.)

the water years 1966-70 are

, 1964,

Additio

1,390
1,400
1,403

imum

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9,

Oct. 27,

nal storag
Big Creek

Figures gi

20,400
24,700
26,119

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920 ,
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640

1967; maxi

acre-ft b

vert herein

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con-

371.56
361.08
360.88
358.96
359.95

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SEPTEMbtR 1966

JUN

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18,700
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22,500
23,300
24,000
24,900
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25,200
25,100
25,100
25,300
25,200

25,900
17,600

+8,600

JUL

25,200
25,100
25,100
25,200
25,300

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25,100

+ 300

AUG

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SEP

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23,700
22,400
22,500
23,600

24,300
24,500
24,800
25,100
25,700

25,700
22,400

+200

t -500
400 t +3,400

t ELEVATION, IN FEET, AT END OF MONTH.
* CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11241950 REDINGER LAKE NEAR AUBERRY, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEET. AT 3400, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR MAY JUN JUL

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MAX

MIN

(t)
(t)
CAL
WTR

25,700
35,600
25,700
35,700
25,600

35,700
25,800
25,700
25,800
25,700

25,800
25, BOO
25,800
25,900
25,800

25,900
25,800
25,600
25,300
24,600

24,600
25,200
25,500
35,700
25,700

25,800
25,800
25,700
35,700
25,600
25,700

25,900
24,600
1,402.14 1
0

YR 1966 MAX
YR 1967 MAX

25,700
25,600
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24,100
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25,600
24,000
,398.45
- 1,600

25,900

24,100
23,600
23,700
22,300
24,400

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24,500
25,100
25,100
24,900

34,600
24,100
23,600
23,400
23,300

23,400
23,400
23,600
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23,500

23,400
23,500
24,000
24,600
25.100

25,400
25,500
25,500
25,300
24, BOO
24,800

25,500
22,300
1,400.12
+ 700

MIN 13
MIN 10

24,900
25,000
25,100
25,300
25.200

25,400
25,100
25,200
25,000
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25,200

24,900
23,600
24,100
24,500
23,800

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23,700
24,000
25,000
25,800

25,800
23,600
1,402.25
+1,000

,400 t
,300 t -

25,200
23,800
23,800
24,200
23,900

34,100
24,300
24,500
24,700
24,900

25,000
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25,300
35,500
25,600

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24.600
24.400

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24,700
24,800
24,900
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. . . . . .
. . . . . .

25,600
23,800
1,400.30
- 900

+ 800
- 15.300

24,700
24,600
24,300
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21.900
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1,402.41
+ 900

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35, BOO
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25,900
25,400
1,401.98
- 200

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24.400
25,000
25,000

24,800
24,400
24,500
25,100
25,000
25.100

25,900
24,400
1,400.70
- 500

25,100
35,300
25,200
25,100
25,300

35,000
25,300
35,200
35,200
25,200

25,300
25,000
25,000
25,300
25,200

25,400
25,400
25,500
24,900
25,500

25,700
25,200
25,300
25,300
25,400

25,300
25,200
25,400
35,400
25,300

25,700
24,900
1,400.91
+100

35,100
35,300
25,100
25,200
25,200

25,400
25,200
25,400
25,300
35,400

35,400
25,500
25,500
25,400
25,400

25,200
25,200
25,200
25,400
25,400

25,200
25,600
25,300
25,500
25,700

25,800
25,700
25,800
25,800
25,700
25,800

25,800
25,100
1,402.37
+600

25,900
25,800
25,900
25,900
25.900

25,900
25,900
25,900
35,900
25,900

25,500
25,200
25,300
25,200
25,200

35,300
25,200
35,300
35,300
35,300

35,300
35,400
35,300
25,400
35.300

25,500
35,400
35,400
35,400
25,500
35,500

25.900
35,200
1,401.62
- 300

25,600
25,700
?S,700
3S.500
25,500

25,500
25,500
25,400
35,400
25,400

35,400
35,100
?4,000
33,900
?1,SOO

30,600
19,200
17,700
16,500
15,500

14,800
14,100
13,500
13,900
13,000

11,100
10,600
10,400
10.300
10,400

25,700
10,300
1,362.30
- 15,100

t ELEVATION, IN FEET, AT END OF MONTH, t CHANGE IN CONTENTS, IN ACRE-FEET.

CONTENTS, IN ACRE-FEET. AT 2400. WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
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28
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30
31

MAX

MIN

(t)
(t)

CAL
WTR

11.300
12,500
12.800
13,900
14,600

15,600
16,700
17,700
19,100
20,300

21,100
22,300
23,500
24,400
25,400

25,400
25,300
25,300
25,300
25,400

25,400
25,400
25,400
25,600
25,500

25,600
25.500
25,400
25,300
25,300
25,200

25,600
11,300
1,400.89 1
+14,800

YR 1967 MAX
YR 1968 MAX

25,200
25,200
25,100
25,000
25,000

25,000
25,000
25,100
25,100
25,100

25,200
25.300
25.000
25,000
25,400

25,500
25.400
25.400
25.100
25.100

25,100
25,000
25,100
25,100
25,100

25,100
25,100
25,000
24,700
24,700

25,500
24,700
,399.91
- 500

25,900
25,900

25,000
25,000
25,000
24,900
25,000

25,000
25,000
25,000
25,000
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25,000
25,000
24,900
24,900
25,000

24,900
25,000
24,900
24,800
25,000

25,100
25,100
25,100
25,000
25,000

25,000
25,000
25,000
25,000
25,000
25,000

25,100
24,800
1,400.46
+ 300

MIN 10
MIN 10

25,000
25,000
35,000
25,200
25,200

25,200
25,300
25,400
25,400
25,400

25,200
25,400
25,100
25,100
25,400

25,500
25,600
25,500
25,400
25.000

25,200
25,200
25,100
25,300
25,300

25.200
25,200
25,200
25,300
25,300
25,100

25,600
25,000
1,400.76
+ 100

,300 t
,100 t

25,300
25,200
35,300
25,100
35,300

35,200
35.300
35.300
25.300
25.400

25,400
25,300
25,400
25.400
25.500

25,400
24,700
25.100
25.000
25,000

24,700
24,600
24,700
24,700
24,800

34,700
34,900
34,900
24,900
. . . . . .

25,500
24,600
1,400.35
- 200

+200
- 300

25,000
24,900
24,700
34,700
24,600

34,700
24,800
24,800
24, BOO
24,800

24,600
24,800
24,800
24,700
24,600

24,600
24,400
24,200
24,200
24,300

24,700
24,700
24,700
24,300
24,300

24,200
24,100
23,800
24,300
23,200
22,700

25,000
22,700
1,395.40
- 2,200

23,700
23,700
23,800
23,400
22,700

22,300
22,900
24,100
24,700
24,600

24,700
24,700
24,600
24,500
24,500

24,700
24,500
24.500
24.500
24.400

24,500
24,500
24,400
24,100
24,300

25.200
25,400
25,600
25,700
25,700

25,700
22,200
1,402.12
+3,000

25,700
25,700
25,700
25,700
25,700

25,700
25,700
25,800
25, ROD
25,700

25,800
25,700
25,700
25,700
25,600

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25,800
25,600
1,402.07
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25,700
25.600
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35.600
25,700
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35,700
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35,600
35,100
35,000
25,100
25,000

25,100
25,100
25,100
25,000
35,100

25,700
25,000
1,400.72
- 600

25,200
25,100
35,100
35,000
35,100

35,000
35,000
35,600
35,600
35,900

25,700
25,700
25,600
25,700
25,700

25,300
25,300
25.300
25,300
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25,300
25,300
25,300
25,300
25,200

25,300
25,300
24,900
25,100
25,000
25,200

25.900
24,900
1,400.99
+ 100

25,200
25.200
25.200
25.300
25.300

25.400
25.400
25.400
35,500
25,400

25,200
25,300
25,300
25,400
25,500

25,300
25,500
25,400
25,400
25,500

25,500
25,600
25.600
25,600
25.500

25.500
25.500
25,500
25,500
25.500
25,500

35,600
35,300
1,401.62
+ 300

25,500
25,500
25,500
25,500
25,500

25,600
25,100
24,300
24,200
24.100

24,200
33,500
37,800
22,200
21,400

20,600
19,800
19,100
18,200
17,400

16,700
16,000
15,200
14,500
13.700

13,100
12,300
10.900
10,100
10,100

25.600
10,100
1,361.46
- 15,400

t ELEVATION, IN FEET, AT END OF MONTH, t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11241950 REDINGER LAKE NEAR AUBERRY, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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IS
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31

MAX
MIN

(t)
(t)

CAL
WTR

t
t

DAY

1
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3
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11
12
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24
25

26

2728
29
30
31

MAX
MIN

(t)
(t I

10,035
9, SOS
9,955
10,194
10,466

10,662
10,977
11,226
11,696
12,315

12,617
12,834
13,044
12,947
13,247

13,528
13,738
13,991
14,235
14,464

14,796
15,022
15,186
15,377

15,609
16,069
16,469
16,634
16,925
17,171

17,171
9,806

+7,100

YR 1968 MAX
YR 1969 MAX

17,423
17,512
16,752
16,675
17.621

17,636
16,159
18,476
18,739
18,635

19,117
19,503
19,768
20,117
20,366

20,761
20,815
21,139
21,295
21,341

21,706
21,975
22,161
22,434

22,970
23,169
23,451
23,656
23,949

23,949
16,752

+6,700

25,900
25,971

ELEVATION, IN FEET,
CHANGE IN CONTENTS,

OCT

10,532
11,339
12,131
12,965
13,973

15,628
17,279
16,888
20,448
22,202

23,228
24,430
24,681
25,019
25,155

25,323
24,506
24,233
24,676
25,383

25,360
25,342
25,305
25,296
25,365

25,376
25,378
25,323
25,616
25,474
25,497

25,616
10,532

+15,860

24,189 25,033
24,403 25,082
24,703 25,062
24,902 25,055
25,132 24,960

25,392 25,037
25,447 25,019
25,502 24,969
24,730 25,166
23,605 25,164

23,998 25,246
24,390 25,237
23,834 24,920
23,390 24,616
23,189 24,632

23,698 24,609
24,331 24,746
24,452 25,536
24,703 25,166
24,620 24,331

24,684 25,159
24,911 25,323
24,555 24,654
23,945 24,649

23,909 24,616
24,131 25,466
24,340 24,997
24,600 25,101
24,771 25,759

25,502 25,759
23,189 24,202

+1,000 -400

25,419
25,626
25,619
25,623
25,397

25,643
25.474
25,301
25,351
25,712

25,934
25,920
25,651
25,630
25,397

25,616
25,851
25,851
25,731
25,552

25,326
25,800
25,722
24,798
25,566

25,637
25,689
25,665
. . . . . .

25,934
24,796

+1,400

25,768
25,865
25,663
25,897
25,971

25,693
25,759
25,674
25,656
25,846

25,697
25,865
25,786
24,780
23,416

22,166
23,110
24,216
23,504
23,517

24,247
24,560
24,649
24,746
25,291

25,671
25,619
25,634
25,897
25,584
25,749

25,971
22,166

- 200

25.660
25.749
25,906
25,766
25,593

25,791
25,916
25,754
25,740
25,620

25,893
25,777
25,925
25.717
25,731

25,740
25,722
25,706
25,703
25,957

25,693
25,768
25,920
25,703

25,930
25,851
25,429
25,442
25,593

25,957
25,429

- 100

25,556
25,547
25,579
25,646
25,763

25,605
25.652
25,669
25,786
25,671

25,722
25,657
25,671
25,566
25,584

25,586
25,625
25,584
25,365
25,763

25,694
25,766
25,703
25,740

25,722
25,614
25,543
25,630
25, 556
25,652

25,814
25,365

+ 100

25,360
25,598
25,665
25,911
25,763

25,740
25,823
25,520
25,538
25,588

25.648
25.689
25,762
25,620
25,620

25,602
25,556
25,593
25,712
25,639

25,749
25,726
25,579
25,754
25,534

25,506
25.529
25,538
25,55?
25,547

25,911
25,360

- 200

25,579
25,415
25,588
25,566
25,556

25,536
25,552
25,552
25,694
25.749

25,689
25,717
25,800
25,529
25,506

25.579
25,511
25,543
25,657
25,579

25.634
25,497
25.465
25,483
25,607

25,552
25,749
25.596
25,598
25,717
25,703

25,600
25,415

+ 200

25,762
25,579
25,529
25,680
25,671

25,561
25,586
25,474
25,424
25,474

25,456
25,337
25,369
25.319
25,314

25,246
25,191
25,155
25,291
25,451

25,360
25,360
25,374
25,310
25,333

25,346
25,305
25,314
25,351
25,392
25,374

25,782
25,155
1,401.38
- 300

25,351
25,319
25,442
25,328
25,328

25,328
25,351
25,369
25,087
24,242

23,456
22,620
21,766
20,895
20,068

19,283
18,488
17,664
16,646
16,046

15,175
14,332
13,686
13,075
12.492

11.673
11,268
10,673
10,068
9,636

25,442
9,636
1,359.95
- 15,760

MIN 9,808 t -100
MIN 9,636 t -460

AT END OF MONTH.
IN ACRE-FEET.

CONTENTS. IN ACRE-FEET,

25,360
25,436
24,992
25,037
25,209

25,360
25,451
25,355
25,073
25,137

25,146
25,186
25,273
25,216
24,974

24,735
24,988
25,529
25,883
25,925

25,911
25,657
25,796
25.883
25,865

25,777
24,870
24.502
24,920
25,463

25.925

0

25,860 25,146

25,259 25,360
25,010 25.232
24,893 25,442

24,942 25.543
24,829 25,598
25,055 24,775
«e5,177 24.15S
25.369 24,105

25,105 23.956
24.929 24,771
24.703 25,006
24,983 24,466
25.101 23,636

25,465 25.791
25,456 24,672
25,465 24,434
25,602 24,345
25,406 24,316

25.191 24,109
24,884 24,127
25,028 23,647
25,033 23,954
25,010 24,069

25,511 23.667
25,301 22.988
25,328 22,367
25,717 21,979
25,383 21,740
25,282 22,953

25,860 25,791

- 200 -2,300

AT 2400,

25,015

25,708
25,870
25,883

25,879
25,879
25,842
25,762
25.749

25,616
25,703
25,433
25,310
25,652

25,579
25,556
25,337
25,269
25,406

25,383
25,410
25,451
25,337
25, POO

24,793
24,533
24,632
. . . . . .
. . . . . .
. . . . . .

25,883
24,533

+1,600

00

WATER YEAR OCTOBER

25,177

24.7SO
25,026
24,766

24,576
25,264
25,456
24,649
24,663

24,296
23,772
23,?63
23,918
24,256

23,746
22,957
23,385
24,016
23,075

23,834
24,834
24,684
23,996
23.184

22,413
22,711
23,621
25,001
25,355
24,933

25,456
22.413

+ 300

24,906
25,463
25,652
25,492
25,564

25,406
25,406
25,392
25,415
25,447

25,415
25,282
25,524
25.442
25,397

25,365
25,355
25,278
25,497
25,282

25,365
25,346
25,369
25,397
25,337

25,442
?5,387
25,374
25,511
25,497

25.652
24.906

+600

1969 TO

25,483
25,466
25,497
25,502
25,470

25,456
25,506
25,506
25.237
25.006

24,929
24,915
25,015
25,073
25.110

25,024
25,699
25,736
25,759
25.S42

25,828
25,846
25,856
25.S74
25.SS1

25.S26
25,«33
25,842
25,833
25,846
25,865

25,874
24,915

+ 400

SEPTEMBER 1970

25,856
25,740
25,534
25,314
25,073

25,105
25,087
25.067
25,634
25,634

25,634
25,579
25,579
25.65?
25.643

25.415
?5,4B8
25.479
25.666
25.662

25.639
25.652
25.643
25,652
25.680

25.685
25.666
25.64S
25.561
25.534

25.856
25.073

- 400

25,515
25,547
25,579
25,666
25,666

25,657
25,639
25,643
25,652
25,666

25,652
25,726
25,685
25,694
25,703

25.699
25,740
25,689
25,763
25,625

25,429
25,717
25.689
25,497
25,401

25,492
25,579
25,671
25,666
25,671
25,639

25,763
?5,401

+ 100

AUG

25.685
25.712
25,712
25,689
25,708

25,694
25,657
25,639
25,657
25,593

25.763
25.763
25,722
25,552
25,740

25,703
25.699
25,660
25,634
25,782

25,685
25.652
25,712
25,777
25,796

25,768
25,759
25,630
25.429
25,424
25.333

25,796
25,333

- 300

SEP

25,383
25,342
25.538
25.429
25,515

25,433
25,374
25,033
24,470
23,954

23,368
22,052
20.802
20,311
19,756

19.243
18.472
17,586
16,832
16,086

15,465
14,812
14,104
13,476
12,804

12,570
11,520
10,837
10,569
10,448
. . . . . .

25,538
10,448
1,362.61
- 14,900

WTR YR 1970 MAX 25,925 MIN 10,448 t

t ELEVATION, IN FEET, AT END OF MONTH.
{ CHANGE IN CONTENTS, IN ACRE-FEET-

SAN JOAQUIN RIVER BASIN

11242000 SAN JOAQUIN RIVER ABOVE WILLOW CREEK, NEAR AIIBERRY, CALIF.

DRAINAGE AREA.--1,295 sq mi.

PERIOD OF RECORD.--March 1951 to September 1970.

AGE. --Water-stage re
Edison Co .) .

corder. Datum of gage is 1,175.54

VERAGE DISCHARGE. --19 years, 462 cfs (334,700 acre-ft per y ear).

Maximum
tr yr Date
966 Oct. 27, 1965
967 Dec. 6, 1966
968 July 20, 1968
969 June 3, 1969
970 June 26, 1970

Discharge G.
27 3.
15,000 23.
70 4.
18,300 25.
2,130 10.

Period of record: Maximum discharge, 73,200 cfs
from rating curve extended above 7,000 cfs on basis

559,900 acre-ft. Conduit to powerhouse No. 4 divert

OOPERATION.- -Gage-he

EVISIONS.--WSP 1930:

' ht d d 76 d- h

Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND,

1 18 9
2 18 9
3 18 9
4 1< 9
5 19

6 19
7 1 9
8 1 9
9 1 9
10 1 9

1 19
2 1 9
3 18 9
4 20 0

6 18 3
7 18 3
8 18 3

0 183

1 18 3
2 18 3
3 18 3
4 18 3
<-, 18 3

6 19 3

^ 19 3
8 18 3
9 18 3
0 18 3

AN 18.5 10
X 20
N 18 3

3.1 3.6 3.5
3.1 3.5 3.4
3.1 3.5 3.2
3.1 3.5 3.3
3.1 3.5 3.2

3.1 3.5 3.4
3.1 3.6 3.3

3.7 3.4 3.3

4.3 3.5 3.2
4.5 3.5 3.2

8.4 3.2 3.1

8.4 3.6 3.1

9.8 5.4 3.1
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SAN JOAQUIN RIVER BASIN

11242000 SAN JOAQUIN RIVER ABOVE WILLOW CREEK, NEAR AUBERRY, CALIF.--CONTINUED

DISCHARGE! IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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910 672 1,
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204 760 9,
212 915 8,
375 708 6,
176 297 6,

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SAN JOAQUIN RIVER BASIN

11242000 SAN JOAQUIN RIVER ABOVE WILLOW CREEK, NEAR AUBERRY, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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9,860 7,610

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284 SAN JOAQUIN RIVER BASIN

11242350 SOOUEL DIVERSION NEAR SUGAR PINE, CALIF.

LOCATION.--Lat 37°25'32", long 119°32'53", in SWVNEfc sec.10, T.6 S., R.22 E., Madera County, Sierra National

Pine.

PERIOD OF RECORD.--October 1969 to September 1970. Monthly discharge only for October 1965 to September 1969, published with records for North Fork Willow Creek near Sugar Pine Csee station 11242400).

GAGE.--Water-stag

EXTREMES.--Period of reco
13, 1970.

corder and concrete control. Altitude of gage is 5,400 ft (from topographic map).

Maximum daily discharge, 34 cfs May 8-28, 1970; minimum daily, 0.43 cfs Aug. 12,

REMARKS.--Re
Willow Cr

COOPERATION.--Daily gage heights for October through December furnished by Madera Irrigation Distr DISCHARGE* IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

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. 0 32 34 28 9.2 .43 .53
. 0 31 34 28 8.5 .48 .53
. 0 3D 34 27 7.8 .75 .53

. C 30 34 25 8.2 1.4 .53
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HTR YR 197C TOTAL 3,308.84 MEAN 9.07 MIN .43 AC-FT 6,560

SAN JOAQUIN RIVER BASIN

11242400 NORTH FORK WILLOW CREEK NEAR SUGAR PINE, CALIF.

DRAINAGE AREA.--16.9 sq mi.

PERIOD OF RECORD.--August 1965 to Septembe

GAGE. --Water-stage r

AVERAGE DISCHARGE. --

Date
No . 16,
No . 18,
No . 23,

No . 28,
De . 2,
Dec. 6,
Jan. 30,
Mar. 13,
Mar. 16,

Wtr yr
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1967
1968

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REMARKS.
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1965
1965

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196b
1966
1967
1967
1967

Date
Nov. 7
Oct. 6
Sept. 18

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1965
29 to No
26-28,

rd : Max

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mums (discharge -- - *---

scharge (*) and

G.H. Date
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3.82 Feb.

3.36 Nov.
3.94 Jan.
5.90 Jan.
3.35 Jan.
4.26 Jan.
4.31 Feb.

Annual minimi

v. 5, 1966
1968

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peak disc

22, 1967

20, 1968

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13, 1969
19, 1969
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26, 1969

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Discharge
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per year) .

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Wtr yr
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DISCHARGE, IN CUBIC FEET PER SECOND, AUGUST TO SEPTEMBER 1965

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AUG SEP

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DAY

27
28

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AUG

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TOTAL.
MEAN..
MAX...
MIN. . .
AC-FT.

DISCHARGE, IN CUBIC FEET PER SECOND,

NOV DEC JAN FEB

WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

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C 15 14

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9 18 14
21 14 -

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129 26 22
1.2 14 13

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3 15 54 1,
4 14 54 1,
4 14 51 1'

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4 13 46
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3 17 51 2

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3 27 16

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4 22 23
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5 20 10
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51 14
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. 6 84.1

. 9 4.1
. 3 2.4
62 167

SAN JOAQUIN RIVER BASIN

11242400 NORTH FORK WILLOW CREEK NEAR SUGAR PINE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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TOTAL *

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4
21
4.6

161.4

40
1.3
8 320

3.7
70
114
27
200

881
160
80
58
48

41
25
7.7
5.7
9.6

16
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12

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881
3.7
3,860

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192
313
248
87

213
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135
174
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308
335
328
292
270

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335
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9,380

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119
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121
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13B
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174

180
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150
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DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

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91 142 6

SAN JOAQUIN RIVER BASIN

11242400 NORTH FORK WILLOW CREEK NEAR SUGAR PINE, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY OCT

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214

JUN JUL

220 44
217 41
205 37
193 35

177 32
160 28
140 26
144 24
124 21

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94 17
94 19
104 16
117 15

130 15
1C6 14
93 14
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93 13

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82 12
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4.6 9
4.8 47
4.8 70

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4.6 49

4.6 381
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16 58
24 55

44 131
26 98
15 67
14 137

32 57
19 68
14 53
13 47
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11 40

12.9 61
77 3
4.1 8

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AC-FT

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. 8 2.2

. 7 2.2
. 3 2.2
. 8 2.2
.0 2.3
. 7 2.3

21.5
46
10
1,280

oo*t i -»o .0 ou «?
28.5 6.55 2.61
51 21 3.5
15 3.7 2.2
1,750 390 160

6,900

AUG

10
9.8
9.5
11
12

12
11
11
10
9.8

7.7
7.0
8.0
5.3
4.5

4.1
4.5
4.3
4.1
4.0

. 0
. 6
. 6
.4
. 6

3.4
3.4
3.4
3.4
3.4
3.4

198.2

12
3.4
393

AUC

2.0
2.0
2.0
1.8
2.4

4.2
4.6
4.2
3.5
4.2

4.
4.
4.
4.
4.

3.3
3.1
2.2
2.0
2.0

1.8
1.8
1.7
1.8
3.5

3.5
3.5
3.7
3.5
3.3
3.3

97.3
3.14
4.6
1.7
193

SEP

3.3
3.4
3.3
3.3
3.3

3.3
3.3
3.1
3.1
3.1

3.1
3.1
3.1
3.0
3.0

3.1
3.0
3.1
3.1
3.3

3.3
4.0
3.8
3.6
3.4

3.3
3.1
2.9
2.9
2.7

96.4

4.0
2.7
191

SEP

3.3
3.3
3.1
3.1
3.3

3.7
3.5
3.1
2.9
2.9

2.8
2.8
2.9
3.1
3.1

2.9
2.8
2.8
2.8
2.9

3.1
3.1
3.1
2.9
2.9

2.9
2.8
2.8
2.4
1.4

2.95
3.7
1.4
176

SAN JOAQUIN RIVER BASIN

11243400 BASS LAKE NEAR BASS LAKE, CALIF.

LOCATION.--Lat 37°17'36", long 119°31'40", in NE% sec.26, T.7 S., R.22 E., Madera County, Sierra National Forest, at outlet tower at dam on North Fork Willow Creek, 2.2 miles southeast of town of Bass Lake and 5 miles north of town of North Fork.

DRAINAGE AREA.--50.4 sq mi.

PERIOD OF RECORD. --January 1911 to September 1970. Mon
published in WSP 1315-A and 173S. Bass Lake was for

tained in the follow!

1966 June 29, 1966
1967 July 5, 1967
1968 June 19, 1968
1969 June 23, 1969
1970 June 15, 1970

Period of record:

REMARKS. --Lake is formed

spillway gates) above

into Kerckhoff Reserv

from North Fork Willo
March to July each ye
Creek just above dive

Commission project.

ng table:

Maximum

41,120
45,370
36,700
45,420
45,48(1

Maximum contents, 45,

by an earth and rockf

mean sea level. Add!

oir at Wishon powerhou

w Creek through Soquel
ar. Chilkoot ditch ca
rsion dam from Oct. 1

y

3,372.
3,376.
3,368.
3,376.
3,376.

960 acre-

ill dam;

tional st

se. Wate

ditch in
n divert
to Aug. 1

merly called Crane Valley

67 Feb. 18, 1966
37 Oct. 25-27, 1966
46 Jan. 26, 1968
39 Oct. 21, 1968
46 Dec. 18, 1969

ft June 17, 1923 (elevatio

completed in 1901 and rais

orage of 300 acre-ft not a

r diverted from South Fork

to Nelder Creek (Fresno Ri
up to 7 cfs from Chilkoot
each water year, if avail

'

. nuary 1911 to September 1960,
Reservoir.

Minimum

20,530 3,351.15
21,560 3,352.45
19,140 3,349.28
21,120 3,351.91
18,030 3,347.69

n, 3,376.8 ft) ; minimum ,

ed in 1910. Since 1910 usable

Willow Creek via Browns Creek

ver basin) during October and
Creek into North Fork Willow
able. See schematic diagram of

REVISIONS.--WSP 1930: Drainage area.

MONTHEND CONTENTS, IN ACRE-FEET, WATER YEARS OCTOBER 1965 TO SEPTEMBER 3970

WTR YR OCT
1966 20,780
1967 21,580

1969 21,270
1970 24,130

NOV
25 420

22 270
20 040

DEC
23,170
28,930

19,240

JAN
22,170

26,920

FEB

21,630
25,080

30,870

MAR

28,170

35,830

APR
36 800
36 200

37 380
41 880

MAY
40 710
42 810

44 980

JUN
41 100

45 200
44 030

JUL
36 120

38 110

AUG
29,990

30,810

SEP
23,020

24,270

SAN JOAQUIN RIVER BASIN

11243500 PACIFIC GAS 6 ELECTRIC CO. CONDUIT NO. 3 NEAR BASS LAKE, CALIF.

PERIOD OF RECORD.--October 1940 to September 1970. Prior to October 1954, published as "near Crane Valley Re voir."

GAGE.--Water-stage recorder and concrete flume. Altitude of gage is 3,300 ft (from topographic map). AVERAGE DISCHARGE.--30 years, 68.3 cfs (49,480 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 167 cfs June 23, 24, 1965; no flow at times.

REMARKS.--Conduit diverts from Bass Lake in sec.26, T.7 S., R.22 E. Water passed through Crane Valley pow house, then to powerhouse No. 3, and is stored temporarily at Manzanita Lake on North Fork Willow Creek; flow then diverted to powerhouses No. 2 and 1A before it enters San Joaquin River at Kerckhoff Reservoir through Wishon powerhouse No. 1. See

COOPERATION.--Gage-height record and 16 discharge measurements for the water years 1966-67 furnished by Pacifi Electric Co., in connection with a Federal Power Commission project; records for the water years 1968-70

DISCHARGE, IN CUBIC FEET PER SECOND* HATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
z
3
it
5

6
7
8
9
10

n
12
13
1*
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX

MIN
AC-FT

WTR YR

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
17
0
0
115

160
159
159
97
0
6.8

713. S
23.0
160
0
1,420

0
6.9
0
6.9
0

5 5
20
6 0
20
6 7

0
6.6
0
6.3
0

5,9
0
86
106
158

157
157
157
157
157

15*
151
151
151
149

1,942.20
64.7
158
0
3,850

1966 TOTAL 22,118

149
149
148
148
148

147
141
138
137
137

137
137
137
137
136

136
136
136
135
136

136
136
136
US
1.4

0
90
135
137
136
136

3,966,4 2,
128
149
0
7,870

. 10 MEAN

58
0
90
135
135

134
134
134
135
134

134
134
134
111
. 10

. 90
58
141
141
141

105
0
6.0
94
141

141
141
110
0
76
94

992.00
96.5
141
0

5,930

123
60.6

140
143
143
143
58

145
145
144
144
143

145
1*5
145
113
96

94
96
94
0
6.8

0
5.0
96
95
96

0
5.2
50
. . . . . .

2,630.0
93.9
145
0
5,2?0

MAX 160

50
48
51
52
2.7

2.8
52
52
52
48

50
0
0
40
50

50
52
50
. 10
7.6

. 60
7.0
5.6
. 60
7.6

1.0
7.8
. 90
7.8
. 80

758.30
24.5
52
0
1.500

MIN 0
MIN o

. 40 .40
7.8 .40
3.6 .40
. 30 .40
. 40 .50

. 40 .50
. 50 .50
. 50 .40
. 50 .40
. 50 2.5

. 50
. 60
. 60
. 70
. 80

. 80
. 80
. 90
. 90
1.0

. 0
. I
, I
1 1
0

. 70
. 60
. 60
. 60
. 60

. 2
. 2
. 1
. 1
. 0

. 0
. 0
. 0
. 0
. 0

. 50

,3

30.90 36.80
1.03 1.19
7,8 14
. 30 0
61 73

AC-FT 88,730
AC-FT 43,870

30
19
8.7
0
4.6

11
31
22
10
12

15
15
14
19
30

0
6.0
0
8.0
0

5.5
6.4
0
6.1
0

6.?
0
6.6
0
6.4

292.5
9.75
31
0
580

0
0
7.9
0
101

143
143
107
0
7.6

103
142
141
141
105

0
6.8
102
143
143

143
108
0
6.8
102

143
143
1*4
109
0

2,443.5
78.8
144
0
4.850

76
150
150
151
114

0
6,6
106
147
146

145
109
0
7.6
105

147
146
146
110
0

7.8
101
143
142
141

108
0
7.6
99
139
139

2,989.6
96.4
151
0
5,930

138
105
0
7.4
4.7

100
140
140
140
139

139
139
138
138
138

137
137
137
137
137

137
137
100
o
16

135
135
134
134
103

3,322.1
111
140
0
6,590

SAN JOAQUIN RIVER BASIN

11243500 PACIFIC GAS 6 ELECTRIC CO. CONDUIT NO. 3 NEAR BASS LAKE, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

1
2
3
4
5

6
7
e
9
10

1112
13i*
15

16
17
16
19
20

2122232425

a6

2728
29
30
31

TOTAL MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

0
5.8
95
136
136

136
98
0
0
0

0
0
0
0
0

. 40
. 40
. 40
. 40
. 40

. 50
. 50
. 50
. 50
. 40

. 40
. 40
. 40
. 40
. 40

. 30
. 10
0
0
0

0
0
0
6.6
. 10

. 10
. 10
. 10
. 10
. 10

. 20
. 10
. 10
. 20
. 40

7.8
63
91
0
46

0
3.3
. 10
3.8
0

613.60 243.60 3
19. S
136
0
1.220

1966 TOTAL
1967 TOTAL

8.12
91
0
483

20,118
40,4al

3.4
. 20
. 10
4.1
39

141
144
145
144
143

143
143
143
14a
142

141
141
141
134
145

145
145
145
144
144

144
144
144
144
144

,765.80
121
145
. 10
7,470

. 70 M
. 29 M

144
144
145
146
147

146
144
144
14
14

14
14
14
14
143

143
143
143
143
143

142
126
121
90
10

. 10
3.9
. 20
51
141
141

3.706.20
120
147
. 10
7,350

EAN 55.1
EAN 111

141
141
141
141
141

141
141
141
141
141

141
142
142
142
1*3

142
142
142
143
143

143
143
144
142
136

140
140
140

3,960 3
141
144
136
7,850

MAX 151
MAX 153

140
140
132
88
140

141
139
128
118
94

. 59
1.0
34
135
136

137
137
137
137
137

137
137
137
137
137

137
111
136
136
136
140

,732,59
120
141
. 59
7,400

MIN 0
MIN 0

138 45
138 .60
138 .0
138 .0
138 .0

132 .0
136 .0
136 .0
136 .0
132 .0

136 .60
136 .60
136 .50

133 63

132 138
133
129
135
132

132
131
129
129
129

129
129
131
134
134

1
0
0
0

0
0
0
0
0

2
3
3
3
4

4,003 2,373.50
133 76.6
138 144
129 .50
7,940 4,710

AC-FT 39,910
AC-FT 80,180

144
144
144
145
143

141
141
141
141
142

142
141

147

134
148
148
148
148

148
148
148
148
148

J5n
15n
149
148
148

4,352
145
150
134
8,630

148
148
148
148
148

148
148
147
147
148

148
148

149

149
148
148
148
149

150
148
149
149
148

148
133
130
148
149
149

4,564
147
150
130
9.050

149
149
148
148
148

147
147
148
148
147

147
147

148

147
148
148
149
149

149
150
151
152
152

153
152
152
150
150
151

4,619
149
153
147
9.160

151
151
151
151
151

150
150
150
149
150

150
149

15(1
149

15n
149
144
150
150

151
151
151
149
149

150
149
149
150
149

4,488
150
151
144
8,900

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

NOv DEC JAN FE8 MAR APR MAY JUN JUL

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

139
139
139
138
63

137
137
136
136
136

136
136
135
135
153

65
0
0
0
0

0
0
0
0
0

0
0
0
0
0
0

2,060
66.5
153
0
4,090

1967 TOTAL
1968 TOTAL

0
0
0
0
0

0
48
137
140
146

147
137
127
139
141

146
146
142
137
137

141
145
145
144
139

116
114
140
97
0
2.8

0 3,053.8 1,
0 98.5
0 147
0 0
0 6,060

40.912.09 MEAN
11,776.10 MEAN

6.4
0
8.0
. 20
8.8

. 20
. 20
12
0
0

99
70
0
8.2
96

142
143
143
55
. 10

8.0
. 10
8.6
100
144

53
2.6
1.9
12
. 30
2.6

125.20
36.3
144
0
2,230

112
32.2

11
. 10
7.7
. 10
9.9

. 10
6.5
. 10
3.3
0

6.2
0
6.2
3.0
0

6.2
6.4
. 10
7.7
0

12
. 30
6.4
5.8
1.3

7.3
1.2
7.3
1.0

117.20
4.04
12
0
232

MAX 153
MAX 153

7.3
7.1
1.1
7.3
1.2

7.3
. 90
. 90
7.5
1.0

1.0
7.1
3.0
. 90
6.7

. 90
. 80
6.9
. 90
6.9

. 70
. 70
. 70
. 70
. 30

79.80
2.57
7.5
0
158

MIN o
MIN 0

0
0
0
0
0

0
0
0
0
0

0
12
. 30
. 30
. 30

6.5
7.1
. 50
6.5
. 40

. 40
6.7
. 90
. 90
6.9

. 60
. 60
. 70
6.9
. 80

59.30
1.98
12
0

lie

AC-FT 81
AC-FT 23

. 80
6.9
. 80
2.2
1.0

. 70
. 70
6.9
. 80
. 80

6.7
. 50
. 50
6.7
. 70

. 70
6.7
. 40
6.5
. 40

6.7
. 40
6.4
. 30
6.4

. 10
7.1
. 10
12
0
6.2

97.10
3.13
12
0
193

,150
,360

. 20
6.2
. 10
6.5
. 60

6.7
. 70
6.7
. 70
6.5

. 70
. 70
6.7
. 70
6.5

. 20
13
. 70
6.7
. 60

. 70
6.9
. 80
6.9
. 80

7.3
1.0
6.7
. 40
6.5

109.40
3.65
13
. 10
217

. 40
13
. 70
10
. 80

6.9
. BO
26
42
37

26
16
6.0
. 30
71

57
. 20
8.0
. 20
3.6

8.2
4.4
. 60
16
1.1

1.1
. 50
0
0
0
1.0

35B.BO
11.6
71
0
712

. 60
. 60
. 60
. 60
. 50

. SO
. 80
. 60
. 50
9.2

1.1
79
120
120
119

118 lie lie lie

119

119
119
118
118
119

120
120
120
120
119
54

2,290.60
73.9
120
. 50
4,540

. 50
6.7
85
120
120

57
. 20
12
eo
120

120
120
55
. 20
6.5

83

118 lie
118
54

. 40
6,4
85
120
120

120
138
147
147
147

2,424.90
80.8
147
. 20
4,810

SAN JOAQUIN RIVER BASIN

11243500 PACIFIC GAS § ELECTRIC CO. CONDUIT NO. 3 NEAR BASS LAKE, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. MATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

1
2
3
4
5

6
T
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
21*
25

26
27
28
29
30
31

TOTAL
MEAN
MAX

WIN AC-FT
CAL YR
MTR YR

146
146
146
146
46

0
98
132
119
119

62
. 40
6.4
81
135

1*5
145
144
144
144

47
0
0
0
0

0
0
. 20
. 30
. 50
. 50

2.153.30
69.5
146
0
4.270

1968 TOTAL
1969 TOTAL

. 60 4.7
. 60 .20
. 30 0
. 20 5.8
. 10 .20

0 .20
0 .20
. 10 4.7
0 9.2
6.2 76

4.2 120
. 30 120
. 30 61
7.1 .20
2.4 .30

. 40 62
. 40 118
. 40 119
7.3 119
. 30 59

. 40 .10
5.4 8.0
. 30 76
. 30 53
. 40 .10

6.4 79
. 30 118
. 30 118
. 30 112
. 30 111
1 1 1

45.60 1.665.90 2.
1.52 53.7
7.3 120
0 0
90 3.300

10.527.10 MEAN
41.079.30 MEAN

111
111
111
111
111

116
119
119
119
119

45
. 20
70
96
96

120
120
120
60
. 10

4.9
4.9
1.7
. 10
. 10

4.5
58
146
145
145
145

529.50
81.6
146
. 10

28.8
113

DISCHARGE. IN CUBIC FEET

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
2*
25

Z6
27
26
29
30
31

TOTAL
MEAN
MAX
WIN
AC-FT

CAL YR
MTR YR

OCT

141
144
144
144
58

6.7
7.5
7.1
3.9
3.6

6.7
8.0
8.0
8.0
8.0

B.O
B.O
5.1
3.0
4.4

5.8
6.5
6.5
94
136

137
137
137
137
137
137 -----

NOV DEC

137 71
137 109
138 109
139 109
139 45

119 1.9
109 8.4
109 70
108 109
108 109

108 109
108 45
108 .70
46 14
1.9 68

1.9 107
69 109
109 46
109 1.7
109 2.6

46 1.9
2.0 8.0
8.4 8.0
69 1.9
108 8.2

45 2,0
1.9 3.7
3.7 2.0

1.9 69 8.2 108
__ __ 11

1.797.8 2.306.9 1.488.00 1
58.0
144
3.0

76.9 48.0
139 109
1.9 .70
3,570 4.580 2.950

1969 TOTAL
1970 TOTAL

42.807.20 MEAN
27.164.89 MEAN

JAN

2.0
8.4
2.0
3.7
72

108
108
108
31
1.9

1.9
73
107
88
91

36
2.2
7.2
62
107

99
74
27
2.0
2.0

55
88
88
88
35
2.0

. 580.3
51.0
108
1.9
3,130

117
74.4

145
145
145
145
145

145
145
145
145
145

146
146
146
146
146

146
146
146
146
146

146
146
126
130
130

130
137
147

4.002
143
147
126

MAX 147
MAX 154

PER SECOND

FEB

8.4
70
106
106
105

43
2.0
8.4
72
106

105
105
105
105
81

60
57
57
57
58

58
58
59
59
57

61
83
132

1.983.8 3
70.9
132
2.0
3.930

MAX 154
MAX 148

139
147
148
147
148

148
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149
144

149
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149
150
151

151
151
152
150
147

147
149
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147
147

147
147
146
146
146
146

4,574
148
152
139

MIN 0
MIN 0

145
145
145
145
145

144
146
146
146
146

1 6
1 6
1 7
1 7
1 7

147
147
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147
147

148
149
148
149
147

146
146
147
146
147

4,394
146
149
144

AC-FT 20
AC-FT 81

147
147
147
145
146

148
148
148
147
149

149
149
147
148
149

149
149
149
150
ISO

152
152
150
150
152

152
153
153
154
154
153

4,636
150
154
145

. 880
. 480

. WATER YEAR OCTOBER 1969

MAR

131
130
130
130
130

130
130
130
130
130

130
130
130
130
130

117
102
102
102
102

31
2.8
70
102
101

100
40
2.5
8.7
73
107

114.0
100
131
2.5
6,180

MIN .10
MIN .20

APR

107
107
44
2.7
8.5

51
111
111
111
47

1.6
7.8
2.6
2.4
2.5

1.3
. 29
. 30
. 30
. 28

. 30
. 30
. 24
. 20
. 20

. 23
. 27
. 30
. 30
. 37

722.28 2
24.1
111
. 20
1.430

AC-FT
AC-FT

MAY

. 40
. 41
. 50
78
118

120
121
120
63
6.9

88
122
121
121
48

1.9
7.3
88
118
118

118
44
1.6
4.2
88

119
119
119
48
1.7
7.5

. 131.41 1
68.8
12Z
. 40
4.230

84.910
53.880

151 141
15
15
15

? 139
? 139
> 139
152 138

152 138
15
15
13
14

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> 138
> 138
137
120

112
113
113
124
139

139
139
40
41
42

43
43
42
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42

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144 3
14' ""

14

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4

4,403 4.240
14
15!

137
144
139 112
8.730 8,410

142
142
142
141
139

139
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139
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139
138

138
137
137
107
135

135
137
43
43
43

43
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42
138
143
143

4.301
139
143
107
8.530

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4,13
13
14
6
8,20

TO SEPTEMBER 1970

JUN JUL

83
118
119
120
53

1 6
6 7
1 7
1 7
6 0

1 8
1 8
7 7
1 9
87

148
147
130
57

7.3
53
S3
. 70
9.9

65
122
122

122 120
132
127
121
122
122

122
122
122
121
. 40 120

6.2
79
120
120
120

121
79
1.6
21
1.7

. 762.80
58.8
148
. 40
3,500

121
121
121
121
121

122
tt
121
121
121
121

3.238.90
104
132
. 70
6.420

AUG

121
121
121
121
121

121
121
120
120
120

120
120
120
120
120

120
120
120
120
121

120
120
120
120
120

116
130
120
120
119
119

3.722
120
121
116
7.380

SE

119
119
lift
118
lift

118
118
118
118
119

119
127
128
127
125

127
125
124
137
125

124
124
123
123
111

. 6
5.1
16
123
120

3,316.7
11
13
. 6
6,58

SAN JOAQUIN RIVER BASIN

11244000 NORTH FORK WILLOW CREEK NEAR BASS LAKE, CALIF.

LOCATION.--Lat 37°17'20", long 119°31'45", in SE'-i sec.26, T. 7 S. , R.22 E., Madera County, Sierra National Forest, on right bank 1,500 ft downstream from Bass Lake spillway and 2.5 miles southeast of town of Bass Lake. DRAINAGE AREA.--50.8 sq mi.

PERIOD OF RECORD.--May 1940 to September 1970. Prior to October 1944, published as Willow Creek below Crane Valley Reservoir. October 1944 to September 1954 published as "below Crane Valley Reservoir." GAGE.--Water-stage recorder. Broad-crested weir with V-notch Dec. 21, 1961, ineffective nee 1969. Alti-tude of gage is 3,200 ft (from topographic map).

AVERAGE DISCHARGE.--30 years, 15.0 cfs (10,870 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet) for the water years 1966-70 are contained in the following table:

Wtr yr
1966
1967
1968
1969
1970

Date
Oct. 4, 1965
May 22, 1967
Oct. 16, 17, 1967
Jan. 26, 1969
Jan. 16, 1970

Discharge
126
678
162
1,300
4.0

G.H.
3.53
5.37
3.48

Minimum daily
Date
Sept. 24, 25, 27-30, 1966
Oct. 1, 2, 8-10, 16, 1966
Many days
Nov. 10, 11, 1968
Sept. 7-30, 1970

Period of record: Maximum discharge, 1,300 cfs Jan. 26, 1969 (gage height unknown);
v. 13-16, 1940.

Discharge
. 20
. 20
. 30
. 20
. 29

urn daily, 0.1 cfs

REMARKS.--Since 1901, flow regulated by Bass Lake (see station 11243400) and by diversion into Pacific Gas S Electric Co. conduit No. 3 near Bass Lake (see station 11243500). At times in October and March to July, up

COOPERATION.--Gage-height record and 24 discharge measurements for the water years 1966-68 furnished by Pacifi

Gas col:
wit!

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN
MAX
HIM
AC-FT

CAL YR

5 Electric

OCT

77
. 50

89
125

125
124
78
. 50
. 50

. 50

. 50
. 50
. 50

. 50
. 50
. 50
. 50
. 50

. 50
. 40
. 40
. 50
. 50

. 50
. 50
. 50
. 50
. 50
. 40

20.3
125
. 40
1.250

1965 TOTAL

DISCHARGE

NOV

. 40
. 50

. 40
. 40

. 50
. 50

. 40
. 30

. 30

. 40
. 80
. 60

1,0
. 90
1.4
. 60
. 50

. 40
. 60
2.0
3.4
1.8

. 80
. 60
. 50
. 50
. 40

. 74
3.4
. 30
44

4,168.60

, IN CUBIC

DEC

. 40
. 40

. 40
. 40

. 40
. 30

. 40
. 40

. 40

. 40
. 40
. 40

. 40
. 40
. 40
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. 40

. 30
. 40
. 60
5.5
1.8
2.1

. 65
5.5
. 30
40

MEAN 11

FEET

JAN

1.1
. 80

. 60
. 70

. 70
. 70

. 60
. 50

. 50

. 40
. 40
. 40

. 40
. 40
. 40
. 40
. 40

. 40
. 30

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. 30
. 30
. 30
. 30
. 50
. 50

. 49
1.1
. 30
30

. 4

PER SECOND.

FEB

. 50
. 50

. 50
. 60

2.0
. 90

. 60
. 60

. 60
. 50
. 50
. 40
. 40

. 40
. 40
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. 52
2.0
. 30
29

MAX 145 M

WATER

MAR

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18

IN .30

YEAR OCTOBER

APR

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. 30
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. 40

. 40
. 60 13

. 50 1
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. 50
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. 60

. 60
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. 70
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. 70

. 70
. 70
. 70 1
. 80
. 80

. 56 1
. 80
. 30
33

AC-FT 8.27

1965

MAY

. 80
. 80
. 80
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. 80
. 80

. 90

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. 90
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. 90
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. 90

. 27
13
. 80
78

0

TO SEPTEMBER

JUN

. 90
. 90
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1.0
1.0

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53

1966

JUL

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. 60

. 77
. 80
. 60
47

AUG

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. 60
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. 49
. 60
. 40
30

1969-70

SEP

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. 20
. 20

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. 20
. 20

. 28
. 30
. 20
17

WTR YR 1966 TOTAL 841.50 MEAN 2.31 MAX 125 MIN AC-FT 1.670

SAN JOAQUIN RIVER BASIN

11244000 NORTH FORK WILLOW CREEK NEAR BASS LAKE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND. WATER YE»R OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR MAY JUKI JUL

1
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9
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14
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16
17
18
19
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21
22
23
24
25

26
27
28
29
30
31

TOTAL

MEAN MAX
M1N
AC-FT

CAL YR
NTR YR

. 20
. 20
. 30
. 30
. 30

. 30
. 30
. 20
. 20
. 20

21
. 30
. 30
. 30
. 30

. 20
. 30
. 30
. 30
. 30

. 30
. 30
. 30
. 30
. 30

. 30
. 30
. 30
. 30
. 30
. 30

29.40
. 95
21
. 20
58

1966 TOTAL
1967 TOTAL

. 30
. 40
. 60
. 60
. 60

. 70
. 60
. 50
. 30
. 30

. 30
. 30
. 30
. 30
. 30

. 80
. 40
. 30
. 30
. 50

. 40
. 50
. 40
. 30
. 30

. 30
. 30
. 40
. 40
. 30

12.30
. 41
. 80
. 30
24

270.
11.353.

. 30
6.0
1.2
1.0
14

20
2.0
1.2
1.0
. 90

. 90
. 80
. 80
. 70
. 70

. 60
. 60
. 60
. 60
. 60

. 50
. 50
. 50
. 50
. 50

. 40
. 40
. 40
. 40
. 40
. 40

59.40
1.92
20
. 30
118

30 MEAN
10 MEAN

. 40
. 40
38
75
37

. 40
. 30
. 30
. 30
. 30

. 30
. 30
. 30
. 30
. 30

. 30
. 30
. 30
. 30
. 40

. 60
1.4
. 70
3.0
97

113
108
112
71
5.9
2.8

670.90
21.6
113
. 30
1.330

. 74
31.1

1.2
. 90
. 70
. 60
. 60

. 50
. 50
. 50
. 40
. 40

. 40
. 40
. 40
. 40
. 40

. 40
. 40
. 40
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. 40

. 40
. 40
. 40
. 30
. 50

. 40
. 40
. 40

13.50
. 48
1.2
. 30
27

MAX 21
MAX 670

. 30
. 30
. 30
39
. 40

. 40
. 30
. 30
. 30
. 30

2.8
12
7.9
2.3
1.4

7.9
1.9
1.2
1.0
. 80

. 60
. 70
. 70
. 70
. 60

. 60
11
. 80
. 80
. 70
. 80

99.30
3.20
39
. 30
197

MIN .20
MIN .20

1.0
1.3
1.2
2.0
2.0

1.9
7.5
2.0
1.5
1.5

1.8
1.5
1.3
1.2
1.5

1.5
1.4
3.9
2.2
2.1

2.2
2.3
2.4
3.9
2.8

3.1
4.3
3.5
2.3
2.1

69.2
2.31
7.5
1.0
137

AC-FT
AC-FT

99
146
146
147
146

146
146
146
147
148

148
171
216
218
148

68
105
318
410
410

407
569
670
658
500

251
120
124
128
129
62

7,247
234
670
62
14.370

536
22.520

2.5
2.5
2.4
2.4
2.6

75
204
122
66
66

66
66
65
83
106

105
102
102
184
230

166
144
144
144
144

108
76
27
2.3
66

2.677.7
69.3
230
2.3
S.310

172
123
39
2.2
33

22
2.1
1.9
1.9
1.9

1.9
1.9
1.8
1.8
1.8

1.8
1.7
1.6
1.6
1.6

1.5
1.5
1.4
1.4
1.4

1.3
1.3
1.3
1.2
1.2
1.2

431.2
13.9
172
1.2
855

1.1
1.1
1.1
1.1
1.1

1.1
1.1
1.1
1.1
1.1

1.0
1.0
1.0
1.0
1.0

1.0
. 90
. 90
. 90
. 90

. 90
. 80
. 80
. 80
. 80

. 80
. BO
. 80
. 80
. 80
. 70

29.40
. 95
1.1
. 70
58

. 70
. 70
. 70
. 60
. 60

. 60
. 60
. 60
. 60
. 50

. 50
. 50
. 50
. 40
. 40

. 40
. 40
. 60
. 40
. 40

. 30
. 30
. 30
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. 30
. 40
. 30
. 30
. 30

13.80
. 46
. 70
. 30
27

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
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29
30
31

TOTAL
MEAN
MAX

MIN
AC-FT

CAL YR
HTR YR

. 30
. 30
. 30
. 30
46

. 40
. 40
. 30
. 30
. 30

. 30
. 30
. 30
. 30
. 30

95
82
1.4
1.2
1.3

1.3
1.3
1.3
1.1
1.1

1.1
1.1
1.1
1.1
1.1
1.0

243.90
7.87
95
. 30
484

1967 TOTAL
1968 TOTAL

1.0 1
1.0 1
1.0 1
1.0 1
1.0 1

1.0 1
1.0
1.0
1.0
1.0

1.0
1.0
1.0
1.0
1.0

1.0
1.0
1.0
1.2
1.1

1.0
1.0
1.0
. 90
. 90

. 90
. 90
. 90
1.0
1.4

30.20 21
1.01
1.4
. 90
60

11.547.20
494.10

. 1
. 0
. 0
. 0
. 9

. 1
. 80
. 60
. 60
. 60

. 50
. 50
. 50
. 50
. 50

. 40
. 40
. 50
. 50
. 40

. 40
. 40
. 50
. 60
. 80

. 70
. 70
. 70
. 60
. 60
. 70

. 10
. 68
1.9
. 40
42

MEAN
MEAN

. 70
. 70
. 60
. 60
. 60

. 60
. 60
. 60
. SO
. 70

. 60
. SO
. 40
. 40
. 80

. 60
. SO
. 50
. 40
. 40

. 40
. 30
. 30
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. 30
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. 30

14.70
. 47
. 80
. 30
29

31.6
1.35

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. 30
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. 50
. 70
1.0
1.4
1.8

1.6
1.5
1.4
1.3
1.2

1.1
1.0
. 90
. 30

20.20
. 70
1.8
. 30
40

MAX 670
MAX 95

. 30
. 30
. 30
. 30
. 30

. 30
. 30
. 70
. 50
. 40

. 30
. 30
. 50
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. 60
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. 40
. 40

. 30
. 30
. 30
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. 50

1.0
. 90
1.1
1.1
1.1
. 90

IS. 90
. 51
1.1
. 30
32

MIN .30

MIN .30

l.l .60 1.0
1.1 .60 1.0
1.0 .60 1.0
1.0 .70 1.0
1.0 .70 .90

1.0 .70 .80
1.1 .70 .90
l.l .70 .90
1.1 .70 .90
1.1 .70 .80

1.1 .70 .80
. 70 .70 .80
. 50 1.
. 50 1.
. 50 1.

. 60 1.
. 60 1.
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. 70
. 70
. 70

23.30 30. ?0 24.10
. 78 .97 .80
1.1 1.7 1.0
. 50 .60 .70
46 60 4fl

AC-FT 22.900
AC-FT 9BO

. 70
. 70
. 70
. 70
. 70

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. 70
. 70
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. 70

. 70
. 60
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. 60
. 50
. 50

. 50
. 50
. 50
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. 50
. 50
. 50
. 50
. 50
12

29.90
. 96
12
. 50
59

. 60
. 60
. 60
. 60
. 50

. 50
11
. 60
. 90
1.1

1.1
1.1
1.2
1.3
. 90

. 50
. 50
. 50
. 50
. 50

. 50
. 50
. 50
. 50
. 50

. 50
. 40
. 40
. 40
. 40
. 40

30.10
. 97
11
. 40
60

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. 30
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. 3n
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. 40
. 40
. 40
. 40
. 40

10.50
. 35
. 40
. 30
21

NOTE. NO GAGE-HEIGHT RECORD JAN. 28 TO FEB. 28.

SAN JOAQUIN RIVER BASIN

11244000 NORTH FORK WILLOW CREEK NEAR BASS LAKE, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
<t
5

6
7
B
9
10

11
IS
13
14
15

16
17
IB
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

. 41
. 41
. 41
. 41
. 39

. 36
. 34
. 36
. 36
. 36

. 34
. 32
. 55
. 65
. 49

. 47
. 44
. 47
. 47
. 49

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. 49
. 44
. 47
. 46

. 44
. 41
. 44
. 49
. 36
. 28

13.23
. 43
. 65
. 28
26

1968 TOTAL
1969 TOTAL

. 28
. 34
1.1
. 34
. 30

. 30
. 34
. 30
. 22
. 20

. 20
. 39
. 26
. 28
. 75

. 32
. 28
. 26
. 26
. 26

. 24
. 24
. 24
. 26
. 26

. 24
. 22
. 22
. 22
. 22

9.34
. 31
1.1
. 20
19

239.
15,459.

. 32
. 28
. 26
. 26
. 24

. 24
. 24
. 24
. 24
. 30

. 41
. 30
. 28
. 61
1.4

. 87
. 47
. 36
. 34
. 30

. 36
. 26
. 30
1.1
3.7

1.2 1.
. 65
. 91
. 72
. 58
. 55

16.29 6,
. 59
3.7
. 24
36

76 MEAN
32 MEAN

. 68
. 58
. 55
. 49
. 47

. 64
. 41
. 41
. 41
. 41

. 36
. 36
5.9
2.6
1.0

. 75
14
15
80
150

220
560
60
ISO
450

050
900
500
ISO
76
64

454. 82
164
1,050
. 36

. 66
42.4

55
47
64
54
87

93
60
39
25
21

21
22
24
27
32

69
55
40
45
60

35
21
16
200
290

150
90
65

1,767 1
63.1
290
16

MAX 12
MAX 1,050

80
110
75
64
22

15
11
10
7.2
7.2

6.9
6.5
6.5
6.9
7.2

7.6
8.3
10
15
102

99
80
35
40
50

70
80
100
110
130
150

,522.3
49.1
150
6.5

MIN MIN

99
35
15
15
30

160
140
124
115
93

85
82
76
60
50

47
50
70
110
160

170
160
130
100
80

50
35
21
21
20

2,383
79.4
170
15

. 20 AC-FT
. 20 AC-FT

20
50
56
60
70

74
82
94
100
120

161
197
199
250
211

190
170
160
160
150

140
130
130
130
120

120
110
110
110
110
105

3,889 1
125
250

476
30,660

105
94
55
55
45

42
40
45
55
67

50
50
5.3
. 49
11

82
167
85
. 49
. 69

11
35
38
75
63

31
12
. 69
. 69
. 69

,301.24
63.4
147

. 69 .6
. 69 .6
. 69 .4
. 49 .4
. 69 .6

. 49 .6
. 69 .6
. 69 .6
. 69 .6
. 49 .6

. 69 .4
. 49 .4
. 49 .4
. 69 .4
. 69 .4

. 49 .4
. 49 .4
. 49 .4
. 49 .4
. 49 .4

. 69 .4
. 49 .4
. 69 .6
. 69 .6
. 49 .4

. 49 .6
. 69 .6
. 49 .6
. 49 .4
. 49 .4

15.19 15.1
. 49 .6
. 49 .6

30 3

. 49
. 49
. 69
. 49
. 49

. 69
25
32
. 49
. 49

. 69
. 69
. 69
. 69
. 69

. 69
. 49
. 69
. 49
. 69

. 49
. 49
. 69
. 49
. 49

. 49
. 49
. 69
. 49
. 69

70.72
2.36
32

140

NOTE. NO GAGE-HEIGHT RECORD JAN. 17 TO SEPT. 30.

DISCHARGE, IN CUBIC FEET PER SECOND,

NOV DEC JAN FEB

WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
IB
19
20

21
22
23
26
25

26
27
28
29
30
31

OTAL
EAN
AX
IN
C-FT

CAL YR
WTR YR

. 45
. 65
. 45
. 45
. 45

. 38
. 38
. 30
. 30
. 30

. 30
. 38
. 38
. 45
. 45

. 80
. 60
. 45
. 45
. 45

. 45
. 65
. 65
. 38
. 38

. 38
. 38
. 38
. 38
. 38
. 38

13.01
. 42
. 80
. 30
26

1969 TOTAL
1970 TOTAL

. 38
. 38
. 38
. 38
. 38

1.5
1.0
. 50
. 30
. 30

. 30
. 30
. 30
. 30
. 30

. 30
. 30
. 30
. 30
. 30

. 30
. 30
. 30
. 30
. 38

. 38
. 38
. 38
. 38
. 38

11.96
. 40
1.5
. 30
24

15,458
376

. 38
. 38
. 38
. 38
. 38

. 38
. 38
. 38
. 38
. 38

. 38
. 38
. 38
. 38
. 38

. 38
. 38
. 38
. 38
. 38

. 50
. 50
. 36
. 36
. 80

2.0
. 80
. 80
. 38
. 38
. 38

16.90
. 68
2.0
. 38
30

. 35 MEAN
. 43 MEAN

. 38
. 38
. 38
. 38
. 38

. 38
. 38
. 36
. 38
. 50

1.5
1.0
. 80
1.5
3.0

6.0
3.0
1.0
1.0
. 50

. 38
. 38
. 36
. BO
. 50

. 38
. 38
. 80
. 50
. 36
. 36

26. 46
. 65
4.0
. 36
53

42.6
1.03

. 36 1.1 1.7
. 38
. 38
. 38
. 38

. 38
. 38
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. 38
. 38
. 38
. 50
. 80

. 38
. 60
. 45
. 52
. 59

. 66
. 72
. 79
. 85
. 91

. 97
1.0
1.1
_ «.-

15.76 65
. 56 1.
1.1 1

2 1.8
3 1.6
3 1.6
3 1.6

1.6
1.8
1.8
1.8
1.8

1.8
2.0
2.0
2.0
2.0

2.0
2.0
2.0
2.0
2.2

2.2
2.2
2.2
2.2
2.2

2.2
2.2
2.6
2.4
2.4

60.5
2.02
2.6
. 36 1.1 1.7
31 90 120

MAX 1,050 MIN .30
MAX 4.0 MIN .29

2.4 2.2
2.4 2.2
2.4 2.0
2.4 2.0
2.6 2.0

2.4 2.0
2.4 2.0
2.4 2.0
2.4 2.0
2.6 2.0

2.6 2.0
2.6 2.0
2.6 2.0
2.4 2.0
2.6 2.0

2.4 2.0
2.* 2.0
2.4
2.2
2.2

2.2
2.2
2.2
2.2
2.2

2.2
2.2
2.2
2.2
2.2

. 9
. 8
. 7

,

. 7 1.0
. 7 .96
. 7 .96
. 6 .90
. 5 .90

. 5 .64
. 3 .86
. 3 .84
. 3 .76
. 3 .76

71.8 54.7 3*. 16
2.32 1.82 1.10
2.4 2.2 1.3
2.2 1.3 .78
162 108 66

AC-FT 30,660
AC-FT 743

. 73
. 73
. 73
. 73
. 67

. 67
. 67
. 62
. 62
. 67

. 62
. 56
. 56
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16.47
. 53
. 73
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33

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9.03
. 30
. 35
. 29
16

NOTE. NO GAGE-HEIGHT RECORD OCT. 1 TO APR. 30.

SAN JOAQUIN RIVER BASIN

11246500 WILLOW CREEK AT MOUTH, NEAR AUBERRY, CALIF.

DRAINAGE AREA.--130 sq mi.

PERIOD OF RECORD.--January 1952 to September 1970.

level (levels by Southern California Edison Co.).

AVERAGE DISCHARGE.--18 years, 61.4 cfs (44,480 acre-ft per ye

EXTREMES
1966-

Wtr yr
1966
1967
1968
1969
1970

Pe

70

Dat
Nov
Dec
Feb
Jan
Jan

rio

Maxi
are

e

. 24
. 6
. 20
. 26
. 16

d of

mums and I
contained

, 1965
, 1966
, 1968
, 1969
, 1970

record:

ninimums
in the

Maxi

Maximum

(discharge in cubic feet per
following table:

mum

Discharge G.H.
1,380 10.22
6,760 18.20
251 7.13
6,820 18.27
4,140 14.56

discharge, 15,700 cfs Dec. 23

seo

, 1'

d, gage height in feet) for the w

Minimum daily
Date

Many days
Oct. 1-3, 1966
Many days
Oct. 1-6, 1968
Aug. 26,29,30, Sept. 4,30, 1970

.10
3
3
.06

1445,1650-B 1956 Dec. 23, 1955 1515 1957 May 19, 1957

Disch. G.H.
(cfs) (ft)
15,700 28.5
2,930 12.96

Date

yr
1958 Apr. 3, 1958

Disch. G.H.
(cfs) (ft)
2,140 11.65

REMARKS.--Records good. Flow regulated by Bass Lake 10 miles upstream (see station 11243400) and diversion into

eport. Re water temperatur 1966-70 are published in reports of the Geological

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

. 6 1.3
. 4 1.3
. 3 1.3
. 3 1.4
. 3 1.4

. 4 1.4
. 5 1.4
. 3 1.4
. 1 1.5
. 0 1.6

. 0 1.9
. 1 2.0
. 0 2.3
. 2 30
. 9 70

16 2.6 65
17 2.2 128
18 2.0 288
19 1.9 198
20 1.8 76

21 1.7 56
22 1.6 50
23 .5 515
24 .5 731
25 .5 329

26 .4 146
27 .4 89

28 .4 75 29 .4 68
30 1.4 62
31 1.4

TOTAL 46.1 2,996.2
MEAN 1.49 99.9
MAX 2.6 731
MIN 1.0 1.3
AC-FT 91 5.940

CAL YR 1965 TOTAL 32,082
MTR YR 1966 TOTAL 8.478

56
55
52
52
49

50
25
18
17
17

17
23
18
17
16

15
14
14
14
14

14
14
13
13
16

16
16
16
185
213
166

1,237
39.9
213
13
2,450

. 40 MEAN
. 10 MEAN

85
39
34
29
27

29
26
27
25
23

21
20
20
19
19

18
20
21
17
17

16
16
16
16
16

16
15
15
15
23
21

723
23.3
85
15
1,430

87.9
23.2

21
20
19
20
21

115
59
38
33
32

28
27
25
24
21

20
20
20
19
19

20
20
21
30
26

23
21
21

783
2B.O
115
19
1,550

MAX 1,310
MAX 731

21
21
20
20
20

20
20
21
22
28

34
32
34
38
44

40
36
36
36
36

37
36
38
40
40

42
45
48
64
54
54

1,077
34.7
64
20
2,140

MIN 1.0
MIN 0

54
53
52
46
43

40
36
37
36
58

43
39
36
32
30

28
27
28
34
31

29
27
24
22
21

20
20
19
18
18

1,003
33.4
58
18
1,990

AC-FT
AC-FT

17
16
15
15
14

14
14
14
14
23

19
17
16
14
13

13
12
12
11
11

10
10
10
9.7
9.0

8.5
B.3
B.2
B.2
B.5

392.9
12.7
23
8.2
779

63,640
16,820

8.0
7.4
7.2
7.1
7.1

7.0
8.6
8.B
11
9.0

7.2
6.7
6.0
5.1
4.9

4.7
4.5
4.4
4.3
4.1

3.9
3.9
3.9
3.9
3.9

3.5
3.2
3.0
2.9
2.9

168.1
5.60
11
2.9
333

2.8 .90 0
2.9 .50 0
2.7 .40 0
2.4 .20 0
2.2 .20 0

2.1 .20 0
2.0 .10 0
2.0 .10 0
2.2
2.1

2.0
2.0
1.9
1.9
1.9

1.7
1.5
1.3
1.0
1.0

1.0
1.0
. 90
. 80
. 50

. 50
. 40
. 30
. 40
. 40

0
0

0
0
0
0
0

0
0
0
. 10
. 10

. 10
. 10
. 40
. 40
. 40

. 40
. 20
. 2n
. 20
. 20

46.40 2.60 2.80
1.50 .064 .093
2.9 .90 .40
. 30 0 0
92 5.2 5.6

SAN JOAQUIN RIVER BASIN

11246500 WILLOW CREEK AT MOUTH, NEAR AUBERRY, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR MAY JUN JUU

1 .10 .50
2 .10 .50
3 .10 .40
4 .20 .40
5 .60 .50

6.4 17 178
74 17 94
486 16 66
32 87 55
,190 89 51

6 .60 .60 4,860 28 49
7 .60 1.2
8 .60 2.4
9 .60 2.2
10 .60 1.9

11 .50 1.5
12 .40 1.5
13 .40 1.5
14 .40 1.4
15 .60 1.4

16 .60 .2
17 .50 .3
18 .40 .3
19 .40 .3
20 .40 .1

21 .30 .2
22 .30 .8
23 .40 .2
24 .40 .2
25 .40 .8

26 .40 .3
27 .50 .2

28 .50 .6 29 .50 3
30 .50 .7

780 17 46
209 16 44
104 15 42
72 15 42

50 15 44
47 15 43
38 15 44
33 14 42
30 14 38

28 14 37
26 14 36
25 13 35
26 13 35
23 13 33

22 36 32
20 95 32
20 38 32
20 94 30
19 100 36

20 44 29
18 38 28
IB 33 27
19 111 ----- .
IB 371

TOTAL 13.40 135.10 8,370.4 2,035 1,300
MEAN .43 4.50
MAX .60 37
MIN .10 .40
AC-FT 27 268

CAL YR 1966 TOTAL 12,717
WTR YR 1967 TOTAL 65,895

270 65.6 46.4
4,880 618 17B
6.4 13 27
16,600 4,040 2,580

70 MEAN 34. B MAX 4,880
00 MEAN 181 MAX 4,880

DISCHARGE, IN CUBIC FEET PER SECOND

DAY OCT NOV

1 3.1 2.2
2 3.3 2.2
3 3.3 2.3
4 3.8 2.3
5 3.6 2.4

6 5.1 2.4
7 3.6 2.4
8 3.3 2.4
9 2.8 2.3
10 2.6 2.S

11 2.7 2.6
12 2.5 2.6
13 2.6 2.5
14 2.7 5.0
IS 2.6 7.0

16 2.1 7.1
17 2.0 6.9
IB 2.1 4.5
19 2.1 B.6
20 2.1 16

21 2.1 13
22 2.2 10
23 2.3 7.7
24 2.4 7.2
25 2.3 6.B

26 2.2 6.5
27 2.2 6.3
28 2.3 5.8
29 2.4 6.2
30 2.5 13
31 2.4 -.

TOTAL S3. 3 168.7

MAX 5.1 16
MIN 2.0 2.2

CAL YR 1967 TOTAL 57.^14
WTR YR 1968 TOTAL 3.689

DEC JAN FEB

. 8 7.2 15
. 8 7.1 15
. 7 6.5 16
. 2 6.5 15
2 6.4 15

1 6.7 14
. 5 6.5 14
. 2 6.5 14
. 8 6.7 15
. 2 10 16

. 1 16 14
. 1 12 14
. 0 11 14
. 6 10 16
. 4 18 14

. 3 20 14
. 2 15 36
. 7 13 42
. 3 12 28
. 0 12 107

. 8 12 72
. 2 12 44
. 8 13 36
8.5 12 34
7.6 12 32

11 12 30
28 14 29
11 12 29
9.0 12 28
8.3 12 .
7.7 19 ...

2B6.8 351.1 782

28 20 107
5.6 6.4 14

yO MEAN 159 MAX 1,590
70 MEAN 10.1 MAX 107

27
27
28
30
26

26
26
26
26
26

38
403
585
302
136

1,250
772
497
362
297

281
287
269
243
209

197
188
225
265
1 96
229

7,499
242
1,250
26
14,870

MIN

MIN

, MATER

MAR

27
24
24
24
23

22
21
30
26
22

21
21
24
22
21

24
31
26
23
21

22
21
21
21
24

24
23
25
26
28
28

740

31
21
1,470

MIN
MIN

233
263
249
313
350

261
587
335
257
245

322
239
207
202
239

214
189
398
392
358

395
518
400
647
432

355
342
330
267
237

9,776
326
647
189
19,390

229
221
233
273
318

267
338
452
521
668

545
458
440
497
593

693
818
1,020
1,210
1,280

1,360
1,470
1,590
1.510
1,370

1,060
838
786
752
707
626

23,143
747
1,590
221
45,900

476
415
422
445
497

432
602
551
455
458

445

410
382
425

438
425
425
450
503

450
375
352
332
310

243
220
201
156
105

11,830 1
394
602
105
23,460 2

178
ISO
125
100
80

84
78
72
66
60

54

43
37
31

26
21
20
20
19

18
18
17
17
16

15
14
15
13
12
12

,479
47.7
178
12
. 930

11
11
10
10
9.3

8.8
8.5
8.6
8.3
8.0

7.7

6.8
6.5
6.4

6.2
5.8
5.6
5.5
5.0

4.7
4.5
4.5
4.4
5.0

4.9
4.5
4.2
4.0
3.9
3.6

204.8
6.61
11
3.6
406

3.5
3.6
4.1
4.1
3.9

3.6
3.5
3.5
3.3
3.3

3.0

3.0
2.8
2.6

2.6
2.6
5.4
7.2
4.3

3.4
3.5
4.1
4.0
4.0

3.9
3.5
3.3
3.4
3.4

109.3
3.64
7.2
2.6
217

0 AC-FT 25,230
. 10 AC-FT 130,700

YEAR OCTOBER 1967 TO SEPTEMBER

APR

35
36
32
30
33

32
29
28
27
27

28
28
26
24
24

23
22
20
20
20

19
18
18
17
17

17
16
15
15
14

710

36
14
1.410

2.0 AC-FT
0 AC-FT

MAY

14
13
13
13
12

12
12
12
11
11

11
12
14
26
21

21
18
15
13
13

12
12
12
12
11

10
10
9.2
8. 5
fl.Z
8.0

399.9

26
R.O
793

114,900
7,320

JUN

7.6
7.2
7.0
6.7
6.7

7.1
8.0
9.3
7.6
6.8

6.3
5.8
5.4
4.9
4.7

4.4
4.2
4.0
3.8
3.3

2.6
2.4
2.3
2.1
1.8

1.7
1.5
1.5
1.5
1.4

1968

JUL

1.3
1.2
1.1
1.4
1.6

1.4
1.4
1.5
1.7
1.3

1.1
1.0
1.1
1.0
1.0

1.0
1.0
1.0
. 80
. 50

. 40
. 40
. 20
. 40
. 40

. 20
. 20
. 10
. 10
. 10

139.6 26.00

9.3
1.4
277

i.7
. 10
52

AUG

. 20
. 20
. 10
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

. 20
. 60
. 50
. 40
. 10

0
0
0
0
0
0

2.30
. 074
. 60
0
4.6

SEP

0
0
0
n
0

SAN JOAQUIN RIVER BASIN

11246500 WILLOW CREEK AT MOUTH, NEAR AUBERRY, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY

12

3
4
5

6
7
a
9
10

11
12
13
14
15

16
17
IB
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

OCT

0
. 02
. 02
. 02
. 10

. 10
. 12
1.0
7.1
4.4

2.5
2.0
1.7
1.6
1.5

1.3
1.4
1.7
1.6
1.5

1.5
1.5
1.5
1.2
1.9
4.0

U33
7.1
0
82

1968 TOTAL
1969 TOTAL

NOV

3.4
2.5
33
13
5.0

3.4
2.8
2.6
2.3
2.2

2.2
4.2
5.6
3.5
8.2

5.9
4.4
4.3
4.5
4.1

3.5
3.3
3.1
3.4
4.0

3.3
3.0
2.8
2.7
2.7

148.9
4.96
33
2.2
295

3.990
94,217

DEC JAN

3.5 14
4.0 14
3.2 13
3.2 13
3.2 13

3.2 13
3.1 13
3.0 13
2.9 13
3.3 12

55 11
24 12
9.2 216
10 410
52 86

114 40
21 30
14 235
12 3,900
9.8 1,240

8.6 3,570
8.5 1.050
8.8 542
13 621
84 4,320

68 4,390
25 1,980

22 1,200 24 818
18 635
16 521

649.5 25,958
21.0 837
114 4.390
2.9 11
1.290 51,490

. 58 MEAN 10.9
. 48 MEAN 258

DISCHARGE. IN CUBIC FEET

DAY

1
2
3
4
5

6
7
B
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

OCT

2.5
2.3
2.3
2.2
2.3

2.7
5.0
5.6
6.4
6.5

5.8
2.9
2.6
2.6
3.5

74
88
37
31
21

1*
9.2
8.2
6.5
6.5

6.4
6.3
6.3
6.3
5.9
5.8

387.6
12.5
88
2.2
769

1969 TOTAL
1970 TOTAL

NOV

5.6
S.6
S.5
5.5
5.6

15
16
10
8.6
8.2

7.7
7.4
7.1
7.1
6.8

. 7
. 4
. 6
. 3
. 1

6.8
6.5
6.4
6.0
6.3

6.3
5.9
5.8
5.8
5.6

220.2
7.34
16
5.5
437

94,667
11,712

DEC JAN

5.8 10
5.9 9.
6.0 8.
6.0 7.
6.0 7.

6.0 7.
6.0 8.
6.0 8.
6.5 11
7.9 211

7.3 52
6.5 30
6.4 27
6.3 169
6.0 147

6.0 2,040
6.0 818
6.0 294
7.4 152
15 132

41 234
99 204
16 111
11 315
212 141

95 87
23 200

15 100 13 62
11 46

682.0 5.686.1
22.0 183
212 2,040
5.8 7.1
1,350 11,280

. 60 MEAN 259
. 80 MEAN 32.1

FE8

420
370
338
320
435

641
445
315
267
227

211
259
225
191
392

420
299
312
335
261

243
216
239
1,800
1,130

682
482
509

428
1,800
191
23,770

MAX 114
MAX 4,390

PER SECOND

FE8

35
33
32
31
29

28
26
25
25
25

26
33
43
62
42

40
61
50
33
29

28
27
27
26
26

26
25
53

946
33.8
62
25
1,680

MAX 4,390
MIX 2.040

MAR

557
428
385
293
255

237
214
207
201
197

191
178
175
156
152

156
168
188
199
283

388
295
301
322
358

412
458
473
509
551
587

306
587
152
18,790

MIN MIN

APR

530
445
497
392
713

822
620
575
545
527

584
635 1
632
611
545

539
599
638
629
718

798
786
689
581
521

491
518
548
518
542

17,788 21
593
822 1
392
35,280 42

0 AC-FT 7
0 AC-FT 186

, WATER YEAR OCTOBER

MAR

229
304
100
57
75

48
42
40
37
36

33
32
55
67
63

70
50
45
40
39

39
40
40
42
44

45
42
39
38
38
37

1.906
61.5
304
32
3,780

MIN
MIN

APR

36
36
34
34
33

33
32
31
31
31

30
30
31
34
30

30
28
27
28
28

28
28
28
28
28

28
32
29
29
32

917
30.6
36
27
1,820 1

MAY

542
551
512
494
572

659
756
786
838
894

904
,000
886
830
778

778
778
766
738
700

686
672
662
656
629

599
578
554
539
530
518

,385
690
. 000
494
,420

,920
,900

JUN

506
445
352
320
303

285
271
257
345
382

322
257
199
80
86

262
368
222
82
65

58
86
87
123
109

66
34
32
31
29

6,064
202
506
29
12,030

1969 TO SEPTEMS

MAY

33
32
31
29
27

27
26
26
25
24

23
22
21
21
20

IB
18
17
16
16

16
15
14
13
12

12
12
12
12
12
11

613
19.8
33
11
,220

JUN

11
10
9.5
9.3
9.3

9.?
8.8
8.8
19
13

11
10
10
9.7
9.R

9.2
8.5
8.0
7.4
6.7

6.2
6.0
5.3
5.1
5.0

5.9
7.6
6.4
6.3
6.3

258.3
8.61
19
5. ft
512

JUL

27
27
26
26
24

23
25
18
17
16

16
15
14
14
14

13
13
12
12
11

11
11
10
10
9.8

9.8
9.8
10
9.3
8.6
8.3

470.6
15.2
?7
8.3
933

ER 1970

JUL

. 7
. 3
. 0
.1
.1

. 8
. 4
. 2
. 1
. 3

. 3
. 1
. 3
. 6
. 3

. 2
. 2
. 1
. 0
. 8

. 7
. 6
1.5
1.6
1.5

1.5
1.5
1.5
1.2
1.0
. 97

81.47
2.63
6.1
. 97
162

AUG

7.8
7.7
7.1
6.7
6.4

6.4
6.2
6.0
5.9
5.8

5.6
5.4
5.1
4.9
4.7

4.5
4.4
4.3
4.3
4.2

4.0
3.8
3.6
3.6
3.6

3.5
3.5
3.4
3.4
3.3
3.2

152. 3
4.91
7.8
3.2
302

AUG

. 97
. 97
. 90
. 90
. 90

. 82
. 90
. 75
. 63
. 58

. 49
. 30
. 25
. 18
. IB

. 18
. 16
. 14
. 16
. 14

. 10
. 10
. 08
. 08
. 10

. 06
. 08
. 08
. 06
. 06
. 08

11.38
. 37
. 97
. 06
23

SEP

2.7
2.6
2.5
2.4
2.4

2.3
14
5.4
3.5
2.6

2.3
2.2
2.6
2,3
2,3

2.6
3.5
3.8
2.6
2.6

2.8
2.8
4.1
4.5
4.3

4.1
3.1
2.6
3.2
3.0

101.9
3.40
14
2.2
202

SEP

. 10
. 10
. 08
. 06
. 12

. 16
. 30
. 39
. 34
. 18

. 12
. 10
. 10
. 12
. 12

. 12
. 10
. 10
. 1"
. 10

. 08
. 08
. 08
. 1"
. 1"

. OB
. 10
. ftS
. 08
. 06

3.75
. 13
. 39
. 06
7.4

2.2 AC-FT 187,800
. 06 AC-FT 23,230

SAN JOAQUIN RIVER BASIN

11247000 SAN JOAQUIN RIVER BELOW KERCKHOFF POWERHOUSE, NEAR PRATHER, CALIF.

. 10, T.10 S., R.22 E., Fresno County, on left bank
Lies upstream from Big Sandy Creek, and 3.8 miles south-

LOCATION.--Lat 37°04'45", long 119°33'36", in NEWWs se
1.1 miles downstream from Kerckhoff powerhouse, 1.4
east of Prather.

DRAINAGE AREA.--1,480 sq mi (revised).

PERIOD OF RECORD.--April 1910 to September 1914, December 1936 to December 1937, December 1942 to September 1970. Published as "near North Fork" 1910-14 and as "below Kerckhoff powerhouse" 1915-60.

GAGE.--Water-stage recorde
Prior to Oct. 1, 1914,

AVERAGE DISCHARGE.--31 ye

Datum of gage is 563.4 ft above mean sea level (levels by Bureau of Re
site 11 miles upstream at different datura.

(1910-14, 1943-70), 2,386 cfs (1,729,000 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, g height in feet) for the w 1966-70 are contained in the following table:

Wtr yr Date
1966 Nov. 24, 1965
1967 Dec. 6, 1966
1968 Feb. 23, 1968
1969 Jan. 26, 1969
197 70

4,690
28,800
4,310
26,100
12,800

G.H.
16.60
31.60
16.13
30.46
23.76

Date
Sept.26, 1966
Oct. 22, 1966
Mar. 19, 1968
Nov. 2, 1968
Oct. 8, 1969

daily
scharge
24

435
72
104

REMARKS.--Records excellent. Flow regulated by 12 powerplants and 8 reservoirs with total usable capacity of 609,300 acre-ft. Earliest storage began in 1901 at Bass Lake (see station 11243400). See records for Lake Thomas A. Edison, Mammoth Pool Reservoir, and Florence, Huntington, Shaver, and Redinger Lakes, given else-where in this report. Backwater from Millerton Lake has affected record at times since November 1947, when spillway gates were installed at Friant Dam. See schematic diagram of San Joaquin River basin elsewhere in
this report. Water-quality records for the water years 1966-68, 1970 are published in reports of the Geolog-ical Survey.

COOPERATION. --G

REVISIONS. --WSP

DAY

1
2
3
it
5

6
7
8
9
10

11
12
13
1*
IS

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL MEAN
MA*

AC-FT

CAL YR
WTR YR

OCT

1.700
1,620
1.150
1,330
1,620

1.160
1.360
1,260
1,240
1,190

1,200
1.100
1.240
1,240
1,260

1,480
1,470
1,200
1,580
1,490

1,790
1,640
1.500
1.430
1,420

1.720
1,720
1,720
1,720
1,720
1,310

44,580
1.436
1,790
1.100
88,420

age-height re

1930: Drain

DISCHARGE,

NOV

1,700 1
1,720 1
1,550 2
1,490 1
1,710 1

1,600 1
688 2
1,410 2
1,420 2
1,350 2

1,330 2
1,430 2
1,440 2
1,670 2
1.610 2

1.220 2
2.400 2
1.760 3
2.410 2
1,840 2

1,980 2
1,990 2
3,290 2
3,590 1
2,090 1

2,640 1
2,220 1
2,030 2
2,030 2
2,070 2
I

55,676 71
1,856 2
3,590 3
688 1
110.400 141

1965 TOTAL 1.074.646
1966 TOTAL 675,694

cord, telemark readings,

age area.

IN CUBIC FEET PER SECOND

DEC JAN

,980 1,830
,990 1,690
,000 1,940
,880 2,110
,940 1,900

,680 1,980
,620 1,970
,640 1,960
,640 1,960

,570 1.990
,610 1,950
,550 1,940
,600 1,970
,620 1,780

,610 1,560
,820 1,680
,140 1,900
,460 1,940
,200 1,960

,520 1,920
,460 1,790
,460 1,750
,520 1,700
,480 1,550

,470 1,960
,560 1,670
,010 1.470

,560
. 680
,690
,650
,380

,600
,640
,660
. 610

. BOO
. 490
. 610
,560
,620

,500
,590
,570
,820
,370

. 600
. 450
. 630
. 670
,920

. 680
,040
,250
,530 1,440
,860 1,880
,870 1,470

,260 56,730 45,210
,299 1,630 1,615
,140 2,110 2,170

and 53

, WATER

1,400

1,570
1,660
1,410

940
1,160
1,290
1,650

2,040
1,830
1,690
1,980
2.010

2.200
2,870
2,820
2,380
2,210

1,810
2,060
1.920
1,970
2,110

2,040
2,260
2,480
2,610
2.640
2.610

59.967

2,870

. 300 112,500 89,670 118,900

MEAN 2,944 MAX 7,100
MEAN 1,851 MAX 3,590

MIN
MIN

discharge n
ject.

YEAR OCTOBER 1965

2.640

2.710
2.710

2,710

2,640
2,680
2,710

2,730
2.710
2,630
2.740
2.730

2.640
2.660
2,710
2,710
2,720

2,680
2.670
2.670
2.660
2,660

2,630
2,620
2,620
2.620
2,660

80, 310

2,760

2,650

2.620
2.600
2.600

2,590
2,560
2,580
2.600

3.060
3,280
2,920
2,590
2,600

2,580
2,940
3,230
3,160
2,960

3,160
3,160
3,160
3,150
2,850

2,540
2,550
2,750
2.340
1.760
2.090

84,960

3,280

159,300 166,500

666 AC-FT
24 AC-FT

2,132.
1.340.

ents furnished by

TO SEPTEMBER 1966

2,090

2,120
2,070
2,120

2,070
2.040
2,060
2,040

2.210
2,000
2,330
2.320
2.340

2.320
2,330
2,450
2,040
1.920

2,600
2,300
2,340
2,280
2,290

2,260
2,340
2,290
2,100
1.740

65,630 4

2,600

. 820

. 770
,760
,760

,760
,700
. 560
. 540

. 240
. 520
,450
,560
,560

,530
,360
,430
,640
,610

,540
,510
,410
,130
,520

,380
,370
,680
. 400
. 500
,350

,030
,549
,690
1,740 ,uv
130,200 95.270

000
000

Southern

1.370
1.400
1,760
1,560
1,650

1,200
1.030
1,230
1,290

1.180
1.200
1.110
1.070
1,110

1,290
1,290
1,210
1,270
1.070

665
1.130
1.210
1,290
1.330

1.010

1,120
710
976
915
1.040

37,148
1 , 196
1,760
710
73,660

Cali-

SEP

1,030
1,070
656
677
766

901
873
1.020
904
801

724
979
1,090
877
768

852
775
516
789
1,090

941
1,200
1,520
1,530
538

24
967
924
612
375

26,191
873

1,530
24
51,950

SAN JOAQUIN RIVER BASIN

11247000 SAN JOAQUIN RIVER BELOW KERCKHOFF POWERHOUSE, NEAR PRATHER, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
IB
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN

MIN
AC-FT

CAL YR
WTR YR

90
7B8
669
879
1,130

1,010

807
766
1,020

922
828
876
925
865

833
975

1,020
1,040
948

656
82
492
817
669

801
782
801
779
715

795
884
712
674
671

692

656
712

714
869
714
862
733

865
835

846
866

972
840
887

769

867
865
975
1,740
1.620

24,890 26,024
803
1,130
82

867
1.740
606
49,370 51,620

1966 TOTAL
1967 TOTAL

618
1.499

890
1.140
2.090
1,740
3.400

15.000

1.650
1.760

1.750
1,750
1,720
1.710
1.430

1,490
1,560

1.460
1.710

1.220
1.380
1,470

918

1.170
1.300
1.480
1.410
1.810
1.770

63.906
2.062
15.000
890

1.760
1,790
1,740
1,750
1,790

1.800

1,890
1,780

1,690
1,880
1,820
1,780
1,850

1,760
1.890

1.890
1.640

2,110
3,590
2,510

3,270

2,710
2,400
2,640
2.730
3.780
4,670

68,440
2,208
4.670
1,630
126,800 135.800

. 998 MEAN 1,696
,582 MEAN 4,108

DISCHARGE, IN CUBIC FEET

DAY

1
2
3
4
5

6
7

e
9
10

11
12
13
14
15

16
17
18
19
20

21
2Z

24
25

26
27
28
29
30
31

TOTAL
MEAN

MAX MIN
AC-FT

CAL YR
MTR YR

OCT

1,630
1,370
1,370
1,320
1,130

1,330
1,480
1,120
1,220
1,200

1,230
1,270
1,220
1,430
1,390

1,690
1,740
1,640
1,720
1,790

1,700
1,790

1,460
1,270

1.580
1,630
1,600
1,630
1,750
1,780

NOV

,720
. 750
. 570
. 480
. 530

,510
,310
. 140
. 200
. 450

. 550
. 140
. 500
. 600
. 210

. 350
. 490
. 540
. 600
. 580

. 650
,570

. 460
. 530

. 520
. 490
. 510
. 460
,730

45,720 44,770
1.475
1,790
1.120

,492
,750
. 140
90.690 88.600

1967 TOTAL
1968 TOTAL

1,524
569

DEC

1,550
1.600
1.510
1.550
1.700

1.570
1.520
1.600
1.680
1.590

1.700
1.670
1.630
1.630
1.620

1,670
1,710
1.770
1.870
1.820

1.690
1.660

1,520
1.450

1.560
1.570
1.580
1.490
1.330
1.270

49.560
1.599
1.870
1,270
98.300

810 MEAN
826 MEAN

JAN

1,220
1,420
1,510
1,570
1,200

1,260
1,230
1.170
1.320
1.340

1.550
1.480
1.210
1,020
1,090

1,090
1.200
1.300
1,250
1,100

1,210
725
1.060
1.090
1.080

1.150
1.190
1,090
672
1,090
1,400

37,287
1,203
1,570
672
73,960

4,178
1.557

3,820
3.650
3,590
3,590
3,580

3.560

3,520
3,500

3,500
3,520
3,500
3,500
3,520

3,520
3,520

3,500
3,500

3.480
3.500
3.480

3.580

3,560
3,520
3,520
....

99,050
3,536
3,820
3,440
196,500

MAX 15
MAX 15

3.520
3,520
3,520
3.500
3.500

3,460

3,470
3,110

2,510
3,360
4,790
4,270
3,800

6,920
4,930

3,990
3,890

3,880
3,950
4,010
4,150
3,990

4,090
3,890
3,990
4,230
4,050
4,220

120,760
3.895
6,920
2.340
239,500

000 MIN
,700 MIN

PER SECOND, WATER

FEB

1,260
1,100
742
861

1,090
1,100
1,160
1.150
1.180

1.090
902
1.400
1.400
1.400

1.470
1.610
1.960
1.520
1.740

1.740
2.560
2.530
2.340
2.290

2.240
2.460
2,520
2,550

. . . . . .

46,735
1.612
2.560
742
92.700

MAX 15.
MAX 2.

MAR

1,350
1,940
1.950
2,010

1.580
1,570
1,660
1.580
1.620

1.560
1.350
1.220
1.090
1,150

1,140
1,370
1.060
435
951

976
913
1,080
1,030
998

1.220
1.220
1.330
1.220
1.600
1.590

41,793
1,346
2,030
435
82,900

700 MIN
630 MIN

4,220 4,260
4,450 4,470
4.130 4.490
4,350 4,670
4,730 4,710

4,370 4,390

4,580 4,850
4,270 5,010

4,550 4,950
4,050 4,670
3,900 4,670
4,030 4,830
4,310 4,790

4,300 5,120
4,220 5,210

5,150 5,570
4,760 5,640

4,770 5,730
5,220 7,360
4,720 14,000
5,570 14,500
4,980 14.200

4.830 13,400
4,690 13,000
4,900 12,000
4,610 10,500
4,270 10,300
9,280

137,270 221,940
4,576 7,159
5,570 14,500
3,900 4,260
272,300 440,200

24 AC-FT 1,226.
82 AC-FT 2,974,

YEAR OCT06ER 1967

APR MAY

2.630 1,210
2,310 1.180
1.470 1.180
1,860 1.170

1.180 1,170
1,170 1,170
1,380 1,170
1,790 1,170

2,440 1,170
2,480 1,170
2,480 1,280
2,410 1,810
2.400 1.890

2.470 1.830
2.110 1.690
1.820 1.790
1.700 1,740
1,710 1,760

1,440 1,760
1,250 1,760
1,470 1,760
1,390 1,750
1,880 1,700

1,360 1,670
1,700 1,770
1,690 1.740
1,330 1,750
1,170 1,800
1,610

53,460 46,980
1,762 1,515
2.630 1,890
1.170 1,170
106.000 93. ISO

7.680
6.500
6.290
6.900
7,260

6,940

8,780
9,180

9,500
9,820
9,160
8,340
9,040

9,770
10,500

12,100
10,300

11,500
12,100
12,000
12,400
13,000

13,200
13.400
14.100
14,100
14.500

306.260
10.210
14.500
6.290
607.500

000
000

15,700
15,500
15,000
13,700
13,700

11,900

9,640
8,870

6,590
6,680
6.810
8.030
7,200

8,310
7,380

5,480
5.510

5,570
5.360
6.110
5.590
5.250

5.470
5.190
4,860
5,060
5,140
5,010

249,630
8,053

4,860
495,100

4.790
4.570
3.770
3,630
3,610

3,550
3,570
3,560
3,560

3.400
3.070
2.840
2,900
2,900

2,670
2,760

2,660
2,720

2,730
2,570
2,530
2,520
2,520

2,570
2,600
2,550
2,580
2,550
2,520

95,240
3,072

2,520
188,900

2,520
2.530
2,510
2,620
2,600

2,510
2,520
2,580
2,550

2,600
2,580
3,170
3,160
3,180

3.260
3,320

3.300
3,140

3,070
3,010
2,990
2,990
3,110

3,110
2,930
2,750
2,720
2,850

86,170
2.872

2,510
170,900

TO SEPTEMBER 1968

JUN

1.780
1.720
1.750
1.720
1.770

1.760
1.790
1.720
1.720

1.720
1.720
1.780
1.780
1.830

1.710
1.580
1,760
1,650
1,810

1,600
1,700
1.870
1.810
1,730

1.760
1.750
1.720
1.760
1,730

52,640
1,755
1,870
1,580
104,400

JUL

1.710
1.710
1.710
1.710
1.710

1.700
1.700
1.700
1.700

1.710
1.700
1.700
1.700
1.700

1.700
2.060
1.890
1.990
1.890

1.910
1.910
1.930
1.940
1.930

1,930
1,930
1,820
1.760
1.860
1.870

55,680
1.803
2.060
1.700
110.600

AUG

1,970
1,860
1,890
1,970
1,850

1,790
1,990
1,960
1,920

1.940
1.990
2.040
2.040
2.010

2.010
2,020
2,030
1,940
1,800

1,530
1,520
1,570
1.130
- 884

1.2BO
1.260
1,300
1,160
1,200
1,230

53,114
1,713
2,040
B84
105,400

SEP

680
883
1,260
984
1.280

1,500
1,760
1.040
1.060
1.460

1.480
1.660
1.510
1.710
1,490

1,700
1.420
1,700
1,510
1,540

1,540
1,210
1,270
1,410
1,500

1,430
1.450
1,420
1,540
1,490

41,887
1,396
1,760
680
83,080

1.120 AC-FT 3.024.000
435 AC-FT 1.130.000

SAN JOAQUIN RIVER BASIN

11247000 SAN JOAQUIN RIVER BELOW KERCKHOFF POWERHOUSE, NEAR PRATHER, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

1 1,350
2 1.130
3 814 1.
4 160 1.
5 262

6 170
7 1*3
8 345
9 285
10 304

11 236
12 173 1,
13 220
14 1.210
15 777 1.

16 436
17 548
18 478
19 472
20 460

21 410
22 3S7
23 304

25 307

26 288
27 270
28 217
29 305
30 267
31 265

TOTAL 13,307 22,
MEAN 429
MAX 1.350 1.
MIN 143
AC-FT 26,390 44,

CAL YR 1968 TOTAL
WTR YR 1969 TOTAL 1

948
72
100
700
907

448
515
800
617
712

808
180
823
561
410

825
755
742
982
892

696
B09
736
676
736

352
415
485
413
473

588
753
700
72
800

494,
. 774,

656
393
395
425
403

428
379
438
962
1,100

1,210
583
1.160
638
1,700

1,710
1,330
757
815
933

516
536
820
1,540
1,270

1,720
1,450
807
1,330
1,230

966
860
1,060

1,190

1,380
1,290
1,190
1,130
792

780
870
1.140
2,280
1.710

1.700
1.560
1.170
12,600
5.160

11.200
5.050
4,250
4,180
14.400

11.900
6,370
5,860
4,620
4,280

28,445 116.368
918
1.720
379

3.754
14,400
700
56.420 230,800

116 MEAN
318 MEAN

1.350
4,861

4,020
4,050
4.290

4.640

5,050
4,610
4,160
3,930
4,010

4,130
4,340
4.270
4,250
4,930

4,890
4.440
4,540
4,700
4,690

4,720
4,130
4,580
10,100
7,800

5,690
5,130
5,080
. . . . . .

135,370
4,835
10.100
3.930
268.500

MAX 2,
MAX 19,

5,710
5,040
4,990

4,060

4,100
4,290
4,220
4,340
4,420

4,250
4,280
4,190
3,950
3,810

3,800
3,780
3,830
3,840
3,810

4,120
3,470
3.920

3,950

4,080
4.440
4,700
4,680
4,960

132,380
4,270
5,710
3.470
262.600

630 MIN
800 MIN

4,890
4,640
5,140

5,900

5,570
5,270
5,210
5,050
4,980

4,880
5,150
5,000
5,100
4,930

4,770
4,890
4,910
4.820
4.930

5.220
5,280
5,080

4,920

4,610
4,680
4,790
5,470
8,120

153,920
5,131
8,120
4,610
305,300

8,610
8,960
8,610
7,800
7,380

8,810
11,300
12,300
13.200
13.900

13,500
14,800
14,600
13,900
13,000

13,000
13,800
14,200
13,900
13,000

13,200
13,600
15,900

17,000

16,800
16,800
16,500
16,400
17,600
17,800

416,970
13,450
17,800
7,380
827,100

72 AC-FT 980,
72 AC-FT 3,519,

19,300
19,300
19,800
18,700
17,800

17,600
16,200
15,700
13,800
11,800

9,680
9,400
10,300
11,800
12,300

12,600
12,000
9,450
9,260
10,300

10,100
10,600
11,500
10,000
10,400

9,040
8,320
7,680
7,140
7,100

368,970
12,300
19,800
7,100
731,900

100
000

7,460
7,640
7,380
7,040
7,080

7,040
6,840
6,500
6,560
6,840

7.310
7,350
7,750
8,520
7,310

6,900
6.920
6,670
6,580
6,850

7,030
7,270
7,400
5,850
6,300

5,390
4,770
4,490
4,190
4,060

203,350
6,560
8,520
4,060
403,300

4,170
4,110
4.040
3,930
3,810

3,850
3.550
3.050
2,930
2,870

2,890
2,890
2,910
3,220
2,520

2,860
2,970
2,750
2,680
2,600

2,700
2,680
2,680
2.700
2,670

2,710
2,680
2,690
2,670
2,650
2,710

94,140
3,037
4,170
2,520
186,700

2,700
2,690
2,540
2,790
2.680

2,660
2,590
2,710
2.650
3,110

3,130
3,120
3,140
3.140
3,100

3,100
3,090
3,120
3,120
3,110

3,140
3,120
3,040
2,970
2,960

3.020
2,980
2,960
2,980
3,050

88,510
2.950
3.140
2.540
175.600

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26

28
29
30
31

MEAN

MIN
AC-FT

1,500
994
1,140

795

881
521
104
552
485

514
485
1,330
1,390

1,350
1,720

813

1,520
1,480
1,190
1,380

1,180

1,200
1,740
1,730

1,120

104
68,860

1,240
1.520
1.320

1.020

1.550
1,740
1.740
1.730
1.270

1.310
1.210
1.540
1,380

1,350
1,240

1,180

1,500

1,460
1,750

1,880

1.340
1,190

1,454

1,020
86,500

1,250
1,720
1,660

1.780

1.290
1.030
1,190
1,200
1,350

1,720
1.720
1.720
1.140

1,720

1.630

1,720

1.720
1,730

1,730

1,370
1,700

1.561

1,030
95,980

1,690
,670
,150

,590

,610
,680
2,010
2,340
2,350

2,150
1,800
1.720
2.790

4,500

2,850

3.120

3,150
2,970

3,120

3,200
3,060
2,260

2.663

1.150
163,700

1.760
2,110
2,600

2,840

2,820
2,720
2,720
2,720
2,660

2,730
2,580
2,850
2,880

2,780

2,410

2,040

2.150
2.060

2,230

..... .
..... .

2.442

1,760
135,600

2,610
3,120
2,570

2,360

2,330
2,140
1,850
2,570
2,270

2,250
2,440
2.440
1.880

2,650

2,120

1,950

3,090
3,130

3,100

2,020
2,320
2,910

2,465

1,850
151,600

2,460
2,230
2,250

1,910

2,680
2,600
2,720
2,650
2,630

2,590
2,590
2,530
2,670

2,450

1,820

1,920

1,820
1.820

2,100

2,040
2,050

2,264

1,820
134,700

2.140
2.630
2,690
2,720
2,820

2,820
2,780
2,800
2,910
2,800

2,780
2,820
2,820
2,720

2,380

2,940

2,870

2,780
2,850

2,930

2,880
2,770
2,770

2,777

2,140
170,700

2,830
3,100
3,440
3,430
3,360

2,780
2,740
2,690
2,560
2,630

2,650
2,650
2,460
2,350

2,120
2,590
2,350

2,490

2,600
2,590

2,600

2,540
2,480

2,63?

2,120
156,600

2,480
2,470
2,580
2,420
2,470

2,490
2,580
2,580
2,570
2,570

2,580
2,540
2,600
2,570

2,520
2,560
2,420
2,190

2,170
2,260
2,040
1.910

1.860

1.930
1.920
1.980
2.030

72,340
2,334

1,850
143,500

1,950
1,930
1,950
2,010
2,020

1,990
1,990
1,980
1,860
2,040

2,200
2,150
2,210
2,200
1,880

1,730
1,730
1,720
1,690
1,600

1,600
1,600
1,600
1,610
1,600

1,610
1,610
1,610
1,640
1,410
1,030

55,750
1,798

1.030
110.600

1.820
1.590
1.490
1.480
1,560

944
1,230
1.780
1,730
1,660

1,680
1,420
1,460
1,570
1,600

1,650
1,710
1,670
1,180
1,260

1,550
1,600
1,390
1,770
1.570

1.220
1.000
1,710
1,450
1,300
. .. . ..

1.501
1.820
944
89,340

CAL YR 1969 TOTAL 1,836,692
WTR YR 1970 TOTAL 760,IBS

MIN 104
MIN 104

AC-FT 3,643.000
AC-FT 1,508,000

SAN JOAQUIN RIVER BASIN ;

11247200 BIG SANT1Y CREEK TRIBUTARY, NEAR TOLLHOUSE, CALIF.

LOCATION.--Lat 37°01'53", long 119°26'50", in SWINE'S sec.27, T.10 S., R.23 E., Fresno County, at culvert on Lod Road, 2.8 miles west of Tollhouse.

DRAINAGE AREA.--0.46 sq mi.

PERIOD OF RECORD.--Annual maximums, water years 1960-68. October 1968 to September 1970.

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet) for the water years 1966

Wtr yr
1966
1967
1968
1969
1970

70

Da
De
De
Fe
Ja
Jai

e

. 30,
6,
. 20,
. 25,
1. 16,

1965
1966
1968
1969
1970

Discharge
1.8
28
1.2
48
16

G.H.
3.17
5.35
3.07
7.40
4.38

Jan. 2

charge

REMARKS.--Records fair. No regulation or diversion above station. Rainfall data collected at tr available in files of the district office.

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

31

TOTAL
MEAN
MAX
MIN
AC-FT

WTR YR 1969 TOTAL 359.48 MEAN .71

0
0
0
0
0

0
0
0
0
0

0
0
0
. 06
. 34

. 09
. 01

. 01
. 26

. 70
. 26
. 26
. 10
. 04
. 03

. 071
. 70
0
4.4

. 02
. 02
. 02
. 02
. 02

. 01
. 01
. 01
. 01
. 01

. 01
. 01
1.2
1.3
. 46

. 30
. 22
2.8
13
3.8

11
3.9
1.0
2.6
12

6.6
2.1
1.6
1.0
. 80
. 58

2.14
13
. 01
132

. 46
. 38
. 30
. 30
2.5

3.9
1.6
1.2
1.0
. 90

. 80
. 90
. 70
. 70
1.4

1.0
. 80
1.9
2.3
1.7

1.0
1.0
4.1
16
11

6.7
3.9
5.9
. . . . . .

2.66
16
. 30
147

6.7
4.0
3.7
2.6
2.0

2.0
2.6
2.1
2.1
2.9

1.9
2.4
1.9
1.6
1.6

1.9
1.7
1.5
1.5
1.5

3.0
1.8
1.5
1.4
1.2

1.2
1.0
1.0
. 85
1.2
1.2

2.05
6.7
. 85
126

1.2
1.9
1.6
. 85
4.2

4.5
1.8
1.4
1.6
1.5

1.6
1.5
1.2
1.2
. 75

. 85
1.2
1.2
1.1
1.0

1.0
. 95
1.0
1.0
. 95

. 85
. 80
. 75
. 70
. 66

1.36
4.5
. 66
81

. 66
. 62
. 62
. 62
. 58

. 54
. 50
. 46
. 46
. 42

. 34
. 26
. 22
. 22
. 22

. 26
. 30
. 30
. 30
. 30

. 30
. 26
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. 22
. 22

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. 22
. 18
. 18
. 14
. 11

. 34
. 66
. 11
21

. 09
. 09
. 07
. 07
. 05

. 07
. 05
. 07
. 26
. IB

. 14
. 11
. 09
. 07
. 05

. 04
. 05
. 03
. 03
. 02

. 01
. 01
. 01
. 01
. 01

0
0
0
0
0

1 . 68
. 056
. 26
0
3.3

MIN 0 AC-FT 515

SAN JOAQUIN RIVER BASIN

11247200 BIG SANDY CREEK TRIBUTARY, NEAR TOLLHOUSE, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

OCT NOV DEC JAN FEB MAR APR MAY JUN JUL

31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR 1969 TOTAL 257.59 MEAN
WTR YR 1970 TOTAL 28.09 MEAN

0
0
0
0
0

0
0
0
0
0

0
0
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0
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0
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. 31

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.31
. 010
.31
0
. 6

0
0
0
0
0

0
0
0
0
.06

.03
0
0
.94
.64

7.2
1.1
.88
. 78
.67

. 59
. SO
.44
.42
.38

.35
.33
. 30
.24
. 16
. 14

16.15
. 52
7.2
0
3?

. 13
. 11
. 10
.09
. 08

.07
.06
.05
.05
.04

.04
.04
.06
. 15
. 12

. 10
. 12
. 11
.09
.08

.07
. 06
.06
.05
.04

.04
.02
. 38

_-.-_--

2.41
. 086
. 38
.02
4.8

1.1
1.1
. 53
.88
.97

.48
.44
.40
. 36
. 36

.2B
. 24
.24
.20
.20

. 16
. 16
. 12
. 12
.08

.08
.08
.0
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. 0
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.02

8.92
.29
1.1
.02
18

.02
.02
.02
.01
.01

.01
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,71 MAX 16 MIN 0 AC-FT 511 077 MAX 7.2 MIN 0 AC-FT 56

SAN JOAQUIN RIVER BASIN

11249500 MAHERA CANAL AT FRIANT, CALIF. (Formerly published as Friant-Madera Canal at Friant)

LOCATION.--Lat 37°00'10", long 119°42'21", in NtftSlft sec.5, T.ll S., R.21 E., Madera County
0.9 mile northeast of Friant.

PERIOD OF RECORD.--October 1943 to September 1970. Prior to October 1954, published as "ne

GAGE.--Discharge

AVERAGE DISCHARGE. --27 years, 278 c f s (201,400 acre-ft per year).

EXTREMES. --Period of record: Maximum daily discharge, 1,322 cfs June 27, 1964; no flow for many days in each year.

REMARKS. --Canal diverts from Millerton Lake (see station 11250100) at right end of Friant Dam for irrigation

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

REVISIONS (WATER YEARS) .--WSP 1151: 1944-48.

DISCHARGE. IN CUBIC FEET PER SECOND, W

DAY OCT NOV DEC JAN FEB MAR APR

31

TOTAL
MEAN
MAX

MIN
AC-FT 11,6

CAL YR 1965
WTR YR 1966

52B
484
483
485

478
473
446
429
426

402
299
295
170

,879
190
S28

102
152
153
1S3
153

153
154
126
110

109
134
164
176
176

175
193
202
228
243

201
264
299
251
231

231
269
338
363
423

502
526
524
522
541

551
549
569
579
577

608
623
621
638
659

216 664
201 662
201 660
687
750
775

TOTAL 169,435.00
TOTAL 113,041.00

MEAN 464
MEAN 310

4

8

MAX
MAX

,221
151
243
90
,370

1,277
1(280

15,657
505
775
201
31,060

MIN
MIN

rEAR OCTOBER

APR

763
732
719
695
598

565
S66
522
499
481

471
472
473
297
60

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

7,913 3
264
763
0
15,700 7

AC-FT 336,
AC-FT 224,

1965 TO SEPTEMBER 1966

MAY JUN JUL

5

11
16
22

359 1.170
359 1.130
359 1.110
359 1.080
238 1.100

267 1,140
358 1,180
622 ,190
792 ,160
840 .170

83B .170
676 .160
595 .160
680 ,150
775 ,140

817 ,130
864 ,130
957 .160
1.060 .190
1,140 ,210

1,250 ,210
1,280 ,200
1,190 .190
332 1,110 .190
411 1,050 .180

465 1.020 1.240
527 1.020 1,260
550 1,060 1,250
394 1,110 1,230
344 1,160 1,210
359 1,210

127 807 1,174
550 1.280 1.260
0 238 1.080
. 820 48.010 72.200

100
200

,200
. 170
. 140

624
416
400
373
375

371
367
364
361
358

356
354
352
349
347

343
339
396
424
418

412
407
404
133

14.823
478
1.200

SAN JOAQUIN RIVER BASIN

11249500 MADERA CANAL AT FRIANT, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
26
29
30
31

TOTAL
MEAN

MAX MIN
AC-FT

CAL YR
WTR YR

0
0
0
0
0

1966 TOTAL
1967 TOTAL

0
0
0
0
0

107,162,00
196,204.00

DISCHARGE,

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
2*
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

OCT

506
499
492
484
476

440
418

413 4oa
404

399
430
436
412
400

398
428
479
496
465

414
393
371
341
340

325
315
235
202
200
198

12.217
394
506
198
24,230

1967 TOTAL
1968 TOTAL

NOV

198
198
198
198
198

219
231
230
253
266

266
266
266
240
209

168
101
0
0
0

0
0
0
0
u

0
0
0
0
0

3.705
124
266
0
7,350

212,126.00
85.508.00

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
167

301
492
552
468
451

453
455
456
457
204
71

0 4,527
0 146
0 552
0 0
0 8,980

MEAN 294
MEAN 538

IN CUBIC FEET

DEC JAN

0 0
0 0
0 0
0 0
0 0

MEAN 581
MEAN 234

71
201
271
269
267

265
264
263
263
320

351
372
402
251
163

163
198
217
217
256

318
340
352
367
368

368
369
370

7,896
282
402
71
15.660

MAX 1,280
MAX 1,280

PER SECOND

FEB

0
0
0
0
0

0
0
30
62
76

188
248
193
342
438

308
216
215
214
250

446
510
323
230
250

259
454

1,040
1,130

7,442
257
1,130
0
14,760

MAX 1,280
MAX 1,130

308
283
284
285
286

287
287
351
387
387

360
282
182
115
100

80
55
47
47
75

110
207
255
256
162

110
131
198
256
274
274

6,721
217
387
47

13,330

MIN 0
MIN 0

, WATER

MAR

493
315
315
315
280

261
260
282
185
135

136
136
136
136
160

185
191
191
191
159

0
0
0
0
0

0
0
0
0
0
0

4,462
144
493
0
8.850

MIN 0
MIN 0

224
197
198
176
131

113
200
249
250
251

251
251
251
251
250

250
250
250
216
197

196
196
195
195
195

194
193
364
816
903

7,853 3
262
903
113

,030
,100
,110
,110
,100

. 130
,140
,150
,190
,190

,200
,190
,180
,160
,150

,160
,190
,190
,240
,260

. 270
. 260
. 260
. 270
. 270

,270
,270
,270
,230
,200
,200

,940 3
,192
,270
,030

,160
. 140

,130
,150
,150

,140
. 130
,120
,000
814

706
642
708
789
813

843
909
998
,040
,190

. 280
,280
,270
,270
,270

,270
,260
. 270
,270
,270

,282 3
,076
,280

,270
. 270
. 270
,260
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. 270
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. 280
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. 280
. 280
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,280
,280
,280
,270
,270
,270

,460 3
,273
,280
642 1.260

,280
,280
,270
,280
,2SO

,270
,270
,280
,280
,270

,260
,240
,230
. 240
,240

,240
,240
,240
,240
,240

. 250
. 260
. 270
,260
,250

,190
,160
,150
,120
,100
,090

,240
,234
,280
,090
15,580 73,270 64,030 78,270 75,850

AC-FT 212,600
AC-FT 389,200

YEAR OCTOBER 1967 TO

APR MAY

0
0
0
0
0

0
0
0
0
0

0
0
0
61
122

132
170
187
230
262

302
318
318
?75
252

252
252
251
?69
280

SEPTEMBER 1968

JUN JUL »UG

389 871 428
431 866 441
453 861 440
527 885 438
560 935 436

558 951 434
534 966 452
521 970 460
520 924 457
547 649 455

561 553 474
580 549 484
588 544 512
642 562 501
670 569 508

705 544 509
806 531 335
936 514 281
1.010 504 267
1,030 504 258

1,020 504 256
979 503 268
959 501 264
927 499 261
907 480 257

927 468 254
927 465 251
916 463 248
89? 426 237
876 406 229

0 4.213 21,898 19,370 11,324
0 136
0 318
0 0

73(1 625 365
1,030 970 512
389 403 229
0 8,360 43.430 38.420 22,460

AC-FT 420.800
AC-FT 169.600

1,080
1,050
1,030
980
948

940
967
978
931
902

839
766
746
707
684

679
675
642
622
618

614
617
573
546
543

540
527
517
514
510

22.285
743
1,080
510
44,200

SEP

227
226
224
200
0

0
0
0
0
0

0
0
0
0
0

0
0
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0
0

0
0
0
0
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n
0
0
0
0

877
29.2
227
0
1,740

SAN JOAQUIN RIVER BASIN

11249500 MADERA CANAL AT FRIANT, CALIF.--CONTINUED

DISCHARGE) IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1966 TO SEPTEMBER 1969

NOV DEC JAN FEB MAR APR MAY JUN JUL

5

6 0
7 17
8 22
9 20

9
<t
3
10 202

11 197
12 20
13 18
14 14

3
?
9
15 141

16 133
17 1*
IB 14
19 13

0 >

20 125

21 122
22 12
23 4
24
25

26
27
2B
29
30
31

TOTAL 2 f 64
MEAN 85.
MAX 22
MIN

AC-FT 5,24

I

0
0
0
o

CAL YR 196B TOTAL 72.230.00
WTR YR 1969 TOTAL 203.739.00

DISCHARGE. IN

DAY OCT NOV DEC

1 686 161 46
2 67«
3 662
4 63Z

162 58
172 58
183 54
5 616 183 55

6 615 167 55
7 581
6 560
9 556

136 55
116 55
111 46
10 524 123 40

11 503 130 4
12 486 141 4
13 478 157 4
14 333 115 4
15 273 68 4

16 191
17 120
18 91
19 77
20 77

21 8(
22 132
23 155
24 155
25 155

26 155
27 155
28 145
29 139
30 153
31 161

TOTAL 10,332
MEAN 333
MAX 688
MIN 77
AC-FT 20,490

55 82
55 101
55 86
56 78
56 59

56 48

56 37 56 30
65 30

67 31
65 31
52 31
46 31
46 31
31

2,967 1.518
98.9 49.0
183 101
46 30
5,890 3,010

MEAN 197
MEAN 558

CUBIC FEET

JAN

31
31
31
31
31

31
31
69
91
92

138
276
276
277
267

222
212
214
116
51

80
96
96

97

97
35
0
64
99
204

3,483
112
277
0
6,910

CAL YR 1969 TOTAL 215,912.00 MEAN 592 WTR YR 1970 TOTAL 150,466.00 MEAN 412

0
0
0
0
0

0
0
0
0
0

0
0
0
127
377

499
663
732
672
836

1,040
1,100
1,100
769
162

0
0
0

8,077
288

1,100
0
16,020

MAX 1,130
MAX 1,270

PER SECOND

FEB

253
237
228
259
415

505
511
509
508
506

505
504
504

503

524
550
574
583
581

601
611
647

776

964
1,030
534
. . . . . .
. . . . . .

15,140
541
1,030
228

131
403
500

495
490
484
494
487

478
505
515
717
800

628
825
798
827
872

6<tl
510
490

fc*l

408

13,677
441
872
0
27,130

MIN 0
MIN 0

, WATER

MAR

252
156
115
104
99

27
0
50
69
69

70
70
70

84

92
112
124
193
370

448
448

575

611
594
579
608
657
714

8,387
271
714
0
30,030 16.640

MAX 1,270
MAX 1,080

MIN 0
MIN 0

486
552
392
199
203

143
104
113
115
112

110
110
111
113
156

206
421
576
601
602

603
696
746
745
745

748
696
669
668
736

12,477
416
748
104
24,750

AC-FT
AC-FT

777
780
780
774
774

750
760
719
707
695

717
763
680
638
655

668
652
651
664
841

922
894
1.010
1.110
1.140

1.160
1,190
1,230
1,220
1,210
1,190

26,721
862
1,230
638
53,000

143,300
404,100

YEAR OCTOBER 1969

APR

734
798
814
789
780

779
801
790
755
724

682
665
665

639

583
524
491
483
496

517
538

531

523
556
601
589
574

19,136
638
814
483
37,960

AC-FT
AC-FT

MAY

561
554
555
584
623

636
618
608
609
609

619
625
575

563

571
571
603
673
715

773
773

783

830
853
854
807
755
738

20,714
668
B54
548
41,090

428,300
298,400

1,200
1,240
1,270
1,260
1,250

1,260
1,270
1,270
1,270
1,180

1,140
1,080
865
895
927

950
981
1,060
1,110
1,130

1.180
1,210
1,210
1.220
1,230

1,210
1,200
1,200
1,210
1,240

34,718
1,157
1,270
865
68,860

TO SEPTE

JUN

73R
794
92?
1,010
1,030

1,030
1,030
1,030
1,000
946

900
834
76\

733

797
860
901
889
898

989
1,060

1,080

1,070
977
89?
855
843

27,607
92n
1,080
714

54,760

1,260
1,260
1,270
1,270
1,270

1,260
1,250
1,250
1,250
1,260

1,260
1,260
1,260
1,270
1,260

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1,270
1,270
1,270

1.260
1.260
1.270
1,270
1,270

1,270
1,270
1.270
1,270
1,270
1,270

39,200
1,265
1,270
1,250
77,750

<BER 1970

JUL

810
814
825
824
823

852
910
949
955
952

949
916
897

891

887
884
881
876
921

961
978

969

957
962
998

1,040
1,050
1,020

28,565
921
1,050
810
56,660

1,270
1,270
1,270
1,270
1,270

1,270
1.270
1,270
1,260
1,260

1,250
1,240
1,230
1.230
1,230

1,210
1,190
1,210
1,220
1,230

1,230
1,210
1,190
1,180
1,180

1,200
1,200
1.200
1.190
1,180
1.170

38.050
1.227
1,270
1,170
75,470

AUG

993
949
410
394
372

359
342
411
451
447

399
371
367
363
335

319
315
311
334
343

355
358
353

343

321
308
304
301
298
294

13,168
393
993
294
24,140

1,160
1,080
1,040
1.080
1,050

1,050
l.OSO
,050
,080
,100

,070
,040
,030
,020
1,010

946
912
874
852
849

846
824
811
807
804

800
760
733
731
716

28,175
939

1,160
716
55,690

SEP

2Q2
157
0
0
n

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n
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n
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0
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n
0
0

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0
0
n
0

n

n

n
n
n

n

449
15.0
29?
n
891

SAN JOAQUIN RIVER BASIN

11250000 FRIANT-KERN CANAL AT FRIANT, CALIF,

long 119°42'11", in SEkSVft sec.S, T.ll S., R.21 E., Fresno County, at Friant Dam, tit.

PERIOD OF RECORD.--March 1949 to September 1970.

GAGE.--Discharge computed on basis of

0.2 mile downstream.

urns. July

to July 8, 1949, non-

AVERAGE DISCHARGE.--21 years, 1,300 cfs (941,800 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 4,564 cfs Apr. 17, 1962; no flow for several months in most years.

REMARKS.--Canal diverts from Millerton Lake (see station 11250100) at left end of Friant Dam for irrigation in upper San Joaquin Valley.

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

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

1
2
3
4
S

f,
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
2Z
23
24
25

26
27
28
29
30

,610 976
,470 1,010
1,510 965
,600 894
,610 632

,530 758
,480 756
,390 602
,250 603
,250 786

,250 760
,230 669
,210 626
,200 619
,140 591

,100 515
,150 507
981 475
914 432
971 427

968 435
920 453
885 448
917 402
973 340

,010 305
,040 353
,050 394
. 000 383
920 406

TOTAL 36,<><>8 18,164

MAX
MIN

, I ' O OU7

,610 1,010
885 305
AC-FT 72.290 36,030

CAL rR 1965 TOTAL 869,167
«TR rR 1966 TOTAL 537,627

474
479
4B4
488
469

395
364
364
370
363

361
362
351
342
345

Z69
93 1
80 1
81 2
107 3

103 3
80 3
52 3
0 3
0 3

2
2
2

*

6,916 41
223 1
486 3
0
13,720 82

. 00 MEAN
. 00 MEAN

0
0
0
0
0

0
0
0
0
0

0
0
301
382
829

932
,380
,820
,110
,150

,250
,310
,320
,110
,010

,990
,780
,620
,430
. 170
,930

,824
. 349
,320
0
,960

2,381
1,473

1,420
1,350
1,010
961
951

953
970
945
832
806

807
909
1,050
1,100
1,490

1,680
1,770
1,820
1.790
1,780

1,900
2,000
2,170
2,330
2,410

2,080
1,960
1,580
. . . . . .

40,844

2,410
806
81,010

MAX 4
MAX 3

1,290
1.350
1,410
1,460
1,460

1,600
1,760
1,940
2,170
2,560

2,790
2,790
2,950
3,110
3,210

3,200
3,190
3,160
2,960
2,920

2,980
3,000
2,970
2,880
2,690

2,460
2,490
2.500
2,530
2,560
2,180

76,5*0

3,210
1,290
151,800

,519 MIN
,530 MIN

1,610
1.550
1,600
1,700
1,650

1,290
1,170
1,010
689
971

1,090
1,110
1,030
954
994

1,130
1.430
1,600
1,620
1.640

1,580
1,440
1,150
801
855

867
871
845
768
724

36,139
1,205
1,810
724
71,680

0 AC-FT
0 AC-FT

630
921
938
953
957

,020
,170
,290
,360
,260

,140
,100
,030
811
640

698
769
878
929
896

852
992
1,140
1,180
1.220

1,230
1,300
1,490
1,700
1,830
1,880

34,404
1,110
1,880
640
68,240

1,724,
1,066.

1,900
1,870
1.750
1.510
1.090

1.210
1.710
1,960
1,880
1,910

2.370
2,690
2.980
3.190
3.430

3.530

3,430
3.080
2.600
2.620

2.570
3.500
2,350
2,320
2.510

2.710
2.980
3.250
3.410
3,370

74,680

3,530
1,090
148,100

000
000

3,230
2,980
2,410
2,510
2,550

2,520
2,530
2,530
2,580
2,940

3,150
2,860
2,740
2,740
2,640

2,440
2,500
2,610
2,730
2,790

2,410
2,150
2,010
2,140
2,360

2,470
2,600
2,620
2,370
2.030
1.660

78,820
2.543
3,230
1,660
156,300

1,670
1,640
1,680
1,650
1,710

1,790
2,030
2,360
2.580
2.680

2.640
2.560
2.260
1,900
1,820

1,800
1,800
1,800
1,780
1,890

2,130
2,460
2,610
2,650
2.580

2.330
1,570
1,510
1.590
1,540
1,400

62.410
2,013
2,680
1,400
123,800

1,220
990
,100
,450
,510

,570
,740
1,470
978
857

913
961
1,040
1,130
1,100

1,030
971
909
842
840

841
843
787
722
757

769
781
781
780
736

30,438
1,015
1,740
722
60,370

SAN JOAQUIN RIVER BASIN

11250000 FRIANT-KERN CANAL AT FRIANT, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

1
2
3
4
5

6
7
a
9
10

11
12
13
14
15

16
17
18
19
30

21
22
23
24
35

36
37
28
29
30
31

TOTAL MEAN
MAX MIN
AC-FT

CAL YR
WTR YR

693

716
751
750

731
667
604
617
644

640
603
605
577
552

555
558
541
538
532

516
498
495
495
497

508
517
519
521
531
540

18,177 6.

751
495

SZ5
513
503
465
442

476
477
352
252
254

256
258
260
175
85

71
150
203
305
182

46
0
0
0
0

0
0
5.0
42
0

197.0
207
525
0
36,050 12.290

1966 TOTAL
1967 TOTAL

500.
712,

0
0
0
0
0

0
0
0
0
0

0
121
182
61
0

145
249
250
251
219

62
0
42
32
6.0

100
258
977
1,130
1.560
2.220

7,865.0
254
2,220
0
15,600

473.00 MEAN 1.371
295.00 MEAN 1,951

DISCHARGE. IN CUBIC FEET

DAY

1
2
3
It
5

6
7
a
9
10

11
13
13
14
15

16
17
18
19
20

21
22
23
2*
35

36
27
28
39
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

OCT

3,530
3.580
3,510
3,590
3,580

3.440
2,970
2.340
2,310
2,210

2.130
2.060
1.600
1.530
1,500

2,050
2,270
2.300
2,310
1,880

1,520
1,540
1,540
1,520
1,450

1,400
1,350
1,310
1,340
1,420

NOV

,470
,380
,330
,200
. 180

,200
,200
,180
,140
,070

979
981
996
972
951

952
899
859
846
655

664
549
505
480
443

450
474
494
449
393
1,580

66.660 36.341
2.150
3,590
1,310

878
1,470
393
132,200 52,250

1967 TOTAL
1968 TOTAL

794,
487,

DEC JAN

375 505
359 501
353 511
358 520
362 504

325 458
306 476
292 531
283 591
287 621

290 690
285 693
282 695
285 615
325 595

687 754
688 806
665 861
637 912
502 938

491 ,010
473 ,070
476 ,100
479 ,180
493 ,240

501 ,290
505 .280
508 .280
510 ,250
513 ,220
515 ,170

13,410 25,867
433 834
688 1.290
282 458
26,600 51,310

332.00 MEAN 2.176
644.00 MEAN 1,332

2.350
2.450
2,550
2.600
2.530

2,640
3,140
3,270
3,360
3,460

3,080
2, BOO
2,640
2,290
2,000

3,730
3.350
3,230
3.140
2.690

2,640
2.740
2,770
2.670
2.760

2,250 i.eoo
1.910

77.060
2.752
3,730
1,800
1S2.800

MAX 3.
MAX 4.

1.440
1.440
1.430
1.490
1.600

1.710
1.820
1,930
1.950
1,930

1,910
2.110
2.330
2.240
1.980

2.120
3.240
3,820
3,710

3,530
3,530
3,060
2,510
2,520

2,540
2,590
2,660

2,550
2,810

74,880
2,415
3,820
1.430
148.500

530 MIN
510 MIN

PER SECOND. MATER

FEB

1.100
1.100
1.100
1.160
1.210

1.430
1.610
1.920
2,070
2.060

2,110
2.250
2.470
2.580
2,640

2,710
2.660
2.630
2.690
2.830

3,160
3,270
3,510
3.560
3.640

3.790
3,840
3,210
2,670

70.980
2.448
3.840
1.100
140.800

MAX 4.
MAX 3.

MAR

. 500
. 330
,430
. 530
,550

,590
,740
,520
,190
929

978
1.010
991
909
808

754
780
772
748
747

729
662
652
721
750

752
755
765
760
752
878

30,982
999
1.740
652
61,450

510 MIN
840 MIN

2,820
2.760
3.420
3.660
3.750

3,630
3.430
3.210
3,260
3.300

2.610
2.620
2.450
1.640
1,340

1,270
688
668
517

301
280
277
275
272

269
313
356
404
467

462
469
472
606
761

860

1,020
1.150
1.190

. 430
. 250
. 150
. 260
. 240

. 110
. 090
,100
,110
. 530

. 750
,990
,050
,240
,550

. 560
. 560
,810
,060

409 1,360 3,570
382
359
358
325

300
317
331

1.510
1.630
1.880

J.700
3.340

',760
1.940 3,010

1,780 3.200
1,630),300
1.630 3.380

326 1,590 3,230
1,530

50,912 29,494 70,090

3,750
300

1.940 3.700
269 ,090
101,000 58,500 139,000

0 AC-FT
0 AC-FT 1

992.700
. 413,000

YEAR OCTOBER 1967 TO

APR

928
755
705
783
740

704
734
753
803
877

908
843
788
920
1,000

1,010
1.030
1,010
917
846

887
937
950
952
939

856
798
801
829
879

MAY

955
. 000
961
950
,080

L.180
1,150
L.110
995

3.190

3.280
3.270
3,340

3,280
3,190
3.220
3.2RO
3,350

3.580
3.870
4,160
4.250
4.240

4.250
4.290
4.330
4,350

4,160
4,210
4,490
4,510
4,470

4,460
4,460
4,350

4,220
4,370

122.110

4,510
3.190
242.200

4,360 4,350

4.350 4,350
4,290 4,350
4,230 4,350

4,300 4.350
4.350
4.340
4.350

4,350
it. 350
4.350
4,340 4.350

4,350 4.350
4,340
4,350
4,340

4,350
4,360
4,350
4,340 4,260

4,340 4,110
4,340
4,330

it, 190
i>.260
4.330 4,120
4,350 3,910

4,350 3,560
4,360
4,360
4.350

3.450
3.330
3.410
4,350 3,500

4.330 3,600
4,340 3,700
4,360 3,690

4,350 3.430
4,350

134,520 120,990

4,360 4.360
4,230 3.330
266,800 240.000

SEPTEMBER 1968

JUN

,570
. 730
. 670

,630
. 800

. 780
. 620
. 560
. 710
817 2.060

722 2.230
793 Z
805 i
749 2

. 360
. 350
. 170
759 2.160

709 2,250
. 000 c

. 150]
. 270 2

. 150
. 850
,030
. 350 1.990

. 350 1

. 350]
,350 1
,300 1
,250]

,350 1
. 430 1
. 510

. 580]
,630]

. 700
. 520
,590
,660
. 720

,880
,920
. 860
. 730
,810

25,882 35,185 55,850
863
1,030
704

,135 1
,630 2
T09 1

,862
. 260
. 520
51,340 69,790 110,800

JUL

1.800
1.670
1.640
1.560
1.460

1.440
1.660
1,830
1,990
2,220

2,290
2.230
2.280
2.330
2.200

1.900
1.350
1.340
1.270
1.160

1.400
1.540
1.620
1.800
1.870

1.910
1.910
1.940
1.910
1,840
2.060

55.420
1.788
2.330
1.160
109,900

AUG

1.B30
1.680
1.560
1.680
1,880

2,000
2,100
2,130
1.740
1.630

1.620
1,600
1.460
1.380
1.300

1.130
1,010
1.220
1.440
1.700

1.850
2.000
1.920
1.740
1,810

1,930
1,870
1.760
1.460
1.110

SEP

984
. 020
. 070
. 100
. 090

. 010
915
,OBO
,260
,470

,500
,500
,460
,300
,110

963
928
883
900
861

812
856
882
889
899

865
761
711
739
738

50.511 30,556
1,629
2,130
971

,019
. 500
711
100,200 60,610

. 0 AC-FT 1,576.000
282 AC-FT 967,200

SAN JOAQUIN RIVER BASIN

11250000 FRIANT-KERN CANAL AT FRIANT, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1969

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
16
19
20

21
22
23
24
25

26
27
26
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
KTR YR

OCT

702
70S
686
554
481

485
479
473
467
462

415
375
371
220
103

104
90
85
73
60

185
61
61
61
77

90
161
229
279
221
172

8,990
290
708
60
17.830

1968 TOTAL
1969 TOTAL

NOV

223
165
152
137
105

53
0
0
0
0

0
0
0
0
0

0
0
0
60
0

0
0
0
0
0

61
0
0
0
0

1,016
33.9
223
0
2.030

392.663
545.727

DEC

0
0
33
50
50

56
60
60
60
61

61
54
50
51
51

24
0
0
0
39

58
56
59
59
60

60
61
62
62
62
63

1.424
45.9
63
0
2.830

MEAN
MEAN

JAN

63
63
64
64
64

65
59
56
56
57

19
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0
0

630
20.3
65
0
1,250

1.073
1,495

FEB

0
0
627
994
965

978
994

1,000
989
684

502
467
403
398
291

202
310
293
158
114

132
131
130
60
0

0
0
0

10.862
368
1.000
0
21.540

MAX 3.640
MAX 4,410

MAR

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
566
595

455
307
294
331
406

538
622
670
719
823
912

7,2ft2
234
912
0
14.360

MIN 0
MIN 0

APR

1.020
1.120
1.060
924
674

424
389
349
357
413

474
500
550
504
467

565
613
641
639
753

927
1.200
1,550
1,530
1.440

1.300
1.370
1.540

1,530
1.770

26.613
667
1,770
349
52.790

AC-FT
AC-FT 1

MAY

1.690
1.700
1.660
1.570
1.680

1.590
1.670
1,880
1.910
1,790

1,860
1.960
1.990
2,010
2.000

1,920
1.930
2.060
2,150
2,110

2.100
2.160
2,200
2.090
2.210

2,290
2.340
2.440
2.420
2.280
2,230

61.950
1.998
2,440
1,570
122,900

776,800
. 062.000

JUN

2,320
2,530
2.660
2.760
2.840

2.770
2,580
2.630
2,710
2,640

2,540
2,430
2,310
2.230
2.410

2,610
2,710
2.790
2,670
2.800

2,730
2.910
3.070
3,150
3.170

2.940
2.630
2.530
2,650
2.710

60,630
2,688
3,170
2,230
159.900

JUL AUG

2,750
2,930
3.010
2*640
2.700

2.690
3,170
3.360
3,450
3.560

4,030
3.650
4.010
4.260
4,320

4.360
4.400
4.240
4.020
3.860

4,350
4.400
4,410
4.410
4.370

4.340
4.330
4,230
4,210
4.300
4.290

119(690 13
3.861
4.410
2.700

. 270
. 260
. 290

(300
. 290

,290
,270
,250
,260
,280

. 260
,270
,290
,260
,230

,210
,260
,300
,280
,290

,260
,280
,300
,300
. 300

,290
. 290
. 280
. 960
,730
,670

. 110
,229
. 300
. 670
237.400 260.100

SEP

3.620
3.630
3.690
3.660
3.400

3,250
3,190
3.140
3,080
3,040

3.290
3,270
3.120
3,170
3,220

3,260
3,350
3,320
3,220
3.130

3.110
3,140
3,160
3,160
3,130

3,040
2,660
2.860
2.670
2,330

95,570
3,186
3,690
2.330
189.600

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

NOV DEC JAN FEB MAR APR MAY JUN JUL

1 ,700 951
2 .<
3 .<
4 ,

70 978
20 1,040
40 1,070
S ,140 1,330

6 .160 1.270
7 ,
8 ,
9 1.

50 1,060
40 951
20 955
10 1,030 917

11 911 732
12
13
14

i77 581
40 543
i06 529
15 807 532

16
17
18
19
20

21
22
23
24
25

26 1,
27 1,

79 561
73 579
05 535
06 500
07 544

30 903
51 90S
62 907
64 922
77 935

40 939
60 942

29 1,020 948
30 1,020 982
31 1,000 ------

TOTAL 29,645 25.487
MEAN 963 850

MIN 605 500
AC-FT 59,200 50,550

CAL YH 1969 TOTAL 609,126
WTH YH 1970 TOTAL 612,231

986
872
851
880
902

904
904
905 1
872 1
819 1

776 1
616
288
38
0

0
0
0
167
978

1,300
1,080
762
563
553

555
583

570
601
603

19,497 15
629

0
38.670 31

. 00 MEAN
. 00 MEAN

605
580
559
619
785

852
934
,060
,020
,030

. 030
709
649
686
634

153
89
161
162
226

266
245
229
230
275

323
358

389
388
313

. 934
514

89
. 610

1.669
1.677

350
387
588
734
1.660

1.670
1.660
2.000
2,460
2,730

2,660
2.540
2.530
2.520
2.590

2,650
2.710
2,870
3,080
3,160

3,330
3,510
3,630
3.600
3.320

3,090
2,850
2,570

67,489 3
2,410

350

,620 1,930
,100 1,940
603 1.930
831 1,940
813 2,050

707 2.120
679 2.160
702
705
725

742
744
747
764
878

979
. 120
. 240
. 260
. 260

,270
,360
,480
,760
,780

. 760
. 650

,160
. 930
. 530

. 500
. 610
,610
,500
. 470

. 400
. 310
. 320
,470
,630

,700
,720
,680
. 520
. 300

,210
. 150

,730 885
,840 832
,870

,699 47,527

679 832

MAX 4,410 MIN o AC-FT
MAX 3,960 MIN 0 AC-FT

846
915
1.090
1.410
1.590

1.680
1.660
1.570
1.410
1,290

1,290
1,300
1.300
1,330
1,360

1.470
1.740
1,860
1,890
2,060

2,180
2,060
1,780
1,610
1.650

1,700
1,700
1,660
1,620
1,660
1,890

46,571

846

1,208,
1,214.

2.160

2,370
2,610
2,730
2.620

2,560
2,630
3,020
3.010
2.690

2.740
2.490
2.350
2.350
2.370

2,450
2,530
2,540
2,460
2,350

2,450
2,790
2,960
3,140
3,120

2,950
2,700
2,770
2,760
2,660

79.770

2,160
158,200

000
000

2,470
2.160
2.000
1.910
2.070

2,360
2,590
2.790
2.930
2,750

2,720
2.770
2.940

2(960
3.040

3.040
2.910
2.970
3,170
3,370

3,660
3,950
3.950
3,900
3.550

3.580
3.740
3,780
3.800
3,780
3,640

95,310

1,910
189,000

3,470
3,560
3,730
3(840
3(890

3(840
3.620
3.340
3.450
3.560

3,750
3,920
3,960
3,640
3,600

3(540
3(660
3(880
3,930
3,920

3,740
3(210
3(030
3(060
3,070

2,980
2.800
2.540

2(060
2.020
1.960

104.830
3.382

1.960
207.900

1.900
1.930
1.890

1(600
1(060

1(100
1(120
1(170
1(320
1.460

1,460
1,460
1,540
1.640
1,720

1,700
1,620
1,460
1.220
1.320

1,360
1,350
1,310
1.210
1.080

919
993
1,080
1.120
1.120

41,272
1,376
1,930
919
81,860

SAN JOAQUIN RIVER BASIN

11250100 MILLERTON LAKE AT FRIANT, CALIF.

DRAINAGE AREA.--1,638 sq mi (revised).

PERIOD OF RECORD.--October 1941 to September 1970. Monthend contents only for
WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Bur
May 29, 1944, nonrecording gage on left bank at present datum.

periods, published

of Reclamation). Pr

tXIKEMbS.--Maximums and minimuras (contents in acre-teet, elevation in feet) tor the water years 1966-70 are contained in the following table:

Maximum Minimum
Wtr yr Date Contents Elevation Date Contents Elevation
1966 May 28, 1966 480,700 569.69 Oct. 14, 1965 151,300 475.65
1967 Apr. 11, 1967 524,100 578.72 Oct. 2, 1966 160,000 479.29
1968 May 19-21, 25, 26, 1968 288,900 522.76 Sept. 4, 5, 1968 149,200 474.76
1969 July 25, 1969 520,300 577.96 Apr. 11, 1969 133,600 467.81
1970 May 30, 31, 1970 465,200 566.36 Sept. 4, 20, 1970 165,400 481.49

Period of record: Maximum contents, 528,200 acre-ft June 20, 1963 (elevation, 579.56 ft); minimum since
lake first filled, 133,600 acre-ft Apr. 11, 1969 (elevation, 467.81 ft).

REMARKS. --Lake is formed by a gravity-type concrete dam with spillway near center, completed in December 1942. Control valves installed in February 1944 and spillway gates installed in November 1947. Usable capacity, 503,200 acre-ft between elevations 375.4 (invert of river outlet) and 578.0 ft (top of drum-type spillway
gates) above mean sea level. Not available for release, 17,400 acre-ft. Millerton Lake is one of the storage

COOPERATION. --Records f

Capacity

460
480
500

urnished by Bureau

table, water year

117,500
161 ,700
215,600

of Reclamation,

s 1966-70 (elevation, in feet, and c<

520 279,400
540 353,000
560 436,500

CONTENTS, IN ACRE-FEET. AT 2400

DAY

1
2
3
4

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
33
24
25

26
27
38
29
30
31

MAX
MIN

(t)
(t)
(tt)

OCT

165.100
164,300
162,600
161,100
160.200

156,400
157,300
156,100
155,100
154,000

153,000
152,100
151.500
151.300
151,400

152,100
152,600
152,600
154,000
154,900

156,400
157,600
158,600
159,500
160,300

161,400
162,700
163,600
165,000
166,400
167,100

167,100
151,300
482,170
+1,000
1,150

NOV

167,600
168,800
169,800
170,900
172.500

174,000
173,700
174,700
175,700
176,700

177,600
178.900
160.400
182.500
184,600

165,900
189,100
191,600
195,200
197,900

301,000
204,300
209,600
216,100
219,800

224,400
226.100
231.200
334.400
237.600

237.600
167.600
507,260
+70,500
490

X 445,700

DEC

240,600
243,600
246,500
249,100
252,000

255,000
259,400
263.700
268,000
272,300

276,800
281.000
285.200
289,400
293,600

298,200
303.300
309.200
313.600
317.800

322,600
327,200
331,900
334,800
337,700

340,600
343,600
347,900
353,800
360,100
364,700

364.700
240,600
542,960
+127,100
190

MIN 151,

JAN

368,800
372,300
376,400
360,900
364,900

366,600
392,700
396.700
400,700
404.700

408.700
412,700
416,100
419,300
421,200

422,500
423,600
423,900
423,500
421,300

418,900
416,100
413.000
410.300
407,500

405,600
403,500
401,200
399,200
399,100
396.300

423,900
368,800
551,170
+33,600
470

300 t +

FEB

396,500
399,100
400,400
401,800
402,300

404,900
406,500
407.800
409,300
410,900

412,900
413.700
414,600
415,500
415,700

415,100
414,500
413,700
413,600
412,400

411.500
410,000
406,600
407,400
406, ?00

405,100
403,000
401,800

415,700
398,500
551,990
+3,500
690

59,800

Dntents ,

580

in acre-fi

530,400

eet)

. WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

MAR

401.700
401.600
401,500
401,400
400,900

398,500
396,300
394,100
391,500
366,800

366,300
363,300
379,700
376,400
372,900

369,800
366,100
366,100
363,600
361,300

357,600
354,500

347,600
345,200

343,000
341.200
339.900
338,500
337,000
336.200

401.600
336.200
535,670
- 65,600
1,380

APR

336.100
336,600
337.100
337.400
336.000

339,200
340,700
342,600
344,800
347.300

349,300
351,100
353,000
355,500
356,600

361,400
363,400
365,300
367,100
366,800

370,600
372,800

378,600
361,600

365,000
368.300
391.400
394.700
398.100

396,100
336,100
551,110
+61,900
2,390

MAY

401,200
404,300
407,100
409,900
412,900

415,700
418.000
420,100
422,230
424, SOO

428, ?00
432,100
435,600
436,800
442,300

445,700
449,700
453,900
456,100
461,800

465,800
469,300

475,300
477,400

478,700
479,700
460,700
480,600
479,300
478,700

480,700
401, ?00
569,260
+80,600
3,660

JUN

477,900
477,200
476.800
476,900
478,200

478,900
478.400
476,900
475,200
473,700

471.400
466,400
465.600
462,300
458,200

453,900
449.600
446.300
442,600
439,000

436,300
432,900

427,700
434,900

421,600
416,200
413,900
409,100
403,400

478,900
403.400
552,380
- 75,300
4,280

JUL

396.100
393.600
369.800
365.900
382.000

377.800
373.500
368,900
364,300
359,500

353,200
346,000
342,900
336,100
333,500

329,300
324,600
319.800
314.900
310.000

305,700
301,600

393,700
269,400

264.600
279,700
275.000
270.500
266.700
363,600

398,100
263,600
515,320
- 139,800
3,540

AUC

260,400
257,400
254,900
252,100
249,300

246,900
243.800
240,400
236,800
233,200

229,700
226,200
223,200
220,600
216,300

216.500
214,500
312,500
210,300
207.700

204,100
200,500
196.600
193,000
189.600

186,000
164,300
181,600
179,800
178,300
177,100

260,400
177,100
486,100
- 86,500
2,820

SEP

176,500
176,400
175,600
173,900
172,000

170,400
168,400
167,600
167,000
166,600

166.000
165.600
165.600
164,900
163.600

163,200
162,600
161,800
161.500
161.500

161,700
161,900
163,000
164,500
164,200

162.500
162,400
162,400
162,200
161.500

176,500
161.500
479,920
- 15,600
1,450

WTR YR 1966 MAX 480,700 MIN 151,300 t -4,600

t ELEVATION, IN FEET, AT END OF MONTH.
t CHANGE IN CONTENTS, IN ACRE-FEET.
tt EVAPORATION, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11250100 MILLERTON LAKE AT FRIANT, CALIF.--CONTINUED

CONTENTS! IN ACRE-FEET. AT 2*00. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

1
2
3
4
5

6
7
8
9
10

11
12
13
1*
15

16
17
18
19
20

21
22
23
2*
25

26
27
28
29
30
31

MAX
MlN

(t)
(*)
(tt)

CAL

t
t

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
2ft
25

26
27
28
29
30
31

MAX
MlN

(t)
(*)
(ft)

CAL
WTR

160,100 168.400
160,000 168,900
160,100 169,000
160,200 169,700
160,600 169,900

160,900 170,200
161, 400 171,100
161,500 171,500
161,700 172.400
162,300 173,300

162,600 174,000
162,700 175,100
163,200 175,800
163,500 177,000
163,800 178,100

16ft, 100 179,500
164,700 180,800
165,400 181,600
166,200 182,800
166,800 183,900

166.900 185,700
166,000 187,300
165,700 189,100
166,100 190,100
166,400 191,600

167.000 194,500
167,300 196,300
167,700 199,500
167,800 202,700

168,000 202,700
160,000 168,400
482, 540 495,500
4-6,500 4-34,700 +

YR 1966 MAX 480,700

ELEVATION, IN FEET, A
CHANGE IN CONTENTS, I

OCT NOV

234,900 172,400
229,600 172,600
224,400 172,500
219,000 172,400
213,300 172,600

208.100 172.600
204.400 172.300
200,900 171.700
197,800 171,100
194,900 171,100

192,200 171,500
189,600 171,300
188,000 171,500
186,600 172,100
185,400 172,100

183,900 172,300
182,000 173.100
179.700 174,400
177.500 175.700
176,100 177.300

175,500 179,100
175,000 180,900
173,800 182,900
173,500 184,600
173,000 186,600

172,900 188,500
172.700 190,400
172,600 192,200
172,600 194,100
172,600 196,700
172,400 -

234,900 196,700
172,400 171,100
484,250 493,360
- 67,100 +24,300
1,040 440

YR 1967 MAX 524,100
YR 1968 MAX 288,900

204,100
206,600
210,700
214,100
221,600

258.200
265.800
269.000
272.500
275,900

279,200
282,500
235,900
289,300
292,000

294,800
297,900
300,300
303.300
306,600

308,900
311,500
314,200
316,400
318,100

322,600
325,400
328,100
331,400

334,700
204,100
535,290
132,000 +

MIN 160,
MIN 160,

T END OF
N ACRE-FE
- FEET.

DEC

198,900
201.100
203,200
205.400
208.100

210,400
212,600
215,000
217,800
220,200

222,800
225,400
227,900
230,400
232,800

234,500
236,400
238,400
240,600
243,100

245,400
247,600
249,500
251,400
253,300

255,300
257,200
259,200
261,000
262,500
263,900

263,900
198,900
515,430
+67,200
270

MIN 171,
MIN 117,

338,000
341,300
344,600
348,000
351,500

354,800
358,100
361,800
365,100
368,200

371,400
374,700
377,800
381,100
384,500

387,600
390,600
393,500
396,400
399.300

402,700
409,000
412,800
416,700
422,700

430,300
432,700
435,400
440,300

440,300
338,000
560,720
105,000

000 t

000 }

MONTH.
ET.

JAN

265.300
266,900
268,700
270,700
271,900

273.400
274,800
275,800
277,300
278,700

280,300
281,700
282,700
283,400
284,200

284,900
285,600
286,200
286,700
287,000

287,200
286,600
286,300
286,000
285,600

285,200
284,900
284,400
283,100
282,90
283,20

287,20
265.30

521,13
+19,300
310

100 t
900 t

432.900
425,000
416,800
409.100
403,300

398,900
395,800
395,000
394,700
394,200

394,200
394,800
395,500
397,000
399,400

398,600
398.300
398,400
398,600
399.400

400,400
401.000
401,600
402,300
403,300

407,400
409,700

432,900
394,200
553,840
- 30,000

- 30,000
+78,000

FES

283,800
284,100
283,900
283,100
282,400

281,700
280,500
278,900
276,900
275,000

272,500
269,200
266.600
263,500
260.200

257,100
254,800
253,100
250.400
247,800

244,100
241,800
239,200
236,500
233,500

230,100
226,700
223,300
220,800

284,100
220,800
501,750
- 62,400
330

- 70,800
- 73,900

412,900
416.200
419,500
422,700
425,600

428,300
430,700
432,900
434,200
434,100

434,800
438,000
444,200
448,900
452,600

463,700
468,000
469,300
469,800
470,100

470,600
470,900
472.300
474,800
477,200

482.200
484,500
487,000
489,600

492,200
412,900
572,120
+82,500
1,070

MAR

220,900
220,300
220,600
220,600
220,900

220,300
219,400
219,200
219,500
220.600

221.400
221,700
222,100
222,100
222,400

222,900
223,700
224,000
223,000
222,900

223,500
223,800
224,700
225,100
225,500

226,400
227,200
228,300
229,200
230,800
232.100

232.100
219,200
505,460
+11,300
760

494,800
498,100
499,400
501,400
504,600

506,800
512,800
516,300
518,700
521,200

524,100
522,700
521,500
519,700
519,500

518,600
517,900
520,400
520,900
516,800

513,000
511,100
506,500
505,600
501,300

496,200
490,300
484,200
476,300
467,800

524,100
467,800
566,920
- 23,800
1,210

APR

233,100
236,800
239,900
241,100
243,200

244,500
245,300
246,100
247,100
248,700

251,600
254,600
257,700
260,400
263,100

265,700
267,700
269,000
270,400
271,800

272,800
273,200
273,900
274.500
275,900

276,600
277,800
279,000
279,500
279,600

279,600
233,100
520,090
+47,500
1,400

458.600
449,600
440,700
432,200
423,700

414,500
405,300
396,800
388,400
381,200

372,700
363,400
354,100
344,900
335,300

326,200
316.900
307.700
298,800
290,000

280,900
274,600
282,500
291,300
299,000

305, ?00
310,900
314,200
314,600
314.800

308,500
301,400
294,200
288,000
282,600

277,100
272,600
270,600
269,900
269,600

270,400
271,500
271,900
270,200
269,800

271,100
274,100
278.300
284,600
286,500

291,000
297,500
304,000
313,700
325.400

337,300
349,900
363,200
377,200
392,100

410,900
429.400
446,400
459.000
470,400

477,600
483,200
486,300
489,600
492,900

495,300
498,200
501,400
506,600
510,400

516,500
520,500
521,600
521,400
521,400

521,800
521,500
522.100
521,700
520,700

520,100
519,200
517,500
516,900
516,300

458.600 392.100 522,100
274.600 269.600 410.900
529,500 549,680 576,880
- 154,700 +79,000 +122,900
1,810 2,120 4,080

ER 1967 TO SEPTEMBER 1968

MAY JUN JUL

279.700
279,900
280.100
280,300
280,300

280,100
279,800
279,700
279,900
280,400

281,000
281,600
282,300
284,000
285,600

287,500
288,100
288,800
288,900
288,900

288,900
288,800
288,700
288,800
288,900

288,900
288,800
288,600
288,200
287,800
287,100

288,900
279,700
522,240
+7,500
2,150

286,500
285,400
284,200
283,000
281,500

279,900
278,700
277,800
276,500
274,300

271,900
269,400
267,000
264,600
262,300

259,600
256,500
254,100
251,700
249,100

247,100
245,200
243,500
241,800
239,700

237,500
235.000
232.600
230,500
228,300

286,500
228,300
504,240
- 58,800
2,700

226,100
224,100
222,200
220,400
218,600

216,900
214,700
212,200
209.400
206,800

204,200
201,800
199,200
196,600
194,200

192,400
192,200
192,000
192,000
192,100

191,800
191,100
190,200
189,100
187,800

186,500
185,200
183,900
182,300
181,200
179,600

226,100
179,600
487,050
- 48,700
2,520

513,500
511.600
507.700
503.400
499,300

495,000
490,400
485,900
481,200
476,800

472,100
466,700
460,900
455,400
449,800

443,900
438,200
432,600
426,700
420,900

415,200
409,100
402,900
396,600
390,600

384,500
378,700
372,800
367,100
361,200

513.500
355,500
540,640
- 159,500
3,620

AUG

178,700
117,900
177,400
176,600
175,500

174.300
172,600
171,000
170,200
169,600

168,900
168,300
168,100
168,000
167,900

168,300
169,200
169,800
169,900
169,400

167,900
166,200
164,700
162.800
160,200

158,200
156,300
154,700
153,400
152.800
152,600

178,700
117,900
476,190
- 27,000
1,820

349,900
344,200
338,400
332,900
327,500

322,100
316,700
311,400
306.000
300.600

295,600
290,700
286,800
283,000
279,400

276,100
273,000
270,00
267,00
264,10

261,60
259,10
257,100
254,800
252,700

250,400
247,800
244.900
242,100
239,500

349,900
239,500
507,860
- 116,000
1,930

SEP

151,300
150,300
149,900
149,200
149,200

150,000
151,400
151,100
150,600
150,200

150,000
150,100
150,100
150,600
151.200

152,300
153,000
154,200
155,200
156,300

157,400
157,900
158,400
159,100
160,000

160,800
161.800
163,000
164,400
165,600

165,600
149,200
481,580
+13,000
1,410

t ELEVATION, IN FEET, AT END OF MONTH. t CHANGE IN CONTENTS, IN ACRE-FEET. tt EVAPORATION, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11250100 MILLERTON LAKE AT FRIANT, CALIF.--CONTINUED

CONTENTS. IN ACRE-FEET. AT 3*00, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

1
2
3
4
5

6
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11
12
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16

17ie
19
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24
25

26
27
28
29
30
31

MAX
MIN

(t)
(t)
(tt)

WTR

t
t
tt

DAY

i
2
3
4
5

6
7
8
9
10

11
12
13
14
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16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MAX
MIN

(t)
(*)
fttl

166.700
167.300

166.700
166.000

165.200
164.000
162.900
162,000
161,100

160,300
159,400
158,700
160,100
161,200

161,200
161,700
162,000
162,400
162,700

163,000
163,200
163,700
164,000
164,500

164.700
164.800
164,600
164,600
164,600
164,400

167,600
158.700

481,080
- 1,200
740

YR 1969 MAX

165,800 204,500
165,400 205,100

169,900 206,300
171,400 206,900

172,000 207.500
172.900 208.100
174.300 208,700
175,400 210,500
176,600 212,300

178.100 214,500
160,300 215,600
182,000 217.400
182.900 218,800
165,600 222,200

188,500 226,200
169,800 229,600
191,400 231,100
193.100 232,800

194,300 233,600
195,900 234,400
197,200 235,600
198,400 238,800
199,700 241,300

200,200 245,000
200,900 247,800
201,700 249,200
202,500 251,600
203,100 253,900
255,300

203,100 255,300
165,400 204,500
495,660 512,800
+38,700 +52,200
270 230

288,900 MIN 117
520,300 MIN 133

CHANGE IN CONTENTS, IN ACRE-F
EVAPORATION, IN ACRE-FEET.

OCT

268,200
266,200
264,400
262,500
260,400

258,700
256,100
252.700
250,400
248.100

246,200
244.300
243.900
244,300
244,500

245,100
246,600
247,900
247,900
246,200

249,600
250,800
251,600
251,500
251,900

251,800
251,800
252,200
252,100
253,000
253,900

266,200
2*3,900
512,370
- 16,100
1,020

CONTENTS, IN

NOV DEC

254,000 279,100
254,600 280,500
254,700 281,800
254,600 283,300
253,800 284,700

254,000 285,200
254,600 285,200
256,000 265,500
257,100 266,000
257,400 286,700

256,100 286.300
258,800 290,300
260,400 292,800
261,700 294,700
263,600 297,000

264.900 300,100
266,000 303,000
267.000 306.100
268,000 308,900
269,600 309,500

270,600 310,100
271.600 311.100
272,100 312,700
272,700 314,700

275,600 319,200
276,900 321,200

276,800 324,100
278.900 325,900
. 327,600

278,900 327,800
253.600 279.100

519,860 533,460
+25,000 +48,900
540 360

257.100
258,600

261,700
263,900

266,300
268,600
270,800
272,700
274,200

275,600
277,300
280,500
286,200
289,700

296,100
299,200
333,500
346,600

377,700
390,200
399,000
406,300
438,400

460,600
468,500
471,500
466,000
463,300
459,100

452,800
446,300
438,800
430,200
423,400

419,300
412,900
404,900
396,200
388,400

380,800
374,000
366,900
360,000
355,300

343,500
338,100
334,200
329,400

324,700
318,800
315,000
339,300
353.600

358.200
359,000
359.700

471.500 452,800
257,100 315,000
565,020 541,720
+203,800 -99,400
330 470

,900 t -8,600
,600 t +104,400

MONTH.
EET.

ACRE-FEET

JAN

329,600
331,500
332.400
333,800
335,100

336,400
337,600
339,200
341,400
343,700

345,800
347,200
346,600
352.600
356,000

373.200
362,800
386,200
393,400
398,900

404,100
409,400
414,200
416,000

424,800
429, BOO

439,200
443,100
445,600

445,600
329.600

562,040
+117,800
400

> AT 2400

FE8

446.800
448.800
450,100
450,000
447,500

444,700
441,800
438.300
434.200
431.200

429.900
428.800
426,400
428,100
426,100

424,800
424,000
422,600
420,000
416,300

412,800
408,600
404,100
399,800

392,000
3B8.600

.

450,100
387,200
548,500
- 58,400

362.000
360.300
358.400
354,700
349,200

343,200
336,700
329.600
322,500
317,200

310.400
303,200
296,100
288,000
279,300

261,500
252,500
242,000
231,500

222,500
212,000
202,000
191,800
181,500

171.600
163,600
158,500
154,100
150,200
145,500

362,000
145,500
473,160
- 214,200
750

, WATER

MAR

389.600
394,700
398,200
401,800
405,200

408,500
411,500
413,600
417,300
420,200

422,900
426,100
429,200
431,200
433,300

435,700
438,300
441,000
442,100
444,900

446,000
446,100
447,100
448.500

451.100
451.300

449.400
448.600
446.900

451.300
389.600

562,780
+61,700

140,300
136,500
136,300
136,100
139,800

143,000
142,300
140,500
137,000
134,400

133,600
134,900
136,000
136,900
136,500

135,500
135,200
135,300
135,400
135,500

135,900
136,000
135,900
135,800
136,100

136,400
136,400
136,100
136.000
137.600

143.000
133.600

469,640
- 7,900
740

137,800
138,200
137,800
136,800
137,700

145,900
151,400
156, SOO
163,200
171,700

179,200
189,300
199,300
207,900
214,300

220,100
227,500
235,800
243,300
246,400

254,100
261,300
273,000
265,900
299,400

312,600
325,600
337,600
349,400
363,700
378,600

378,600
136,800
546,410
+241,000
1,840

YEAR OCTOBER 1969

APR

448.200
446.900
445.800
444.100
442.100

441,400
440,400
439,700
439,300
439,800

440,300
440,700
441,000
441,600
442,400

443,500
444,400
444,500
443,600
443,400

442,500
441,600
440,600
439.900

439,800
440,500

442,200
443,000

446,200
439,300
561,460
- 5,900

MAY

444,200
446,300
448,100
449,200
450,100

450,700
451,300
452,200
453,500
454,900

456,200
457,600
459,100
460,500
461,900

462,700
462,400
462,800
463,100
463,000

462,600
462,300
462,400
462,800

463,700
464,000

464,800
465,200
465,200

465,200
444,200
566,360
+22,200

396,800
413,000
428,600
439,300
446,500

451,600
454,800
456,700
453, 800
447,000

436,900
428,700
424,900
424,900
425,700

426,700
426,300
420,800
415,300
413.600

414,300
417,100
423, 600
431,300
439,500

446,000
451,200
455,600
458,300
460,900

460,900
396,800
565,410
+82,300
2,890

464,000
467,200
469,800
471.900
474,300

476,200
477,600
478,700
480,500
482,500

484,800
487,600
490,900
495.200
497.300

498.000
499.000
501.000
503.400
506,900

509, BOO
513,200
516,600
519,000
520,300

519.800
517.900
515.600
512,600
509,200
505,800

520,300
464,000
574,980
+44,900
3,960

502,700
499,400
495.900
492.000
487,900

483.800
479.400
474.100
468.500
462,900

457,300
451,800
446.200
441,300
435,400

430,200
424,900
419,100
413,400
407,300

401,500
395,700
389.900
384.300
378,600

372,900
367,200
361,600
356,500
351,900
347,500

502,700
347,500
538,610
- 158,300
3,430

343,200
339,000
334,600
330,600
326,900

323,400
320,000
316.900
313.900
311,500

308,900
306,200
303,800
301,500
299,000

296,500
293,900
291,500
289,300
287,300

285,300
283,400
281,200
278,900
276,700

274,800
273,200
271,600
270,500
270,000

343,200
270,000
517,250
- 77,500
2,050

TO SEPTEMBER 1970

JUN

464,600
464,100
463,500
462,500
461,600

459,600
457,300
454,600
451,300
448,700

446,400
444,800
443,100
441,300
439,600

437,900
435.200
433,200
431,000
429,300

427,200
424,500
421,500
418,100
414,600

411,600
408,500
405,600
403,200
400,900

464,600
400,900
551,780
- 64,300

JUL

399,100
397,700
396,900
396,000
394.800

392.900
390,900
388.300
385.500
383,000

380,500
377.900
375,200
372.300
369.300

366,200
363.400
360,300
356,300
352,100

347,400
341,800
336,300
330,600
325,300

319,800
314,000
306,200
302,400
296,700
291,400

399,100
291,400
523,470
- 109,500

AUG

286,300
281,000
276,700
272,200
267,700

263,300
259,200
255,600
251,500
247,400

243,600
239,400
235,200
231,200
227,000

222,600
218,100
213,300
208.300
203.200

198.300
194,400
190,800
187.200
183.600

180,300
177,400
174,600
173,300
171,400
168,800

266,300
168,800
482,840
- 122,600

SEP

168,000
166,800
165,900
165,400
166,200

165,700
165,700
66,600
67,200
67.300

67.500
67.200
166.900
166.600
166,100

165,800
165,800
166,000
165,700
165,400

165,600
165,900
165,800
166,700
167,500

168,000
167,900
168,900
169,400
169,700

169,700
165,400
483,200
+900

CAL YR 1969 MAX 520,300 MIN 133,600 t +72,500 WTR YR 1970 MAX 465,200 MIN 165,400 t -100,300

t ELEVATION, IN FEET, AT END OF MONTH,
t CHANGE IN CONTENTS, IN ACRE-FEET.
tt EVAPORATION, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11251000 SAN JOAQUIN RIVER BELOW FRIANT, CALIF.

LOCATION. --Lat 36°59'04", long 119°43'24", in SV-, sec.7, T.ll S., R.21 E., Fresno County, on left bank 0.5 mile

DRAINAGE AREA.--1,

PERIOD OF RECORD.--October 1907 to September 1970. Published as "near Pollasky" October 1907 to December 1908 and as "near Friant" January 1909 to September 1938. Monthly discharge only for October 1907 to November 1908, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 294.00 ft above mean sea level (levels by Bureau of Reclamation) Oct. 18, 1907, to Nov. 9, 1913, n
1913. to Sept. 30, 1938, water-stage recorder at site 2.5 miles upstream at different datum.

AVERAGE DISCHARGE.--63 years, 2,364 cfs (1,713,000 acre-ft per year), including d
1944-70, Friant-Kern Canal 1949-70, and adjusted for chang nd evaporation from Millerton Lake

ximums and minimums (discharge in cubic feet per second, gage height in feet) for the water
e contained in the following table:

Wtr y
1966
1967
1968
1969
1970

Date

July
May
Apr.
June
Feb.

13, 1966
23, 1967
28, 1968
6, 1969
4, 1970

Minimum
Discharge G.H. Date
161 2.60 Jan. 10, 1966
8,230 9.66 Dec. 16-21, 1966
220 2.74 Dec. 8-14,1967, Apr.16 17,1968
12,400 11.69 Dec. 6-9, 11-13, 1968
1,960 5.34 Nov. 5, 1969

Discharge
25
29

REMARKS.--Records good. Since 1941, flow regulated by Millerton Lake (see station 11250100) and by other reser-voirs described in REMARKS for San Joaquin River below Kerckhoff powerhouse. Diversion for irrigation through Madera and Friant-Kern Canals (see stations 11249500, 11250000). Water-quality records for the water year 1966 are published in reports of the Geological Survey. See schematic diagram of San Joaquin River basin

COOPERATION.--Twenty-five discharge measurements furnished by Bureau of Reclamation.

REVISIONS (WATER YEARS).--WSP 843: 1914 (M).

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP

129
118
118
118
118

116
116
116
116
116

116
116
116
116
116

116
114
114
114
114

114
114
114
106

3,339
111
129

t ADJUSTED FOR CHANGE IN CONTENTS AND EVAPORATION FROM MILLERTON LAKE AND FOR DIVERSIONS TO MADERA AND FRIANT-KERN CANALS.

1
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24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT
MEANt
AC-FT+

CAL YR
WTR YR

66
59
53
53
53

53
62
71
73
73

73
73
74
74
74

73
71
71
71
71

71
71
71
71
71

71
71
71
69
69
71

2,118 1
68. 3
74
53
4,200 3

90,300 110

1965 TOTAL
1966 TOTAL

71
71
71
71
71

71
71
71
71
71

71
71
73
74
68

62
59
52
48
38

30
29
29
29
28

27
28
29
29
29

,613
53.8
74
27
. 200

,200

30,078
31,455

29
41
43
43
43

43
43
45
53
53

SS
SS
55
53
51

51
52
52
52
52

52
51
51
49
49

49
49
46
44
40
33

1,477
47.6
55
29
2,930

143,900

MEAN £
MEAN £

32
30
30
29
29

27
26
26
26
25

30
32
33
32
32

32
3?
32
31
31

30
30
30
30
32

32
31
30
27
29
31

929
30.0
33
25
1,840

118,800

12.4 MAX
16.2 MAX

30
30
30
30
32

37
41
40
38
37

36
34
34
34
34

34
34
34
34
33

33
33
33
34
34

33
33
30

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949
33.9
41
30
1,880

95,470

212 MIN
159 MIN

28
28
26
26
26

27
26
31
43
43

43
43
41
51
73

73
74
80
89
87

86
86
84
82
82

80
80
80
80
80

1,858
59.9
89
26
3,690

122,300

27 AC-FT
25 AC-FT

76
76
76
78
78

7B
80
80
78
82

80
80
82
82
82

82
84
86
91
78

86
87
87
87
87

89
87
93
108
120

2,540
84.7
120
76
5,040
2,633
156,700

59,660
62,390

118
118
126
137
148

144
137
137
137
124

112
112
114
110
110

108
108
110
110
112

114
116
116
116
122

131
131
131
131
131
131

3,802
123
148
108
7,540
2,729
167,800 1

MEANt 3,039
MEANt 1,892

131
129
129
129
129

126
126
126
122
116

116
114
114
114
114

114
120
126
126
133

137
139
144
139
133

133
133
133
129
129

3,803
127
144
1U
7,540

32,600

AC-FTt
AC-FTt

129
129
126
126
133

146
150
150
150
148

148
148
152
159
159

152
144
J39
135
133

133
133
131
129
129

135
141
144
150
148
148

4,377
141
159
126
8,680
1,641
100,900

2,200,000
1,370,000

150
152
152
150
146

148
148
150
148
150

150
152
152
150
150

150
150
150
150
150

148
148
148
148
152

157
155
155
152
148
141

4,650
150
157
141
9,220
1,279
78,630

SAN JOAQUIN RIVER BASIN

11251000 SAN JOAQUIN RIVER BELOW FRIANT, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

OCT NOV DEC JAN FEB MAR &PR MAY JUN JUL

1
2
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6
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14
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16
17
IB
19
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21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX

MIN AC-FT
MEANt
AC-FTt

CAL YR

95
95
95
95
93

93
91
91
91
91

91
91
89
93
99

99
99
99
99
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2.829 2
91.3
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5.610 4
801
49,230 51

1966 TOT4L

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67.9
89
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. 040
S66
.,560

32,3

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1.266
40.8
61
29

2,510
2,191
134,700

78 MEAN

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S3
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71

44
41
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53
116
3,290

4,894
158

3,290
40
9,710
2,272
139,700

88 MAX

5,130
5,090
5.070
4.750
3.750

2,780
1,770
502
45
44

42
66
152
152

89
38
37
36
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68

49
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29,963
1,070
5,130
36
59,430
3,571
198,300

159

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89
74
71
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74
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S3

74

1,598
51.5
89
36
3,170
4,043
248,600

MIN 25 A

73
64
58
61
101

68
150
112
91
93

2,700
2,700
3,350
3,500

3,840
4,070
4,930
6,380
8,010

7,980
7.630
7,810
7,650
7,810

7,980
8,070
8,080
8,120
8,100

120.871
4,029
8,120
58
239,700
5,606
333,600

8,170
8,160
8,100
8.140
8.170

8,140
8,160
8,120
8,100
8.080

8,140
8,120
8,120
8,160

8,120
8,120
8,140
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8,160

8,160
8,160
8,160
8,120
8,100

8,100
8,100
8,100
8,120
8,100
8,100

251,980
8,128
8,170
8,080
499,800
7,785
478,700

8,100
8,100
8,100
8,120
8,140

8,100
8,120
8,170
7,990
7,630

7,170
6.850
6.660
6,330

6,120
5,800
5,660
5,310
5,130

4,790
4,640
4,890
3,740
3,180

3,030
3,050
3.080
3.050
3,040

178,820
5,961
8,170
3,030
354.700

10,730
638,700

2.700
2.570
2,740
3,740
4,220

4,220
4.230
4,020
3,240
2,040

780
188
188
188
188

188
188
199
178
164

204
181
230
241
186

191
188
171
155
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155

38,226
1.233
4.230
155
75,820
8,509
523,200

144
116
112
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3,980
128
144
112
7,890
3,165
194,600

1,262,000

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3,368
112
122
91
6,680
2,971
176,800

WTR YR 1967 TOTAL 639,831 MEAN 1,753 MAX 8,170 MIN 29 AC-FT 1,269,000 MEANt 4,376 AC-FT* 3,168,000

t ADJUSTED FOR CHANGE IN CONTENTS AND EVAPORATION FROM MILLERTON LAKE AND FOR DIVERSIONS TO MADERA AND FRIANT-KERN CANALS.

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY OCT NOV DEC JAN FEB M»R 6PR MtY JUN JUL AUG SEP

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TOTAL
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AC-FT
MEANt
AC-FTt

WTR YR

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2,135
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4,230

94,720 8

1968 TOTAL

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51.4
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3,060

7,420

29,0

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1,101
35.5
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2,180

96,250

83 MEAN

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38.5
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2,370

73,300

79 MAX

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41.8
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2,030 4

84,360 104

MIN 30 AC-FT
MIN 30 AC-FT

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,225
74.2
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,410

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1,266
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80.4
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4,940

92,760 10

,000 MEANt
,690 MEAN +

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AC-FTt
AC-FTt

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139

4,465
144
155
139
8,860
1,729
106,300

3,211,000
1,136,000

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135
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121
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104

3,440
115
139
102
6. 820
1,404
82,550

t ADJUSTED FOR CHANGE IN CONTENTS AND EVAPORATION FROM MILLERTON LAKE AND FOR DIVERSIONS TO MiDERA AND FRIiNT-KERN CANALS.

SAN JOAQUIN RIVER BASIN

11251000 SAN JOAQUIN RIVER BELOW FRIANT, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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TOTAL
MEAN
MAX
MIN

MEANt

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106
106
106
106

IDA
104
104
97
93

84
81
83
69
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2,364
76.3
106
48

443

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57.1
84
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37

1.158
37.4
56
32
2.300
936

37
37
38
38
40

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1
1
2

2
2
65
111
62

54
52
69
287
201

470
267
302
1.200
3,080

3.300
3,500
5,170
6,900
6,970
7.220

39,759
1,283
7,220
37
78,860

7,560
7,790
7,790
7,860
7.900

7,650
7,580
7,680
7,700
7,770

7,830
7,790
7,790
7,560
7,410

7.360
7.310
7.180
6,790
6,820

6,660
6.600
6.680
5.510
4.510

5,420
6,090
6,220

198,810
7,100
7.900
4.510
394.300

6.390
6,980
7.050
7.180
7.430

7,860
8,120
8,190
8,210
7,610

7,790
7,990
8,010
8,150
8,190

8,240
8,260
8,280
8,310
8,330

8,150

8,300
8,370
8,390

8,400
7,670
6,490
5,990
5.960
6.300

238.850
7.705
8,400
5.960
473.800

6,330
5,430
4,480
4,100
4,250

5,120
5.860
6,200
6,820
6,250

5,050
4,290
4,100
4,360
4,840

4,800
4,290
3.960
3,780
3,780

3,790

3,100
3,100
2,960

2,560
2,750
2,870
3,730
5,640

132,060
4,402
6,820
2,560
261,900

6,730
7,020
7,000
6,510
5,090

3,060
6,430
7,940
8,140
8.090

8,090
8,020
7,980
8,020
8,090

8,140
8,050
8,020
8,090
8,090

8,020

8,070
8,070
8,090

8,070
8,070
8.070
8.110
8,050
8,120

235,410
7,594
8,140
3,060
466,900

8,110
8,500
9,700
10,800
11,800

12,400
12,300
12,300
12,400
12,300

11,900
10,600
9,440
8,860
8,860

8,860
8,860
8,860
8,360
7,310

6,170

4,010
2.260
1.900

1.910
1.910
1.920
1.930
1,930

231.720
7,724
12.400
1.900
459,600

1,940
1,940
1,950
1,960
1.960

1,970
1.780
1.330

1,000

1,000
822
305
151
125

123
136
160
208
262

245
205
165
163
163
163

26,190
845
1,970
123
51,950

163
165
165
165
163

163
160
138
108
108

108
106
106
88
76

78
80
80
80
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76
73
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76
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68
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52
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3,088
99.6
165
52
6,130

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52
83
80
75
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76
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2,015
67.2
83
46
4,000

AC-FTt 27,240 44t390 57,550 284,200 332,900 301,800 332,100 885,500 773,500 415,900 186,700 174,000

CAL YR 1968 TOTAL 29,539 MEAN 80.7 MAX 217 MIN 30 AC-FT 58,590 MEANt 1,359 AC-FTt 986,500 WTR YR 1969 TOTAL 1,113,137 MEAN 3,050 MAX 12,400 MIN 32 AC-FT 2,208,000 MEANt 5,270 AC-FTt 3,816,000

t ADJUSTED FOR CHANGE IN CONTENTS AND EVAPORATION FROM MILLERTON LAKE AND FOR DIVERSIONS TO MADERA AND FRIANT-KERN CANALS.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER J970

DAY

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TOTAL
MEAN
MAX
MIN
AC-FT
MEANt

CAL YR
WTR YR

OCT

73
73
63
49
49

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50
44

39
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38
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41

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39
39
41
39

1,464 1
47.2
73
38
2,900 2
1,099 1

1969 TOTAL
1970 TOTAL

NOV

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42
44
46
46

,205
40.2
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36
,390
,417

1,112
43

DEC

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42

1,489
48.0
52
42

2,950
1,527

,060 MEAN
,764 MEAN

JAN

42

60
55

187
85
70
58
57

54
65
336
801
966

798
502
497
492
492
492

6,658
215
966
42
13.210
2,763

3,047
120

FEB

492
492
935
1.760
1.950

1.940
1.940

1.780
1,000

233
SO
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49

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57
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15,273
545
1,950
42
30,290
2,454

MAX 12,400
MAX 1,950

MAR

116
155
76
89
138

95
85
82
76
73

68
66
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66
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58
57
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54
54

54
88
168
200
175
126

2,688
86.7
200
54
5.330
2,563

MIN 36
MIN 36

APR

83
83
68
54
54

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62

1.810
60.3
83
54
3,590
2,208

AC-FT 2
AC-FT

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62
60
58
60
68

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2,670
86.1
92
58
5.300
2,731

,206,000
86,810

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76

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82
83

2,359
78.6
90
68
4.680
2,630

MEANt 5
MEANt 2

JUL

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83
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102
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100
100
95

3,138
101
121
80
6,220
2,376

,432 AC-FTt
,098 AC-FTt

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88
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104
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88
83

83
83
82
82
82
82

2,823
91.1
106
82
5.600
1,913

3,933
1,519

SEP

80
80
82
97
88

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78
71
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63
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65
60
SS

2.187
72.9
97
55
4.340
1,503

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t ADJUSTED FOR CHANGE IN CONTENTS AND EVAPORATION FROM MILLERTON LAKE AND FOR DIVERSIONS TO MADERA AND FRIANT-KERN CANALS.

SAN JOAQUIN RIVER BASIN

11253310 CANTUA CREEK NEAR CANTUA CREEK, CALIF.

LOCATION.--Lat 36°24'08", long 120°2S'57", in SEk se southwest of town of Cantua Creek and 19 miles no

:.34, T.17 S., R.14 E., Fresno County, th of Coalinga.

left bank 9.2

DRAINAGE AREA.--46.4 sq mi

PERIOD OF RECORD.--Annual

GAGE.--Water-stage recorder. Altitude of gage is 680 ft (from topograph stage gage at datum 2.00 ft lower.

1958-66. October 1966 to September 1970.

map). Prior to Oct. 1, 1966, crest-

EXTREMES .- -Maximums and minim

Annual maximum di

Date Time Disch.
1961 - (ab)

Feb. 9, 1962 - a472

Feb. 9, 1963 - a254

Nov. 20, 1963 - a82

Jan. 7, 1965 - al!3

a Not previously published.
b No flow for entire year.

No flow for long periods i
Period of record: Maxi
extended above 170 cfs on
for long periods in each y

REMARKS. --Records good. Some

DISCHARGE.

DAY OCT NOV

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TOTAL 0 292
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HTR YR 1967 TOTAL 1.584.60

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(discharge in cubic

arge (*) and peak dis

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Nov.

. 44 Dec.
Jan .
. 69 Mar.
Mar.
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Apr.
. 03
Jan.

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CUBIC FEET

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4.66
56
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287

23, 1965

6, 1966
24, 1967
12, 1967
16, 1967

1, 1968

19, 1969

1,920 cfs
- area meas

r stock us

PER SECOND

FEB

6.7
5.6
5.0
4.2
3.9

3.6
3.2
3.0
2.7
3.0

2.7
2.5
2.2
2.2
2.2

2.2
2.2
2.0
2.0
2.0

1.8
1.8
1.8
1.8
3.0

2.2
1.8
1.8
. - -

79.1
2.83
6.7
1.8
157

MEAN 4.34 MAX 184

feet pe

charges

Time
-

0800
1000
2200
1300

2300

1230

Feb. 2
urement

e above

. MATER

MAR

1.8
1.7
1.7
2.2
2.0

1.8
1.7
1.3
. 70
. 60

6.6
45
38
20
14

43
21
16
13
11

11
9.7
9.4
8.7
8.1

8.1
7.8
7.0
7.4
7.0
9.7

337.00
10.9
45
. 60
668

MIN 0

r second,

above bas

Disch. *1S7

*651

104
100
88

*9.1

405

4, 1969 (g
s at gage

station.

gage height

e (50 cfs),

G.H. Date
1.26 Jan
Jan
4.57 Feb
3.15 Feb.
3.13 Feb.
3.04 Feb.
Apr
1.86
Mar
3.95 Mar

age height,
heights 4.57

YEAR OCTOBER 1966 TO

APR

8.4
8.4
8.1
8.4
8.7

8.7
22
14
11
10

12
11
10
9.7
10

9.7
9.7
15
14
13

15
16
15
17
16

14
14
14
14
13

369.8
12.3
22
8.1
733

AC-FT 3.

MAY

12
11
11
11
11

11
10
9,
9.
10

9.
9.
8.

a.
7.

7>
7.
6.
6.
6.

6.
5.
5.
5.
5.

5.
5.
5.
5
5.

239.9
7.74
12
5.0
476

140

in feet) .

water year

20, 1969
25, 1969
5, 1969
15, 1969
24, 1969
28, 1969
5, 1969

1, 1970
4, 1970

6.60 ft),
, 6.04, an

SEPTEMBER

JUN

5.3 1
5.3 1
. 0 1
. 2 1
. 6 1

. 6 1
.? 1
. 9 1
. 9 1
. 6

. 6
. 2
. 2
. 2
. 0

. 2
. 0
. 7
. 7
. 7

2.5
2.2
1.3
1.2
1.2

1.2
1.2
1.7
2.2
2.0

91.8 23
3.06
5.3
1.2
182

s 1961-

Time
2300
0530
2300
1500
1300
1330
1600

0700
1900

from ra
d 6.60

1967

JUL

. 8
. 5
. 5
. 3
. 3

. 3
. 3
. 3
. 2
. 60

. 40
. 60
. 80
. 70
. 70

. 70
. 70
. 70
. 60
. 40

f

,
,

.
.

t

.
.

. 0
. 0
. 30

. 70
. 76
1.8
. 30
47

70

Disch.
724
1,390
127
81
1,920
154
68

*108

59

ting cu
ft; no

AUG

. 30
. 30
. 30
. 30
. 30

. 20
. 20
. 30
. 30
. 30

. 20
. 20
. 20
. 10
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0
0

3.50
. 11
. 30
0
6.9

G.H.
4.26
6.04
2.96
2.77
6.60
2.42
2.08

2.97
2.69

rve

flow

SEP

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

2.1
. 20
. 10
. 10
. 10

. 10
. 10
. 10
. 10
. 10

3.10
. 10
2.1
0
6.1

SAN JOAQUIN RIVER BASIN

11253310 CANTUA CREEK NEAR CANTUA CREEK, CALIF. - -CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY

1
8
3
4
5

6
7
S
9
10

11
18
13
14
15

16
17
IS
19
80

21
22
23
24
85

26
27
28
89
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL MEAN
MAX
MIN
AC-FT

OCT

. 10
. 10
. 10
. 12
. 12

. 18
. 12
. 12
. 12
. 12

. 12
. 12
. 12
. 12
. 12

. 12
. 12
. 14
. 12
. 12

. 14
. 17
. 14
. 17
. 17

. 17
. 17
. 17
. 17
. 17
. 17

4.17
. 13
. 17
. 10
8.3

NOV

. 17
. 17
. 20
. 20
. 23

. 20
. 20
. 83
. 20
. 20

. 23
. 23
. 20
. 17
. 17

. 20
. 20
. 27
3.0
3.0

1.7
1.2
1.0
. 91
. 91

. 79
. 79
. 79
. 79
3.0

81.55
. 72
3.0
. 17
43

1968 TOTAL 163.52

DISCHARGE

OCT

0
0
0
0
0

NOV

0
0
0

U

DEC

1.8
1.5
1.1
. 90
1.7

1.2
1.5
1.5
1.3
1.1

1.0
. 91
. 79
. 67
. 55

. 55
. 37
. 91
. 91
. 79

. 79
. 67
. 55
. 55
. 67

. 67
. 55
. 55
. 55
. 55

27.70
. 89
1.8
. 37
55

JAN

. 55
. 67
. 79
. 79
. 91

. 91
1.0
1.8
1.3
1.5

2.0
2.0
8.2
2.8
2.2

l.B
1.8
8.0
1.8
1.7

1.5
1.3
1.0
. 91
. 79

. 55
. 55
. 55
. 45
. 37
3.0

40.29
1.30
3.0
. 37
80

MEAN .45

IN CUBIC FEET

DEC

0 1.
0
0
0
0

JAN

0
0
0
0
0

0
0
0
0
0

0
0
0
5.6
. 27

0
0
. 73
105
106

281
33
21
36
449

245
58
30
22
18
14

364.60
44.0

0
2,710

FEB

. 91
. 79
. 67
. 67
. 67

. 67
. 67
. 67
. 67
. 67

. 67
. 55
. 79
1.2
. 79

1.0
1.8
1.8
1.3
1.0

. 91
. 91
. 79
. 79
. 79

. 79
. 79
. 79
. 79

25.31
. 87
1.8
. 55
50

MAX 3.0

PER SECOND

FEB

12
11
9.4
9.0
16

53
24
22
20
18

16
15
13
11
43

25
18
30
22
20

18
17
35
537
191

106
79
119
. . . . . .

1.509.4
53.9

9.0
2.990

MAR

. 67
. 67
. 67
. 67
. 67

. 67
1.0
2.0
1.3
1.8

1.0
. 91
1.8
1.7
1.3

1.3
1.3
1.2
1.0
. 91

. 91
. 91
. 79
. 23
. 23

. 79
. 79
. 67
. 83
. 80
. 17

87.86
. 90
2.0
. 17
55

MIN 0

. WATER

MAR

84
63
59
53
51

48
45
40
38
36

33
32
33
29
26

24
84
23
21
21

21
19
19
19
18

17
16
16
16
15
15

974
31.4

15
1.930

MIN 0

APR

1.2
3.0
1.3
1.0
. 91

. 79
. 67
. 67
. 67
. 55

. 45
. 45
. 18
. 08
. 14

. 10
. 06
. 08
. 31
. 31

. 31
. 27
. 27
. 27
. 27

. 23
. 20
. 80
. 17
. 14

15.19
. 51
3.0
. 06
30

MAY JUN

. 14
. 14
. 10
. 04
. 04

. 04
. 04
. 04
. 02
. 03

0
. 08
. 14
. 17
. 17

. 14
. 10
. 02
0
0

0
0
0

ft
0

0
0
0
0
0

1.45 0
. 047 0
. 17 0
0 0
2.9 0

f»ft
AC-FT 324

YEAR OCTOBER 1968 TO SEPTEMBER

APR

14
14
17
14
34

30
20
16
16
16

14
13
12
11
11

10
10
10
9.5
9.0

9.0
8.5
10
10
9.5

9.0
8.0
8.0
8.5
8.0

389.0
13.0

8.0
772

AC-FT

MAY JUN

7.5
8.0
7.5
7.5
7.0

6.0
6.0
5.5
5.5
5.5

5.5
6.0
5.5
5.5
6.4

8.5
8.5
8.0
8.0
7.5

6.5
5.5
5.0
5.0
5.0

5.5
5.5
5.5
5.0

4.5 4.0

192.4 11
6.81 3

4.0
382

218

. 5
. 0
. 5
. 0
. 0

. 0
. 0
. 5
. 0
. 0

.

. 5
. 5
. 0
. 5

. 2
. 5
. 5
. 5
. 5

. 5
. 5
. 0
. 0
. 0

.n
. 0
. n
. 5
. 5

JUL AU6

0 0
0 0
0 0
0 0
0 0

1969

JUL AU6

2.5 .05
2.5 .05
2.5 .02
2.5 0
2.5 0

2.0 0
2.0 0
2.0 0
1.5 0
1.5 0

1.5 0
2.0 0
1.5 0
1.5 0
. 86 0

. 68 0
. 68 0
. 62 0
. 62 0
. 50 0

. 17 0
. 09 0
. 07 0
. 08 0
. 11 0

. 15 0
. 13 0
. 11 0
. 09 0
. 08 0

. 2 33.11 .12
74

) 5
23

1.07 .004

. 07 0
66 .2

SEP

0
0
0
0
0

SEP

0
0
0
0
0

WTR YP 1969 TOTAL 4.574.83 AC-FT 9.070

SAN JOAQUIN RIVER BASIN

DISCHARGE.

NOV

11253310 CANTUA CREEK NEAR CANTUA CREEK, CALIF.--CONTINUED

IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

1
2
3
4
s

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL MEAN
MAX HIM
AC-FT

CAL YR
WTR YR

0
0
0
. 01
. 03

. 04
. OS
. 06
. 07
. 08

. 09
. 09
. 09
. 09
. 15

. 17
. 17
. 20
. 20
. 20

. 23
. 23
. 23
. 23
. 26

. 26
. 26

. 26
. 30
. 30

4.61
. 15
. 30
0
9.1

1969 TOTAL
1970 TOTAL

. 30
. 30
. 30
. 30
. 30

. 62
. 92
. 66
. 62
. 62

. 56
. 50
. 50
. 50
. 56

. 56
. 50
. 56
. 56
. 56

. 56
. 56
. 56
. 62
. 62

. 62
. 62

. 56
. 56

16.22 21
. 54
. 92
. 30
32

4.617.22
410.49

. 62 .80
. 62 .80
. 62 .80
. 62 .80
. 62 .74

. 62 .74
. 68 .74
. 66 .66
. 74 .94
. 74 5.7

. 66 3.4
. 62 4.0
. 68 1.9
. 66 1.9
. 68 5.8

. 68 15
. 68
. 62
. 62
. 56

. 62
. 66
. 74
. 74
. 74

. 86
. 86

. 80
. 80

. 0
. 6
. 6
. 6

^ |
. 9
. 7
. 5
. 7

. 5
. 4

. 3
. 3
. 80 ..

. 56 76.84
. 70 2.48
. 86 15
. 56 .66
43 152

MEAN 12.6
MEAN 1.12

1.2
1.1
1.1
1.2
1.1

1.1
1.0
1.0
1.0
1.8

1.5
1.2
1.4
1.8
1.7

1.3
1.2
1.2
1.2
1.2

1.2
1.1
1.1
1.1
1.0

. 92
. 98

39.60
1.41
6.9
. 92
79

MAX 537
MAX 64

64
20
8.5
13
13

9.5
6.6
5.6
5.3
5.0

4.8
4.0
4.0
3.6
3.3

3.0
2.8
2.6
2.8
2.6

2.6
2.6
2.4
2.3
2.1

. 9
. 9
. 9
. 8
. 8
. 8

207.3
6.69
64
1.6
411

MIN 0
MIN 0

1.7
1.7
1.7
1.7
1.5

1.5
. 98
. 98
. 68
. 62

. 62
. 68
. 80
. 92
1.0

. 98
1.3
. 98
. 95
. 92

. 90
. 88
. 86
. 84
. 82

. 80
. 82
. 80
. 76
. 74

30.43
1.01
1.7
. 62
60

AC-FT 9.160
AC-FT 814

. 72
. 70
. 70
. 68
. 66

. 64
. 64
. 62
. 62
. 60

. 62
. 66
. 66
. 62
. 50

. *2
. 34
. 34
. 34
. 38

. 34
. 3*
. 30
. 25
. 22

. 19
. 15
. 12
. 10
. 08
. 06

13.65
. 44
. 72
. 06
27

. 04
. 03
. 02
. 01
0

0
. 01
. 02
. 04
. 02

. 02
. 02
. 02
. 02
. 01

0
0
0
0
0

0
0
0
n
0

0
0
0
0
0

. 28
. 009
. 04
0
. 6

SAN JOAQUIN RIVER BASIN

11255500 PANOCHE CREEK BELOW SILVER CREEK, NEAR PANOCHE, CALIF.

LOCATION.--Lat 36°37'08", long 120°40':2", in
1.1 miles downstream from Silver Creek, 9 mil

. 16, T.15 S., R.12 E., Fresno County, on right bank
of Panoche, and 18 miles southwest of Mendota.

DRAINAGE AREA.--293 sq mi.

PERIOD OF RECORD.--October 1949 to September 1953, October 1958 to September 1970. GAGE.--Water-stage recorder. Datum of gage is 558.26 ft above mean sea level.

rs, 2.56 cfs (1,850 acre-ft per year); median of yearly mean di

nimums (discharge in cubic feet per second, gage height in feet),

discharge (*) and peak discharges above base (50 cfs), water year

Date

charges, 0.5 cfs

EXTREMES.--Ma

r. 23, 1965
:. 29, 1965 1500

sch. 115
52

G.H.
3.20
2.85

Dec

Time
1, 1967 1300

6, 1966
t, 1967

1700
1800
Mar. 13, 1967 0600

Jan. 21, 1969
Jan. 25, 1969
Jan. 26, 1969

1200
0900
1000

445

2,940
1,510
210

4.83
7.20
6.19
4.05

Date

Feb. 15, 1969
Feb. 23, 1969
Feb. 24, 1969

1400
1000

111
368
5,400

4, 1970 2300

No flow for several months in each year.
Period of record: Maximum discharge, 5,400 cfs Feb. 24, 1969 (gage height, 8.42 ft), from rating
nded

Flood of Apr. 2, 1958, stage of 7.01 ft (discharge, 5,090 cfs, by slope-are

REMARKS.--Rec fair except those for periods gage-height record, which are poc

urement).

mall dams fo

REVISIONS.--KSP 1930: Dr

DISCHARGE, IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

1.4 a
1.1
. 80
. 70
. 60

. 60
. 60
. 60
. 60
. 60

. 60
2.4
2.3
1.7
1.4

1.1
. 80
. 60
. 60
. 50

. 50
. 40
. 40
. 40

0

80
90
80

70
90
80
80

. 60
. 60
. 60
. 50
. 50

. 50
. 50
. 50
. 50
. 50

. 50
. 50
. 50
0 .40
. 40

. 40
. 40
. 60
1 .60
80 .70

80 .70
80 .60
60 .60
60 .70

. 20
. 10
. 10
. 10
. 10

. 10
. 10
. 20
. 10
. 20

. 20
. 20
. 20
. 10
. 10

0
0
0
. 10
. 10

. 10
. 10
0
0

30
31

TOTAL
MEAN
MAX

WIN
AC-FT

CAL YH 1965
WTH YH 1966

TOTAL 246.90
TOTAL 296.30

. 40
. 30
. 30
11
12
10

55.70
1.80
12
. 30
110

MEAN .68
MEAN .81

. 80
. 60
. 30
. 30
1.8
2.0

64.00
2.06
8.6
. 30
127

30.10
1.08
2.2

15.70
. 51
. 70

MIN 0
MIN 0

AC-FT 490
AC-FT 588

SAN JOAQUIN RIVER BASIN

11255500 PANOCHE CREEK BELOW SILVER CREEK, NEAR PANOCHE, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

1
2
3
4
S

6
7
a
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

DAY

1
2
3
4
5

6
7
a
9
10

11
12
13
14
15

16
17
IB
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN

MAX
MIN
AC-FT

CAL YR WTR YR

OCT NOV

0 0
0 0
0 0
0 0
0 0

1966 TOTAL 242.50
1967 TOTAL 968.00

DISCHARGE

OCT NOV

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
. 15
. 93

. 89
. 20
. 02
0
0

0
0
0
0
. 30

0 2.49
0 .083
0 .93
0 0
0 4.9

1967 TOTAL 846.10
1968 TOTAL 40.36

DEC

0
0
0
0
0

77
48
3.1
1.2
. 80

. 10

Ij
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0
0

130.20
4.20
77
0
258

MEAN
MEAN

JAN

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
3.5
2.5
116
41

6.4
2.5
1.3
. 80
1.7

185.30
5.98
116
0
368

. 66 MAX
2.65 MAX

FEB MAR APR MAY JUN

5.6 0 3.6
2.9 0 3.6
1.7 0 3.6
1.2 .10 3.8
1.0 .40 3.8

. 80 .10 3.8
. 80 0 13
. 80 0 55
. 60 0 28
. 50 0 14

. 40 .40 7.
. 40 13 7.
. 20 48 7.
. 20 16 7.
. 10 12 7.

. 20 6.8 7.
. 20 6.6 7.
. 20 6.6 7.
. 20 6.6 7.
. 20 6.6 7.

. 10 6.6 7,
. 10 6.3 7.
. 20 6.2 8.
. 20 5.7 8.
. 20 5.2 9.

. 50 4.8 9.
. 20 4.5 8.
0 4.4 8.

19.70 178.20 287.2 14
. 70 5.75 9.57 4
5.6 48 55
0 0 3.6
39 353 570

. 2 .9
. 8 .9
. 6 .9
. * .8
. 4 .6

. 6 .8
. 2 .8
. 8 .6
. 6 .2
. 3 .1

. 0 1.1
. 8 .80
. 7 .90
.<> .80
. 0 .50

. 8 .40
. 6 .20
. 4 .20
. 2 .20
. 0 .20

. 8 .20
. 6 .10
.< .10
. 2 .10
. 0 0

. 8 0
. 6 0
. 4 0
. 2 0
. 0 0

. 8 22.60
67 .75
. 2 1.9
. 0 0
87 45

77 MIN 0 AC-FT 481
116 MIN 0 AC-FT 1,920

. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER

DEC

1.9
. 69
. 36
. 22
. 10

. 10
. 10
. 10
. 10
. 10

. 05
0
0
. 01
. 01

0
. 04
. 20
. 29
. 19

. 09
. 08
. 10
. 12
. 14

. 16
. 12
. 12
. 12
. 08
. 12

5.81
. 19
1.9
0
12

MEAN 2
MEAN

JAN

. 16
. 18
. 15
. 14
. 10

. 20
. 20
. 21
. 29
. 43

. 36
. 36
. 29
. 25
. 25

. 22
. 18
. 20
. 22
. 20

. 25
. 22
. 20
. 22
. 29

. 29
. 29
. 43
. 50
. 36
. 71

8.35
. 27
. 71
. 10
17

.32 MAX
. 11 MAX

FEB MAR APR MAY JUN

. 98 .12 .43
. 57 .12 .68
. 43 .12 .78
. 29 .10 .43
. 25 .10 .25

. 29 .10 .22
. 25 .14 ,22
. 25 .25 .18
. 20 .64 .08
. 25 .36 .10

. 25 .25 .08
. 29 .20 .06
. 36 .61 .06
1.1 1.7 .06
. 78 .78 .05

. 64 .64 .06
. 71 .57 .06
. 57 .43 .06
. 36 .29 .06
. 25 .25 .05

. 16 .22 .05
. 14 .20 .04
. 12 .18 .04
. 10 .14 .04
. 10 .14 .03

. 12 .14 .03
. 12 .12 .02
. 12 .10 .01
. 12 .10 0
. 10 0
. 10

10.17 9.31 4.23 0
. 35 .30 .14 0
1.1 1.7 .78 0
. 10 .10 0 0
20 IB 8.4 0

116 MIN 0 AC-FT 1,680
1.9 MIN 0 AC-FT 80

JUL

0
0
0
0
0

1968

JUL

0
0
0
0
0

SAN JOAQUIN RIVER BASIN

11255500 PANOCHE CREEK BELOW SILVER CREEK, NEAR PANOCHE, CALIF.--CONTINUED

DISCHARGE)

NOV

IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

127
25

6.0
5.6
5.4

7.9
7.2

5.6
5.5
5.3

5.1
4.9
4.7

2.9
2.6
2.7
2.6
2.5

2.3
2.2

2.0
2.0

1.8
1.8

1.7
1.6

1.1
1.1
1.1
1.0
1.0

. 31
. 30

. 23
. 22
. 20
. 19

. 10
. 09

1.3
. 80
. 28

. 03
. 01

31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR 1968
MTR YR 1969

12
11

,539.2
49.7
839

TOTAL 6,057.56

MEAN .
MEAN 16.

2U
168
137

,143.9
112
1,690
8.8
6,240

7.2
6.8
6.4

998.0
32.2
119
6.4
1,980

MIN 0
MIN 0

4.2
4.1

283.3
9.44

3.6
562

1.4
1.4

1.2
1.2

66.3
2.14
3.S
1.2
132

AC-FT 64
AC-FT 12,020

20.60
. 69
1.1

. 02
. 01
. 01

3.75
. 12
. 31

2.51
. 084
1.3

NOTE. NO GAGE-HEIGHT RECORD FEB. 25 TO SEPT. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX

MIN
AC-FT

CAL YK
WTR YR

NOTE

0
0
0
0
0

0
0
0
0
0

0
0
0
0

0
0
0

0
0
n
0
0

0
0
0
0
0
0

1969
1970

NO

0 0 .22 .24
0 0 .21 .21
0 0 .20 .16
0 0 .18 .10
. 05 0 .16 .06

. 14 0 .15 .02
. 07 0 .14 0
. 04 .20 .
. 02 .16 1.
. 01 .13 1.

0 .11 2.
0 .09 1.
0 .08 1.
0 .06 1.
. 10 0 .04 2.

. 04 0 .03 2.
. 01 0 .02 2.
0 .01 1.
0 .11 1.
0 .10 1.

0 .45 1.
0 .30 1.
0 .20 1.
0 .06 .
0 .40 .

0 .34 .
0 .30 .
0 .28 .
0 .26

0 0
0
. 28

. 26
. 22
. 32
. 27
. 22

. 20
. 17
. 12
. 09
. 07

. 04
. 02
. 01
2 0
5 0

0
0
0

. 23 .29

. 15 .33 4.20 31.06 3.08
005 .011 .14 1.00 .11
. 10
000

. 14 .45 2.8 .32
. 14 0
. 3 .7 6.3 62 6.1

TOTAL 6,062.24 MEAN 16.6 MAX 1,690 TOTAL 140.43 MEAN .38 Max 22

GAGE-HEIGHT RECORD OCT. 1 TO JAN. 21, JAN

16
10
3.4
7.9
22

5.0
4.4
4.2
3.9
3.4

2.9
2.6
2.3
1.8
1.3

1.0
. 72
. 57
. 43
. 36

. 33
. 30
. 27
. 24
. 22

. 16
. 14
. 14
. 14
. 14
. 16

96.42
3.11
22
. 14
191

MIN 0

MIN o

21 TO

. 14
. 14
. 14
. 12
. 10

. 12
. 10
. 08
. 07
. 07

. 07
. 07
. 07
. 12
. 18

. 20
. 20
. 18
. 08
. 07

. 07
. 08
. OB
. 08
. 07

. 07
. 12
. 18
. 16
. 10

3.33
. 11
. 20
. 07
6.6

AC-FT
AC-FT

FEB. 28

. 07
. 06
. 05
. 05
. 05

. 05
. 05
. 05
. 05
. 05

. 05
. 05
. 05
. 05
. 05

. 05
. 04
. 04
. 04
. 03

. 03
. 03
. 03
. 03
. 03

. 03
. 03
. 03
. 03
. 02
. 02

1.29
. 04*
. 07
. 02
2.6

12,020
279

. 02
. 02
. 02
. 01
. 01

. 02
. 02
. 02
. 03
. 03

. 03
. 02
. 03
. 03
. 03

. 02
. 02
. 02
. 02
. 02

. 02
. 01
0
0
. 02

. 02
. 02
. 02
. 01
. 01

. 57
. 019
. 03
0
1.1

SAN JOAQUIN RIVER BASIN

11257100 MIAMI CREEK NEAR OAKHURST, CALIF.

LOCATION. --Lat 37°23'37", long 119°39'12", in NEWE^ sec. 22, T.6 S. , R.21 E., Madera County, Sierra National Forest, on left bank 200 ft downstream from county road bridge and 4.6 miles north of Oakhurst.

DRAINAGE AREA. --10. 6 sq mi.

PERIOD OF RECORD. --October 1960 to September 1970.

GAGE. - -Water-stage recorder. Altitude of Rage is 3,500 ft (from topographic map).

AVERAGE DISCHARGE. --10 years, 8.87 cfs (6,430 acre-ft per year); median of yearly mean discharges, 6.5 cfs (4,700 acre-ft per year) .

EXTREMES. - -Maximu
1966-70 are co

Wtr yr Date
1966 Nov. 17,
1967 Dec. 6,
1968 Feb. 20,
1969 Jan. 19,
1970 Jan. 16,

Period of r
1961-62.

REMARKS. --No gage

COOPERATION. --Rec

ntained

1965
1966
1968
1969
1970

ecord:

- height

ords fu

in the following

Maximum
Di

Maximum discharge

wished by Califor

DISCHARGE, IN CUBIC FEET

DAY OCT

1 1.7
2 1.6
3 1.5
4 1.5
5 1.4

6 1.5
7 1.4
B 1.4
9 1.4
10 1.4

11 1.5
12 1.4
13 1.4
14 1.7
15 2.9

16 2.4
17 2.3
18 2.0

19 2.2 20 2.2

21 1.9
22 1.8
23 1.8
24 1.7
25 1.6

26 1.4
27 2.8
28 1.8
29 2.2

30 1.8 31 1.6

TOTAL 55.2
MEAN 1.78
MAX 2.9

MIN 1.4
AC-FT 109 utl

NOV

. 4
. 4
. 5
. 5
. 6

1.5
1.5
1.7
1.8
2.0

1.9
2.1
3.6
21
17

27
36
19
12
8.0

6.4
6.7
32
39
19

12
9.9
9.2
8.0
7.3

313.0
10.4
39
1.4

CAL YR 1965 TOTAL 3,938.
WTR YR 1966 TOTAL 1,786.

DEC JAN

6.8 11
6.5 11
6.6 10
6.8 9.6

6.5 8.7
6.2 8.6
5.9 8.8
5.7 8.1
5.9 8.1

5.7
6.7
5.6
5.7
5.4

5.2
5.4
5.9
5.3
5.4

5.2
5.2
5.3
5.3
5.3

5.3
5.3
6.9
29
16
12

. 7
,5
. 5
. 5
. 4

. 0
. 0
. 8
. 6
. 2

,2
, 1
. 9
. 8

. 8
. 8
. 7
. 8
. 8

220.6 231.2
7.12 7.46
29 11
5.2 5.7

20 MEAN 10.8
40 MEAN 4.89

table:

scharge
70
553
42
610
478

, 804 cf

nia Depa

G.H.
4.21
7.81
3.78
8.17
7.36

s Feb. 1,

rtment of

PER SECOND, WATER

FEB

6.5
6.1
6.1
6.8

20
12
9.8
8.7
7.9

7.0
7.6
7.3
7.1
6.9

6.8
6.2
6.5
6.5
6.8

6.8
7.3
7.7
9.2
B.3

7.5
7.3
7.4
. . . . . .

221.4
7.91
20
6.1

MAX 193
MAX 39

MAR

7.9
7.4
7.5
7.2

7.7
7.7
B.3
8.5
11

12
11
12
12
11

11
10
10
10
10

10
9.9
9.9
. 9
. 7

. 8
. 8
. 2
. 5
. 2
9.2

295.6
9.54
12
7.2

MIN 1.4

1963 (ga

Water Re

Date

Sept. 11, 1966
Oct. 1, 2, 8
Sept. 7-9, 19
Oct. 1, 1968
Sept. 29, 1970

ge height, 9.

sources and r

YEAR OCTOBER 1965 TO

APR

9.1
8.7
8.3
7.9

6.9
6.8
6.6
6.B
10

8.6
8.4
7.3
6.8
6.1

6.1
5.9
6.7
7.6
6.7

6.2
5.7
5.4
5.1
5.0

4.9
4.9
4,7
3.9
4.0

198,5
6.62
10
3.9

MAY

4.2
4.1
4.0
4.0

4.0
3.9
3.9
4.1
7.0

5.3
4.7
4.3
4.0
3.9

. 9
. 8
. 6
. 4
. 5

3.4
3.3
3.2
3.1
3.0

2.8
3.0
2.9
3.1
3.3
3.2

117.8
3.80
7.0
2.8

AC-FT 7,810

Minimum dail

, 1966
68

08 ft) ; no flow

eviewed by Geol

SEPTEMBER 1966

JUN JUL

3.3
3.0
3.0
3.0
2,9

2.9
3.4
3.5
3.4
3.2

2.9
2.7
2.5
2.3
2.2

2.1
2.1
2.0
1.9

. 5
. 4
. 4
. 3
. 3

. 2
. 3
. 3
. 3
. 2

. 1
. 2
. 2
. 2
. 2

. 1
. 1
. 1
. 0

l.B .90
1.9 .90
1.9 .90
2.0 .80
1.9 .80

l.R .80
1.6 .70
1.5 .70
1.5 .70
1.5 .70

71.7 33.00
2.39 1.06
3.5 1.5
1.5 .70
142 65

y

Di

for many

ogical Sur

AUG

1.3
. 70
. 70
. 60
. 60

. 60
. 50
. 50
. 50
. 50

. 40
. 40
. 50
. 50
. 40

1.1
. 60
. 40
. 30

. 30
. 30
. 30
. 30
. 30

. 30
. 30
. 30
. 40
. 40
. 40

15.10
. 49
1.3
. 30
30

scharge
. 20
. 40
. 30
. 50
. 70

days in

vev.

SEP

. 50
. 40
. 30
. 30
. 80

. 50
. 40
. 30
. 30
. 30

. 20
. 30
. 30
. 30
. 30

. 30
. 30
. 50
. 80

. 70
. 60
. 50
. 40
. 50

. 50
. SO
. 50
. 40
. 40

13.30
. 44
. 90
. 20
26

MIN .20 AC-FT 3.540

SAN JOAQUIN RIVER BASIN

11257100 MIAMI CRFFK NEAR OAKHURST, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET

DAY

1
2
3
it
5

6
7
e
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
NTR YR

OCT NOV

. 40 .70
. 40 .70
. 50 .60
1.0 .60
1.0 .60

. 90 .90
. 60 2.8
. <>0 1.6
. 70 1.2
. 60 1.1

. 50 1.2
. 50 1.0
. 60 1.0
. 60 1.0
. 60 1.0

. 90 8.4
. 80 3.9
. 80 1.9
. 80 1.6
. 80 6.0

. BO 6.0
. 80 7.2
. 80 3.8
. 80 2.7
. 70 2.3

. 70 2.0
. 70 1.9
. 80 5.6
. 70 9.0
. 60 4.6
. 70

21.50 82.90
. 69 2.76
1.0 9.0
. 40 .60
43 164

1966 TOTAL 2.167
1967 TOTAL 6,085

DEC

3.6
50
45
10
180

335
57
23
16
13

10
9.5
B.4
7.9
7.7

7.0
6.7
6.5
6.0
5.8

5.4
5.4
5.2
5.2
5.0

5.2
5.0
5.4
5.4
5.4
5.0

865.7
27.9
335
3.6
1.720

. 70 MEAN
. 60 MEAN

JAN

4.8
4.8
4.6
4.6
4.6

4.6
4.4
4.4
4.4
4.1

4.1
4.1
4.1
4.1
3.8

3.8
3.8
3.8
3.8
3.9

11
14
8.7
9.3
9.3

9.0
9.5
11
39
66
65

336.4
10.9
66
3.8
667

5.94
16.7

DISCHARGE. IN CUBIC FEET

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
IB
19
20

21
22
23
2*
25

26
27
28
29
30
31

TOTAL MEAN
MAX MIN
AC-FT

CAL YR
WTR YR

OCT NOV

3.6 2.4
3.8 2.6
3.8 2.3
3.6 2.4

3.6 2.3

3.4 2.4
3.4 2.4
3.3 2.4

2.8 2.3
3.0 2.4

3.0 2.3

3.0 2.6
2.8 2.6
2.7 3.1
2.7 5.2
2.8 5.3

2.7 4.1
2.7 3.9
2.8 3.7
2.7 3.5
2.7 3.4

2.6 3.3
2.6 3.2
2.7 3.3
2.7 3.3

2.6 --

93.7 90.5
3.02 3.02
3.8 5.3

186 180

1967 TOTAL 5.458
1968 TOTAL 1.543

DEC

3.9
3.9
4.0
12

6.3

5.4
4.7
4.5

4.2
5.7

4.1

3.9
3.9
3.6
4.4
4.8

4.9
5.0
5.1
5.2
5.4

5.5
5.6
5.7
5.9
6.0
6.1

158.9
5.13
12

315

. 60 MEAN
. 80 MEAN

JAN

6.3
6.4
6.5
6.6

5.9

5.0
3.9
5.3

4.9
4.7

8.6

7.9
6.8
6.0
5.4
5.2

5.2
5.4
5.5
5.7
5.6

5.5
5.6
5.8
6.2
5.0
5.5

178.8
5.77
8.6

355

15.0
4.22

PER SECOND, WATER YEAR OCTOBER 1966

FEB

32
21
16
15
13

13
12
11
11
11

11
11
11
10
9.8

9.3
9.0
9.0
8.4
8.2

7.9
7.7
7.7
7.2
7.9

7.7
7.4
7.4

312.6
11.2
32
7.2
620

MAX 335
MAX 335

MAR

7.9
7.4
7.9
7.9
7.2

7.7
7.4
7.4
7.4
7.7

13
37
36
26
23

147
62
40
31
28

26
27
26
24
22

22
21
25
26
22
22

781.9
25.2
147
7.2
1,550

MIN .20
MIN .40

PER SECOND, WATER

FEB

5.5
5.7
5.8
6.1

6.4

6.5
8.5
8.5

7.0
6.8

7.3

7.8
21
17
13
30

21
16
14
13
12

11
11
10
9.8

308.0
10.6
30

611

MAX 147
MAX 30

MAR

8.8
8.6
8.1
7.7

7.4

12
10
9.2

8.3
8.9

8.6

9.6
9.9
9.5
9.2
9.0

8.9
8.7
8.4
B.6
B.9

8.7
8.2
8.3
8.4
8.2
7.9

272.3
8.78
12

540

MIN 2.3
MIN .30

APR

21
21
20
27
26

29
55
35
32
32

30
26
28
30
30

27
27
39
32
29

27
26
26
29
30

32
36
33
28
2B

891
29.7
55
20
1.770

AC-FT
AC-FT

MAY

31
37
40
42
42

43
49
54
54
69

51
44
43
46
49

53
57
59
59
61

63
63
62
59
55

51
48
46
44
41
39

1,554
50.1
69
31
3,080

4,300
12,070

YEAR OCTOBER 1967

APR

9.5
9.5
9.0
9.0

8.7

7.5
7.0
6.B

6.4
6.2

5.8

5.8
5.9
5.4
5.2
5.2

5.0
4.9
4.8
4.7
4.6

4.6
4.4
4.1
4.0
4.0

187.8
6.26
9.5

373

AC-FT
AC-FT

MAY

3.8
3.7
3.6
3.6

3.5

3.7
3.6
3.5

3.5
4.1

6.0

5.2
4.3
3.9
3.9
3.9

3.9
3.9
3.9
3,9
3.7

3.6
. 5
. 3
. 1
. 0
. 0

119.3
3.85
6.0

237

10,830
3.060

TO SEPTEMBER 1967

JUN

3ft
34
33
33
35

33
31
29
29
27

26
26
24
23
22

21
17
16
17
18

17
16
14
14
15

15
15
14
14
13

677
22.6
36
13
1.340

JUL

14
13
13
12
10

11
10
10
9.8
9.3

9.3
9.0
8.7

a. 4
8.7

8.7
8.4
B.4
8.4
8.2

8.2
8.2
8.2
8.2
8.2

7.9
7.7
8.2
7.9
7.9
7.7

286.6
9.25
14
7.7
568

AUC

. 4
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7.0
6.5
6.7
6.5
6.5

6.3
5.8
5.8
5.6
5.4

5.2
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5.0
4.6
4.4

4.4
4.3
4.1
4.1
4.3

4.3
4.3
4.3
4.4
4.4
4.4

170.2
5.49
7.4
4.1
33B

SEP

4.3
4.1
3.9
3.B
3.8

3.3
3.3
3.1
3.1
3.0

3.0
3.1
3.0
3.0
2.8

2.8
2.B
3.9
4.3
3.8

3.6
3.6
3.8
3.8
3.9

3.9
3.B
3.8
3.8
3.6

105,8
3.53
4.3
2.B
210

TO SEPTEMBER 1968

JUN

2.9
2.B
2.7
2.8

2.8

3.8
3.6
3.3

3.1
2.9
2.7

2.4

2.2
2.1
1.9
. 90
1.8

1.7
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1.6
. 90

1.4
1.3
1.3
1.3
1.3

68.30
2.28
3.9
. 90
135

JUL

1.3
1.2
1.2
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1.1

1.1
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1.2
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. 90
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30.30
. 98
1.3
. 70
60

AUG

. 50
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1.0
. 90

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1.0

1.0
. 90
. 80
1.7
1.0

. 60
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. 50
. 40

23.20
. 75
1.7
. 40
46

SEP

. 40
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12.70
. 42
. 80
. 30
25

SAN JOAQUIN RIVFR RASIN

11257100 MIAMI CREFK NEAR OAKHURST, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YE»R OCTOBER 1966 TO SEPTEMBER 1969

DAY

1
2
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14
IS

16
17
IB
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23
24
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26
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29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

DAY

12
3
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s

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It
15

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IB
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2B
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31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

OCT NOV

. 50 1.2
. 60 1.5
. 60 11
. 60 4.1
. 60 2.3

. 60 1.8
. 60 1.6
. 70 1.5
. 70 1.5
. 60 1.5

. 60 1.5
. 80 3.6
2.0 2.9
3.2 2.3
1.4 4.2

1.2 3.1
1.1 2.7
1.0 2.7
1.0 2.8
1.0 2.6

1.0 2.3
1.0 2.1
. 90 2.0
. 90 2.2
. 90 2.2

. 90 1.9
. 90 1.8
. 80 1.7
. 90 1.6
1.8 1.6
1.4

30.80 75.8
,99 2.53
3.2 11
. 50 1.2
61 150

1968 TOTAL 1,532
1969 TOTAL 8,161

DEC

2.1
2.0
1.9
1.8
2.1

2.1
2.1
2.1
1.6
2.4

8.6
4.5
3.4
6.0
26

21
6.1
5.8
5.1
4.6

6.0
4.1
3.9
12
31

15
6.9
8.5
7.5
6.6
6.1

225.3 2
7.27
31
1.8
447

.60 MEAN.70 MEAN

JAN

5.9
5.8
5.9
6.3
6.4

6.4

5.9
5.4
4.9

4.6
4.5
64
59
21

13
10
54
363
123

319
106
46
53
338

205
81
56
51
47
42

,121.3
66.4
363
4.5
4,210

4.19
22.4

DISCHARGE. IN CUBIC FEET

2.7 3.9
2.7 3.9
2.8 3.8
2.8 3.7
2.6 3.9

2.6 12
2.6 9.1
2.6 7.0
2.9 6.1
3.0 5.5

3.2 5.2
3.1 5.0

3.1 4.9
3.1 4.8
6.5 5.0

25 5.5
11 5.8
7.0 5.7

5.4 4.3

4.9 4.3
4.6 4.3
4.2 4.1
4.2 4.1
4.1 4.0

4.1 4.0
4.2 3.9
4.2 3.9
4.3 3.9
4.1 3.9
3.9

148.2 149.9
4.76 5.00
25 12

294 297

1969 TOTAL 8,326
1970 TOTAL 3,069

3.6
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. 1
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. 6
. 5

4.5
4.5
4.4
4.2
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3.6
3.6
3.7

9.1

11
11
7.4
6.7
22

13
6.9
7.7

(:'.<*
5.9

196.7
6.41
22

394

. 60 MEAN
. 40 MEAN

5.5
5.2
5.3
6.6
6.6

6.5
4.6
5.2
9.6
42

15
13
13
42
28

257
93
37
26
24

40

2921
36
23

19
27
21
17
15
14

909.3
29.3
257

1,600

22.6
8.46

FEB

39
35
32
28
29

30

26
25
24

25
40
33
29
49

40
33
32
30
27

26
25
24
49
43

34
30
31

695
32.0
49
24
1.760

MAX 31
MAX 363

31
26
27
26
25

26

23
23
23

21
21
20
21
22

25
30
36
36
35

38
36
41
44
45

46
50
S3
55
56
58

1,047
33.8
58
20
2.080

MIN .30
MIN .50

PER SECOND. WATER

13
12
12
11
10

10
9.6
9.2
9.0
9.2

9.2
11
16
16
15

13
23
16
14
12

12
12
11
11
11

11
11
19

350.2
12.5
23

695

MAX 363
MAX 257

54
39
27
23
21

21
21
20
16
18

17
16
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17

17
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16
14
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13
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13

13
12
11
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11

556
18.0
54

1,110

MIN 2.7
MIN .70

55
53
56
49
89

78

S3
54
56

57
56
57
53
46

46
51
S3
52
54

S7
57
64
55
49

48
48
48
50
SO

1,659
55.3
69
48
3,290

AC-FT
AC-FT

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35.1
48
20
2,160

3.040
16.190

YEAR OCTOBER 1969

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9.8

9.7
9.4
9.3
9.2
9.1

6.9

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9.9
9.6

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9.7
11
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7.0

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9.8
9.1

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9.8
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9.1
9.4

286.1
9.54
11

567

AC-FT
AC-FT

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7.2
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5.S
5.3
5.1
5.1

5.1
5.1
5.1
5.0
4.9
4.9

193.7
6.25
6.6

384

16.520
6,130

19
19
IS
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17

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22
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IB
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12

503
16.6
27
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998

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9.7

9.4
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8.1
6.1
7.9

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7,6
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7.3
7.3

7.2
7.5
7.3
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6.S
6.2

271.9
6.77
12
6.2
539

TO SEPTEMBER 1970

JUN

4.7
4.5
4.4
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4.2
4.2
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7.5

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3.5
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3.4

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5.1
4.3
3.9
3.7

153. 3
5.11
10

304

JUU

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3.2
3.2
3.0

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2.1

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2.0
2.0
2.0
1.9

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1.8
1.7
1.7
1.7
1.6

74.0
2.39
3.4
1.7
147

6.1
6.1
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5.3
5.2
5.1
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4.9
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4.3
4.2

4.2
4.2
4.3

4.0
4.1
4.0
4.0
3.9
3.6

146.0
4.71
6.1
3.6
290

AUG

1.6
1.7
1.7
1.6
1.6

1.6
1.6
1.5
1.5
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1.2
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1.0

40.0
1.29
1.6
1.0
79

SEP

3.7
3.6
3.5
4.3
3.5

3.5
3.5
3.5
3.3
3.4

3.4
3.4
3.4
3.4
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3.3
3.3
3.2
3.1
3.2

3.3
3.1
2.9
2.9
2.9

2.9
2.7
2.7
2.7
2.7

97.6
3.25
4.3
2.7
194

SEP

1.0
1.0
1.0
. 90
. 90

1.1
1.2
1.1
1.1
1.0

. 90

. 90
1.0
1.1

1.0
. 90
. 90
. 90
. 90

. 90
. 90
. 90
. 90
. 80

. 60
. 80
. 80
. 70
. 60

28.00
. 93
1.2
. 70
56

SAN JOAOUIN RIVER BASIN

11257500 FRESNO RIVER NEAR KNOWLES, CALIF.

DRAINAGE AREA.--133 sq mi.

PERIOD OF RECORD.--September 1911 to August 1913, November 1915 to September 1970.

GAGE. --W

site

AVERAGE
disch

EXTREMES

Date
Dec. 30,

Dec. 3,
Dec. 6,
Jan. 24,
Jan 31

Mar. 16 ',
Apr. 7,
Apr. 18,
May 10,

Wtr yr
1966
1967
1968

Pe

REMARKS,
basin

13, 1930, n
40 ft upstr

DISCHARGE. -
arses , 62 c

. - -Maximums

Time
1965 0215

1966 0545
1966 1115
1967 2100
1967 0130
1967 1730
1967 0745
1967 2015
1967 1600

Date
Aug. 23-26,
Oct. 1, 2,

earn, at da

- 55 years
fs (44,900

and minim

Disch.
*662

809

*3,800
822
1,570
1,870
1,430
2,130
743

1966
1966

g gage
turn 0.

(1911-
acre-

ums (d

G.H.
2.94

3.22
6.62
3.21
4.23
4.56
4. 06
4.82
3.08

Annu

34 ft low

12, 1916-
ft per ye

ischarge

Date
Feb.

Jan .
Jan .
Jan.
Jan.
Feb.
Feb.
Feb.
Feb.

al minimu

Aug. 10, 1968

riod of rec
ded above 2

- - Records g
above stat

ord: Maxi
,500 cfs o

ion of up

REVISIONS (WATER YEARS) .--WSP
Drainage area.

DISCHARGE.

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19
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29
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31

MEAN
MAX
WIN

CAL YC
MTK Yh

OCT

H.4
8.4
7.9
7.1
A. 9

7.3
7. ft
7.2
ft. 7
ft. 6

7.0
10
9.1
11
IS

21
18
It
17
16

lf>
Ib
1*
It
14

13
Yf
14
13
13
U

11.9
21
6. ft

1965 TOTAL
1966 TOTAL

NOV

12
12

12
12

13
12
12
11
11

12
13

58
126

128
209
lib
118
82

65
56
125
319
247

15b
121

lou
87
74

77.9
309
11

40.406.40
19.490.90

mum d i
n basi

to 80

1515:

scharge,
s of slop

cfs at ti

1916-19

70) ,80.4
ar).

in cubic f

20, 1968

14, 1969
19, 1969
21, 1969
25, 1969
6, 1969
15, 1969
19, 1969
24, 1969

m daily di

Discharge
0
. 80
. 09

13,300 cfs
e-area mea

mes since

, 1920(M) ,

IN CURIC FEET PER SECOND

DEC

61

b8
b6

54
52
bO
48
4H

49
66

52
48

4b
40
30
32
37

41
40
18
36
b4

b4
4H
48
2ft£f
408
351

77.1
40H
10

JAN

16?
134
113
103

105
103
102
97
88

80
75

6ft
66

61
57
55
51
bO

47
46
48
47
45

4b
44
4?
41
101
95

80.2
247
4l

MEAN 111
MEAN b3.4

FEB

80

68
78

203
169
118
101
9ft

83
80

71
69

67
67
6b
6b

66
68
70
84

85

84
75
72

_ ..

. . . . . .

84.9
203
6b

- ax i.4?o
VAX 408

1930, to J

cfs (58,250 acre-ft

eet per se

Time Dis
1645 "

0130 1,
1200 4,
1200 4,
1045 5,
1800 1,
1945 1,
0600

1800 *7,

scharge, w

Wtr
1969
1970

Dec. 23,

cond, gage

e base (59

ch. G.H.
245 2.12

560 4.31
520 7.33
510 7.32
480 8.01
370 4.06
540 4.28
879 3.39
640 9.18

ater years

yr Date
Oct.
Aug. 1

1955 (gage
surement of peak flo

1897 from

1921-23,

iUrigatio

1925-26(M)

HATER YEAR OCTOBER

MAP

74

61
59

61
ft3
66
72
91

103
9ft

102
101

98
95
95
94

93
90
B9
as
87

«5
89
Sfl
87
H7

lol

85.4
Ifl3
51

MIN s.9
WIN 0

APK

103

98

99
100
98
93
109

102
98

94
92

89
96
108
98

95
93
92
91
90

90
89
73
99
99

an. 13, 1931, water-stag

per year)

height i

Da e
Ma .
Ma .
Ma .
Ap .
Ap .

Jan .
Jan .
Mar.

1966-70

2, 1968
3, 14, 16

height,
w; no flo

n River b

, 1932 (M)

; median of yea

n feet),

ater years 1966

1, 1969 0600
10, 1969 1900
21, 1969 0615
3, 1969 0445
5, 1969 2030

14, 1970 2300
16, 1970 1345
2, 1970 0015

, 1970

11.52 ft) , from
w at times in s

asin and up to

, 1935-36CM)

e recorde

rly mean

- 70

Disch.
1,290
709
770
798
2,260

635

*3,440
1,220

Dis

rating c
ome years

60 cfs at

WSP 1930:

G.H.
3.96
3.08
3.20
3.25
5.08

2.98
6.46
3.99

charge
. 80
1.6

urve

1965 TO SEPTEMBER 1966

MAY

110
110
110

109

109
108
109
109
133

125
116

103
99

91
91
90
S7

81
79
74
h9
65

60
58
54
52
53
5?

JUN JUL

49 13
47 13
45 12
43 12
40 11

30 11
4? 10
47 10
45 11
42 10

37 9.4
3.1 9.7

27 10
25 9.7

23 8.2
23 7.6
21 7.1
20 7.2

20 6.8
19 5.9
19 5.6
19 5.3
19 4.8

If 4.7
17 5.0
16 b.3
14 4.8
13 4.8

96.0 90.9 29.? 8.35
109
73

133
52

40 1 T
13 4.7

AUG

5.6
4.9
4.2
3.2
2.8

2.3
2.0
1.0
. 60
. 40

. 20
. 10
. 10
. 10
. 30

. 90
. 90
. 30
. 10

. 10
. 10
0
0
0

0
. 10
. 50
. SO
. 60
. 80

33.60
1.08
5.6
0

AC-FT ao.isn
AC-FT 3 3.660

SEP

1.0
. 70
. 50
. 30
. 20

. 10
. 10
. 10
. 30
. 40

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. 30
. 40
. 40
. 50

. 80
. 80
1.0
. 90
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. 90
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. 80

. 80
. 80
. 80
. 80
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18.20
. 61
1.0
. 10

3ft

SAN JOAQUIN RIVER BASIN

11257500 FRESNO RIVER NEAR KNOWLES, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND.

NOV DEC JAN FEB

WATER YEAH OCTOBER 1966 TO SEPTtMBER 1967

MAR APR «AY JUM JUL

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31

. 80
1.1
. 5
. 3

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. 1
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. 6
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. 9
. 1
. 5

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8
. 9

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. 0
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. 2

. 9

. 9
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. 0

MEAN 3.92
MAX 5.4

OAY OCT

1 12
2 11
3 14
4 19
5 19

6 17
7 17
8 17
9 15
10 14

11 14
12 14
13 14
14 14
15 15

16 15
17 15
18 14
19 14
20 14

21 13
22 13
23 14
24 14
25 14

26 13
27 13
28 13
29 13
30 13
31 13

MEAN 14.3
MAX 19
MIN 11

<.!s
4.9
5.1

6.0 2
12
16
13
11

9.7
9.5
9.6
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DISCHAR&t,

NOV

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19. <?
4b
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CAL YH 1967 TOTAL 59.b99.40

38
68
356
105
741

510
602
208
135
104

85
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82
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76

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107
245
153
323
323

186
161
151
287
614
944

142

IN CUBIC FEtT

DEC JAN

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27 28
26 28
25 24
47 23

63 24
36
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31.1
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MEAN

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51
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81
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36.0

23

163

265
220
187
173

164
154
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138
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132
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127
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116

109
105
102

98

93
86
85
94
131

106

99

140

PER SECOND,

FES

48
46
4b
46
45

44

43
49
63

50

48
47

45
102
131
91
160

156
118
100
93
86

81

72

72.3

161)
43

*AX 1,270

95
97
105

101
97
98
101
100

180
565
867
553
320

970
705
407

274

253
239
226
217
205

199

223
308
224

282

MIN o

WATER

MAS

69
66
63
60
63

60

111
112
82

73

94
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114
100
88
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83
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80.8
114
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MIN

397
311
463

437
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428

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523
412
382
548

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AC-FT

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387
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319

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266

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42,540

YEAR OCTOBER 1967 TO

APR MAY

93 86
116 86
99 82
87 81
82 81

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7.0 AC-FT

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129 49 12
127 46 9.0
123 50 8.2
117 48 7.8
116 45 7.6

114 43 7.0
112 40 7.6
109 39 8.8
105 38 9.0
103 37 9.7

100 38 10
98 36 11
95 34 10
99 32 10
97 32 9.7

98 29 9.5
93 28 9.5
89 28 12
86 27 23
85 27 19

81 25 14
79 24 13

72 23 4
69 25 4

64 25 6
60 25 5
58 23 3
55 21 13
54 16 13

186

SEPTtMH

JUN

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JUL AUG SEP

8.2 1.0 .53
7.6 .83 .55
6.4 .71 .28
4.9 .66 .26
5.3 .42 .95

5.2 .20 1.2
6.0 .14 .78
5.4 .09 .90

4.3 1.4 .77

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. 9B 1.

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1.3 .
1.1 1.
. 41 .

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8.2 1
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3 1.1

4 1.2
1 1.2
1 1.3
. 85
9 .76

7 1.1
. 99
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1.?
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1 .75
. 55
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1.6

8 .94
9 1.6

19 ,dH

11257500 FRESNO RIVER SEAR KN'OWLES, CALIF.--CONTINUED

DISCHAK&t. IN CUBIC FEFT PtK StCOMJ, K4TEH YEAR OCTOBER 1968 TO SEPTEMKEB 1969

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TOTAL
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MAX
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TOTAL
MEAN
MAX
MJN
AC-FT

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WTH YR

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. 80
l.b
1.0
. 90

1.0
. 89
1.2
1.4
1.7

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3.2
5.5
17
13

7.1
5.9
5.7
5.5
5.4

5.3
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7.9
11

149.39
4.82
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15
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23

98
116
62

37

31
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27
27

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24

871
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116
13
1.730

1969 TO
1970 TO

NOV

8.7
8.1
32
42
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35
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NOV

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22

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fAL 27,771.

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192
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222
122
99
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85

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60.8
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SI

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52
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272

163
152
329
3.0BO
1,100

3.240
1.210

559

2,290
1,110
879
648
570

21.336
688
3.240
40

_, IN CUBIC FEET

DEC JAN

24 38
24 36
25 34
26 31
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25 28
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2b 35

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57
109
58
45
103

146
78
S3

43
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24
2.610

0 MEAN
6 MEAN

212

133
95
93
213
285

1,810
949
381

212

250
249
185
234
195

162
201
189

133
120

226

28
13,880

250
76.1

43«

369

1.150
700
522

39S

473

739
513
714
820
657

634
557

3.200

1.580
985
97S

22,671
810
3.200
355

MAX 222

PER SECOND

FEB

114
104
98
94
84

75
73
70

65

68
72
90
200
143

120
249
169

124

114
106
102
99
93

90
89
130

109

65
6,040

MAX 3,240
MAX 1,810

831

671

565
517
465

625

465

378
382
399

390

611
434

399

382
386
386
390
390

15,437
498
1,130
378

MIN
M1N

, WATER

MAR

597
631
300
290
372

256
225
208

190

172
158
155
155
154

150
148
143
132
127

125
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123
121
122

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121
114

112
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196

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12,020

MIN 1
MIN

382

390

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639
517

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12, 86
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. 80 AC-FT

YEAR OCTOBE

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2 AC-FT
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248
255
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260

235
231
227

54 123
52 122
58 119
64 117

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84 92

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74 71

165 157 63

140 155 59
191 152 56
200 15n 55
208 145 53

193 140 49
194 137 45
193 135 48
189 133 44
179 131 40

7,103 4,920 2,517
229 164 81.2
285 248 126
140 131 37

179, POO

R 1969 TO SEPTEMBER 1970

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110 79 33
109 75 31
109 70 30
107 69 30
107 65 29

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108 60 25
112 60 24
110 103 22
109 8« 23

108 73 22
107 68 21
104 70 21
104 70 20
104 73 18

105 63 17
103 SB 17
100 54 16
101 51 9.0
100 48 7.7

99 45 6.3
97 43 5.7
96 40 5.8
94 38 5.9
91 36 6.2

90 37 6.2
89 40 5.9
88 45 5.0

85 36 4.8

101 58.6 16.2
112 103 33
81 36 4.4
6,190 3,490 999

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2.4
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3.0
2.9
3.2

2.9
2.8
2.7
2.7
2.7

82.0
2.73
3.2
2.2
163

SAN JOAQUIN RIVER BASIN

11257700 PICAYUNE CREEK NEAR COARSEGOLD, CALIF.

LOCATION.--Lat 37°13'15", long 119°42'25", in NW'sSW's sec.20, T.8 S., R.21 E., Madera County,
Highway 41, 3.0 miles south of Coarsegold.

DRAINAGE AREA.--8.17 sq mi.

PERIOD OF RECORD.--Annual maximums, water years 1960-64. October 1964 to September 1968. Annual maximums, water years 1969-70.

GAGE.--Crest-stage gage. Altitude of gage is 1,860 ft (from topographic map). Sept. 21, 1959, to Sept. 11, 1964,

site

EXTREMES

Date
Dec. 30,

Dec. 6,
Jan. 24,
Jan. 30,
Mar. 12,

. --Max

Ann

1965

196
196
196
196

Mar. 16, 196

No flow for

imums ind minim Jms (discharge

ual maximum discharge I

Time
0200

1600
1600
2100
2200
1200

Disch. *31

158
56
94
96
116

G.H.
2.56

4.35
3.03
3.54
3.60
3.85

*) and

Date
Mar.

Apr.
Apr.
Apr.
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Apr.
May

vear .

in cubic

peak disc

31,
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11,
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1967
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1967
1967
1967
1967

feet per second

harges

Time
2300
1300
0100
1800
1900
0700
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gage h

above base (40 c

Disch.
43
104
85

45 393
157
45

G.H.
2.81
3.71
3.45
2.84
6.91
4.37
2.85

eight in feet) .

fs) , water years 1966-70

Date Time Disch. G.H
Mar. 8, 1968 0915 *9.2 1.9

Jan. 21, 1969 - »979 11.5

Mar. 1, 1970 - *224 5.1

REMARKS.- - Re
water years 1966-67 are i

REVISIONS.--KSP 1930: Draii

DISCHARGE,

liable in files of the district office.

IN CUBIC FEET PER SECOND. WATER YE4W OCTOBIK 1965 TO SEPTEMHER 1966

DAY

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TOTAL
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MAX
MIN
AC-FT

WTR YR

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1966 TOTAL 333.

DEC JAN FEB MAR APR MAY

. 40 7.0 3.
. 20 4.5 2.
. 20 3.5 2.
. 20 3.2 2.
. 20 2.8 2.

. 20 2.5 7.
. 20 9.7 4.
. 20 3.9 3.
. 20 2.8 3.
. 10 2.3 3.

. 20 1.8 3.
1.3 1.6 5.
. 50 1.5 4.
. 40 1.5 8.
. 40 1.4 8.

. 20 1.4 2.
. 20 1.3 2.
. 20 1.3 2.
. 20 1.2 2.
. 20 1.2 2.

. 20 1.2 2.
. 20 1.2 2.
. 20 1.2 2.
. 20 1.2 3.
1.0 1.0 2.

. 70 1.0 3.
. 50 1.0 2.
. 80 1.0 2.

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1.8

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. 6 .40
. 6 .20
. 5 .20
. 5 .40

. 5 .40
. 3 .20
. 3 .20
. 3 .40
. 1 1.2

. 8 1.2
. 6 .80
. 5 .50
. 5 .40
. 3 .40

. 3 .20
. 2 .20
. 3 .20
. 6 .10
. 5 .10

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. 0 .10
1.6 .80 .10
1.6 .80 0
1.6 .70 0

1.6 .70 0
1.6 .70 0
1.6 .70 0
11 1.2 1.6 .50 0
13 4.1 1.6 .50 0
15 2.6 1.6 0

48.70 73.1 97.5 59.8 37.50 8. SO

1.57 2.36 3.48 l.<)3 1.25 .27 15 9.7 8.8 2.5 2.1 1.2
. 10 1.0 2.1 1.6 .50 0
97 145 193 119 74 17

00 MEAN .91 MAX 15 MIN 0 AC-FT 661

SAN JOAQUIN RIVER BASIN

11257700 PICAYUNE CREEK NEAR COARSEGOLD, CALIF.--CONTINUEn

DISCHARGE, IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEd MAR APR MAY JUN JUL

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TOTAL
MEAN
MAX
M1N
AC-FT

CAL YR

DAY

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TOTAL
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AC-FT

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96
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1966 TOTAL 368.10

DISCHARGE.

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1.3
6.3
2.5
25
20

7.5
5.1
3.9
8.5

41

1S1.10
4.87
41
. 10
300

16
10
7.8
6.5
5.8

5.1
4.3
3.9
3.5
4.5

2.8
2.6
2.5
2.3
2.1

2.1
2.0
2.0
1.8
1.8

1.6
1.5
1.5
1.5
5.1

3.2
2.3
2.0

108.1
3.86
16
1.5
214

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1967 TOTAL 2.5'»7.26

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. 1)3
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. 03

.0.1
. 06
. 12
. 12

2.7

4.09
. 13
2.7
0
B.I

6.98

. 8
. 6
. 6
. 8
. 6

1.5
1.3
1.3
1.3
1.2

8.0
41
54
39
18

57
27
17
13
10

9.2
8.8
8.2
7.5
7.0

6.8
6.2
9.9
14
9.5
26

412.1
13.3
57
1.2
817

28 20
26 1»
17 16
29 15
38 14

23 13
77 12
32 10
22 10
22 24

56 14
28 10
21 9.5
20 9.0
29 8.5

25 7.8
20 7.2
185 6.5
136 6.E
115 6.0

114 5.8
113 5.5
57 5.3
94 4.9
45 4.7

34 4.3
30 4.1
28 4.3
23 4.5

21 4.7

. 3 .50
. 1 .40
. 5 .40
. 1 .30
. 5 .30

. 5 .20
. 3 .20
. 1 .10
. 7 .10
. 5 0

. 3 0
. 2 0
. 0 0
. 8 0
. 5 0

. 3 0
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. 8 0
. 5 0
. 3 0

. 3 0
. 2 0
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. 80 0
. 80 0

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. 70 0
. 60 0
. 60 0
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1.508 289.9 75.50 2.50
50.3 9.35
IBS 24
17 4.1
2.990 575

'.52 .Ofll
5.3 .50
. 50 0
150 5.0

WIN 0 AC-FT 730

PtR SECOND. WATER

FEB

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. 36
. 20
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. 36

. 20
. 17
. 14
. 17
. 17

. 17
2.8
1.3
. 84
2.5

2.0
1.2
. 84
. 68
. 52

. 5?
. 36
. 36
. 20
. . . . . .

17.64
. 61
2.B
. 14
35

MAX 185

MAR

. 20
. 20
. 17
. 17
. 17

. 17
. 42
4.3
1.6
1.0

. 68
. 52
3.9
2.1
1.3

2.2
2.5
1.5
1.3
1.2

1.0
. 64
. 68
. 52
. 52

. 52
. 52
. 36
. 36
. 36
. 20

31.48
1.02
4.3
. 17
hi

MlN 0

YEAR OCTOBER 1967 TO

APR MAY

1.3 .09
2.6 .06
1,5 .06
1.0 .06
. 84 .06

. 84 .06
. 68 .06
. 52 .06
. 52 .06
. 36 .06

. 36 .06
. 36 .06
. 36 .11
. 36 .83
. 20 .20

. 20 .14
. 20 .12
. 17 .12
. 17 .12
. 14 .12

. 14 .09
. 12 .09
. 12 .09
. 12 .06
. 12 .06

. 12 .03
. 12 0
. 09 0
. 09 0

.09 a
0

13.81 2.93
. 46 .095
?.6 ,83
. 09 0
27 5.8

«C-fT 5,050

SEPTEMBER 1968

JUN JUL

0 0
0 fl
0 0
0 0
0 0

SAN JOAQUIN RIVER BASIN

11258000 FRESNO RIVER NEAR DAULTON, CALIF.

LOCATION.--Lat 37°05'51", long 119°53'19",
0.4 mile downstream from Willow Creek and 5.3 mile

DRAINAGE AREA.--258 sq mi.

PERIOD OF RECORD.--October 1941 to September 1970.

:.3, T.10
;outheast

. , R.19 E. , Made
f Daulton.

AVERAGE DISCHARGE.--29 years, 108 cfs (78,250 acre-ft per year); (54,300 acre-ft per year).

of yearly mean discharges, 75 cfs

Date
Dec.

Dec.
Dec.
Jan .
Jan.
Mar.

Apr.
Apr.

30,

3,
6,
25,
31,
16,
7,
18,

1965

1966
1966
1967
1967
1967
1967
1967

Time
0830

-

1530
0200
0515
2215
1630
2400

Disch. *882

1,000
4,850
1,070
1,880
2,270
2,210
*5,590

G.H.
4.22

8.11
4.21
5.76
5.96
5.90
8.26

Date
May

Feb.

Jan .
Jan'.
Jan.
Jan.
Feb.

10,

21,

14,
19,
21,
25,
6,

1967

1968

1969
1969
1969
1969
1969

Time
1900

0030

0600
1400
1500
1230
2230

Disch.
990

*273

2,570
6,320
9 ,820
11,100
1,830

G.H.
4.34

2.86

6.09
9.37
10.10
10.58
5.39

Date
Feb.
Mar.
Mar.
Apr .

Jan.
Jan.
Mar.
Mar.

24,
10,
21,
5,

15,
16,
2,
5,

1969
1969
1969
1969

1970
1970
1970
1970

Time

0715
1015
2300

0500
1715
0330
0330

Disch.
*17,300
1,390
1,390
3,800

791

*4,420
2,280
1,290

G.H.
12.69
4.47
4.50
6.97

3.75
7.80
5.84
4.61

No flow at times in each year.
Period of record: Maximum discharge, 17,500 cfs Dec. 23, 1955 (gage height, 12.64 ft, present datum), from rating curve extended above 6,400 cfs on basis of slope-area measurement at gage height 12.69 ft; maximum gage height, 12.69 ft Feb. 24, 1969; no flow at times in most years.
Flood of Mar. 3, 1938, reached a discharge of 15,000 cfs (furnished by Bureau of Reclamation).

on

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

1
2
3
4
5

6
7
B
9
10

11
12
13
14
15

16
17
IB
19
20

21
22
23
24
25

26
27
2B
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

WTR YR

OCT

6,9
4,6
4.6
3.9
4.8

5.9
6.6
6.2
6.6
6.2

5.2
5.6
9.2

7.9 ia
15
18
16
17
15

13
13
13
13
12

11
11
9.9
11
11
9.9

9.B4
18
3,9
605

1966 TOTAL

NOV

9.B
9.7
10
11
11

12
12
11
9.B
9.6

11
12
14
21
113

118
23B
16B
152
113

B9
7B
121
2B8
382

219
143
116
93
80

89.2
382
9.6
5,310

a2,5f

DEC

70
59
56
SB
56

54
51
50
48
46

49
67
73
59
54

52
50
44
39
42

48
50
4B
41
47

60
55

54 a47
625

94.1
625
39

)9.40 MEAN

JAN

506
270
205
172
136

132
125
127
122
113

106
102
95
91
91

85
78
73
69
6B

6B
64
60
58
58

56
54
sa
49
91
160

114
506
49

61.9

FEB

114
129
99
89
106

211
309
19B
152
141

132
117
113
107
116

111
9B
95
92
93

91
BB
89
97
115

109
106
95

. . . . . .
. . . . . .

122
309
BB

MAX 625

MAR

91
94
91
87
81

80
83
82
82
101

124
119
120
122
123

120
115
111
10B
112

110
lol
97
98
97

97
9B
98
95
9B
107

lol
124
80

MIN o

APR

113
10B
109
113
110

103
103
104
100
112

119
107
105
102
95

92
90
95
117
103

96
96
91
88
90

BB
87
sa
78
93

99.6
119
7B

AC-FT
AC-FT

MAY

107
112
111
110
101

106
107
107

109 ia7

143
130
112
104
99

91
B5
85
87
83

72
68
67
65
60

sa
47
45
43
40

87.6
143
40

102,700
44,810

JUN

40
3S
37
31
29

33
33
34
29
32

2B
30
as
23
23

19
17
18
17
15

16
14
15
15
14

12
12
12
11
11

22.8
40
11
1.350

JUL

11
11
10
11
10

9.7
9.7
9.0
9.0
10

10
8.7
B.3
7.3
6.4

5.8
5.5
4.8
4.6
5.7

5.8
5.2
4.5
4.0
3.6

3.1
2.B

a. 6
3.1
1.2
1.6

205.0
6.61
11
1.2
407

AUG

1.8
3.5
3.1
1.3
. 70

. 50
. 30
.ao
. 10
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0
0

11.50
. 37
3.5
0
23

SEP

n
0
n
n
n

SAN JOAQUIN RIVER BASIN

11258000 FRESNO RIVER NEAR DAULTON, CALIF.--CONTINUED

1 0 4.9
2 0 5.0
3
4
5

6
7
g
9
10

1)
12
13
1»
15

16
17
IB
19
20

21
22
23
2ft
25

26
27
28
29
30

5.1
5.0
5.1

6.3
9.6
11
13
12

12
12
11
. 3 11
.ft 11

. 1 13
. 5 36
. 2 36
. 3 23
. 1 25

. 1 ft8
. 2 55
. 8 56
. 8 ftl
. 1 30

. 7 27
. 6 25
. 1 28
. 1 ftl
. 1 63

TOTAL 73.7 681.0
MEAN 2.38 22.7

MIN 0 ft. 9
AC-FT 146 1.350

CAL VR 1966 TOTAL 26,913
HTR YR 1967 TOTAL 93,976

71
130
600
250
1,000

ft, 030
1.190
301
185
139

114
95
93
95
86

8ft
86
82
78
74

7ft
70
66
64
62

62
6ft
57
51
55
57

9,465
305

51
18,770

. 20 MEAN
. 80 MEAN

55
55
55
55
54

53
51
ft9
ft9
ft9

51
51
51
51
49

ft9
ft9
49
48
ftB

76
232
191
222
535

285
229
206
278
616
1.290

5,181
167

fte
10,260

73.7
257

6ftB
420
330
274
250

236
218
206
191
182

173
164
158
152
142

136
131
126
126
118

111
109
106
106
152

158

128 lie

5,369
192

106
10,650

MAX 4,030
MAX 4,030

113
110
110
113
109

105
103
102
100
100

122
503
1.170
986
503

1.000
1.140
620
464
391

346
331
313
292
270

258
245
240

295

11,438
369

100
22,690

MIN
MIN

615
605
503
537
1,190

743
1.840
1,230
814
686

1,490
1,030
734
628
815

890
651
1,950
2,900
2,240

2,180
2,540
1,610
2,240
1,540

1,220
1,100
1,130
895
785

37,331
1,244
2,900
503
74,050

0 AC-FT
0 AC-FT

729
667
633
617
611

549
507
499
497
714

647
491
440
416
409

415
419
409
392
381

368
357
341
346
345

341
332
318
315
310
298

14,113
455
729
298
27,990

53,380
186,400

TO SEPTEMBER 1967

305
287
273
266
281

284
267
254
245
235

230
226
220
216
208

201
197
191
182
179

175
172
167
161
15*

150
145
141
139
137

6,288
210
305
137
12,470

JUk.

129
125
122
119
118

117
111
108
105
103

100
92
93
97
97

100
96
88
86
83

82
84
84
81
70

6
5
1
1
2
3

2,866
92.5
129
61
5,690

AUG

60
52
50
48
47

45
40
36
37
42

37
31
29
30
31

29
27
21
20
21

20
20
18
16
16

IB
17
17
16
15
13

919
29.6
60
13
1,820

SEP

17
9.3
7.1
5.0
5.1

4.B
4.1
4.1
4.3
4.6

5.1
6.1
7.4
7.4
7.4

7.4
6.7
7,0
B.2
11

13
12
11
11
11

11
11
10
11
10

250.1
8.34
17
4.1
496

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
4
5

6
7
B
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
KTR YR

9.4
8.B
8.2
9.5
12

12
14
14
14
14

13
13
14
13
12

111111

11
10

9.0
9.1
9.0
9.4
9.0

B.3
7.4
7.4
7.9
9.1
11

331.5
10.7
14
7.4
65B

1967 TOTAL
1968 TOTAL

12
11
11
11
9.9

10
9.8
10
10
9.5

9.6
8.6
9.6
11
12

14
12
13
15
26

29
20
15
13
15

15
16
18
19
26

421.0
14.0
29
8.6
835

85.453
13,255

31
22
19
20
27

65
40
34
29
27

25
28
27
23
19

21
25
24
33
32

30
Z9
31
33
35

35
33
34
36
39

944
30.5
65
19
1,870

. 60 MEAN
. 91 MEAN

32
27
29
32
28

27
24
28
29
34

48
50
43
41
3B

75
69
51
44
40

41
45
40
39
37

38
47
52
40
37
58

1.263
40.7
75
24

2,510

234
36.2

71
59
51
53
55

57
58
53
51
70

72
66
53
55
64

62
72
172
132
143

233
168
132
118
109

97
93
91
88

2.598
89.6
233
51
5,150

MAX 2,900
MAX 233

80
74
69
68
66

67
64
85
155
109

87
78
95
131
101

95
142
130
107
96

91
91
86
78
76

78
78
76
72
72
74

2,773
89,5
155
64

5,500

MIN
MIN

78
117
116
98
86

82
77
74
72
72

74
78
78
75
72

67
67
68
69
66

69
66
60
61
62

62
66
70
66
70

74.7
117
60
4,440

4.1 AC-FT
0 AC-FT

80
81
78
72
70

71
71
69
64
55

57
63
68
84
86

80
78
70
65
62

63
59
52
55
49

48
45
41
36
35
39

62.7
86
35
3,860

169,500
26,290

38
35
35
31
28

32
32
34
39
37

30
26
24
23
22

20
20
21
21
20

18
17
17
15
13

13
9.3
8.6
7.2
7.8

23.1
39
7.2
1,380

6.0
6.6
6.0
4.5
2.9

2.5
2.5
1.9
1.5
3.0

2.9
1.7
. 92
. 56
. 46

. 34
. 23
. 10
0
0

0
1.9
0
0
0

0
0
0
0
0
0

1.50
6.6
0
92

SAN JOAQUIN RIVER BASIN

11258000 FRESNO RIVER NEAR DAULTON, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY

1
2
3
4

s

6
7
8
9
10

11
12
13
14
IS

16
17
18

1920
21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
M1N
AC-FT

CAL YR
WTR YR

OCT

0
0
0
0
0

0
0
0
0
0

0
0
2.8
15
11

8.6
5.6
4.3
3.8
4.1

3.5
3.2
3.0
3.2
3.4

2.7
2.6
2.8
3.3
6.2
6.1

95.2
3.07
15
0
189

1968 TOTAL
1969 TOTAL

NCW

9.7
7.7
17
48
27

15
13
11
12
12

11
13
23
26
27

37
29
27
25
25

21
19
17
17
18

19
16
15
15
15

587.4
19.6
48
7.7

1,170

14,532
135,328

DEC

16
22
21
15
15

16
15
15
15
14

28
60
35
31
57

245

81
62
S3

40
30
28
34
129

378
206
129
150
117

2,290
73.9
378
14
4,540

JAN

73
65
60
53
55

58
55
51
46
46

44
40
113
1,450
402

238

168
3,800
1,690

6,360
2,520
1,100
872
5,790

3,850
1,840
1,360
1,080

710

35,019
1,130
6,360
40
69,460

01 MEAN 39.7
60 MEAN 371

DISCHARGE, IN CUBIC FEET

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
IS

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

OCT

11
11
11
11
11

11
11
13
13
13

13
14
14
14
16

39
124
78
58
49

40
35
33
36
37

35
29
30
27
26
26

889
28.7
124
11
1,760

1969 TOTAL
1970 TOTAL

NOV

25
24
23
24
24

30
58
49
38
38

33
31
30
32
30

28
31
26
27
26

26
27
25
24
24

25
29
26
24
23

8BO
29.3
58
23
1,750

135,597.
34,907.

DEC

22
22
28
31
30

26
22
24
27
31

32
28
26
26
24

23
24
23
27
43

67
103
88
61
66

189
113
76
60
55
S5

1,472
47.5
189
22
2,920

JAN

53
45
42
40
37

33
33
35
43
174

195
133
112
176
511

2,330
1,650
684
374
293

263
313
240
263
273

212
208
271
194
164
146

9,544
308
2,330
33
IS, 930

00 MEAN 371
99 MEAN 95.6

615 2,170
573 1,440
494 1,450
458 1 , 1 1 0
792 930

1,600 846
1,180 762
810 685
665 665
578 1,210

537 910
725 759
720 835
546 662
1,000 611

1.310 574

1,230 570
1,490 558
1,100 551

1,070 1.040
925 695
1,400 586
7,250 564
5,050 528

3,000 509
1,720 498
1,560 490

a

39,262 24,218
1,402 781
7,250 2,170
458 478
77,880 48,040

MAX 378 MIN
MAX 7.250 MlN

PER SECOND, MATER

FEB MAR

132 652
122 1,400
111 559
108 488
101 937

94 524
89 414
86 358
SI 318
81 293

91 264
86 235
118 220
248 213
186 210

142 204
290 192
254 184
166 172
152 159

132 154
120 150
113 147
108 145
100 145

95 146
94 142
112 133
130

126

3,628 9,554
130 308
290 1,400
81 126
7,200 18,950

MAX 7,250 MIN
MAX 2,330 MIN

466
446
780
550
1,040

1,950
942
715
630
630

586
560
537
514
482

454

430
414
402

410
398
406
461
378

358
348
332
331
328

16,712
557
1,950
328
33,150

0 AC-FT
0 AC-FT

314
309
299
294
285

283
282
313
315
316

313
305
297
292
285

270
266
262
251
232

187
196
227
233
235

229
218
216
211
20k
201

8,140
263
316
187
16,150

28,820
268,400

YEAR OCTOBER 1969

APR

118
111
111
110
108

110
108
108
104
109

112
112
110
136
131

125
120
116
116
US

108
112
114
112
109

107
119
117
114
110

3,412
114
136
104
6,770

11 AC-FT
0 AC-FT

MAY

115
115
113
109
109

108
107
111
115
115

110
107
106
106
105

102
99
97
95
97

98
97
94
91
90

89
87
85
85
85
83

3,125
101
115
83

6,200

269,000
69,240

189
181
178
175
173

167
165
163
169
264

234
206
199
188

18)

187
201
19?
179
171

164
159
157
156
157

154
149
1*6
1*2
139

5,285
176
264
139
10,480

135
131
127
124
123

121
119
116
109
105

1H3
99
100
102
96

87
79
75
72
67

62
59
58
56
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52
47
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43
39

2.657
85.7
135
39
5,270

38
37
35
32
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21
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16
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16
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13

681
22.0
38
13
1.350

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13
13
12
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12
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12
14
13

12
12
13
13
13

13
14
16
14
14

13
14
14
13
11

11
12
12
11
11

382
12.7
16
11
758

TO SEPTEMRER 1970

JUN

82
79
76
72
70

68
66
64
66
84

85
78
73
72
71

70
67
63
60
56

54
5?
48
45
41

38
41
47
44
40

1,872
62.4
85
38

3,710

JUL

37
33
32
31
30

26
24
23
22
22

22
22
22
20
19

17
15
13
11
5.7

3.9
3.3
2.8
2.6
2.6

2.8
2.9
2.8
2.4
2.1
2.1

477.0
15.4
37
2.1
946

AUG

2.0
1.9
1.9
. 8
. 7

. 5
. 5
. 7
. 0
. 66

. 40
. 43
. 54
. 31
. 18

. 07
. 20
. 03
0
0

0
. 20
. 65
. 83
. 79

. 75
. 76
. 65
. 41
. 39
. 46

23.71
. 76
2.0
0
47

SEP

. 56
. 75
. 71
. 65
. 67

1.2
. 64
. 75
1.1
1.1

. 78
. 60
. 66
. 76
,71

. 84
. 0
. 2
. 4
. 3

. 3
. 2
. 4
. 5
. 5

. 6
. 5
. 4
. 3
. 2

31.28
1.04
1.6
. 56
6?

SAN JOAQUIN RIVER BASIN

11258800 EAST FORK CHOWCHILLA RIVER NEAR AHWAHNEE, CALIF.

LOCATION.--Lat 37°20'10", long 119°48'55", in NUMjSWH sec.8, T.7 S., R.20 E., Madera County, on right 1.1 miles upstream from mouth and 5.5 miles west of Ahwahnee.

DRAINAGE AREA.--57.8 sq mi.

PERIOD OF RECORD.--October 1957 to September 1967. Annual maximum, water year 1969 (discontinued).

GAGE.--Crest-stage gage. Altitude of gage is 980 ft (from topographic map). Prior to Oct. 1, 1967,

AVERAGE DISCHARGE.--10 years, 31.5 cfs (22,810 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet) for the wa 1966-67, 1969 are contained in the following table:

Wtr yr Date
1966 Dec. 29, 1965
1967 Dec. 6, 1966
1969 Jan. 25, 1969

Discharge G.H.
862 6.67
2,660 9.15
4,800 11.20

Date

Many days
Several days

Minimum daily
Discharge

days in 1959-67.

REMARKS.--No diversion above station

;, 1969 (gage height, 11.20 ft); no flow for many

DISCHARGE. IN CUBIC FEET PER SECOND. MATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

NOV DEC JAN FE8 MAR APR MAY JUN JUL

31

TOTAL
MEAN
MAX
MIN
AC-FT

2.6
2.1
1.8
1.8

1.6
1.6

Z.I
Z.I
Z.I
Z.I
2.2

Z.I
2.1
Z.I
Z.I
2.3

13*
253
152

1.387.6
46.3
253
2.1
2.750

271
261
260

1.278
41.2
271
12
2.530

46

1,344
43.&
126
16
2,670

1,087
38.8
119

19
19
18
18

751
26.2
31
18
1.490

17
18
18
16
16

15
15
14
15
26

21
18
17
15
15

14
13
14
22
18

15
13
12
13
12

11
11
11
10
10

455
15.2
26
10
902

AC-FT
AC-FT

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28

23
J7
13
13
12

10
9.
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7.

7.
6.
6.
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6.

6.
5.
5.
5^
6.

307.
9.9
2
5.'

61

33.750
13.680

3 6.8
b 6.2
> 5.7
S 5.6
5.7

i 5.8
1 5.0
3 6.1
5.9
5.4

6.6
4.2
3.6
3.4
2.9

2.5
'. 2.4
2.3
2.1
2.0

1.7
1.6
2.0
1.9
1.8

1.4
1.3
1.3
1.1
1.0

103.3
3.44

) 6.8
1.0
205

. 60 .10
. 80 0
. 90 0
. 80 0
. 90 0

. 60 0
. 50 0
. 30 0
. 40 0
. 40 0

. 40 0
. 40 0
. 50 0
. 50 0
. 50 0

. 60 0
. 30 0
. 30 0
. 30 0
. 20 0

. 20 0
. 10 0
. 10 0
0 0
. 10 0

0 0
0 0
0 0
0 0
0 0
. 10 0

10.80 .10
. 35 .003
. 90 .10
0 0
21 .2

0
0
0
0
0

SAN JOAQUIN RIVER BASIN

11258800 EAST FORK CHOWCHILLA RIVER NEAR AHWAHNEE, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30

OCT NOV

. 10
. 10

. 20
. 20 1
. 30
. 40
. 30 IS

. 0 21
. 0 26
. 0 19
. 0 8
. 0 6

. 0 5
. 0 5
. 40 5
. 60 14
. 60 8

TOTAL 6.70 189 MEAN
MAX
MIN
AC-FT

. 22 6
. 70
0

. 70
. 70
. 80
80
70

1

9
6

4
4
7

20
31
26
70
13 375

CAL YR 1966 TOTAL 7.009
WTR YR 1967 TOTAL 26,745

DEC

6.9
96
149
32
476

1,310 aai
98
47
18

16
16
17
17
17

17
17
16
15
14

13
12
12
12
12

13
11
11
11
11
11

2,754.9 1.
88.9
1,310
6.9
5,460

. 30 MEAN
. 80 MEAN

JAN

11
10
10
10
10

11
10
11
11
11

10
10
6
3
3

3
3
3
1
3

35
130
53
220
147

86
78
74
174
397

962.5
63.3
397
9.1
3,890

19.2
73.3

FEB

173
126
101
87
74

62
53
46
44
40

38
37
35
34
32

31
30
29
28
28

25
25
25
24
40

33
29
27

1,356
48.4
173
24
2,690

MAX 1,310
MAX 1,310

25
24
24
27
25

24
24
23
33
20

84
342
364
219
150

733
286
193
152
132

120
112
105
104
98

97
95
120
122
105
140

4,112
133
733
20
8.160

MIN 0
MIN 0

154
183
14B
356
257

203
598
366
210
207

311
223
197
181
232

204
179
452
419
407

461
452
398
447
334

295
303
293
231
216

8,717
291
598
148
17,290

AC-FT
AC-FT

200
203
205
200
198

188
195
205
213
283

205
186
179
174
173

172
174
172
163
156

148
142
134
128
122

116
109
105
103
100
102

5,152
166
283
100
10,320

13,900
53,050

97
93
88
85
92

88
83
80
77
76

72
74
73
66
60

56
50
45
43
42

39
36
35
35
32

31
31
30
29
38

1,765
58.8
97
28
3,500

JUL AUG SEP

26
24
24
?2
21

24
21
20
20
19

19
IB
18
16
16

16
15
14
14
14

13
13
12
12
11

9.8
9.3
8.7
8.2
8.2

, 3.3
. 3.3
. 2.6
2.8
2.6

2.6
2.6
. 2.6
2.6
2.6

2.6
. 2.6
. 2.8
2.6
2.3

2.3
2.3
4.3
8.3
5.1

4.3
3.7
4.0
4.0
4.n

4.0
3.4
3.4
3» 1
3.<t

493.9 138.6 98.0
15.9 4.47 3.37
36 7.2 8.3
7.7 ?.6 2.3
980 275 194

SAN JOAQUIN RIVER BASIN

11258900 WEST FORK CHOWCHILLA RIVER NEAR MARIPOSA, CALIF.

DRAINAGE AREA.--33.6 sq mi.

PERIOD OF RECORD.--October 1957 to September 1970.

GAGE.--Water-stage recorder. Altitude of gage is 1,680 ft (from topographic map).

AVERAGE DISCHARGE.--13 years, 18.9 cfs (13,690 acre-ft per year); median of yearly mean discharges, 14.5 cfs (10,500 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet) for the water years 1966

Wtr yr
1966
1967
1968
1969
1970

Date
Dec.
Mar.
Feb.
Jan .
Jan.

29,
16,
17,
25,
16,

Ma>

1965
1967
1968
1969
1970

1 owl g t e

Discharge
1,380
1,900
92
4,350
2,220

G.H.
6.95
7.32
4.16
a8.93
7.79

Date

Many days

do!

Minimum daily
Discharge

In gage well; 11.1 ft, from floodmarks.

Period of record: Maximum discharge, 4,350 cfs Jan. 25, 1969 (gage height, 8.93 ft in gage well, 11.1 ft, from floodmarksj; no flow for many days in each vea

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

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

2
3
4
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6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN

CAL YR WTR YR

o .10
0 .10
0 .10
0 .10

0 .10
0 .10
0 .20
0 .20
0 .20

0 .20
0 .20
0 .30
0 3.3
. 10 9.7

0 33
0 110
0 25
0 24
0 5.2

0 2.9
0 68
0 151
0 265
0 85

0 21
0 12
0 12
. 10 12

. 10 11 .10

. 40 852.10 1
. 013 28.4
. 10 265
0 .10

1965 TOTAL 10.344.
1966 TOTAL 3.787.

9.9
9.1
B.5
7.8

7.3
6.9
6.2
6.1
5.7

5.7
IS
10
8.1
6.8

6.2
s.s
5.2
it. 8
4.9

5.3
4.9
<>. 6
4.2
25

14
8.6
28
379
223
195

. 041.3
33.6
379
4.2

90 MEAN
00 MEAN

60
49
40
36

34
33
33
30
26

22
21
19
17
16

15
13
12
11
11

10
10
9.8
9.1
8.6

8.4
7.8
6.9
6.9
36
23

727.5
23.5
93
6.9
1.440

28.3
10.4

16
13
13
15

76
46
34
27
25

22
21
20
20
19

18
17
17
16
15

15
15
14
1*
IS

21
17
16
- ..-

596
21.3
76
13
1.180

MAX 922
MAX 379

16
14
14
13

13
12
11
12
15

13
12
11
11
10

10
9.6
9.7
9.0
8.6

8.5
9.0
8.2
8.2
7.7

7.3
7.2
7.2
6.9
6.7
6.8

323.6
10.4
16
6.7
6lt2

MIN 0
MIN 0

6.7 3.2
6.5 3.1
5.9 3.2
5.5 3.1

5.3 2.8
5.1 2.6
5.1 2.5
5.3 2.6
9.0 12

7.2 6.5
6.7 4.3
5.8 3.5
5.1 2.9
4.9 2.3

4.8 2.0
4. It 1.9
5.1 1.6
8.6 l.S
5.3 1.4

5.2 1.2
5.0 1.1
4.6 1.1
4.6 1.0
4.5 .90

4.1 .80
4.1 .80
4.2 .70
4.1 .70
4.0 .80
. 80

163.7 76.60
5.46 2.47
9.0 12

4.0 .70 325 152

AC-FT 20,520
AC-FT 7,510

. 60
. 60

.5(1
. 50

. 50
. 50
. 50
. 40
. 30

. 20
. 20
. 10
. 10
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

5.80
. 19
. 80
0
12

SAN JOAQUIN RIVER BASIN

11258900 WEST FORK CHOWCHILLA RIVER NEAR MARIPOSA, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1">67

DAY

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2
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4
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6
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8
9
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11
12
13
14
IS

16
17
18
19
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21
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23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
HTR YR

OCT NOV

0
0
0
0
0

0
0
0
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0 1.
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0 .

50
80
10

20
10

70 1
57
80
0 0
0 3.4

1966 TOTAL 3.497
1967 TOTAL 14.438

DEC

. 10
103
75
7.8
342

843
94
38
20
13

8.7
7.0
5.7
4.8
4.2

3.8
3.5
3.1
2.8
2.5

2.3
2.1
1.9
1.7
1.7

2.2
1.7
1.5
1.7
1.7
1.6

. 602.10 1
51.7
843
. 10
3.180

. 00 MEAN
. 50 MEAN

JAN

1.5
1.3
1.3
1.3
1.3

1.2
1.3
1.3
1.3
1.4

1.4
1.4
1.5
1.5
1.4

1.4
1.5
1.4
1.5
1.6

7.0
75
22
133
102

44
32
27
114
243
205

. 031.8
33.3
243
1.2
2.050

9.58
39.6

DISCHARGE* IN CUBIC FEET

DAY

1
2
3
it
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

OCT NOV

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1967 TOTAL 12
1968 TOTAL

10
10
10
10

10
10
10
10
20

20
20
20
70
80

1
80
80
80
80

80
80
70
0
3

00
53
. 3
0
32

. 929
964

DEC

4.6
2.3
1.8
1.5
9.0

5.3
3.2
2.7
2.1
1.8

1.7
1.6
1.4
1.3
1.3

1.3
1.3
2.5
3.1
2.7

2.1
1.9
2.0
2.2
2.6

2.3
2.9
2.9
2.7
2.5
2.3

78.9
2.55
9.0
1.3
156

. 60 MEAN
. 80 MEAN

JAN

2.1
2.0
2.0
1.8
1.8

1.8
1.8
1.8
1.7
4.6

7.8
3.8
2.8
2.6
8.0

5.9
3.6
3.1
2.7
2.6

2.2
2.1
1.9
1.9
1.9

1.9
2.6
2.9
2.2
3.1
14

101.0
3.26
14
1.7
200

35.4
2.64

FEB

87
58
44
37
31

27
23
20
18
18

16
15
15
14
12

12
12
11
11
11

9.9
10
10
9.9
29

17
12
11

600.8 3
21. S
87
9.9
1.190

MAX 843
MAX 843

PER SECOND

FEB

8.0
5.S
5.3
4.6
4.1

3.8
3.5
3.2
6.3
10

5.9
4.6
4.2
7.3
5.5

5.9
50
29
12
37

28
16
11
9.4
8.5

7.8
7.3
6.8
6.8

317.3
10.9
50
3.2
629

MAX 723
MAX 50

MAR APR

11 133
10 149
12 108
13 203
11 210

10 183
10 415
10 170
9.9 129
9.8 121

99 217
447 142
357 114
206 105
136 152

723 126
226 106

106 295
92 276

81 353
73 281
68 224
62 232
57 177

55 156
51 161
76 151
74 126
64 117
U8

. 412.7 5.678 1
110 189
723 415
9.8 105

MAY JUM JUL

107 28 2.
100 24 2.
97 22 2.
92 20
87 25

81 24 .8
75 21 .3
71 19 .3
69 17 .1
97 16 .90

73 15 .70
65 15 .60
61 15 .60
55 14 .50
52 12 .50

49 11 .50
46 11 .40

41 9.6 .30
38 9.4 .30

35 8.0 .20
33 7.0 .20
30 6.3 .20
29 6.1 .20
27 5.3 .10

26 4.8 .10
25 4.2 .10
24 3.5 .10
24 3.2 0
23 2.8 0
25 0

. 700 389.1 22.30
54.8 13.0 .72
107 28 2.3
23 2.8 0

MIN 0 AC-FT 6.940
MIN 0 AC-FT 28.640

. HATER YEAR OCTOBER

MAR APR

6.6 10
6.1 12
5.7 7.0
5.5 6.3
5.1 6.3

4.9 5.9
5.1 5.5
19 5.3
11 4.9
7.5 4.6

6.3 4.6
6.1 4.4
14 4.2
10 4.1
8.0 3.9

10 3.8
20 3.9
13 3.6
10 3.3
9.1 3.3

8.3 3.2
7.8 2.9
7.3 2.8
6.8 2.8
6.8 2.8

6.6 2.7
6.1 2.7
5.9 2.5
5.7 2.2
5.5 2.1

1967 TO SEPTEMBER 196S

MAY JUN JUL

. 8 .40
. 7 .40
. 7 .30
. 6 .30
. 7 .30

. 6 .40
. 5 .70
. 4 .90
. 3 1.0
. 3 .70

. 3 .40
. 0 .30
. 1 .20
. 1 .20
. 1 .10

. 8 .10
. 1 .10
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. 0
. 90
. 70
. 50
. 30

254.9 133.6 56.30 6.80
8.22 4.45
20 12
4.9 2.1
506 265

. 82 .23
9.1 1.0
. 30 0
112 13

MIN 0 AC-FT 25.650
MIN 0 AC-FT 1.910

SAN JOAQUIN RIVER BASIN

11258900 WEST FORK CHOWCHILLA RIVER NEAR MARIPOSA, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND) WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

NOV DEC JAN FEB MAR APR HAY JUN JUL

1 0
2 0
3 .40
It .10
5 0

6 0
7 0
a o
9 0
10 0

11 0
12 .20
13 .10
U .20
IS 1.7 !

16 .50 e-
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18 .20
19 .20
20 .20

21 .20
22 .20
23 .20
24 .30
25 .40 I't

26 .40 S
27 .40 1
28 .30 £
29 .30 i
30 .30
31 ......

TOTAL 0 7.10 4Z
MEAN 0 .24
MAX 0 1.7
MIN 0 0
AC-FT 0 14

CAL YR 1968 TOTAL 1.301. 1C
HTR YR 1969 TOTAL 21.433.9C

DISCHARGE.

DAY OCT NOV

1 0 .80
2 0 .80
3 0 .80
4 0 .80
5 0 1.0

60S.
706.
802.
9 0 1.
10 0 1.

11 0 1.
12 0 1.
13 0 1.
14 0 1.
IS .20 1.

16 8.0 1.
17 5.3 1.
18 2.1 1.
19 1.6 1.
20 1.3 1.

21 1.1 1.
22 1.0 1.
23 .90 1.
24 .80 1.
25 .90 1.

26 .90 1.
27 .90 1.
28 .90 1.
29 .90 1.
30 .90 1.
31 .80 -

TOTAL 28.50 48.10 1
MEAN .92 1.60
MAX 8.0 6.3
MIN 0 .80

CAL YR 1969 TOTAL 21.230.40
WTR YR 1970 TOTAL b. 319. 50

. 60 .3 86
. 80 .4 78
. 70 .1 71
. 60 .3 64
. 50 .8 168

. 40 .2 311
. 40 .9 143
. 40 .6 105
. 40 .5 90
. 60 .2 83

3.6 .1 82
1.8 .1 147
1.1 21 102
2.2 16 91
2 3 257

7 21 153
7.0 14 115
3.2 317 192
3.6 1.480 208
2.7 363 143

1.8 1.530 132
1.4 246 127
1.4 112 213
6.8 163 1.330
6 1.720 435

4 623 429
9 201 239
6 155 280

4 100

4.10 7,714.5 5.874
13.7 249 210

126 1.720 1(330
. 40 3.1 64
841 15.300 11.650

MEAN 3.55 MAX 126
MEAN 58.7 MAX 1,720

IN CUBIC FEET PER SECOND

DEC JAN FEB

1.3 3.5 20
1.3 3.1 18
1.4 2.9 16
1.4 2.9 16
1.4 2.8 14

1.4 2.6 13
1.4 2.6 12
1.6 3.1 12
1.8 10 11
1.7 82 13

1.7 24 14
1.6 20 18
1.6 17 38
1.6 125 68
1.5 57 33

1.5 946 26
1.5 139 94
1.5 62 38
3.7 38 30
5.7 33 26

8.8 77 22
14 47 20
5.1 33 18
3.9 60 17
41 35 16

17 29 IS
7.5 63 IS
5.1 42 42
4.6 31 ....
3.9 26 ......
3.6 21 ......

51.1 2.040.5 695
4.87 65.8 24.8
41 946 94
1.3 2.6 11

MEAN 58.2 M«X 1,720
MEAN U.6 MAX 946

350 65 39 9.1 3.3 239 70 38 9.1 2.9 241 102 37 9.1 2.7 182 70 37 8.8 2.6 163 253 35 8.3 2.3

153 174 34 8.0 2.2 139 113 33 7.8 2.2 128 95 31 8.0 2.1 125 87 28 9.4 2.0 165 84 26 12 1.8

165 78 25 11 .8
149 74 21 10 .7
134 72 20 9.6 .7 118 70 20 8.0 .6 112 66 20 7.5 .3

107 63 19 7.3 .3 110 62 18 8.8 .2 112 60 17 7.5 .0 109 57 16 7.0 1.0 113 55 16 6.4 .80

193 52 15 5.9 .80 118 50 14 5.5 .70 105 74 14 5.3 .60 100 68 13 5.1 .60 92 53 12 4.8 .60

87 49 12 4.6 .60 84 46 12 4.4 .60

80 44 12 4.2 .60 75 42 12 3.9 .50
71 40 11 3.8 .40

6 g 10 .40

4.187 2,288 667 220.2 43.90 135 76.3 21.5 7.34 1.42 350 253 39 12 3.3
68 40 10 3.8 .40
8,300 4,540 1,320 437 87

MIN 0 AC-FT 2,580
MIN 0 AC-FT 42,510

, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

MAR APR MAY JUN JUL

401 14 9.4 .3 .90 147 14 9.1 .1 .70
74 14 8.8 .9 .60
134 14 8.5 .7 .50 127 12 7.8 .5 .40

74 12 7.5 .4 .30 63 12 7.5 .3 .20 57 12 7.5 .9 .20
51 11 7.3 1 .20
54 11 6.8 .9 .20

45 12 6.6 .6 .20 41 11 6.6 .9 .20 38 14 6.8 .7 .10 35 21 6.4 .7 .10 33 16 5.9 .7 0

32 14 5.3 .3 0
30 13 4.8 .0 0 28 12 4.4 .8 0
25 11 4.2 .6 0 25 11 4.6 .4 0

23 12 4.6 .2 0 22 12 4.4 .0 0 22 10 4.1 .90 0 21 12 3.8 .80 0 20 12 3.5 .90 0

20 12 3.2 1.1 0
19 15 3.2 1.7 0
17 12 3.2 1.4 0
18 11 3.1 1.2 0

17 10 2.9 1.1 0 16 ?.7 o

1,729 379 174.5 69.00 4.80 55.8 12.6 5.63 2.30 .15 401 21 9.4 14 .90 16 10 2.7 .80 0

MIN 0 AC-FT 42,110
MIN 0 AC-FT 10.550

. 30
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. 30
. 20
. 20

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. 20
. 20
. 20
. 30

. 20
. 30
. 70
. 70 .30
. 60 .30

. 60 .30
. 60
. 40
. 10
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0
0

7.20 .90
. 23 .030
. 70 .30
0 0
14 1.8

AUG SEP

0 0
0 0
0 0

0 0 0 0

SAN JOAQUIN RIVER BASIN

11258920 MIDDLE FORK CHOWCHILLA RIVER NEAR NIPINNAWASEE, CALIF.

DRAINAGE AREA.--13.6 sq mi.

PERIOD OF RECORD.--October 1958 to September 1967. Annual maximum, water year 1969 (discontinued).

gage. Altitude of gage is 1,520 ft (from topographic map). Prior to Oct. 1, 1967, wate
stage re at same site and datum.

AVERAGE DISCHARGE.--9 years, 7.92 cfs (5,730 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet) for the water yea 1966-67, 1969 are contained in the following table:

Wtr yr Date
1966 Dec. 29, 1965
1967 Dec. 6, 1966
1969 Jan. 25, 1969

Discharge G.H.
502 5.51
1,010 8.29
1,510 11.30

Date

Long periods
Many days

Minimum daily
Discharge

Period of record: Maximum discharge, 1,510 cfs Jan. 25, 1969 (gage height, 11.30 ft); no flow for several months in most years.

REMARKS.--Small diversion above station for irrigation.

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

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE,

NOV

IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
KTR YR

. 20
. 20
. 20
. 20
. 20

. 20
. 20
. 20
. 20
. 20

. 20
. 20
. 20
. 20
. 50

. 30
. 30
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. 10
. 10
. 10
. 20

6.20
. 20
. 50
. 10
12

. 20
. 20
. 20
. 20
. 20

. 20
. 20
. 20
. 30
. 30

. 40
. 50
. BO
4.2
7.5

17
109
26
13

4.5
4.8
44
80
58

31
16
12
9.5
8.1

455.00
15.2
109
. 20
902

1965 TOTAL 5.057
1966 TOTAL 2.110

6.3
5.7
4.7
4.4
4.1

3.7
3.4
3.3
3.2
3.1

3.0
5.2
5.4
4.9
4.5

4.0
3.8
3.7
3.6

3.7
3.8
3.5
3.1
11

9.9
7.9
10
201
145
123

605.4
19.5
201
3.0
1.200

. 40 MEAN
. 60 MEAN

52
34
27
23
23

25
21
16
16
14

13
12
11
10
9.9

8.8
8.1
8.0
7.4

7.1
6.8
6.4
6.2
5.6

5.8
5.7
5.3
5.2
20
19

441.6
14.2
52
5.2
876

13.9
5.78

15
13
10
9.4
9.5

37
23
17
14
12

10
9.5
9.0
8.8
8.7

9.1
8.3
7.9
7.4

7.4
7.1
7.0
7.1
7.6

9.5
9.2
7.8

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308.7
11.0
37
7.0
612

MAX 371
MAX 201

7.7
7.6
6.5
6.0
6.0

6.0
5.6
5.5
5.4
7.2

6.5
5.9
5.5
5.1
5.1

4.9
4.7
4.7
4.4

4.1
4.2
4.0
4.0
3.9

3.7
3.6
3.3
3.4
3.3
3.1

155.2
5.01
7.7
3.1
308

MIN .10
MIN 0

3.4
3.2
3.0
3.2
2.9

2.7
2.7
2.7
3.0
5.0

4.6
3.4
3.2
2.9
2.9

2.8
2.6
2.7
5.0

3.1
2.9
2.7
2.2
2.0

2.0
2.1
2.0
1.9
1.6

87.8
2.93
5.0
1.6
174

AC-FT
AC-FT

1.7
1.6
1.5
1.5
1.4

1.4
1.4
1.4
1.5
6.7

4.6
3.1
2.2
1.5
1.2

1.1
1.1
. 90
. 90
. 80

. 70
. 80
. 70
. 60
. 50

. 50
. 40
. 40
. 50
. 50
. 60

43.90
1.42
6.7
. 40
87

10.030
4,190

. 70
. 70
. 60
. 60
. 50

. 50
. 50
. 40
. 40
. 30

. 30
. 20
. 20
. 10
. 10

. 10
. 10
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0
0
. 10
. 10
0

0
0
0
0
0

6.80
. 23
. 70
0
13

SAN JOAQUIN RIVER BASIN

11258920 MIDDLE FORK CHOWCHILLA RIVER NEAR NIPINNAWASEE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

1
2
3
4
5

6
1
8
9
10

11
12
13
l<t
IS

16
17
18
19
20

21
22
23
2<t
25

26
27
28
29
30
31

TOTAL
MEAN

MAX MIN
AC-FT

CAL YR
WTR YR

OCT NOV

0 tlU
0 .10
0 .10
0 .10
0 .10

0 .30
0 .60
0 .50
0 .SO
0 .50

0 .SO
0 .20
0 .20
0 .20
0 .20

0 1.3
0 .SO
0 .20
0 .30
0 1.3

0 1.7
0 3.4
0 2.5
0 1.2
0 .80

0 .70
0 .50
0 .70
0 .90
. 10 .90
. 10 ......

. 20 21.10
. 007 .70
. 10 3.0
0 .10
. 4 42

1966 TOTAL 1,967
1967 TOTAL 7,424

DEC

. 80
23
60
7.2
1S1

460
63
24
15
12

9.5
7.6
6.6
5.6
S.I

4.3
4.1
3.9
3.7
3.5

3.2
3.1
2.9
2.9
2.9

3.1
3.1
2.6
2.9
2.9

a. 7

902.20
29.1
460
. 80
1.790

. 50 MEAN

.70 MEAN

JAf

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2.
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7.
62
IB
82
61

28
20
16
57
132
114

642.
20.
13
2.
1,28

5.39
20.3

J FEB

46
30
24
19
16

14
12

1(1
9.S
9.2

8.8
8.2
7.9
7.4
7.2

6.9
6.7
6.6
6.7
5.9

r 6.0
6.2
6.1
5.9
12

10
7.4
6.3

» 321.9 f ii.s
> 46

) 5.9
) 638

MAX 460
MAX 460

MAR

6.2
5.7
5.7
7.1
6.2

6.0
6.0
5.7
5.7
5.4

28
124
144
92
48

270
B2
50
38
31

28
25
22
21

)9

19
17
23
39
23
37

1,239.7
40.0
270
5.4

MIN 0
MIN 0

APR

44
64
49
91
101

62
257
87
59
53

9B
76
58
49
71

68
59
141
134
123

145
160
143
172
120

97
91
93
67
61

2,893
96.4
257
44

AC-FT 14,

MAY

53
9
5
5
3

0
0
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7

4
1
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35
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32
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19
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18
IB
IB

1,011
32.6
57
17

730

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295.
9.B
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SB

JUL

4.3
4.0
3.6
3.6
3.6

4.0
3.8
3.8
3.6
3.6

3.3
2.8
2.5
2.9
3.1

2.9
2.8
2.8
2.6
' 2.5

2.3
2.2
2.1
2.1
1.9

1.7
1.6
1.4
1.4
1.4
1.1

85.3
2.75
4.3
1.1
169

AUG

1.1
. 90
. 80
. 80
. 60

. 60
. 40
. 40
. 50
. 40

. 40
. 30
. 30
. 20
. 20

. 20
. 10
. 10
. 10
. 10

. 10
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. 10

8. BO
. 28
1.1
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17

SEP

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. 10
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. 10
. 60
. 60
. 20

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. 10
. 10
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. 10

3.40
. 11
. 60
0
6.7

SAN JOAQUIN RIVER BASIN

11259000 CHOWCHILLA RIVER AT BUCHANAN DAM SITE, NEAR RAYMOND, CALIF.

LOCATION.--Lat 37°13'02", long 119°59'03", in SWWE'n sec. 22, T.8 S., R.18 E., Madera County, 1.9 miles upstream from Raynor Creek and 4.3 miles west of Raymond.

DRAINAGE AREA.--235 sq mi.

PERIOD OF RECORD.--October 1921 to September 1923, October 1930 to September 1970.
lished as "at Buchanan damsite."

to October 1960, pub-

GAGE.--Water-stage
tember 1923 at

AVERAGE DISCHARGE.--42 y
(56,500 acre-ft per y

2.5 miles upstream at different datum.

101 cfs (73,170 acre-ft per year);

Sep-

of yearly mean discharges, 78 cfs

hXTREMhS.

Date
Nov.
Nov.
Dec.

Dec.
Dec.
Jan.
Jan.
Mar.
Mar.

Apr.
Apr.

17,
24,
30,

3,
6,
24,
30,
13,
16,
7,
11,

. --Max

Ann

1965
1965
1965

1966
1966
1967
1967
1967
1967
1967
1967

imums

Time
1045
2230

064S
1900
2315
2400
0345
1645
0930
0500

Disch.
1,280
1,090
*2,460

1,350
*6,880
1,150
4,220
2,560
5,430
3,380
1,670

urns (di

charge

G.H.
6.13
5.83
a7.5

6.26
10.52
5.94
9.06
7.59
9.65
8.30
6.65

. scharge

(*) and

Date
Apr.
Apr.

Feb.

Dec.
Jan .
Jan.
Jan.
Jan .
Feb.

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15
22

18

26
14
19
21
25
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, 1967
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, 1969

feet p<

charges

Time
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1200
1730
1345
2200

above bas

Disch.
1,080
3,840

*292

845
5,290
12,900
8,600
11,800
2,330

g

G
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8

3

5
9
12
11
12
7

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(770 c

. H.
. 81
. 63

. 91

. 37
. 57
. 71
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. 37

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Date
Feb.
Feb.
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Mar.
Apr.

Jan.
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Mar.
Mar.

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15, 1969
19, 1969
24, 1969
10, 1969
21, 1969
6, 1969

15, 1970
16, 1970
2, 1970
5, 1970

rs 1966

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2000
0145
1030
004S

0100
1515
0130
0400

- 70

Disch.
3,000
1,650
13,700
1,460
1,440
4,000

1,250
*8,700
2,820
^,030

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6,
12,
6

6,
8

6
11
7,
7

. H.
. 98
. 63
. 92
. 38
. 37
. 76

. 12
. 28
. 83
. 07

Wtr yr Date
1966 Several months
1967 Several days
1968 Several months

Wtr yr Date
1969 Many days
1970 do.

REMARKS.--Records excellent. No gage-height record Dec. 5-30, 1965. age or large diversion above sta-

REVISIONS (WATER YEARS).--WSP 931: 1932(P), 1936-38(P). WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, KATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL

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a
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i>
s

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9
10

1112
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL

MEAN MAX
MIN
AC-FT

CAL YR
WTR YR

1
1

1

2
2
2
2
2

2
2
2
2
2

1
2
2
2
2
2

47
1

1965
1966

. 1
. 0
. 70
. 60
. 50

. 50
. 50
. 50
. 50
. 70

. 70
. 80
. BO
. 90
. 6

. 0
. 9
. 8
. 5
. 4

. 4
. 3
. 2
. 2
. 1

. 9
. 0
. 0
. 0
. 2
. 2

. 50 3,
. 53
2.9
. 50
94

TOTAL
TOTAL

2.2
2.4
2.6
2.6
2.9

3.1
3.2
3.5
3.5
3.7

3.8
4.2
5.3
14
62

64
46B
136
132
69

44
40
297
634
561

272
139
9B
78
66 1

217.0 4
107
634 1
2.2
6,380 8

43,959.40
17,820.00

57
51
46
44
43

41
39
37
36
35

40
51
56
44
40

39
37
33
30
31

36
38
37
32
35

44
42
41
600
,400

,101
132
,400
30
,130

MEAN
MEAN

712
346
250
201
170

162
151
144
135
124

113
105
99
93
91

87
81
78
75
73

71
68
68
66
64

63
62
59
57
118
183

4,169
134
712
57
8,270

120
48.8

123
128
101
94
101

204
263
173
137
122

112
102
100
95
92

88
86
85
81
78

76
76
75
75
80

87
87
78

2,999
107
263
75
5,950

MAX 2,450
MAX 1,400

75
77
72
68
66

66
65
63
62
66

74
67
64
61
59

57
54
53
53
51

51
50
49
48
47

5
4
4
3
3
2

1,779
57.4
77
42
3,530

MIN 0
MIN 0

41
40
39
38
36

34
32
32
31
37

51
43
39
36
32

30
29
29
39
44

35
30
28
26
25

23
22
21
21
20

983
32.8
51
20
1,950

AC-FT
AC-FT

19
IS
17
16
15

15
14
14
14
20

49
35
26
20
17

15
13

. 4
. 4
. 0
,5
. 2

. 1
. 0
. 0
. 8
s

. 8
, 1
. 3
^ 7
. 0

. 4
. 0
12 .60
11 .50
10 .30

9.1 .30
8.
8.
7.
7.

6.
6«
5.
5.
S.

446.
14.

<t

5.
88

. 20
. 20
. 20
. 20

. 10
0
0
0
0

77.80
2. 59
6.4
0
154

87,190
35,350

SAN JOAQUIN RIVER BASIN

11259000 CHOWCHILLA RIVER AT BUCHANAN DAM SITE, NEAR RAYMOND, CALIF.--CONTINUED

DISCHARGEi IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

12

3
it
5

6
^

B
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

OCT N

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
3
5
B

20
30
38
24
15

11
9
9
9
17

0 201
0 6.
0
0
0 3

1966 TOTAL 18
1967 TOTAL 76

0V

. 8
. 6
. 4

. 6
. 3
. 7

. 4
71
38
0
99

. 489
. 207

DEC

13
16
493
121
759

3.920
1.000
303
172
121

96
79
69
60
54

49
45
42
39
37

35
34
32
31
30

34
33
30
29
29
29

7,834
253
3,920
13
15.540

. 90 MEAN
. 22 MEAN

JAN

28
27
27
26
26

26
25
24
24
23

23
23
23
22
22

22
22
22
21
22

30
227
168
329
709

273
172
139
387
1.280
1.790

5,982
193
1,790
21
11,870

50.7
209

FEB

666
402
310
253
21B

188
166
149
136
128

120
111
106 1
102 1
94

90 2
87 1
84
83
80

75
72
72
71
113

123
86
77

4.262 12
152
666 2
71
8,450 24

MAX 3,920
MAX 3,920

MAR

71
68
66
69
68

63
61
60
58
55

100
863
,520
,190
545

,100
,150
605
457
372

322
291
267
243
217

205
189
188
359
239
385

,446
401
. 100
55
. 690

MIN
MIN

APR

575
589
479
479
1.200

663
2.050
1,020
684
590

1.230
894
637
550
742

754
586
1,660
2,380
1.920

1,830
2,190
1,400
1,530
1,140

922
838
862
692
620

31,706
1,057
2,380
479
62.890

0 AC-FT
0 AC-FT

MAY

566
535
513
504
473

447
423
419
422
558

481
393
355
330
317

312
306
294
278
266

253
237
218
201
188

174
167
160
155
155
149

10.249
331
566
149
20.330

36,670
151,200

JUN JUL

161 38
152 35
142 35
134 30
149 28

150 29
139 29
128 26
120 25
113 24

109 22
106 20
105 19
100 17 <
94 16

88 16 <
83 16
78 15
74 14
72 14

68 13
63 12
59 12
57 11
54 11

51 10
48 9.4
45 8.8
43 8.4
41 7.7
7.2

2,826 578.5 7<
94.2 18.7 <
161 38
41 7.2
5.610 1,150

AUG SE

. 8 .4
. 4 .3
. 1 .4
. 5 .3
. 9 .3

. 6
. 1 .
. 0 .
. 7
. 7 .

. 5
. 3
. 8 .
>.5

!.3 .

. 0
. 8
. 6
. 3 1.
. 2 3.

. 0 4.
. 98 3.
. 90 2.
. 84 2.
. 73 2.

. 75 2.
. 60 2.
. 56 2.
. 5I> 2.
. 54 2.3
. 45 .....

. 99 42.3
'.58 1.4
6.8 4.
. 45 .3
159 8

DISCHARGE, IN CUBIC FEET PER SECOND,

NOV DEC JAN FEB

WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN 3
MAX
MIN
AC-FT

WTR YR 1968

4.5
4.6
4.4
4.4
4.5

4.6
4.8
5.0
5.0
5.0

5.1
5.4
5.8
5.8
5.8

6.2
7.1
7.4
15
27

21
15
13
12
11

11
11
11
11
19

t 9.08
27
4.4
540

OTAL 6.791

41
30
22
19
22

73
39
30
27
22

20
19
18
16
14

14
14
16
33
35

26
21
20
21
23

25
27
27
26
25
23

25.4
73
14
1.560

,»6 MEAN

22
21
20
19
18

18
18
17
17
20

38
40
30
26
30

47
39
31
27
25

24
23
22
22
21

21
21
24
24
22

25.3
47
17

190
IS. 6

54
41
37
37
35

33
31
29
33
57

50
38
34
34
38

36
76
207
97
113

170
126
88
72
63

58
53
48
44

63.2
207
29

MAX 2.380
WAX 207

41
39
36
34
33

31
32
63
123
69

53
47
60
85
66

61
89
98
78
66

58
53
50
47
45

44
42
39
37
36
34

54.5
123
31

MIN

37
71
64
48
42

41
39
36
34
31

29
28
27
26
25

24
24
24
23
22

22
21
20
19
18

18
17
16
15
15

29.2
71
15

. 38 AC-FT
0 AC-FT

14
13
13
12
11

11
11
11
10
10

9.6
11
13
21
37

25
17
14
12
11

11
9.8
9.7
9.4
8.8

8.2
7.5
6.7
5.9
5.2
4.6

12.0
37
4.6

137.500
13.470

4.1
3.6
3.2
3.0
2.9

3.1
3.4
3.9
6.9
6.9

5.4
4.4
3.6
2.9
2.5

2.2
1.9
1.6
1.3
1.0

. 84
. 64
. 48
. 36
. 25

. 12
. 07
0
0
0

2.35
6.9
0
140

SAN JOAQUIN RIVER BASIN

11259000 CHOWCHILLA RIVER AT BUCHANAN DAM SITE, NEAR RAYMOND, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1969

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
it
5

6
7
8
9
10

11
12
13
14
15

16
17
18

1920

2122

23
24
25

26
27
26
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22

2324
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

1966 TOTAL
1969 TOTAL

OCT

1.7
1.7
1.8
1.8
1.9

2.0
2.1
2.3
2.<>
2.6

2.7
2.9
3.0
3.2
4.5

46
33
20
17

14
12
11
10
10

10
11
11
10

1011

9.10
46
1.7
560

1969 TOTAL
1970 TOTAL

0
0
1.2
13
14

8.2
5.9
4.7
4.2
3.9

3.7
5.3
6.1
8.4
13

21
16
11
9.4
8.4

7.5
6.8
6.5
6.4
6.6

7.0
6.9
6.3
6.0
6.0

223.4 2>
7.45
21
0
443

8,1*1.
121,418.

DISCHARGE

NOV

10
9.9
9.8
9.6
9.8

16
39
36
23
IB

16
14
13
13
14

14
13
13
12
12

12
12
13
13
13

13
13
13
13
13

14.8
39
9.6
879

120,421.
27,686.

7.7
8.3
9.2

7.9

7.6
7.5
7.3
7.0
7.6

11
32
21
18
49

327
106
53
39
36

30
24
21
22
169

585
211
112
161
104

70
58
48

43

40
37
35
33
31

29
26
504
2,230
396

219
153
187
6>340
1,480

6.330
2,040
820
708
5,970

3,470
1,500
1,430
1,010
780

291.7 36,726
73.9
585
7.0

1,185
6,340
28
4,550 72,850

06 MEAN
60 MEAN

22.2
333

. IN CUBIC FEET

DEC

12
12
12
13
13

13
13
13
14
16

16
15
14
14
14

13
13
13
16
27

36
52
48
32
35

119
60
40
32
28
25

25.6
119
12

JAN

23
21
20
20
19

18
18
20
25
230

144
105
99
240
555

1,450
563
295
238

259
331
201
239
215

156
172
240
152
130
117

339
4,190
18
1,570 20,840

80 MEAN
57 MEAN

330
76.4

582
550
494

716

1.530
1,140
679
574
512

474
64B
624
461
1,210

1,190
700
1,200
1,500
1,100

954
648
1.700
7,010
4,160

3,510
1,660
1,680

38,085
1,360
7,010
459
75,540

MAX

MAX 7,

2,410
1,550
1,490
1,140
959

873
786
702
682
1,140

882
797
612
660
602

564
547
547
536
532

1,000
651
549
524
502

484
474
467
458
*»45
436

24,203
781
2,410
438
48,010

585 MIN
010 MIN

PER SECOND. WATER

FEB

108
101
93
88
84

78
75
72
69
70

79
76
144
340
190

354
250
171
148

130
117
108
104
97

91
88
99

127
354
69
7,060

MAX 7,
MAX 4,

MAR

1,050
1,330
468
482
1,160

504
382
329
287
275

247
212
192
178
168

151
143
133
125

120
115
112
107
104

102
9B
90
89
88

293
1,330
86
18,030

010 MIN
190 MIN

420 217 63 27 5.8 1.7
397 200 57 25 5.4 1.6
688 195 55 24 5.0 1.6

809 193 54 22 4.2 1.3

1,800 176 53 21 3.2 1.2
600 174 53
615 168 52
540 157 55
539 158 70

494 149 72
466 142 67
440 135 64
421 134 58
394 127 53

21 2.6 1.2
21 2.4 1.1
20 2.4 1.0
19 2.3 1.0

17 2.4 1.1
16 2.2 1.2
16 2.1 1.2
15 2.0 1.2
15 1.6 1.2

374 126 50 14 1.6 1.3
356 117 53
346 112 54
328 105 50

13 1.5 1.3
12 1.6 1.5
12 1.9 1.6
316 103 45 10 2.1 1.8

306 101 42
291 94 41
308 91 39
399 87 37
304 79 36

281 76 34
263 75 33
240 75 3?

237 75 3(1
217 71 29
66

13,857 3.973 1,485 4
462 128 49.5
1,800 217 72
217 66 29
27,490 7,880 2,950

0 AC-FT 16,150
0 AC-FT 240,800

YEAR OCTOBER 1969 TO SEPTEMBER

APR MAY JUN

80 51 13
77 48 11
76 45 10
74 43 9.1
70 41 8.2

68 38 7.7
66 38 7.3
64 39 7.3
63 39 17
61 38 42

60 37 27
58 36 19
58 35 15
76 33 14
76 32 14

72 30 14
67 28 12
62 25 11
60 24 11
58 23 9.4

57 23 6.4
58 22 7.4
59 21 6.4
57 20 5.8
54 19 5.6

51 18 6.0
52 15 6.6
60 15 7.0
56 15 8.2
53 14 7.4

9.7 2.2 2.1
8.9 2.3 2.3
8.5 2.1 2.3
8.2 1.8 2.3
7.8 1.7 2.3

7.6 1.8 2.1
7.3 1.8 1.9
7.3 1.8 1.8
7.4 1.9 1.9
7.0 1.6 1.8
6.4 1.7

9.1 78.1 47.3
4.5 2.52 1.56
27 5.8 ?.3
6.4 1.5 1.0
891 155 94

1970

JUL 4U6 SEo

. 0 .06
. 1 .05
. 3 .05
. 5 .05
. 7 .04

. 0 .03
. 6 .02
.? .02
. 8 .02
. 7 .01

. 5 .01
. 3 .01
.? 0
. 0 0
. 87 0

. 72 0

. 61 (1
. 45 0

. 33 n
. 22 0

. 16 0
. 13 0
. 11 0
. 10 0
. 09 0

. 08 0
. 08 0
. 07 0
. 06 0
. 06 0

1,903 918 347.8 47.10 .37 1
63.4 29.6 11.6 1.52 .012 0
80 51 42
51 13 5.6
3,770 1.B20 690

1.0 AC-FT 238,900
0 AC-FT 55,310

7.0 .06 n
. 06 0 0
93 .7 0

SAN JOAQUIN RIVER BASIN

11260200 BEAR CREEK NEAR CATHEYS VALLEY, CALIF.

DRAINAGE AREA.--24.9 sq mi.

PERIOD OF RECORD.--January 1958 to September 1969 (discontinued). Prior to October 1960, published as "near Cathay."

GAGE.--Water-stage recorder. Altitude of gage 1,210 ft (from topographic map).

AVERAGE DISCHA

(7,100 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in ci
1966-69 are contained in the following table:

Wtr yr Date
1966 Nov. 23, 1965
1967 Apr. 7, 1967
1968 Feb. 17, 1968
1969 Jan. 21, 1969

Discharge
1,930
1,810
269
7,720

feet pe

7.94
5.22
11.04

cond, gage height in feet) for the

Minimum daily
Date

Long periods

do!

Discharge

Period of record: Maximum discharge, 7,720 cfs Jan. 21, 1969 (gag
extended above 3,500 cfs; no flow for many days in each year.

height, 11.04 ft), from rating curve

REMARKS. --No known regulation or diversion above station.

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

REVISIONS. --WSP 1930: Drainage area.

DISCHARGE.. IN CUBIC FEET Ptf SECOND. WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

OAT JUL

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IS

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23
24
25

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27
28
29
30
31

TOTAL
MEAN
MAX
MJN
AC-FT

CAL rn

CCT NOV

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
6.7
137
156
16

B.O
6.9
420
21K
192

57
19
14
10
8.3

0 1.268.9
0 42.3
0 420
0 0
0 Z.52U

1965 TOTAL 8.1J6.

ft. 9
5.9
5.0
4.1
3.6

3.3
2.9
2.8
2.8
2.5

2.5
8.6
7.7
6.4
5.4

4.6
3.8
3.4
3.1
?.B

2.6
2.6
2.5
2.2
6.4

12
8.9
7.7
304
303
277

1.017.0
32.8
304
2.2
2,020

20 MEAN

105
45
27
19
15

13
11
9.7
8.7
8.2

7.6
6.6
6.1
5.7
5.2

4.8
4.3
4.2
4.8
4.3

4.1
4.0
4.0
3.8
3.4

3.3
3.3
3.2
3.2
23
41

4J1.7
13.3
105
3.2
817

22.3

24
20
14
12
11

105
53
29
21
16

13
11
9.9
8.5
7.7

7.2
6.6
6.3
5.5
5.2

4.9
4.4
4.0
3.8
3.8

4.9
4.2
3.6
. . . . . .

419.5
15.0
105
3.6
S32

wax 862

3.3
3.2
2.5
2.5
2.6

2.2
2.4
2.3
2.3
3.0

2.8
2.5
2.2
2.1
2.0

1.9
1.8
1.6
1.6
1.5

1.4
1.3
1.3
1.3
1.3

1.3
1.2
1.1
1.1
1.0
1.0

59.6
1.92
3.3
1.0
118

MIN 0

. 90
. 80
. 80
. 70
. 60

. 60
. 50
. 50
. 60
. 90

. 90
. 70
. 80
. 60
. 60

. 60
. 50
. 50
. 50
. 40

. 40
. 40
. 30
. 40
. 30

. 40
. 30
. 30
. 30
. 30

16.40
. 55
. 90
. 30
33

AC-FT 16,

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. 20
. 30

. 30.20 e
. 20 C
. 20 C
. 20 C
. 20 C
. 30

. 30 (
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. 10
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6.40
. 21
. 30
. 10
13

140

. 10
. 10
. 10
. 10

)
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>

)

. 40
013
. 10
0
P

wed by Geological Survey.

AUG SEP

SAN JOAQUIN RIVER BASIN

11260200 BEAR CREEK NEAR CATHEYS VALLEY, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 196ft T(l SEPTtMHFR I«h7

NOV DEC JAN FEH MAR APR MAY JUN JUL AUG

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1112

13it
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25

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27
28
29
30
31

TOTAL MEAN
MAX
MIN
AC-FT

CAI_ YR
WTR YR

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
IS

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
*TR YR

0
59
98
Ib
283

766
118
34
16
10

7.5
5.7
4.6
3.7
3.1

2.7
2.4

2.0
l.s
1.8

1.7
1.6
1.5
1.3
1.2

1.2
1.1
1.0
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0 0 2,870

1966 TOTAL 2.361.80 MEAN

1967 TOTAL 9,21)3. 00 MEAN

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. 80 46
. 70 25
. 80 17
. 70 12

2.8 111
2.5 72
2.4 US
2.2 242

. 70 9.3 2.0 136
. 70 7.
. 60 S.
. 60 S.

> 1.8 595
1 1.6 174
'. 1.5 105
. 60 4.9 1.2 96

. 50 4.5 54 361
. 40 3.
. 50 3.
. 50 3.

J 234 173
5 247 98
192 59
. 50 2.7 104 7b

. 50 2.6 305 70
. 50 2.
. 50 ^.
. SO 2.

) 161 42
93 472
52 309
. 50 1.9 36 156

1.0 1.8 27 202

26 l.(
13 \.\
109 1.!

23 252
19 152

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94 7.7 13 105

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12 3.5 11 31
158 - > "
375 - 11 16

34.7 10.6 55.0 152

375 10(
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2,140 587 3,380 9,060

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. 3 .0

. 9 .90
. 4 .80
. 2 .60
. 9 .50
. 6 .40

. 3 .40
. 2 .30
. 9 .20
. 1 .20
. 6 .20

. 6 .1(1
. 6 .10

. 6 .1(1
1.5 .1(1
1.5 .10
1.5

ISO. 8 38.6(1
4.86 1.29
13 6.5

1.5 .1(1
299 77

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0
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0

6.47 MAX 766 MIN 0 AC-FT 4.6BO
25.4 MAX 766 MIN 0 AC-FT 18,410

DISCHARGE. IN CUBIC FEET PEW SECOND. WATER YEAR OCTOBER 1967 TO SEPTEMBER

0
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0 0 .30
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0 1.3

0 0 19

1967 TOTAL 7.844,60 MEAN
1968 TOTAL 917.60 MEAN

. 80 11 2.9 3.0
. 80 6.
. 60 4.
. 60 3.
. 60 2.

. 50 2.
. 50 2.
. 50 1.
. SO 2.
. 90 2.

2.2 2.
3.7 1.
2.6 1.
2.1 1.
3.9 1.

2.7 8.1
2.3 .6
2.1 .4
1.9 .9

1.7 .6
1.4 .2
8.7 .9
10 .8
5.5 .6

4.1 .5
3.4 .3
32 .2
36 .1
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6.3 1.6 13 .90
3.7 102
2.7 63
2.4 16
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2.1 111
2.1 40
1.9 18
1.9 11

40 .80
23 .80
12 .70
8.8 .60

6.5 .60
5.5 .50
4.6 .50
3.7 .50
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1.7 6.0 3.0 .40
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2.2 4.
2.7 3.
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70.30 521.6 262.9 46.50
2.27 18.
12 11
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8.48 1.55
40 9.1
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139 1,030 521 92

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1968

JUL

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21.5 MAX 595 MIN 0 AC-FT 15,560
2.51 MAX 111 MIN 0 AC-FT 1,8 20

SAN JOAQUIN RIVER BASIN

11260200 BEAR CREEK NEAR CATHEYS VALLEY, CALIF.--CONTINUED

OISCHARGt, IN CUBIC FEET

1 0 .40 2 o .so
3 0 .70
4 0 .70
5 0 .60

7 0 .40
8 0 .40
9 0 .40
10 0 .60

11 0
12 0
13 0
14 0
15 09

16 09
17 0 1
18 0
19 0
20 0

21 .30
22 .40
23 .40
24 .40
25 .40 d3

26 .40 20
27 .40 8
28 .30 8
29 .30 6
30 .30 2

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.a
3
. 2

. 4
. 1 1

. 0 1
. 8
. 7
. 6
1

31 1

MEAN 0 .12 31.8
MAX 0 .40 233
M1N 0 0 .40
AC-FT 0 7.1 1.960

CAL VR 1968 TOTAL 1.897.80 MEflN

9.8
7.8
6.5
5.5
4.6

3.4
3.0
2.7
2.4

2.3
2.2
518
419
111

47
28
194
. 110
325

. 790
264
87
79
. 250

529
170
145
118
93
71

239

2.2
14.680

5.19

PER SECOND

65
58
42
33
139

196
87
55
40

32
46
37
31
198

185
81
310
289

97
73
354
1.410
389

320
249
141

200
1.410
31
11.110

N-AX 233

WATER YEAR OCTOBER 1968

376
153
123
75
53

40
33
27
37
135

98
70
65
47
38

32
29
25
22

293
80
50
37
29

24
22
18
16
14
13

67.9

13
4.180

HIM o

12
12
27
17
475

329
125
137
42
32

26
21
18
16
14

13
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9.5

8.3
7.7
9.5
15
9.2

8.0
7.4
6.6
6.1
5.4

48.0

5.4
2.860

AC-FT

5.2
4.8
5.0
7.2
5.7

5.0
4.6
4.2
3.6
3.2

2.8
2.6
2.3
2.0
2.0

1.8
1.8
1.7
1.5
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1.3
1.2
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1.1
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1.0
1.0
. 90
. 90
. 80

2.56

. 80
158

3.760

TO SEPTEMBER 1969

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SAN JOAQUIN RIVER BASIN 345

11260225 BURNS CREEK AT HORNITOS, CALIF.

LOCATION (REVISED) .--Lat 37°29'45", long 120°14'17", in SWsSE1. sec.17, T.5 S., R.16 E., Mariposa County, on right bank 0.3 mile south of Hornitos and 12.4 miles upstream from Burns Dam.

DRAINAGE AREA.--26.7 sq mi.

PERIOD OF RECORD.--October 1964 to September 1969 (discontinued). December 1958 to September 1964 in reports of California Department of Water Resources.

GAGE.--Water-stage recorder. Altitude of gage is 780 ft (from topographic map).

AVERAGE DISCHARGE.--5 years, 13.0 cfs (9,420 acre-ft per year).

EXTREMES. --Maxi
1966-69 are

Wtr yr Date
1966 Nov. 23
1967 Jan. 30
1968 Feb. 21
1969 Jan. 21

Period of
extended as
Flood of
dam lodged a
(gage height
of peak flow

COOPERATION. --R

1 .10
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3 0
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18 .10
19 .10
i<S .10

21 .10
22 .10

23 .10 24 .10
25 . 10

26 .10
it .10
28 .10
29 .10
30 .10
31 .10

TOTAL 1.50

MEAN .048
MAX .10

MIN o

contained i

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, 1967
, 1968
, 1969

record: M
explained b
Feb. 15, 19
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Maxi

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DISCHARGE, IN CUBIC FEET

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2.4

1.3
1.5
286
128
122

19
9.0
b.4
3.9
3.1

20.8
286
0

2.4
2.2
2.0
1.8
1.7

1.8
1.7
1.6
1.7
1.6

4.2
32
5.5
3.7
3.2

3.0
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2.U
2.0

2.1
2.1
1.9
1.8
15

6.3
4.3
58
282
199
164

26.3
282
1.6

52
26
18
14
11

9.1
8.2
7.3
6.7
6.0

5.4
5.2
4.5
4.4
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4.4
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table:

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188
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, 5,900 cfs
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nia Departm

PER SECOND,

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96
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8.4
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Water Resourc

, WATER YEAR OCTOBER

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a flood wave when a temper
d, thereby releasing impoun
basis of slope-conveyance

es and reviewed by Geologic

1965 TO SEPTEMBER 1966

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Discharge
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al Survey.

AUG SEP

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AC-FT 8,470

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SAN JOAQUIN RIVER BASIN

11260225 BURNS CREEK AT HORNITOS, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PtR SECOND. WATER YEAR OCTOBER 196ft TO SEPTEMBER 1967

OCT MOV DEC JAN FEB MAR APR MAY JUN JUL

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TOTAL
MEAN
MAX
HIN
AC-FT

DAY

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TOTAL
MEAN
MAX

MIN
AC-FT

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174

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1.6
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JAN

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13. BO
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39
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14
11
R.B

7.4

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4.9
3.9
3.4

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2.9
2.8
2.3
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l.b
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1.5
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36

6.6
3.8
3.1

194.1
6.93
39
1.3
385

PER SECOND

FEB

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35
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5.6
27

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6.7
4.6
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2.0
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171.40
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. 50
340

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171
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12

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5.6
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3.7
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4.9
4.1
11

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28.0
233
. 60

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MIN 0

, MATER

MAR

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1.2
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. 90

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1.0
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6.7
3.1

2.2
1.8
26
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5.6

9.4
14
6.2
3.4
2.5

2.0
1.6
1.4
1.0
1.0

1.0
. 90
. 90
. 70
. 70

143.00
4.61
30
. 60
284

MIN 0

9.3 4.6
12 3.4
7.9 3.1
54 3.1
97 3.1

162 3.1
410 3.8
54 4.2
31 5.1
141 10

307 5.5
55 4.0
30 3.8
20 3.1
35 2.9

30 2.5

20 2.1 bio 1.7
260 1.7
80 1 .6

180 1.4
210 1.3
130 .70
130 1.0
70 1.1

35 1.1
30 1.1

20 1.0 in l.o
5.6 .90

. 6 .20
. 6 .20
. 6 .20
. 4 .10
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. 8 .20
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. 4 .10

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. 0 .10

. 90 0
. 80 0
. 80 0
. 80 0
. 70 0

. 70 0
. 70 0
. 60 0
. 60 0
. 50 0

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. 50 0
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. 20 0

3.145.8 84.20 31.70 2.10
105 2.72
510 10
5.6 .70

AC-FT 3.070

. 06 .068
2.? .20
. 20 0

AC-FT 11.910

YEAR OCTOBER 1967 TO SEPTEMBER 1968

APR MAY

1.6 .10
4.6 .10
1.8 .10
1.0 .10
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. 10 0
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AC-FT 698

JUN JUL

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SAN JOAQUIN RIVER BASIN

11260225 BURNS CREEK AT HORNITOS, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PEP SECOND. WATER YEAR OCTOHER 1968 TO SEPTE»MER 1969

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31

TOTAL
MEAN

M1N
AC-FT

CAL YR

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0 0 3.*
. 10 0 2.6
0 0 2.5

o o 2.0

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0 0 1.6
0 0 1.4
0 0 1.0
0 .10 1.0

0 1.0 .80
0 .60 .HO
0 .30 613
0 1.4 1.01
. 10 30 <>B

0 28 23
0 5.6 16
0 2. 8 131
0 2.0 7*7
0 1.6 296

0 1.0 1.000

o .70 120
0 .60 51

o 6.0 120
0 80 865

0 176 318
0 20 73
0 13 109
0 9.3 60

0 5.6 49

0 .20 390. 20 5.096.90
0 .007 12.6 164

0 0 0 .60

0 .4 77* 10,110

196B TOTAL 736.60 MEAN 2.02

30
24
21
16
76

255
68
37
27
21

Ib
47
20
24
1*0

67
3*
237
150
60

37
32
34«
760
22*

204
70
138

3.187
11*

18
6.320

MAX 176

17?
74
67
44
3*

292*
21
47
53

23
22
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17
16

1*

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11
27

105
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12

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9.3
8.8

7J3
6.7

960.5
31.0

6.7
1.910

MIN 0
WIN o

t. 2
8.0
33
9.3
475

lib
44
2?
2?
1«

16
14
1?
11
10

9.3
R.4
8.0
7.3
6.7

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p g

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ft. 7 1.0
6. a .90
a6 .80
14 .80
B.H .80

7.3 .80
b.a .70
5.6 .70
4.6 .70

4.2 .80

951.8 62.00
31.7 2.00

4. a .70
1.890 1?3

AC-FT 1,470
AC-FT 21, ISO

JUN

. 70
. 70
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70
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2.6

SAN JOAQUIN RIVER BASIN

11260480 MARIPOSA CREEK NEAR CATHEYS VALLEY, CALIF.

LOCATION.--Lat 37°23'56", long 120°00'10", in SWINE'S sec.21, T.6 S., R.18 E., Mar if of bridge on White Rock Road, 0.3 mile downstream from China Gulch and 5.7 miles Valley.

DRAINAGE AREA.--65.7 sq mi.

a County, on downstream side
Dutheast of town of Catheys

PERIOD OF RECORD. --October

GAGE. --Water-stage recorde

AVERAGE DISCHARGE. --12 yea
(13,800 a

EXTREMES. --M
1966-70 a

Wtr yr Date
1966 Dec.
1967 Dec.
1968 Feb.
1969 Feb.
1970 Jan.

Period
days in e
Flood

REMARKS. --Pr

COOPERATION.

REVISIONS. --

cre-ft per yea

aximums and mi

29, 1965
6, 1966
17, 1968
24, 1969
16, 1970

of record: M
ach year.
of Apr. 3, 195

- - Records furn

WSP 1930: Dra

1958 to September 1970. Pr

rs, 29.5 cfs
r).

nimums (disc

Maximum

aximum disch

8, reached a

ished by Cal

inage area.

DISCHARGE, IN CUBIC

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24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
WIN
AC-FT

0
0
0
0

0
0
0
0
0

0
0
0
7.b
12

23
113
149
269
30

16
14
251
490
242

89
48
32
25
20

0 1,830.5 1
0 61. u
0 490
0 0

17
14
13
13
11

9.8
9.1
9.7
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8.5

B.9
29
IB
14
12

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9.6
9.0
8.2
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7.6
7.5
7.0
6.6
34

33
22
24
522
521
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(21,

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Dis

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FEET

187
101
72
56
45

37
33
29
26
24

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13
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12
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45

bH.4 31. B
522
ft. 6

1B7
11

370 acre-ft

in cubic f

charge G
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3,820 9
377 5
7,460 11
4,790 10

7,460 cfs

e of 11.62

ia Departme

PER SECOND,

34
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26
25
25

61
60
44
35
31

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14
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24.5
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October 1960, publish

ear) ; median of yearly

r second, gage height

Date

Long periods
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do .
do.
do.

Feb. 24, 1969 (gage height,

ft (di

nt of

WATER

12
11
11
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10

9.5
9.7
9.3
9.3
11

11
9.9
9.4
9.0
9.1

8.8
8.2
6.2
8.1
7.7

7.4
7.2
7.4
7.4
6.9

6.4
6.4
6.1
5.9
5.5
6.0

8.^7
12
5.5

MIN 0

scharge, 7,180 cfs) .

t ion .

Vater Resources and re

YEAR OCTOBER 1965 TO

5.6 2.
5.5 2.
5.4 1.
5.2 1.
5.0 1.

4.6 1 .
4.7 1.
4.8 1.
4.9 1.
6.9 3.

7.0 3.
5.9 2.
5.2 2.
4.7 1.
4.7 1.

4.5 1.
4.0 1.
4.0 .
5.1
4.7

4.2
3.4
3.1
3.6
3.4

3.0
2.9

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0
2.9 .10
2.8 .10
2.7 .10
. 10

4.49 1.25
7.0 T.B
2.7 .10
?67 77

4C-FT 29,300
AC-FT 11.410

ed as "near Cath

mean discharges

in feet) for the

Minimum daily

11.63 ft) ; no fl

viewed by Geolog

SEPTEMBER 1966

JUN JUL

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2.6 0

ay."

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water y

Di

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ical Sur

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SAN JOAQUIN RIVER BASIN

11260480 MARIPOSA CREEK NEAR CATHEYS VALLEY, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FE8 MAR APR MAY JUN JUL

1
2
3
it
5

6
7

a
9
10

11
13
13
14
15

16

17ia
19
30

21
33

3324
35

36
37
28
29
30
31

TOTAL
MEAN
MAX
WIN
AC-FT

DAY

1
2
3
4
5

b
7

a
9
10

11
12
13
14
15

16
17
IB
19
20

21
22
23

24

25

26
27

28
29
30
31

TOTAL
MEAN
MAX

WIN
AC-FT

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

2.4 a.i
9.6
5.0
3.7

3.0
2.7
3.1
4.6
4.0

0 1.54
0 9.b
0 0
0 92

3.8
149
149
26
443

1)470
1S7
50
33
24

IV
15
12
10
9.3

8.4
7.8
7.1
7.3
6.5

6.1
6.1
5.9
5.5
5.5

5.7
5.4
5.2
5.2
5.2
4. B

86.1
1.470
3.8
5.290

4.6
4.3
4.3
4.6
4.6

4.3

4.1 3. a
4.0
3.8

4.0
4.1
4.8
4.5
4.3

4.1
4.0
4.0
3.8
3. B

7.3
46
23
110
160

61
36
31
185
566

57.4
568
3.8
3,530

DISCHARGE. IN CUBIC FEET

0
0
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0

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0

(J

0
0
. 40
1.4
1.7

l.H

2.1
12
7.3

3.7
2.6
2.2
2.0
2.0

2.0
1.9
1.9
2.1
13

0 62.00
0 2.07
0 13
0 0

17
7.1
4.9
4.0
15

12
8.1
B.4
6.6
5.3

4.7
4.4
4.0
3.7
3.5

3.b

6.2
12
10

7.1
6.4
5.9
5.9
6.2

6.2
6.2
5.5
b.l
4.7
4.5

6.69
17
3.4

4.2
4.0
3.8
3.7
3.7

3.7
3.5
3.5
3.5
7.B

16
9.5
7.3
b.6
14

13

8.1
7.1
6.4

5.9
5.7
5.3
5.3
5.3

5.1
6.2
8.4
6.4
6.0
45

7.89
45
3.S

149
87
63
46
40

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31
27
24
22

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19
18
16
14

14
13
13
12
11

11
10
10
10
34

23
15
13

28.6
149
10
1,590

PER SECOND

23
15
12
10
9.2

8.4
7.6
7.1
13
19

13

11in
9.8
8.9

10
165
93
3H
102

111
61
38
28
23

19
17
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13
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31.4
165
7.1

12
11
10
10
8.7

9.0
8.7
8.4
8.1
7.8

93
552
660
421
166

911
299
144
100
83

66
54
47
42
38

36
33
37
42
35

131
911
7.8
8,040

MIN 0

, WATER

12
13
12
11
10

8.4
8.9
50
35
19

15
13
43
48
30

28
50
41
30
24

20
IB
16
14
13

13
12
11
10
9.5

20.9
SO
8.4

102 85 aa 3.0
156 73 a
105 68 a

isa 67 i

1 2.7
0 2.5
7 2.3
317 65 40 a.l

160 58 25 2.4
690 5a 2
265 48 1
161 46 1

1 2.3
9 1.9
5 1.8
134 70 15 1.7

413 53 14 1,6
238 45 1
155 42 1
121 39 1_

3 1.3 2 1.1
1 .80
155 37 10 .70

126 35 9.3 .70
101 33
684 30
676 28
546 26

741 24
648 23
383 23
350 22
225 21

168 20
147 20
129 19

94 19
19 -

3.7 .80
. 8 .50
. 6 .50
. 1 .50

. 5 .40
. 9 .40
. 5 .30
. 2 .20
. 0 .10

. 6 .10
. 3 .10
. 8 ,10
. 7 .10
. 4 .10

282 39.6 12.1 1.07
741 85
94 19

4ft 3.1)
(.4 n
16.760 2.440 723 66

AC-FT 9,570

YEAR OCTOBER 1967 TO SEPTEMBER 196f

APR MAY |||M n "

13 2.8
23 2.5

13 2.2 in 2.1
9.5 2.1

K.9 2.1
K.I 2.0
7,8 1.9
7.3 1.8
h.8 1.6

6.4 1.6
6.2 2.4
5.7 3.7
b.7 M.I
5.5 4.7

5.3 3.5

b.l 2.4
4.7 2.0 0
4.4 1.8 0

4.4 1.7 0
4.2 1.3 0
4.0 1.2 0
4.0 1.2 0
3.8 1.2 0

3.8 1.0 0
3.7 .90 0
3.4 .«0 0

3.0 .71) 0
2.9 .SO 0

6.63 2.10
23 ».l
2.9 .50

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SAN JOAQUIN RIVER BASIN

11260480 MARIPOSA CREEK NEAR CATHEYS VALLEY, CALIF.--CONTINUED

OlSCHAHbE, IN CUHIC FEtT PfR SECOND, WATER YEAR C>CTOH(-H 1968 TO SEPTEMBER 1969

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31

TOTAL
MEAN
MAX
WIN
AC-FT

»TR YK 1969

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0

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0
0

0
0
2.4
2.1
11

7.1
3.7
2.0
2.0
1.8

1.5
1.4
1.4
l.b
1.6

l.b
1.4
1.3
1.2
1.3

0 1.56
0 11
0 0
0 93

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3.5
2.8
2.0
2.4

2.2
2.2
2.1
2.1
?.9

21
1?
7.3
8.9
83

Ub
26
14
13 2
13

9.b 2
8.1
7.1
9.5
272 2

191 1
an
74

41
28

37.2
272
2.0
2,280

22
18
16
14
12

11
10
9.
8.
8.

8.
7.
889
696
136

/4
52
653
. 650
615

,980
521
216
187
. 140

,030
397
307
242
191
161

461
2,980
7.8
28,330

TOTAL 37,534.60 MEAN 103

DISCHARGE. IN CUBIC FEET

DAY UCT NOv

1 0 l.a
2 0 1.8
3 0 1.7
4 0 1.7
5 0 2.0

6 0 16
7
8
9

24

) 6.8
4.4
10 0 3.4

11 0 2.9
12
13
14

2.6
2.6
2.6
15 0 2.6

16 in 2.6
17
18
19
20

21
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23
24
25

26
27
28
29
30
31

MEAN 1
Max
MIN

WTR YK 1970

. 4 2.5
. 0 2.5
. 8 2.4
. 4 2.4

. 2 2.5
. 0 2.6
. 9 2.6
. 9 2.6
. 9 2.6

. 0 2.6

. 9 2.8
. 9 2.8

SR 3.86
10 24
0 1.7

TOTAL 10,919

DEC

2.8
2.8

2.8
2.8

2.8
2.9
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3.7
3.4

3.0
3.0
3.2
3.0
3.0

3.0 2
3.0
3.0
6.0
22

29
43
13
9.2
B2

40
IB
12
9.8
8.6
7.6

11.4
82
2.8

. 10 MEAN

JAN

7.1
6.8

6.4
6.2

5.7
5.7
6.R
15
214

62
60
56
396
145

,270
320
144
90
77

197
129
83
111
74

123

62
50
43

159
2,270
5.7

101
29.9

139
132
111
102
33?

787
424
242
173
135

114
153
125
105
395

31B
194
345
444
324

254
225
628
3,510
1,170

1,020
53o
536

463
3,510
102
25.720

PER SECOND

FE6

38
32

27
25

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110
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89
63
SO

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43.0
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MAX 2.270

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507
408
307
246

198
170
145
129
206

198
180
189
156
139

122
111
102
93
R9

283
1S8
117

lol
R9

79
73

61
56
51

183
838
S3
11,250

, WATER

MAR

1,010
405

392
410

190
132
109
89
84

67
58
SI
46
43

39
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24
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21
19
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18

118
1.010
18

MJN

46
42
80
55
492

442
217
144
102
87

98
89
69
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54
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YEAR OCTOBER

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4.2
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3.2
3.0

5.39
8.4
3.0

100
660

JUN

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7.6
7.8
7.3
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6.6
6.6

6.6 7.~>
8.6

8.4
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5.1
5.1
5.1
4.7
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4.0
4.0
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3.4

3.S
3.4

3.0
Z.9

5.62
8.6
2.9
334

TO SEPTt

JUN

2.8
2.6
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2.2
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1.9
1.9
2.2
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6.4

4.4
3.S
3.0
2.9
2.6

2.6
2.4
2.1
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1.1
1.0
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. 90

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1.4
1.2
1.0

2.39in
. 90

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2.4
2.0
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1.2

1.2
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. 90
. 90
1.2

. 90
. 60
. 50
. 20
. 30

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. 20
. 20
. in
. 10

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. 10
. 10
. 10
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. 86
2.8
0
53

"HER 1970

JUL

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. 70
. 70
. 60
. 50

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. 40
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. 20
. 20

. 20
. 10
,10
. 10
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. 17
. 90
0
11

SAN JOAQUIN RIVER BASIN

11261000 SALT SLOUGH NEAR LOS BANDS, CALIF.

PERIOD OF RECORD.--October 1940 to September 1968 (discontinued). Monthly discharge only for October to Decembe 1940, published in WSP 1315-A.

GAGE.--Wa

AVERAGE DISCHARGE.--28 years, 195 cfs (141,300 acre-ft per year).

Wtr yr Date
1966 Nov. 24, 1965
1967 June 8, 1967
1968 Mar. 15, 16, 1968

Discharge G.H.
217 4.68
413 5.94
296 5.18

Minimum daily

Oct. 13, 1965
Oct. 11, 1966
Oct. 14, 1967

Period of record: Maximum daily discharge, 2,420 cfs Mar. 9, 1941; minimum daily, 4.0 cfs Oct. 27, 1961, Oct. 20, 1964.

REMARKS.--Records good. Flow regulated by irrigati
of Pick Anderson Slough system. Water-quality i
Geological Survey.

rations above station. Salt Slough is
for the water year 1966 are published

continua

n reports

DISCHARGt, IN CUBIC FEET PER SECOND. WATCH YEAR OCTOBtR 1965 TO SEPTEMBER 1966

DAY

1
2
3
4
5

6
7
a
9
10

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12
13
14
IS

16
17
IB
19
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23
24
25

26
27
28
29
30
31

MEAN
MAX

MIN

WTR YR

65
84
87
73
55

44

3*
23
25
22

23
28
19
il
25

26
27
3*
50
49

36
34
55
52
52

52
52
55
41
43
41

42. 8
87
19

1966 TOTAL

4b
45
41
46
52

55
55
53
5b
56

62
69
76
83
96

111
125
13B
159
159

161
171
193
212
21S

214
211
206
206
203

119
21S
41

34,b50

19 136
in 133
19 130
19 132
18 137

18 132
IB 137
17 132
17 131
17 131

17 132
18 130
17 128
16 124
15 122

14 123
14 128
14 125
14 118
13 112

130 116
127 117
123 115
1?1 112
125 102

125 96
117 90
115 91
115 96
134 99
1 38 96

155 119
200 137
115 90

MEAN 94.7 MAX

86
71
79
82
96

81
79
79
81
80

80
77
70
66
57

67
65
67
71

n
70
67
80
83

91
100
109

77.3
109

215 MIN

11B
115
98
87
84

83
90
95
76

80
80
79
81
85

115
105
101
97

113
131
132
134
151

153
157
153
146
160
173

111
173

19

169
159
153
141
140

134
142
174
174

196
194
182
166
153

88
97
110
100

105
102
104
101
112

137
115

96
100

135
197

AC-FT 68,530

101
99
96
98
92

93
102
115
124

124
124
118
112
124

104
102
92
76

71
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93.0
129

JUN JUL

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67
Rn
7P

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78

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f

1,816 2,131
60.5 68.7
84 9T

A US

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103
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R3
78

B6
9?
PO
66

103
94
93
98
92

73
62
66
76
62

61
62
65
70
78

92
88

SO
77
75

2,529
81.6
103
61

SEP

77
79
81
HI
R4

H?
82
83
80

86
87
82
71
6S

57
57
49
54
57

53
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63
72
76

74
6R

56
41

2.113
70.4
8R
41

SAN JOAQUIN RIVER BASIN

11261000 SALT SLOUGH NEAR LOS BANDS, CALIF.--CONTINUED

DAY

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TOTAL
MEAN

MAX
MIN

DAY

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31

MEAN
MAX

AC-FT

CAL YK

OCT NOV DEC JAN

44 70 142 146

55 59]48 144
72 54 170 141
74 53 171 137
59 54 185 114

69 63 208 128
50 73 233 136
38 73 246 145
30 75 243 138
24 77 228 135

11 75 225 133
12 71 223 127
16 66 223 125
23 2 222 123
35 1 222 118

40 1 219 115
39 1 207 108
37 0 195 105
42 U 191 111
45 6 185 113

49 83 182 110
49 79 183 117
49 83 180 117
46 94 176 124

49 95]72 129

51 101 167 130
46 120 161 127
50 129 149 124
70 137 144 127
84 142 143 142
78

1,436
46.3
84
11

OCT

113
149
185
154
132

112
S7
96

56

43
45
30
27
54

74
80
70
66
63

54
60
61
61
67

67
66
b8
57
bl

76.5
IBS
27

4,700

1967 TOTAL

1B4
182
167
162

154
155
156

152

156
155
156
155
157

154
150
155

151

144
149
153
135
132

131
138
118

145 172

78.9 190 128

53 142 105

DISCHAKbt, IN

NOV nE

56 14
57 15
55 15f
52 16
55 IS

57 14

56 14(
61 144

6b 12

66 11
63 11
6b 11
6U 11
58 11

6B 1 1
6b 11
bd 11
6J 11
63 12

65 1 1
66 1 1
66 9
71 8
H4 H

85 8
9b H
128 r

119 r
121 S

CUBIC FEET

59
61
63
62
61

) 65
65
79

> 99

98
89
91
100
104

113
113
118
128
132

131
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121
120

5 115
' 113
> 112
> 106
101
104

70. b 115 98.9
128 162 132
52 SI 59
4,200 7.060 t»080

63.180 MtAN 173 MflX

152

118

PtH SECOND

109
114
119
119
121

109
114
129
121
117

124
127
129
123
119

lib
148
183
183
166

164
15B
159
157
161

155
147
142

138
183
109
7,940

403 MlN

103
116
130

151
152
146

154

160
178
203
192
187

202
225
207

192

167
143
129
149
207

223
219
251
260

277

179

103

, WATER

139
137
135
155
194

188
180
194
234
224

213
222
263

289
289
282
248
204

185
188
204
201
197

188
174
161
168

324
362
379

373
386
3B2

337

336
332
328
278
269

?83
267
258

279

?84
289
276
264
250

241
231
229
228

300

228

YEAS OCTOBER

180
233
252
253
231

205
198
172
153
136

139
165
139

171
162
173

156

160
161
165
1S3
144

135
134

131)
121

203 168
289 ?53
135 121
12,490 9,970 6

27 AC-FT 125,300

226
?20
235

229
227
202

260

304
311
333
341
338

323
799
282

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323
324
134

322
313
323
311

287

202

1967

112
117
120
121
13*

136
120
109
113

123
126
136

150
129
128
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121

128
101
92
76
97

90
75
58
50

111
150
50
«00

JUN

376
376
397

399
403

325

313
313
316
290
320

307
280
273

322

325
295
291
286
296

298
293
273
260
250

323

250

TO SEPTE

JUN

60
67
90
81
73

87
94
100
90

83
81
81

86
89
Bf
91
88

87
81
70
71

7)

48
48
54
67

78.0
10P
48
4,640

JUL

23B
256
280
284
256

256
258
2*0

261

286
280
286
279
269

250
231
203

177

165
183
172
179
160

144
156
148
122
131
146

217
286
122

flER 1968

JUL

95
76
70
73
71

69
75
96
110

106
103
106

8S
63
63
66
81

81
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68
65
61

100
122
160
178

92.3
178
61

5.671)

AUG

157
135
125
120
129

138
1*1
135

133

137
150
1*9
150
160

152
149
1*2

160

158
130
127
143
155

154
131
123
116
130

141
165
116

AUG

155
147
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99
124

118
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131
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96
8,060

SEP

133
120
113
125
125

130
113
96

86

83
77
75
81
100

86
76
68

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47
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66
79
97

106
82
70
75
92

89.3
133
47
5,320

SEP

121
114
118
103
92

109
135
128
124
123

98
95
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89

86
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89
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95
100
116
127
100

84
91
108
116
122

3,130
104
135
84
6,210

SAN JOAQUIN RIVER BASIN

11261500 SAN JOAQUIN RIVER AT FREMONT FORD BRIDGE, CALIF.

DRAINAGE AREA.--7,615 sq mi (revised).

AVERAGE DISCHARGE.--33 years, 810 cfs

EXTREMES.--Maximums and minimums (discharge in cubic feet p 1966-70 are contained in the following table:

(586,800 acre-ft per year).

^cond, in feet)

Date
Jan .
Apr.
Mar.
Feb.
Jan.

3,
27,
19,
26,
19,

1966
1967
1968
1969
1970

Discharge
2,210
5,380
474
9,180
3,290

Elevat
62
66
57
68
64

ion
. 01
. 73
. 15
. 05
. 41

Date
Nov.
Oct.

July
Oct.

July

2,
13,
26,
20,
17,

1965
19, 1966
1968
1968
1970

Wtr y Disi
1966
1967
1968
1969
1970

Oct. 30, 1960.

REMARKS.--Records good. Natural flow of stream affected by storage reservoirs, ground-water withdrawals, diver-sions for irrigation, and imported water from Delta-Mendota Canal (see station 11313000). During periods of high flow, water bypasses this station through Mud Slough; low flows consist mainly of return water from irr: gated areas. Stage affected at times by backwater from Merced River. Water-quality records for the water

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SE

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12

1*

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IB
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2V

MAX

M]N

208
213
222
206
168

137
115
114
112
112

76

70

71
67

64

76
77

62
47
4fl
54

47

47
45
73
60
55

61
68
69

73

81

113

321
381

417

580
B63

1,060
1,170
1.160
1,010

45

881
860
535
45B
471

465
459
421

3?8

316

377

283
260

239

228
229

235
245
246
279

22H

1,550
2,020
2,180
1,940
1,510

1,190
1,010
923

668

560

443
418

369

333
316

302
282
263
254

254

444
442
396
384
375

363
341
41b

392

302

255
?47
237

213

20*
211

217
224
228
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204

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239
230
207
189

184
181
187
184

162

158

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172
185
174

199

234
234

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240
253
264

155

269
258
242
235
230

217
212
232
245

297

282

249
234
?01
183

182

166
186

190
199
184
168

16b

16S
173
164
174
175

171
166
165
178

?19

203

197
184
176
179

141

131
136

153
142
143
147

?26
131

129
140
141
139
149

160
161
161
163

125

136

123
113
110
112

109

103
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109
115
115
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163
97

91
87
103
108
111

109
100
102
106
101

113

109

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93

107

101

Rl
7i

Kb
76
f.8
62

113
62

95
109
117
120
105

101
107
105
100
103

119

114

113
100
85
82

91

96
102

113
114
104
97

121
82

98
101
103
102
103

103
93
75
88

103

109

107
104
105
101

83

94
ion

99
92
89
87

?,877

109
75
5,7111

CAL YR 1965 TOTAL 155,108 3,100 MlN 45 AC-FT 307.700

SAN JOAQUIN RIVER BASIN

11261500 SAN JOAQUIN RIVER AT FREMONT FORD BRIDGE, CALIF.--CONTINUED

DAY

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TOTAL
MEAN
MAX
MIN
AC-FT

CAL YK
WTR Yh

DAY

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3

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30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YH
WTR YR

76
78
76
82
84

64
61
58

54

52
37
22
32
41

27
22
25

34
38
48
58
38

36
SO
44
50

70

1,527
49.3

22
3,030

1966 TOTAL
1967 TOTAL

OCT

331
351
397
430
410

376
335
294
296
275

246
234
202
197
189

204
216
204
187
179

180
191
174
194
186

175
163
136
133
123
109

7,317
236

6i 121
48 119

3b 168
32 203

41 ?64

72 1,430

72 1,970

77 1,130
76 K7l
74 694
70 b78

61 2«8

66 247

81 235
91 222

99 212
105 200

124 190

183

2,181 16,115
72.7 520

32 119
4.330 31,960

82,393 MEAN
484,528 MEAN

DISCHARGE. IN CL

NOV DEC

100 3BO
100 403
103 404
100 402
98 393

95 386
96 348
H5 352
86 362
97 356

99 337
99 ?fi7
95 241
93 232
88 232

84 213
96 199
98 190
112 199
129 259

175 347
186 340
212 309
225 259
252 227

277 207
290 204
297 203
317 192
341 182

151 283

1U9 84 162
14,510 8,980 17,430

1967 TOTAL 485,334 MEAN
1968 TOTAL 74,023 MEAN

177

173
193

200

230

200
195
187
182

144

153

197

435
70S

678

1,170

9,209
297

144
18,270

226 M
1,327 M

IBIC FEET

155
153
146
134
122

113
108
151
230
267

266
266
241
221
221

226
219
202
188
185

178
172
175
182
183

182
175
166
161
154
168

184

108
11,330

1,330 x
202 >

PFH SECOND

2.750

2,190
2,130

2.400

2.760

2.220

1,110
892

397

332

288

252
242

34.196
1,221

242
67.B30

AX 2,240
AX 5,360

PER SECOND

183
180
182
202
204

192
176
170
168
159

153
152
155
161
158

159
168
196
322
402

408
413
427
391
341

295
289
266
246

239

152
13.720

IAX 5,360
1AX 463

214

213
211

220

228

231

244
269

2,320

1,420

526

428

402

373

21,457
692

211
42,560

MIN 22
MIN 22

, WATER

234
236
326
249
224

223
213
223
239
297

338
357
373
391
379

388
428
447
463
428

377
330
310
307
257

230
224
216
204
190

300

184
18,420

MIN 84
MIN 83

410

913

1.910

2.500
2,810

3,400

4,880

5,340

5,360

5,160

94,435
3,148

5,140

5,070

4,920

4,730
4,730

4,410
4,360

4,350

4,320

4,310

4.320

143,760
4,637

381 4,300
187,300 285,100

AC-FT 163,400
AC-FT 961,100

YEAR OCTOBER 1967

202
244
321
385
385

318
272
256
234
209

183
181
168
186
202

218
204
212
219
205

210
229
211
219
186

189
194
206
229
209

230
385
168
13,660

AC-FT
AC-FT

202
183
175
178
1R1

206
194
171
158
158

164
214
288
317
316

319
274
231
211
?33

219
194
187
175

198
191
156
136

205
319
119
12,600

962,700
146,800

JUN

4.470 1.

4,510 1,

4,520 2,

4,510 2,
4,420 1,

3.410
3.220

3,020

2.450

2,230

1,550

107.710 35,
3,590 1,

1,450
213,600 70,

TO SEPTEMBER

JUN

114
115
120
120
120

125
120
120
135
150

145
140
135
130
130

130
140
130
125
126

120
115
104
96
98

90
85
87
88
90

118
150
85
7,030 6.

1967

JUL

350

600

310

330
710

808

616
648

705

420

327
314
301

2R6

529
146
650
278
470

1968

JUL

113
116
98
88
85

84
91
94
95
105

125
135
116
127
132

116
95
87
85
85

91
97
93
87
89

83
91
114
130
167

106
175
83
. 520

A LI6

278
254
251

259

264

294
293
302
311
326

263
282

300
284
242
252
281

328
316
299
292
314

8,755
282
328
242
17,370

AUG

162
159
160
136
129

161
162
149
127
120

131
146
147
167
167

186
199
202
180
208

200
201
202
209
229

226
232
230
234
233

5,603
181
234
120
11,110

SEP

330
314
311

361

325

286

284
289
310
298
300

329
356
361

329
284
287
306
343

356
358
335
302
309

9,654
322
361
284
19,150

SEP

209
223
214
195
180

175
180
187
193
226

226
226
217
215
215

201
220
220
207
193

176
179
184
220
206

170
151
140
132
126

5,806
194
226
126
11,520

SAN JOAQUIN RIVER BASIN

11261500 SAN JOAQUIN RIVER AT FREMONT FORD BRIDGE, CALIF.--CONTINUED

DISCHARGE.]N CUBIC ff.il PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTL«HEH 1969

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IB
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29
30
31

TOTAL MEAN
MAX
MIN
AC-FT

CAL YR
KTR YR

DAY

1
2
3
4
5

6
7
e
9
10

a
12
13
1*
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
HIN
AC-FT

CAL YR
KTR YR

133
121
120
113
114

98
84
75
66
67

63

62
66
68

54
56
46
44
39

45
51
48
46
66

64
60

66

81

2,217 5,
71.5
133
39
4,400 10,

196B TOTAL
1969 TOTAL S

D

OCT

360
356

347
324

310
295
279
286
289

301
303
309
302
292

320
340
365
405
360

307
260
22B

192

187
186
188
193
190

8,631 10
285
405
186
17,520 20

1969 TOTAL
1970 TOTAL

93

105 118
154

20S
183
167
154
161

157

178
189

230
263
262
250
232

216
201
194
189
188

188
172

128

290 7,
176
263
82
490 14,

68,217
167,272

ISCMARGt,

170
158

173
177

194
304
442
453
405

363
347
372
398
403

391
363
361
372
400

396
389
392

409

429
432
427
429
439

. 554 9
352
453
158
,930 18

980,931
174.529

111
113
119
135
137

122
111
111
103
109

127

140
151

212
225
221
205
185

174
166
162

181

219

827

316
236
B27
103
510

MEAN
MEAN

IN C

485
450

420
406

389
373
359
334
308

300
285
264
258
256

238
226
220
217
215

214
228
241

238

250
254
286
270
235
215

,097
293
4B5
214
,040

MEAN
MEAN

534 5.390
460 5,260
376 5,180

246 5.180

209 5,180

188 5.910
199 5,990

195 5,600

286 5,430

2,960 5.310

2.230 5,860
1.970 5,970

4,280 6,290
4,780 6.120

4,770 9.110

5,610

73,978 169,520 16

7,090
6,980

6,380

6.110
6,110

6.1HO

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5,830

5,750
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5,730
5,780

5,670

5,510

5,280

16,840

6.400 9,110 7,280
188 5,170 5,280
146,700 336,200 370,600

186 MAX 827 MIN 39
2,650 MAX 9,110 MIN 39

UBIC FtET PtR SECOND, »AT£K

192 2,290
187 2,070

183 1.570
205 1,220

212 1,050
216 1,010
217 1,190
227 1,600
233 1,770

251 1,690
392 1,710
520 1,580
535 1,300
598 1,070

1,010 1,040
1,490 1,060
2,570 985
3,210 1,160
3,240 1,170

3,140 1,030
3,050 883
2,840 787

2,660 604

2,680 539
2.650 456
2,550 401
2,380
2,3*0
2,360

45,216 33,753
1,459 1,205
3,240 2,290
178 401
89,690 66,950

2,687 MAX 9,110
478 MAX 3,240

416
565

2,180
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2,410
2,730
2,550
2,120
1,750

1.490
1.210
1,040
Bfll
732

656
564
511
454
408

385
469
548
517
398

343
326
303
312
309
336

30.403
981
2,730
303
60,300

MIN 15

5,210
5,200

5,100

5,300
5,390

5,300

b.220

4,980

4,970
4,960

4,750
4,750

4.630

4,530

149,550

5,390
4,460
296, AOO

AC-FT

4,360
4.680

5,040

4,740
4,580

5,060

5,150

5.140

5,180

5.1RO
5,170

5,180
5,160

5,170

5,230

5,220

156,0f>0

5,230
4,330
309,600

138,300

YEAR OCTOBER 1969

328
314

293
302

295
290
294
293
283

283
290
291
297
317

345
349
319
297
292

294
294
284
266
269

285
303
349
374
369

9,149
305
374
266
18.150

8 AC-FT

361
347

323
297

262
223
225
230
249

300
320
304
292
281

264
252
249
248
241

239
213
205
180
186

171
181
181
194
204

5,180
5.170

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5,58(1
5,700

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5,750

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250 175
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171 116
15,380 10,410

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37,816
1.220
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75,010

1BER 1970

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226
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136
123
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4,329
140
226
96
8,590

3S9
352
362
354
35?

350

320
302

265
283
288

296

315

325
349

387
391
389

407

413
427
429

10,844
350
429
265
21,510

AUG

140
134
151
159
15B

137
125
142
176
183

187
192
171
151
175

178
178
206
186
155

140
170
194
194
172

159
153
142
148
148
140

5,044
163
206
125
10,000

409
435
455
507
523

481

749
B1R

583
543
556

584

615

585
572

549
546
537

450

423
393

16,021
534
818
393

31.78(1

SEP

167
182
195
187
179

178
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161
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175

183
168
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165

148
141
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172
161

182
188
168
175
168

178
182
15<»
167
194

5,149
172
195
141
10,210

SAN JOAQUIN RIVER BASIN

11262800 LOS BANDS CREEK NEAR LOS BANDS, CALIF.

LOCATION. --Lat 37°01'00", long 120°54'05", in SE^SWij sec. 32, T.10 S., R.10 E., Merced County, on downstream side of bridge at Delta-Mendota Canal siphon crossing, 4.3 miles southwest of Los Banos.
DRAINAGE AREA.- -159 sq mi.
PERIOD OF RECORD. --October 1958 to September 1966 (discontinued).
GAGE. --Water-stage recorder. Altitude of gage is 175 ft (from topographic map). Prior to Sept. 9, 1959, at datum 1.00 ft higher.
AVERAGE DISCHARGE. --8 years, 4.71 cfs (3,410 acre-ft per year).
EXTREMES. --No flow during entire year.
Period of record: Maximum discharge, 2,640 cfs Feb. 1, 1963 (gage height, 4.80 ft), from rating curve extended above 1,300 cfs on basis of slope-area measurement at gage height 12.07 ft; no flow for several

Flood of Dec. 23, 1955, reached a stage of 12.07 ft (present datum), from floodmark in well, 14.05 ft out-side from profile of floodmarks (discharge, 11,400 cfs by slope-area measurement).
REMARKS. --Flow regulated by Los Banos Creek Detention Reservoir (completed November 1965).

11264500 MERCED RIVER AT HAPPY ISLES BRIDGE, NEAR YOSEMITE, CALIF.
(Hydrologic bench-mark station)

DRAINAGE AREA.- -181 sq mi.

PERIOD OF RECORD. --August 1915 to September 1970.

recording gage at datum 0.55 ft lower.

AVERAGE DISCHARGE. --55 years, 343 cfs (248,500 acre-ft per year).

EXTREMES. - -Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (1,900 cfs), water years 1966-70

Date Time
May 8, 1966 0300

De 6, 1966
May 22, 1967 2300

lisch.
: 1,640

2,160
3,800

G.H.
5.62

6.20
7. 54

Annual

Date
June 30,
July 15,

May 29,

minimum da

Time
1967 2400
1967 2300

1968 0300

ily discharj

Disch.
*4,640
2,390

*1 ,480

;e, water

G.H.
8.02
6.43

5.42

years

Di
Ji
Ji

ME

1966-

ite
me 3,
me 15,

ly 18,

- 70

1969
1969

1970

Time
0100
2200

0100

Disch.
4,980
2,820

*2,330

G.H.
8 . 18
6.82

6.37

Wtr yr Date
1969 Oct. 3-6, 1968
1970 Sept.30, 1970

Discharge
2.3
4.3

charge, 9,860 cfs Dec. 23, 1955 (gage height, 12.73 ft), from rating curve of contracted-opening measurements at gage heights 10.4 and 11.55 ft; mini-

Wtr yr Date
1966 Sept.17, 1966
1967 Oct. 25, 26, 1966
1968 Sept.30, 1968

Period of record: Maximum d
extended above 4,000 cfs on bas
mum, 1.5 cfs Sept. 30, 1926.

REMARKS.--Records excellent. Up to 4 cfs can be diverted above station for Yosemite Valley water supply. Wate quality records for the water years 1966-70 are published in reports of the Geological Survey.

REVISIONS (WATER YEARS).--WSP 1215: 1938(M).

DISCHARGE! IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

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16

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24
25

27
2B

30

MEAN

WIN
AC-FT

CAL Yk

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18

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17

24

22
22
21

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18
17
16

15

13

19.2

13
1,180

1965 TOTAL

NOV

13
12
12
12
12

12

11

11

11

\\

92

171
139

117

21b
195
162

14J
137

125

11
b.4fU

166,705

DEC

17
16
17
22
18

14

05

97

93
92

70

60
60

60

52
S3
54

SB

8(1.5

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4,950

. 0 MEAN

JAN

73
77
80
81
81

81

80

76

74
73

79

66
65

64

62

b3be

??

69.6

55
4,280

457 M

FEB

60
57
62
64
62

68

62

64

60
60

58

6b
63

68

78
78
69

73

6B.1

57
3,620

AX 2,460

MAR

78
73
70
70
73

74

81

128

141
146

198

184
169

166

240
292
317

416

22b

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13,840

MIN 11
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920
988
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680
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,160

,110
,050

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,?80

,?30
,270
,200

,190

819 1.198

482 608
48,720 73,690

AC-FT 330,700
7 SC-FT 193,600

JUN

536
45?
420
43?
460

500

478

460

528
52P

604
595

487
496

436

286
259
253

289

280

440

253
26.200

JUL

253
222
195
171
162

160

150

117

106
100

90
90

86

84
93

101

102
100
97

93

87

118

82
7.280

AUG

101
260
271
177
123

98

70

57

53
49

44
42

39

36
36
35

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16

63.6

15
3.910

SEP

1*
13
11
10
9.6

9.6

9.3

7.9

7.1
5.9

5.6
5.4

5.0

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12
9.0

B.5

7.9
7.9
8.5

8.8
8.8

8.5

8.44

4.7
502

SAN JOAQUIN RIVER BASIN

11264500 MERCED RIVER AT HAPPY ISLES BRIDGE, NEAR YOSEMITE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND,

NOV DEC JAN FES

WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

MAP, APR MAY JUKI JUL

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31

TOTAL MEAN MAX
MIN AC-FT

WTR YH

DAY

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id
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31

TOTAL
MtAN
MAX
MIN
AC-FT

CAL YR
HTR IK

8.2
8.2
8.2
8.2
7,6

7.1
6.6
6.3
5.9
5.4

4.7
4.5
4.5
4.3
4.1

4.0
3.8
3.6
3.6
3.8

3.6
3.4
3.4
3.4
3.2

3.2
3.6
3.6
3.4
3.6

4.86
8.2
3.2

1967 TOTAL

OCT

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50
52
50

48
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36
32

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IS
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14

27.9
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13
1,720

1967 TOTAL
1968 TOTAL

3.6
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. 8
. 8
. 6

. 8
. 3
4.7
5.2
5.6

5.9
6.1
6.8
7.1
7.9

24
17
14
14
66

38
36
32
29
26

25
25
255
521
286

521
3.6

215,234

DISCHARGt

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1312
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12
12

12
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13

13
13
13
Ib
17

17
IB
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40

31
29
2B
2b

2b

2b
2b
?b

19.9
40
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1,191)

209.073.
65,991.

174
169
209
150
270

900
410
262
220

188
171
160
145
139

1*1
1*3
1*1
1*1
139

127
116
110
102
97

88
90
98
93
85
81

1,900
fll

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75
74
75
75

68
66
66
67

72
76
78
79
81

82
81
76
75
82

120
106
108
100
11*

128
125
123
162
175
169

175

4 MEAN 590 v

, IN CUBIC FEET

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Jl
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44

51

b6
S3
48

40.9
5b
28
2.520

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8 MFAN

37
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6*
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50
54

*1
48
46

40.6
b5
26
2,500

b73 M
180 «"

148
135
134
135
141

156
160
169
188

188
188
182
164
1*5

137
134
135
134
125

120
123
122
122
122

116
114

18B

AX 3,900

PER SECOND

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51
51
52

51
49
48
53
54

55
53
52
51

51
bb
79

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20b
225
232
200

184
177

110
280
46
6,350

AX 3,900
AX 1.280

128
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1*1
137
122

123
139
154
154

150
148
146
175
177

615
855
608
469
412

373
373
352
320
295

271
262

292
259
256

855

MIN 3.

, WATER

154
148
150
152

139
127
125
11*
105

102
105
ins
100

102
98

90

97

101
111

169
259
345

138
370
90

R,4bO

MIN 12
MIN 2

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230
218
218
212

218
212
222
232

222
?15
220

?40

222
222
220
225
220

208
?02
191
188
179

188
212

182
177

213
?*2

177
200
218
242
253

670
880
715

564
482
482

835

1,550
1,820
2,000
2.290

2,»10
3,100
3,310
3,200

2,930
2.780

2,040
1.910

1,452
3,310

2 AC-FT 426.900

YEAR OCTOBER 1967

?96
?42
235
?56

228
222
245
314
432

S23
500

37b
301

259

218

304
384

P90
982

1,020

1.020
21H

2b,7bO

CC-FT
. 6 ftC-FT

1,010
952
905
905

735
685
ft90
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559

440
416

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705

1,060

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1,280
1,110

1,?80
416
48.740

414,700
130,900

1,190
994
1,040
1,270
1,370

1,830
1,970
1.980

2,110
2,080
1,880

2,080

2,580
3,000
3.110
2,800

3,190
3,160
2,950
2,930

3,000
3,090

3,380
3.770

2,331
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TO SEPTt

JUN

1,050
Ition
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760

514
392
356
304
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42ft
416

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460

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283
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225
220
193
156

1,100
156
26.930

3,900
3,800
3,410
3,030
2,800

2,100
1,850
1,680

1,630
1,810
2,140

1,870

1,520
1,350
1.270
1,100

994
9S8
925
8RO

925
870

1,030
BBS

1,745
3,900
7PO

MRER 1968

JUL

132
123
118
116
110

108
104
10R
120
127

90

SO
75

f,8
65

59
56
53
50

46
48
55
^7
78

112
46
5,210

680
608
600
572
514

376
32*
289
289

310
307
310

348

432
622
760
432
328

274
274
259
307

568
342

208
1R2

396
760
173

AUG

75
67
56
48
42

37
33
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21
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a
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7

5
3
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11
9.9
10

822,9
26.5
75
9.9
1,630

169
173
191
198
220

200
164
143
130
118

100
87
80

74

70
66
87
108
96

84
75
74
76

73
66

58
57

10«
220
57

SEP

9.9
10
11
11
11

11
10
10
10
9.P

9.3
6.8
8.2
7.4
6.8

6.1
b.<t
4.7
4.3
4.3

4. 1
4.0
4.0
3.8
3.4

3.?
3.1
2.9
?.7
2.6

?02.9
6.7ft
11
<?.*

40?

SAN JOAQUIN RIVER BASIN

11264500 MERCED RIVER AT HAPPY ISLES BRIDGE, NEAR YOSEMITE, CALIF.--CONTINUED

OISCHAWut, IN CUBIC FEET PtR SECOND, HATCH YEAR OCTOBER 196R TO SEPTEMBER 1969

UAY 0

2 ?
3 ?.
4 2
% 2

7 ^

9 d

11 2
12 3

14 29
IS 18

17 7
18 b
19 6

21 6
22 6

24 fc
25 ft

27 7
28 7

MEAN 11

MIN £

WTR YR 1969

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3

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15

16 2
17 2
16 1

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29

MEAN 5

MIN
AC-FT 3,

CAL YR 1969
*TR YR 1970

CT NOV

. 3t-
. 260
. 16U
125

. «4

112

128

111
116

12u
137
J4b

11B
110

me

72
60

. 5 109

. 3 21

TOTAL 238.037.

DISCHARGE

23 58
23 62

22 59

20 75
20 86
18 88
18 R6
17 f>6

IS 91
14 92
14 90
34 87

65 8B
05 73
28 62

80 57

70 53
69 48

76 41
70 40

65 36

57 30
53 2*

. 1 62.9

14 28
10 3,740

TOTAL 238,514.
TOTAL 117,037.

7 74 173 108 67b It'520 4,170 ,570 410 77
2 76 161 126 585 1.230 4,210 ,460 428 RO

6 98 151 129 598 1.070 3,630 ,320 378 80

4 llf. 130 112 413 2,000 3,200 ,260 285 100

42 101 139 100 385 2.680 2,250 ,270 248 95

50 90 131 93 476 2,610 1,320 ,220 260 84

63 125 120 90 549 2,540 2.250 ,120 235 »9

63 99 117 110 626 2.930 1,850 934 H38 42
68 108 122 122 740 3,060 1,400 898 296 39
64 291 118 127 760 2,8flO l.TOO 952 238 36

H2 546 95 191 BOO 3,510 1.750 820 153 26

«8 369 106 285 850 3,340 1,450 640 126 23
90 294 107 350 1,060 3,190 1,350 580 113 23

61.2 194 127 177 781 2,675 2.270 1.096 238 54.7

42 74 95 88 3B5 1,020 1,300 549 85 23

9 MEAN 652 "AX 4,280 MIN 2.3 AC-FT 472.100

, IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

26 63 15b 166 250 464 ,740 452 92 24 25 58 152 150 274 TOO ,640 496 85 21

22 46 160 152 345 1,000 ,310 510 78 18

24 46 152 150 440 1,020 ,260 595 78 16
22 51 154 160 478 815 ,170 568 73 14 ?3 53 164 164 482 795 ,280 492 70 13 22 71 16U 154 546 730 ,380 452 68 12 22 96 154 154 655 P60 ,070 388 65 11

23 79 171 141 618 M8 825 3*5 58 11 23 78 169 156 541 700 760 331 60 11
23 106 162 186 440 1,070 622 331 61 11
23 111 156 198 356 1.230 505 338 59 11

?2 592 152 210 324 1.770 49? 352 56 10
22 496 158 232 295 1,990 665 295 54 9.6
H3 345 145 225 280 2,040 805 262 50 9.0

222 245 132 191 271 1.510 ,200 277 46 B.2

304 551 130 198 256 1,400 ,220 268 44 7.6

146 396 127 304 225 1,760 ,050 193 35 6.1
216 295 127 276 256 1,640 ,010 173 32 5.9

143 259 137 436 320 1,680 946 188 29 5.2

87 225 156 362 256 1.4SO 900 139 28 5.0
91 208 356 ?40 1,520 626 120 30 4.7

75.7 216 150 221 355 1,256 1,056 3?2 55.1 11.1

?2 46 125 141 225 307 469 112 28 4.3
4,660 13.300 8,310 13,580 21.140 77.230 62.820 19.810 3.390 659

0 MEAN 653 MAX 4,280 MIN 14 AC-FT 473,100
1 MEAN 321 MAX 2,040 MIN 4.3 AC-FT 232.100

SAN JOAQUIN RIVER BASIN

11266500 MERCED RIVER AT POHONO BRIDGE, NEAR YOSEMITE, CALIF.

LOCATION.--Lat 37°43'01", long 119°39'55", Mariposa County, in Yosemite National Park, on left bank 150 ft Park headquarters.

DRAINAGE AREA.--321 sq mi.

PERIOD OF RECORD.--October 1916 to September 1970. Monthly discharge only for October and Novembi
lished in WSP 1315-A.

datum 1.80 ft higher and Sept. 5, 1918, to Sept. 30, 1955, at datum 1.00 ft higher.

AVERAGE DISCHARGE.--54 years, 603 cfs (436,900 acre-ft per year).

EXTREMES.--Maxiraums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (2,900 cfs), water years 19

Date
May 8,

Dec. 6,

Wtr yr
1966
1967
1968

Pe

well)
Yosem
Sept.

REMARKS.
efflu

DAY

1
2
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16
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IB
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21
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25

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27
28
29
30
31

TOTAL
MEAN

MAX
MIN
AC-FT

1966

1966

Date
Sept. 17
Oct. 21
Sept. 30

riod of

Time Disch.
0200 *2,670

1645 5,330

, 1966
- 25, 1966
, 1968

record: Max

G.H.
6.97

9.39

Annual

imum disc

Date
May
July

Apr.

minim

harge,
above

29, Oct. 1, 1924.

- - Recor

ent of

OCT

54
51
49
49
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40
38
37
36
35

34
33
32
32
31
31

1,335
43.1
54
31
2,650

ds excellent.
1 cfs returns

DISCHARGE,

NOV

30
30
30
29

2S2<y
28
28
28

28
31
43
181
241

288
550
700

238
225
514
498
376

325
295
278
268

6,325 5
211
700
28
12,550 10

CAL YH 1965 TOTAL 290,014

No dive
between

IN CUBIC

232
230
236

223
217
210
209
200

187
186
170
164
140

129
123

126

128
126
113
117
122

lie
124
129
156

157

166
243
113
. 210 9

MEAN 795

rsion
statio

Time
23, 1967 0100
1, 1967 0215

30, 1968 0145

Disch. G.H.

*6,950 10.53
6,520 10.19

*2,020 6.13

Date
Apr. 23, 1969
June 2, 1969

May 18, 1970

Time
0130
0145

0100

Disch.
3,340
*8,190

*4,150

G.H.
7. 55
11.34

8.31

urn daily discharge, water years 1966-70

Discharge
18
15
13

23,400 cfs Dec.

gage heights 20.

between stations
ns (see REMARKS f

FEET PEK SECOND, WATER

152
166
170
166

179
180
180
169
167

162
155
158
160
160

155
150
145

134
133
129
127
127

129
126
123
125

131

,643
ISO
1BO
123
,210

MAX

135 170
124 153
136 144

14] U6

155 170
146 170
135 186
138 189
140 256

125 311
138 335
130 416
128 464
130 434

128 442
134 372
141 388

173 514
178 597
153 629

165 711
158 816
161 944
1.070

1,390

4,022 14,315
144 462
178 1.390
124 144

7,980 2R,390

4,070 MIN 28
2.420 MIN 18

Wtr yr Date
1969 Oct. 1-5,
1970 Sept. 28-30

23, 1955 (gage hei

at Happy Isles bri

1968
, 1970

ght, 21. 52 ft

esent datum;

dge and Pohon

, from
divers

o brid

Di

floodmar

n, 3.3 cf

scharge
13
19

k in

ge
or station 11264500) .

YEAR OCTOBER 1965

1,600
1,710
1,720
1.H70

l! 9 1 0
1,950
1,860
1,640

1,370
1,190
1,060
1,090
1,290

1,620
1,840
1,710

,310
,680

,920
. 930
. 920
'860

,568
,950

,020
. ISO
. 290
,350

. 420
. 420
. 100
. 190

. 990
,830
. 820
. 960
. 900

. 910
. 950
. 020
,010

. 780
,650

,590
,590
,480
. 290

884

. B88

,420
9«1 B84

93,300 116,100

AC-FT 575,200
AC-FT 329,500

TO SEPTEMBER

JUK.

77R
691

623 62n

696
657
642
61*

650
652
673
713
710

677
699
606
571
577

346
331

340
347
354
35f>

564
77R
331
33.5611 9

1966

JUL

311
284
255
231
21ft

206
19B
IBS
165

1S1
141
130
125
1?3

118
113
109
107
112

122

123
119

118
115
107
100
101
111

153
311
100
,440

AUG

106
216
284
206
153

103
91
82
76

71
67
64
60
58

56
55
53
52
52

51

42
40

38
37
35
33
33
31

79.4
284
31
4,880

SFP

31
29

26
25

24
23
22
22

21
20
20
20
20

19
IB
19
22

21
21
20
20
20

?0
2f>
20
20
20

658
21.9
31
18
1 .310

SAN JOAQUIN RIVER BASIN

11266500 MERCED RIVER AT POHONO BRIDGE, NEAR YOSEMITE, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

1

3
4

6

8
9
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12
13
It
15

16
17

19

2122

as a*

26
27

a9

MEAN

MIN

WTR YR

UAY

1
a
3

b

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7
8
9
10

12

14
15

16
17

19
20

ai

aat$
<?b

26

^8
29

Jl

MEAN
Mfl*
MIN
AC-FT

*TR YK

OCT

20

19
19

18

18
17
17

17
16
16
16

16
16

16

15
15
15
15

16
16

16

16.6

15

OCT

91
88
B7

85
8?
77
72
68

62

55
52

bl
49

47
45

03

41

39

37

58.2
91
J7
3.580

NOV

16

16
16

17 3

18
18
18

18
19
19
20

45
sa

31

89
77
bi
53

50
51

900

94.8

16

DISCHARGE,

NOY

37
36
36

3b
35
35
35

3i

36
39

6J
6tf

f-d1

5b

SI

49
49

43.8
60
3b
2.61(1 4

31<t

472
303

. 620

844
627
534

396
372

320

322
320

313

291
263
256
236

209
184

214

493

184

IN c

DEC

54
56
64

79

Ml
81

«3

63
70

6b
61

66
65

63

rn

inn
11*

7f .2
108
47
,690

190

182
184

165

165
162
165

18S
190

aoi

ao7
198

189

284
265
362
ab4

asa
297

408

a3i

162

IPIC FEE!

JAN

85
78
70

65

64
61
61

66

70
134

155
123

113
114

us

125

105

105

96.4
IbS
61
5,930

367

318
307

319

352
357
393

398
396

318

309
301

311

285
288
287
287

?65
274

323

26b

HFR SECOND

FEH

103

11J iao
ia3

119
115
113

123

119 11"

ia»
155

673

557

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?6»
673
1U3
15,430

298

337
308

a 84

330
361
359

351
319

368

1,530
a.oao

1.050

858
849
810
737

635
606

659

631

2so

MIN 15

. WATER

MAR

441
378
362

378

337
306
303

254

233
230

236
229

209

222

?75

816

325
816
209

?0.0]0

5S5

508
527

501

496 1
515 1
539 1

483

532 1

483 2
500 3

466 3

460 5
454 5
433 6
441 6

438 5
492 5

417 4

488 a

417

AC-FT 341,

YEAH OCTOBER

APrt

871
656
535

569

499
501
561

. 140 1

,010
. 080

955
785 1

601 1

553 1

. 110 1

1

H68 1
l.hOO 1
499

51,fr20 79

417

494
566

631

>340
,740
. 500

973

. 680

,400
,110

. 810

. 180
. 750
. 140
. 020

,490
270

,040

417

100

1967

MAY

,740
,780
,680

,620

. 320
,230
,?10

. 030

«41
BB3

908

. 600

,000

844

. 310

. 289
. 780
H38

,?f>0

900

JUN

2.460

2.110
2,580

2,460

3,590
3,810
3,870

4,020

4,030

4,450
4,740

5,550

5.650
5,620
5.050
5,080

5.130
5,200

5,450

2,070

TO SEPTE

JUN

310
370
400

040

801
667
639

571

565
604

626
628

521

396

339

31?

61«
1,400
224
36.860

JUL AlK

5,920 83?

5,390 73(
4,690 70<

3,640 56?

3,190 44C
2,850 39?
2,560 38 -

2,560 40

2.680 49f

2,690 55«
2,150 72

1,770 58

1.390 425

1,360 36'
1,270 36<
1.200 4i;

i.aoo 74'
1.120 48!

i.aao sot

2.533 51

961 24(

IRER 1968

JUL AUC

192 9
175 S
167 7
161 6
150 6

147 5
153 5
148 4
156 4

128 4

117 4
116 4

112 42

107 3(

90 3!

85 3«

78 3<

71 3

65 2
70 2'

00 ?

115 43.
192 9
65 2
7,090 2.70

» SEP

239

247
257

260

202
186
173

138
137

lao
116

in
107

166

ia7
118

111
116

109
100

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SEP

23
22
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13

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J 13
1 .OflO

SAN JOAQUIN RIVER BASIN

DAY

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TOTAL
MEAN
MAX
MIN
AC-FT

CAL YK

DAY

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31

TOTAL

MAX
MIN
AC-FT

OCT

13
13
13
13
13

15
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16
17

18
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52
35

32
32
33
33
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27

28
28

36

770
24,8
52

11266500 HER

DISCHARSE, IN CU

NOV DEC

36 117
42 102
552 111
340 105
241 98

193 8
158
147
197
238

215
272
264
205
215

231
226
263
326

257
232
227
217
180

163

126
118

6,433 4
214
552
13 36
1,530 12.760 8

1968 TOTAL 122.303

OCT

47

45

44

43

40
38

37
36
36
35
50

608

312
221
166

158
152
157
156
141

130
120
111
103
99
96

J5
7.810

DISCHARGE,

NOV

96

99
100
101

131

64

70
74
75

64

70

124

116

111
103
94

8?

70
69

17b
69

7,270 13

8
4
2
9

119
101
116
120
152

137
141
142

102
HI
130
200
212

188

201
187

175

,18S
135
212

,300

MEAN

:ED RIVER

BIC FEET

JAN

16B
165

190
214

243
213
185

192
214
288
339
300

229
260
657

1,100
763
591
569

1,790

838

502

15,291
493

30,330

334 s

IN CUBIC FEET

DEC JAN

65 183

63
59
57

61

58

60
59
60

58

58

57
77
700

899
704
477
390
668

233

,060

146
129
119

120

262

221
210
203

280

1.550

933
713

1,520
1,880
1,200
1,070
796

530
495

119

3b,690

AT POHONO BRIDGE,

PER SECOND. WATER

FEB MAR

491 275
446 268

408 302

NEAR YOSEMITE, CALIF .- -CONTINUED

YEAR OCTOBER 1968 TO SEPTE"HEH 1969

APR MAY JUN JUL

,460 3.030 7,450 2,450 ,390 3.080 7,320 2,450

,120 2,190 6,750 2,200

355
357

340

309
321
343

318
332
319

288
287
286
247

291

?86

9,451
338

18,750

AX 1,800

PER SECOI*

FES

427

380
390
404

382

38?

38b
440
431

399

381,

351

330
326
319
32B
32 1

P1.090

253
248

237

233
238

287
313
326

374
408

522

763

1.360

12,683
409

25,160

MIN 13
MIN 13

D, WATER

MAR

412

372
348
368

378

353

354
425

470

482

467

445
608

814
880

750
706

342
32,480

880 4.790
875 5,300

1,010 b,270

,420 5,680
. 160 5,270

,580 6,170

3,010 6,720
2,190 6,810

1,610 6,560

2,120 6,290

7,070

48,728 164,450
1,624 5,305

96,650 326,700

AC-FT ?42,600
AC-FT 882,800

YEAR OCTOBER 196")

APR MAY

579 73?

700 1.350
H20 1,670
935 1,910

,020 2,000

. 300 1,650

. 090 1,130

788 2.590

750 3,190

695 3.260

597 2,480

554 2.940
632 2,730

5b5 2,400
6?4 2,480

531 737
47,890 136,700

5,240
4,110
3,120

2,630

3,890
3,890

2,730

3,500

3,630
3.030

2.630

2.280

. 930
,920
,860

,810

. 050
. 660

. 500

. 300

. 340

,880
,360
,100

940
853
796

730

121,570 49,209
4,052 1,587

241,100 97,610

TO SEPTfHER 1970

JUN JUL

2,610 605
2.500 602
2.360 630
2.140 606
1,940 617

1,820 696
1,710 665

2,410
1,750

1,180

854

800

1,340

1.520

1,320
1,250

1.160

874
681

546
498

403

400

407
361

313

310

?36
214

218

160
isn

68] 149
89.300 24.300

AUG

625
565

571
518

447
393
354
331
332

339
340

309
297

285
287
361

253

230
217
204
196
196

191
176
159

123

9,794
316

123
19,430

AUO

140
127
117
109
105

104
100

94
90

87

83
81
80

78
76

71

67

58
55

SI

50
49

UO
49
4,890

SEP

115
111
111
112
110

107
120
129
121
119

110
100
9?
86
81

76
72
69

64

62
60
57
55
52

50
48
48

2,497
83.2

47
4,950

SFP

47
45
43
41
39

37
35

31
30

28

?a

?7
26

25

24

2?

?0
19
19
19

47

1,710

WTR YC 1970 TOTAL 212.B70

SAN JOAQUIN RIVER BASIN

11267300 SOUTH FORK MERCED RIVER AT WAWONA, CALIF.

DRAINAGE 4REA.--100 sq mi.

PERIOD OF RECORD.--October 1958 to September 1968. Annual maximum, water year 1970.

AVERAGE DISCHARGE. --10 ye

EXTREMES. --Maximums and m

Date

May

Nov. 2
Dec.

Wtr yr
1966
1967

Annual maximum dis

Time Dis
6, 1966 2115 *1,

8, 1966 1630 1,
6, 1966 1430 *4,

Date
Aug. 26, Sept. 7-
Oct. 1-3, 10, 11

Period of record:

outside, from floodma

REMARKS. --Records good ex
to May 14, 1968, which

REVISIONS. --WSP 1930: D

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
1ft
15

16
17
18
19
20

21
22
23
2ft
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

ars, 174 cf

inimums (di

charge (*)

ch. G.H.
310 4.91

280 4.90
670 7.71

Annua

9, 12, 1966
, 1966

Maximum dis

s (126,

scharge

and pea

Date
Mar.

May
June

100 acre-ft per ye

in cubic

k discharg

16, 1967
22, 1967
21. 1967

1 minimum daily d

Discharge

charge,
- is) ; minimum, 0. 6

cept those
are fair.

- ainage are

for per

DISCHARGE, IN CUBIC FEET

6.8 5.0
. 7 5.0

. 0 5.0
. 8 5.0

. 8 5.0
. 6 5.0
. 5 5.0
.ft 5.0
.ft 5.2

5. ft 5.2
5.2 5.4
5.2 9.0
5.3 156
7.0 111

7.8 256
6.8 316
6. ft ft!5
6.6 170
6.7 10ft

6.3 79
5.8 88
5.8 550
5.6 368
5. ft 197

5. ft Iftl
5.2 121
5.2 112
5.2 105
5.0 97
5.0 ...

181.7 3,ft55.8
5.86 115
7.8 550
5.0 5.0
360 6,850

90
89

97
92

86
H3
76
73
70

67
70
66
62
56

51

49
48
ft8

49
47
ftO
45
47

47
46
57
134
104
84

2,114
68.2
13ft
40

ft, 190

83
75

61
69

77
80
82
79
75

71
66
67
68
70

68

66
61
61

56
56
55
5ft
53

51
51
52
*9
57
53

2,008
6ft. 8
83
49
3,980

1.9
2.2

9,030 cfs
cfs Sept.

iods of no
ion of 0.5

PER SECOND

51
53
5?
54
56

7B
64
59
56
56

61
55
56
60
58

57

60
60
60

62
69

7]
81
70

69
66
67

. -. .

. . . . . .

1,719
61. ft
81

5]
3,ftlO

feet per

es above

Time
1230
1930
1930

ar).

second,

base (1

Disch.
3,380
3,010
3,020

Wtr yr D
1

Dec. 23

5, 1960.

gage-he
cfs abo

, HATEK

69
65
6ft
61
61

64
67
76
80
152

150
15ft
193
193
188

183

157
161
Ift7

151
168
216

246

291
343
402
ft53
512
611

6,078
196
611
61
12,060

MIN 5.0

968 S

, 1964 (

ight rec
ve stati

gage height

,200 cfs) , w

in fe

ater y

G.H. Date
6.88 Apr
6.69
6.70 Jan

years 1966-6

ate

everal days

gage height,

ks (discharg

ord Nov. 20,
on for town

YEAR OCTOBER 1965 TO

713
7ftB
755
768
737

736
7ftft
781
696
563

433
386
356
ft07
5ft9

736

631
433
355

3*8
378
460

79ft

830
822
790
762
rt24

16.930
631
830
348
37,550

AC-FT

861
915
875
967
927

908
930
872
753
SOI

676
611
612
676
6ft6

6*5

680
622
576

5*9
ft90
472

401

381
346
302
?58
222

19,250
621
967
Ifll
38,180

190,200
113,500

. 28,

. 16,

9.83

e, 15,

1967,
of Waw

SEPTE

JUN

169
1*9
139
138
132

134
160
155
IftO
Ift8

1*0
12ft
120
117
106

97

81
81
77

66
55
48

4ft

*2
39
38
35
3?

2,9*6
98.2
169
32
5.8*0

et).

ears 1966-6

Time
1968

1970

ft in gage

000 cfs).

to Jan. 2,
ona. Small

"RER 1966

JIIL

29
25
22
20
18

16
15
1ft
1ft
13

12
11
11
11
11

9.8
8.0
7.8
7.6
7.3

7.2
6.9
6.8
6.6
6.2

6.1
5.9
5.5
5.2
5.4
5. ft

3ft9.7
11.3
29
5.2
694

3, 1970

Disch.
*1,050

*4,030

Disc

*ell, 10.5

1968, Apr
amount

AUG

5.*
5.6
5.1
4.8
ft. ft

ft.l
3.9
3.5
3.5
3. ft

3.3
3.2
3.2
3.2
2.9

2.9
2.6
2.2
2.1
2.2

2.1
2.1
2.0
2.0
2.0

1.9
2.0
2.1
2.0
2.0
2.1

93.8
3.03
5.6
1.9
186

G.H.
4.57

7.28

harge
1.6

ft

. 10

SEP

2.2
2.1
2.1
2.1
1.9

2.0
1.9
1.9
1.9
2.0

2.0
1.9
2.0
2.1
2.1

2.1
2.1
2.7
5.5
ft. 5

3.8
3.3
2.9
2.8
3.1

2.7
2.6
2.6
2.5
2.3

75.7
2.52
5.5
1.9
150

SAN JOAQUIN RIVER BASIN

11267300 SOUTH FORK MERCED RIVER AT WAWONA, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PEW SECOND, HATER YEAR OCTOBEH 1966 TO SEPTEMBER 1967

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN

MIN
AC-FT

KTR YR

DAY

1
2
3
4
5

6
7
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9
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11
12
13
14
IS

16
17
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19
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21
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24
25

26
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26
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

OCT NOV DEC

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2.
2.

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2.
2 -

2.

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2.

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2.
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2.
2 .
3.

3.0 239
3.0 276
3.0 127
3.1 525

4.4 3,130
7.B fiSb
7.2 396
7.1 269
6.2 214

5.7 180
5.b 160
5.6 150
5.6 134

5.6 127

37 120
23 U8
9.6 116
8.4 114
95 110

45 106
36 104
22 99
IB 93
3.0 15 90

2.9 IS 84
2.8 17 82
3.0 419 80
3.0 380 77
3.0 155 75
3.0 - 74

79.6 1,370.9 8.454
2.57 45. 7 273
3.0 419 3,130
2.2 3.0 74
15B 2,720 16,770

69
66
66
68

62
60
56
57
56

62

71

74

76
78
73
68
72

134
120
99
89
99

98
109
113
232
266
248

2.956
95.4

56
5,860

1967 TOTAL 131,488.5 MEAN 360 *

DISCHARGE, IN CUBIC FEET

OCT NOV DEC

12 6. 25
11 S. 22
12 5. 25
14 5. 26
IS 5. 70

13 6. 50
12 6. 35
11 6. 36
10 6. 31
9.4 6. 29

8.8 6. 28
6.
8.
8 v
7.

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6.

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6.

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6.
6.
6.

6. 27
6. 22

e. is
9. 24

8.3 25
7.8 22
13 25
36 26
27 25

24 24
20 27
IB 30
17 34
16 36

16 38
17 39
17 37
19 36
28 34

268.1 382.2 957
8.65 12.7 30.9
15 36 70
6.6 5.9 18
532 758 1,900

1967 TOTAL 123,191.3 MEAN
1968 TOTAL 33,398.5 MEAN

JAN

27
24
24
23
22

22
21
24
28
33

28
26
25
72
80

70
60
SO
46
44

45
44
45
45
47

45
38
36
36
38
48

1,216
39.2
80
21
2,410

338
91.3

162
137
130
129
136

40
44
48
48
64

70

65

133

125
119
119
123

lie

113
113
113
110
114

105
106
109
. . . . . .

3,715
133

105
7,370

«AX 3,130

PER SECOND

FEB

41
38
42
43
45

43
42
2
7
0

5
3
3
4
9

6
4
0
0
307

237
179
203
203
175

171
170
180
173
. . . . . .

103
307
38
5,900

MAX 2,210
MAX 600

115
120
130
120
109

107
112
127
138
134

141

160

165

1,650
1,130
704
540
440

404
400
368
328
300

275
269
322
290
259
250

9,954
321

107
19,740

MIN 2.2

. WATER

MAR

172
140
138
142
138

120
110
118
103
94

92
95
95
89
84

90
92
84
81
BO

84
90
84
93
105

108
128
185
287
337
322

128
337
BO
7,890

MIN 5
MIN 1

222
210
221
213

?17
243
213
216
223

216

213

22ft

204
198
215
202
197

185
179
174
173
169

187
214
188
171
167

6,130
204

167

196
214
?37
229

?66
3B4
595
698
580

420

360

716

1.020
1,280
1.410
1,500
1,740

2.030
2.210
2.200
2.070
1,990

1,820
1,690
1,500

JUN

630
69B
909
965

830
,130
,270
,310
,360

. 370

. 250

,340

,500
,740
,850
. 700
,870

,100
,870
. 760
. 890
,870

,830
,830
,850
1,360 2.000
1.250 j>-»"

31.9S1 44,1 OB
1,032

174

,470

630
12,160 63,430 87,490

AC-FT 121.700
AC-FT 260,800

YEAR OCTOBER 1967 TO

APR

328
225
180
184
209

172
175
214
256
350

430
440
400
370
400

350
300
250
230
220

210
190
220
250
300

400
540
570
600
560

317
600
172
18,890

. 9 AC-FT
. 6 AC-FT

MAY

540
550
500
510
500

400
360
350
360
290

300
280
250
240
289

333
359
399
468
487

444
332
248
?21
255

346
386
375
331
272
233

362
550
221

SEPTE*

JUN

228
223
205
16B
14R

112
110
120
100
90

90
90
86
77
80

75
71
61
57
52

43
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1 B
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22B
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22,230 5,010

244,300
66,250

JDL

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888
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692

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564
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418
367
312

284
267
244
230
2?A

204
IBS
176
161
144
140

20,405
65B
1.990
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40,470

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3.4
468

AUG

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B6

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116
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37
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1,844
59.5
123
22
3,660

AUG

3.4
3.3
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3.3
3.1

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2.5
2.5
2.5

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2.42
3.4
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SAN JOAQUIN RIVER BASIN

11267350 BIG CREEK DIVERSION NEAR FISH CAMP, CALIF.

PERIOD OF RECORD.--October 1969 to September 1970.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 5,400 ft (from topographic map).

EXTREMES.--Maximum daily discharge, 56 cfs Jan. 16, 1970; minimum daily, 1.3 cfs July 29 to Aug. 5, 1970. REMARKS.--Records fair. No gage-height record Jan. 3-22, 1970. This station measures the diversion from Big Creek to the Lewis Fork of Fresno River (Merced River basin).

COOPERATION.--Gage-height record for October through June and seven discharge measurements furnished by Madera

DISCHARGE, IN CUBIC FEET PER SECOND,

NOV DEC JAN FER

WATER YEAR OCTOBEK 1969 TO SEPTEMBER 1970

MAR APR MAY JUN JUL

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30
31

MEAN
MAX
MIN

2.7 5.3
2.7 5.3
2.7 5.0
3.0 5.0
3.0 9.4

3.2 14
3.2 9.*
3.2 8.8
3.4 8.5
3.4 8.5

3.4 8.B
3.4 8.8
3.4 8.8
3.4 8.5
18 8.8

49 10
23 8.5
12 .6
9.8 .6
9.1 .3

8. .3
7. .9
7. .V
6. .6
6. .3

6. .3
6. .3
6. .3
5. .3

5. .3
5.

7.6 7.65
4 14
2. 5.0

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32.7
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13.330

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19.9
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1.180

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7.6
7.3
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6.0
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1.5
1.5
1.5

49.1
1.64
1.8
1.5
97

SAN JOAQUIN RIVER BASIN

11268000 SOUTH FORK MERCED RIVER NEAR EL PORTAL, CALIF.

LOCATION (REVISED) .--Lat 37°39'OS", long 119°53'04", in NWWEfj sec.29, T.3 S., R.19 E., Ma bank 1,500 ft upstream from mouth and 5.9 miles west of El Portal.

DRAINAGE AREA.--241 sq mi.

PERIOD OF RECORD.--November 1950 to September 1970.

County, on right

GAGE. --Water-stage recorder.

AVERAGE DISCHARGE. --19 years (1951-70) , 353 cf

is 1,4

' (255, 700 ac re-ft per year) ; median of yearl 270 cfs (196,000 acre-ft per year).

EXTREMES. --Maximums and mini Bums (discharge in

Annual maximum discharge

Date Time Disch.
Nov. 17, 1965 0500 2,140
Nov. 24, 1965 0200 *2,530

Dec. 6, 1966 1500 «11,100
Jan. 30, 1967 2315 2,080
Mar. 16, 1967 1500 8,970
May 22, 1967 2215 4,560
June 21, 1967 2200 3,630

Wtr yr Date
1966 Sept. 11, 12, 1966
1967 Oct. 1, 1966
1968 Sept. 10, 11, 1968

Period of record: Maxi
extended above 10,500 cfs
Aug. 26, 27, 1961.

of 0.5 cfs at Wawona for d

REVISIONS. --WSP 1930: Draina

DISCHARGE.

DAY OCT NOV

1 22 18
2 20 18
3 18 18
4 18 IB
5 17 18

6 17 18
7 17 18
8 16 18
9 16 IB
10 16 19

11 16 19
12 16 21
13 16 30
14 16 315
15 25 469

16 30 648
17 28 1.240

19 25 597
20 24 310

21 24 225
22 23 192
23 21 1.360
24 20 1,880
25 20 945

26 19 581
27 18 425
28 18 355
29 18 315
30 18 285
31 IB

MEAN 19.9 381
MAX 30 1,880
MIN 16 18
AC-FT 1,220 22,660 12.

CAL YR 1965 TOTAL 164.414.0

G.H.
8.80
9.08

12.71
8.76
11.99
10.22
9.69

Annu

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(*) and

Dat
Apr

Jan
Jan
Jan
Jan
Feb
Apr

al mini

scharge

a

IN CUBIC FEET

DEC

251
234
230
226
215

197
186
177
170
167

159
170
157
150

124
114

121
119

118
115
100
109
125

116
116
128
701
838

206
838
100
680

MEAN

JAN

401
323
2B4
260
258

2B7
296
295
278
247

228
211
201
193

184
172

163
152

148
149
143
137
135

135
129
125
127
160
153

204
401
125

450
250

peak

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. 29,

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19,
. 21,
. 25,
. 24,
5,

mum d

Dis

, 46,

cubic feet per ss

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1968

1969
1969
1969
1969
1969
1969

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charge
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7.1
5.0

500 cfs

nd irrigatio

PER

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MAX 3
MAX 1

SECOND,

FEB

143
133
141
141
153

303
249
206
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171

176
163
161
. . .

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133

. 500
. 880

rges a

Time
0315

2130
1000
0545
1045
1730
1730

scharg

Dec.

n of g

MATER

MAR

163
160
145
146
152

150
153
167
173
257

321
290
339
365

344
303

300
285

290
292
339
382
378

416
477
550
616
683
777

324
777
145

MIN 16
MIN 5

bove

Dis *1 ,

2,

9, *13,
11 .
2,
2,

e, w

Wtr
1969
1970

23,

olf

cond, gag 5 height

base (2,000 cfs) ,

ch. G.H.
080 7.85

610 9.13
090 12.03
200 13.33
700 12.90
930 9.33
780 9.25

ater years

yr Date
Oct.

Sept.l

1955 (gage
at gage he

course.

YEAR OCTOBER

1

1

. 7

APR

912
984
968 1,
,010 1.
976 1>

96B
952 1,
984
976
850

664
588
530
535

B54
993

630
517

486
498
543
694
897

993
965
961
868
900

,219 22,
807
. 010 1.
486

AC-FT 326
AC-FT 181

Date
Apr.
May

Jan.
Jan.

May

1966-70

1, 1968
3, 1970

height ,
ight 17.

1965 TO

MAY

969
991
020
020
060

950
030
986
900
961

860
770
770
BOO
780

780
780
S20
780
700

650
590
550
510
468

433
412
365
319
2fl3
240

547 3
727
060
240

,100
. 300

in feet) .

water yea

22, 1969
31, 1969
16, 1969

16, 1970
21, 1970
17, 1970

18.70 ft)

SEPTEMBER

JUN

21B
194
179
175
167

167
184
202
184
184

177
156
150
143
133

IIP
119
105
100
99

89
81
74
70
6B

65
62
59
SB
55

v mean dis charges ,

rs 1966-70

Time D
0115
2300
0230

1415 *
2100
0015

LSCh. G.

.,180 8.
,740 10.
2,700 9.

3,030 10.
,010 8.
2,240 8.

Dischar
5
9

, from rating curve

1966

JUL AUG S

51 16
48 1
44 1
41 1

i
3
38 12

35 11
32 1
31
31

)
».7
9.6
31 9.0

28
28
26

S.8
3.6
9.4
25 B.4
26 8.0

25 8.0

23 2 1
20
19

19
IB
17
16
15

15
14
13
13
13
14

128 25.5 8
218
55
. 610 1,

51

. 6
,3 8
. 1 9
. 8 15

. 7 14
. 8 12
. 8 10
. 6 8
. 6 B

. 0 8
. 0 8
. 1 7
. 7 7
. 0 7

. 5 ?37

66 7.
16
13 6.0 5
570 533 4

SAN JOAQUIN RIVER BASIN

11268000 SOUTH FORK MERCED RIVER NEAR EL PORTAL, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

1
2
3
4
5

6
7
e
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
2*
25

26
27
28
29
30
31

TOTAL MEAN
MAX

MIN
AC-FT

CAL YR
KTR YR

OCT

7.1
7.2
7.6
7.9
8.3

8.4
8.3
8.1
8.1
8.2

8.0
7.9
7.7
8.0
8.6

8.7
9.1
9.2
. 2
. 2

. 2
. 2
. 6
. 7
. 7

9.5
9.2
9.2
9.5
9.7
9.7

269.0 2,
8.68
9.7
7.1
534

1966 TOTAL
1967 TOTAL

NOV

9.7
9.7
9.5
9.2
9.2

11
24
27
20
18

17
16
18
15
15

62
112
45
31
200

175
162
112

55

47
44
316
706
281

645.
88.
70
9.
5,25

96,571
238.469

DEC

168
619
1,230
364
1,960

7,470
2,190
971
651
515

428
366
330
302
274

242
227
221
215
212

200
182
172
162
158

160
136
146
150

130

20,695
668
7,470
130
41,050

. 6 MEAN
. 3 MEAN

JAN

130
125
123
123
125

117
109
113
108
110

111
118
120
122
124

126
126
121
116
113

272
440
297
346
371

324
339
342
763

1,270

8,254
266
1,270
108
16,370

265
653

DISCHARGE, IN CUBIC FEET

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

OCT

41
40
40
46
47

45
43
41
38
36

34
32
32
32
32

31
30
30
29
29

29
29
30
30
30

29
29
29
29
29
30

1,051
33.9
47
29

NOV

29
28
28
28
27

28
29
29
29
28

28
27
27
27
33

35
33
33
77
107

69
55
49
45
44

43
43
43
43
71

1.215
40.5
107
27
2,080 2,410

1967 TOTAL
1968 TOTAL

219,503
52,826

DEC

63
57
63
63
190

122
89
92
77
71

70
69
58
39
59

62
54
61
63
61

55
62
69
78
89

97
97
95
92
83
77

2,377
76.7
190
39
4,710

. 0 MEAN
. 9 MEAN

JAN

72
69
66
58
59

60
59
58
60
74

95
77
72
70
180

231
149
118
105
99

97
102
104
102
100

99
99
81
87
93
109

2,904
93.7
231
58
5,760

601
144

FEB

735
535

392
372

356
347
340
330
335

349
344
338
325
291

272
258
251
252
242

231
228
224
220
238

216
216
211

8,890
318
735
211
17,630

MAX 7,470
MAX 7,470

PER SECOND

FEB

102
105
122
120
118

117
113
109
139
170

134
120
113
122
117

115
270
308
234
594

558
417
378
395
340

326
308
315
305

6,684
230
594
102
13,260

MAX 5,320
MAX 805

MAR

216
223

241
209

212
208
221
236
239

345
1,070
1,100
798
693

5,320
2,940
1,740
1,280
1,050

923
904
842

695

638
596
732
751

636

26,693
861
5,320
208
52,950

MIN 5.
MIN 7.

, WATER

MAR

302
267
251
251
245

225
209
248
231
200

190
190
195
193
190

195
225
217
203
195

195
198
188
190
206

211
225
270
358
470
450

7,383
238
470
IBS
14,640

MIN 27
MIN 5

APR MAY

623 631
626 678

677 813
732 786

738 777
1,210 991
1,000 1,300
845 1,540
798 1,510

817 1,130
751 965
741 910

766 1,020
778 1.340

704 1.770
687 2,150
993 2,340
996 2,460
957 2,750

919 3,170
889 3,400
829 3,440

782 3,070

786 2,850
894 2,620
826 2,420
709 2,170

1,780

24,150 56,845
805 1,834
1,210 3.440
600 631
47,900 112,800

7 AC-FT 191,500
1 AC-FT 473,000

YEAR OCTOBER 1967

APR MAY

507 714
390 749
319 672
315 679
340 679

312 502
299 465
315 445
362 465
465 382

582 399
594 382
524 326
496 308
546 340

455 390
390 395
326 417
305 485
295 496

276 518
260 399
282 308
340 273
404 276

558 354

735 417
805 382
784 322
276

13,309 13,614
444 439
805 749
260 273
26,400 27,000

AC-FT 435,400
. 0 AC-FT 104,800

JUN

1,410
1,220

,470
,650

,350
,650
,830
,860
,900

,940
,880
. 810
,710
,810

2,000
2,250
2,400
2,230
2,320

2,610
2,410
2,220

2,360

2,280
2,260
2,260
2,400

59,520
1,984
2,610
1,220
118,100

JUL

2,390
2,250

,760
,530

,340
,290
,140
,030
938

886
902
841
820
795

771
622
561
510
446

397
384
351
328
319

298
269
253
239
213
209

26,042
840
2,390
209

51,650

AUG

184
169
159
147
133

123
113
106
100
96

96
92
88
84
84

85
104
146
103
83

75
69
64
61
62

123
89
70
61
55
51

3,075
99.2
184
51
6.100

SEP

51
53
54
55
53

52
47
44
42
42

41
39
37
36
35

34
33
43
69
55

46
42
4?
51
53

55
48
46
48
45

1,391
46.4
69
33
2,760

TO SEPTEMBER 1968

JUN

267
257
248
209
185

154
141
170
141
122

118
117
113
102
102

97
92
83
77
71

65
59
54
52
48

43

37
34
31

3,329
111
267
31
6,600

JUL

30
27
26
26
23

21
20
19
21
23

27
24
20
18
18

18
17
16
15
15

14
13
12
12
11

10

8.4
8.0
8.0
8.0

538.0
17.4
30
8.0
1,070

AUG

8.4
8.4
8.0
. 7
. 7

,4
. 1
. 8
. 8
. 5

. 2
. 2
. 5
. 1
8.4

8.8
8.4
8.0
8.8
9.2

10
11
11
11
9.6

8.4

7.7
7.4
7.1
6.8

250.4
8.08
11
6.2
497

SEP

6.2
6.2
5.9
5.6
5.6

5.9
5.6
5.3
5.3
5.0

5.0
5.3
5.3
5.3
5.6

5.6
5.9
5,9
5.6
5.3

5.3
5.6
6.5
7.1
7.1

6.5

5.9
5.6
5.6

172.5
5.75
7.1
5.0
342

SAN JOAQUIN RIVER BASIN

11268000 SOUTH FORK MERCED RIVER NEAR EL PORTAL, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 196B TO SEPTEMBER 1969

DAY

1
2
3
4
5

6
7
B
9
10

11
12
13
1*
15

16
17
IB
19
20

21
22
23
24
25

26
27
2B
29
30
31

TOTAL
MEAN
MAX

MIN AC-FT
CAL YR
HTR YR

OCT

5.9
6.2
6.B
6.8
6.B

7.4
7.4
7.7
7.7
B.O

8.0
8.0
10
42
49

30
21
18
17
21

19
IB
IB
17
16

16
16
16
15
19

NDV

23
22
231
190
B7

6B
55
46
50
B6

76
9B
104
76
107

95
84
B4
105
98

B8
B2
78
80
75

62
58
54
48
47

498.7 2,457
15.9
49
5.9

81.9
231
22
977 4. 870

1968 TOTAL
1969 TOTAL

56.169.
297,365.

DISCHARGE

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
IS

16
17
IB
19
20

2122
23
24
25

26
27
28
29
30
31

TOTAL
MEAN

MAX
MIN
AC-FT

CAL YR
»TR YR

OCT

28
28
28
28
30

30
30
30
30
30

30
30
30
30
40

308
343
159
109
87

78
72
72
75
72

67
65
59
57
55
55

2,185 2
70.5
343
28

4,330 4

1969 TOTAL
1970 TOTAL

NDV

55
57
57
55
53

115
132
93
B6
Bl

B6
90
93
92
89

89
84
70
65
62

62
61
59
55
53

52
51
49
47
46

,139
71.3
132
46
,240

297.888.
108,072.

DEC JAN

53 143
55 136
49 132
49 141
48 149

47 15B
47 1SB
7 154
6 139
9 122

1 5 116
8 116
80 763
B2 1,160
40B 512

507 336
182 257
132 404
116 6,010
90 3,040

BO 8,960
80 2.560
92 1,290
17B 1,040
763 6,720

4BO 6,300
266 2,430
217 1,570
206 1.180

154 812

5,036 47,9B4
162 1,548
763 8,960
46 116
9,990 95,180

6 MEAN 153
7 MEAN 815

FEB

735
652
600
570
626

BBO
B05
672
58 B
546

552
707
620
546
1,040

1,020
795
742
686
639

600
552
564
1,570
1.470

1,100
912
842

21,631
773
1,570
546
42.910

MAX 805
MAX 8,960

MAR

865
805
742
652
613

606
546
502
470
470

430
430
426
422
445

496
5BB
693
721
714

820
714
770
835
872

936
1,020
1,140
1,260

22,823
736
1,480
422
45.270

MIN 5.
MIN 5.

, IN CUBIC FEET PER SECOND, HATER

DEC JAN

46 106
45 99
46 SB
45 BO
44 74

44 78
46 91
46 94
51 254
47 1,040

47 337
47 253
47 237
47 593
46 578

44 2,840
46 1,720
42 949
47 643
180 549

516 1,300
573 1,430
268 B87
196 1,180
490 771

358 5B3
210 637
149 523
134 436
124 388
113 348

4,1B4 19,186
135 619
573 2,640
42 74
8,300 38,060

0 MEAN 816
7 MEAN 296

FEB

329
301
2B9
283
278

265
260
264
256
250

24 B
327
411
434
373

334
441
379
344
316

295
279
26B
266
258

260
266
345
. . . . . .

8,619
30B
441
248
17,100

MAX 8,960
MAX 2,840

MAR

1,300
993
634
526
509

503
4B3
460
414
406

369
345
347
399
408

397
424
407
362
335

330
348
368
404
470

573
546
46B
448
42B
372

14,776
477
1,300
330
29,310

MIN 28
MIN 9

APR

1,430
1,340
1,240
1,060
1,600

1,540
1.240
1.120
1,070
1.030

1,130
1.300
1.340
1,280
1.090

1.040
1.170
1,330
1,300
1.540

1.830
1,990
1,990
1.580
1,280

1.190
1,280
1,470
1,690

41,290
1,376
1,990
1,030
B1.900

0 AC-FT
9 AC-FT

MAY

1,840
1,840
1,620
1,360
1,400

1.810
2,220
2,610
2,910
2,900

2,610
3,190
3.070
2. BSD
2,640

2,720
2,910
2,990
2,870
2,740

2,780
2,930
2,980
3,100
3,050

2,900
2,B50
2,780
2,960

3,340

81,850
2,640
3,340
1,360
162,300

111.400
589,800

YEAR OCTOBER 1969

APR

332
326
350
368
407

501
534
509
558
663

731
675
632
510
426

403
360
347
367
346

330
308
306
302
328

400
366
325
303
317

12,630
421
731
302
25,050

AC-FT
. 0 AC-FT

MAY

353
464
6B3
848
933

1,010
764
747
615
649

791
563
651
1,050
1,340

1,540
1,570
1.510
1.340
1.120

1.030
1.170
1.220
1,240
1,130

1,070
1,030
B96
876
B84

30,191
97*
1,570
353
59, BBO

590. BOO
214,300

JUN

3,370
3,250
3,120
2,900
2,840

2.620
2.440
2.160
1,810
1,480

1,230
1,170
1,370
1.770
1.790

2.050
1.7BO
1,300
1,430
1,640

1.570
1,520
1,640
1.360
1,410

1,230
1.170
1,090
1,010

54,560
1,819
3.370
1.010
108.200

JIIL

1,090
1,060
976
920
B58

840
750
750
710
660

610
570
530
640
500

450
400
370
350
320

315
280
350
315
275

230
195
200
160
172
158

16,004
516
1,090
15B
31.740

AUG

139
130
126
11B
109

100
92
86
Bl
78

Bl
75
72
70
66

63
61
67
66
5B

55
52
49
4B
47

46
44
42
41
40
39

2,241
72.3
139
39
4,450

SEP

37
36
35
35
34

34
35
41
3B
36

36
34
32
32
31

32
32
3?
31
32

34
35
34
32
30

3n
sn
29
29
29

997
33.2
41
29
1.9BO

TO SEPTEMBER 1970

JUN

B66
B04
751
629
547

497
436
416
855
619

395
347
351
362
314

274
271
271
286
2BO

263
250
222
197
1B3

168
242
200
153
132

11,581
386
866
132
22,970

JUL

117
110
106
99
95

96
89
82
76
74

67
65
60
57
53

50
48
44
42
41

40
38
37
36
34

33
29
28
29
26
25

1,826
58.9
117
25
3,620

AUG

24
24
23
22
21

20
20
19
17
16

15
14
13
13
13

12
12
12
12
12

12
11
11
11
11

11
11
11
11
11
11

456
14.7
24
11
904

SEP

10
10
10
10
10

10
11
11
11
10

10
9.3
9.0
9.1
9.7

11
11
10
9.8
9.7

10
10
10
10
10

10
9.8
9.6
9.5
9.2

299.7
9.99
11
9.0
594

SAN JOAQUIN RIVER BASIN

11268200 MERCED RIVER BEAR BRICEBURG, CALIF.

DRAINAGE AREA.--691 sq mi.

PERIOD OF RECORD.--September 1965 to September 1970.

AVERAGE DISCHARGE.--5 years, 1,340 cfs (970,800 acre-ft pe EXTREMES.--Maximums and minimuras (discharge in cubic feet

Annual maximum discharge (*) and peak discharges above

ser second, gage height in feet),

base (5,000 cfs), September 1965 to September 1970

Date Disch.

May

1965

7, 1966

Dec. 6, 1966
Mar. 16, 1967
May 23, 1967
June 22, 1967

1500
1400
0100
0100

G.H.

21,500 17.79
12,700 13.64
13,100 13.85
10,900 12.64

Date

Apr.

Jan.
Jan!
Jan.
Jan.
Feb.
Apr.

30,

19,
21,
25,
26,
24,
1,

1968

1969
1969
1969
1969
1969
1969

Time
0600

1100
1300
1100
0900
1700
1800

Disch. *3

13
19
19
*19

5
5

,280

,600
,500
,250
,700
,280
,080

G,
7.

14.
16.
16.
17,
9.
8.

. H.
. 69

. 10
. 90
,75
. 00
,07
,93

Date
Apr. 22, 1969
June 1, 1969

Jan. 16, 1970
Jan. 21, 1970
May 18, 1970

Time
0600
0200

1500
2300
0200

ily discharge, September 1965 to Septembe

Wtr yr
1965
1966
1967

Date
Sept.30, 1965
Sept.12, 13, 29, 30, 1966
Oct. 12-15, 22, 26 to Nov.

Discharge

Sept. 30, 1968

REMARKS.--Records good.

Wtr yr Date
1968 Sept.30, 1968
1969 Oct. 1-9, 1968
1970 Sept.30, 1970

6, 1966 (gage height, 17.79 ft);

Disch. G.H.
5,810 9.45
14,700 14.65

"10,500 12.40
5,940 9.53
6,570 9.98

Discharge

daily, 27 cfs

1965............. 121
.... 113
. . . . 106
. . . . 103
. . . . 100
. . . . 103

egulation. Small diversions above station (see REMARKS for station 11268000).

DISCHARGE, IN CUBIC FEET PER SECOND, SEPTEMBER 1965

SEPT. 20, 1965...........

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
?4
25

26
21
26
29
30
31

TOTAL
MEAN
MAX
MIN

92
64
61
76

71
70
67
65
64

63
63
62
62
75

69
66
82
80
79

74
1
8
7

5
3
2
2
2
60

2,215
71.5
9?
60

60
60
60
60

59
59
58
58
59

60
60
66
160
800

950
1,900
1.700
1,500
750

460

2,210
3,500
1.830

1,240
957
824
744
678

21,574
719
3.500
bb

610
575
570
575

525
500
476
466
453

431
453
415
415
367

338
311
314
314
314

311
287
287
324

311
308
327
1,240
1.500
1.010

15.201
490
1.500
287
30.150

631
664
630
585

625

646
615
565

530
495
471
466
462

453
419
403
399
375

363
355
338
334

334
324
317
320
383
375

14,664
474
831
317
29,130

355
341

344

600

462
*31
419

375
387
371
359
359

352
348
363
367
363

379

431
411

419
399
395
...

11,046
395
600
341

21,910

403
399

355

387

419
440
580

768
744
887
1.010
950

971
852
838
873
810

610

1.160
1.200

1.320
1,520
1.750
1,960
2,150

26.899

2,440
355
57,320

2.660
3,110

3,300

3,290

3.330
3.290
2,930

2,360
2,070
1,850
1.660
2.140

2,660
3,190
2,970
2,230
1,850

1.690

2.160
2,770

3.280
3,220
3,250
3,020
3,070

60,840

3,330
1.690
160,300

3,330
3,460

3,780
3,820

3,580

3.S50
3,460
3.560

3.150
2.670
2,700
2.860
2<860

2. 850
2,860
2,880
2.930
2,730

2.640

2,520
2,340

2,220
2,180
2,010
1,810
1.560
1.300

86,960

3,880
1,300
176,500

1.140
1.010

B80
901

908

971
936
894

908
894
866
880
894

810
831
756
678
684

570

435
415

403
419
415
427
415

22.415

1,140
403
44,460

387
355

290

252
245
238
232
212

196
184
174
166
160

156
148
141
136
134

146
148
1*5
141

137
134
132
124
121
127

5,893

387
121
11,690

132
139
311

260 1 98

158
136
119
106
96

90
85
81
78
73

72
69
67
64
61

61
59
56
54
53

50
49
48
4
4
4

2,96

311
46
5.8HO

1.113
37.1

YR 1966 TOTAL 295.803 MEAN 810 MAX 3,8flO MIN 33 AC-FT 586.700

SAN JOAQUIN RIVER BASIN

11268200 MERCED RIVER NEAR BRICEBURG, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR MAY JUN JUL AUG

1
2
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it
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6
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16
17
IB
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23
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29
30
31

TOTAL
MEAN
MAX

MIN AC-FT
CAL YR
WTR YR

33
32
32
33
33

32
32
32
32
30

30
29
29
29
29

30
30
30
30
30

30
29
30
30
30

29
29
29
29
29
29

940
30.3
33
29

29 589
29 999
29 2.170
29 850
29 3,150

32 13,900
50 5,050
59 2,380
46 1,670
44 1,400

41 1,110
39 936
43 873
40 792
39 702

99 678
220 654
121 630
79 620
312 605

391 590
308 545
248 520
170 500
137 466

124 458
119 403
431 399
2,030 427
948 427

6,315 44,884
211 1,448
2,030 13,900
29 391
1.S60 12,530 89,030

1966 TOTAL
1967 TOTAL

308,952 MEAN
716,245 MEAN

379
371
367
363
359

348
334
341
324
324

327
348
355
363
371

379
379
371
355
348

640
820
640
680
700

690
710
780
1.500
2,000
2,460

18,726
604
2,460
324
37,140

846
1.962

DISCHARGE, IN CUBIC FEET

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
IS
19
20

21
22
23
24
25

26
27
2S
29
30
31

TOTAL
MEAN

MIN

CAL YR
WTR YR

OCT

150
146
145
152
152

148
141
134
127
121

116
111
108
105
102

96
90
96
90
S9

86
86
86
86
85

84
B4
82
81
80
80

3,339
108
152
80

1967 TOTAL
196B TOTAL

NOV DEC

79 170
76 141
76 152
75 160
74 299

74 260
75 210
75 220
75 196
74 190

74 190
73 188
73 160
74 10B
78 150

82 160

81 158
162 168
215 162

170 150
145 154
132 170
124 186
119 200

116 215
113 230
114 238
116 235
166 222
204

3,062 5,791
102 1B7

73 108

676,298 MEAN
187,476 MEAN

JAN

198
188
174
160
160

160
154
150
156
178

210
180
176
174
314

466

290
266
258

25B
266
269
272
272

272
275
238
250
255
250

7,233
233

150

1.853
512

1,580
1,180
985
880
845

824
810
817
810
845

873
873
873
838
732

672
660
648
654
625

610
605
605
590
615

580
585
580

. . . . . .

21,794
778
1,580
580
43,230

MAX 13,900
MAX 13,900

600
620
672
660
585

585
57S
620
666
690

849
1.980
2.240
1,700
1,470

7,940
6,490
4,260
3.190
2,730

2,360
2,270
2,160
1.960
1,800

1,680
1,560
1,840
1,870
1,630
1.620

59.872
1.931
7,940
575
118.800

MIN 29
MIN 29

PER SECOND, WATER

FEB

265
270
275
280

270
265
260
300
295

295
290
290
299
287

278

642

1,400

,480
,180
,080
,170
,030

971
915
915
894
. . . . . .

17,206
593

245

WAX 11.200
WAX 2,790

MAR

750
708
708
708

648
590
636
595
525

495
500
515
490
490

500

540

480

4X0
495
480
490
530

555
585
696
964
1,330
1,380

19,758
637

480

MIN 73
MIN 27

1,570
1,590
1,500
1,640
1,740

1,730
2,600
2,200
1,930
1,850

1,890
1,760
1,760
1,820
1,860

1,690
1,710
2,230
2,270
2,210

2,150
2,100
1,940
1,950
1,820

1,790
1,990
1,880
1,660
1.560

56,390
1.880
2.600
1,500
111,800

AC-FT
AC-FT

1,500
1,620
1,730
1,890
1,850

1,870
2,360
3.210
4,160
4,000

3,020
2,550
2,400
2,600
3,470

,470
. 790
,670
. 480
,940

,200
,030
,770
,030
,100

,400
,230
,890
,700
,120

4,770 6,790
5,820
6,540 (
7,000 f

,400
,380
,510
7,960 8,110

9,480 9,000
10,500 (
11,200 1
10,800 1

,910
. 930
,960
10.400 8.350

9,610 8,040
9,000 (,000
6,030 7,950
6.750 8.360

6,440 8,810 5,540 ...

168.070 201,320
5.422 (

11,200 9 1,500 :

. 711
,000
,670
333.400 399.300

612.800
1,421.000

YEAR OCTOBER 1967 TO

APR

1,210
971
950
999

929
887
950
1,130
1,450

1,820
1,900
1,710
1,640
1,780

1.600

1.120

1,020

929
873
936
1,120
1,310

1,760
2.260
2,420
2,720
2,790

43,114
1,437

873

AC-FT
AC-FT

MAY

2,730
2,580 1
2,500 1
2,490 1

2,010]
1.850
1,800
1,830
1.610

1,560
1.530
1.350
1.230
1.360

1,430

1,650

2.170

2.410
1,920
1,460
1.220
1,190

1.540
1.B80
2,180
2.220
1,980
1,690

57.590 23
1,858

1,190

1,341.000
371 ,900

8,890
8,590
7,800
6,690
6,130

5,150
5,070
4.580
4,190
3,750

3,540
3,670
3.920
3,960
3,720

3,850
3,050
2.620
2,420
2,110

1,890
1,820
1,720
1,600
1.570

1.560
1.470
1.370
1.480
1,300
1,200

110,680
3,570
8.890
1,200
219.500

1,100
1,000
970
940
900

820
740
660
580
520

510
520
495
500
590

625
744

1,110
768
575

530
448
444
435
792

936
672
500
411
359
327

20,521
662
1.110
327
40,700

311
305
311
327
330

341
302
275
255
240

225
208
192
178
170

164
158
182
245
230

200
184
178
184
190

190
172
164
164
158

6,733
224
341
158
13,350

SEPTEMBER 1968

JUN

,670
,740
. 510
,310

,070
852
880
73B
666

666
696
720
696
70S

73B

70S

620

565
495
466
453
411

379
352
334
321
290

,079
769

29(1

JUL

225
212
204
196

182
184
182
1B6
198

200
176
160
152
148

143

132

116

110
103
99
93
89

85
81
78
79
82
90

4,498
145
250
78

AUG

103
102
96
86
79

74
69
65
61
58

56
55
55
58
60

60

55

53

54
56
55
54
51

49
48
45
44
43
41

1,897
61.2
103
41

SEP

39
35
33
33
33

3?
3?
3?
32
30

30
30
29
29
29

29

?9

?9

29
28
?9
?9
30

?9
?9
?8
28
?7

909
30.3
39
27
1,800

SAN JOAQUIN RIVER BASIN

11268200 MERCED RIVER NEAR BRICEBURG, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
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6
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e
9
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11
12
13
1*
IS

16
17
18
19
20

21
22
23
24
25

26
27
26
29
30
31

TOTAL
MEAN
MAX

MIN AC-FT

28
28
28
28
28

28
28
28
26
29

29
29

72
100

81
66
61
60
61

60
58
57
55
53

52
52
51
51
61

1,493
48.2
100
26
2.960

741
706
387

308
250
222
232
324

324
387

334
371

367
346
355
465
448

403
363
346
341
320

272
252
230
204
198

10,065
336
741
69
20.000

IflB
190
186

176
176
176
174
176

364
272

249
599

932
440
355
348
264

240

275
456
1,360

993
636
560
560
485
453

12,234
395

1,360
174
24,270

395
415
446

490
505
500
462
411

379
407

2,110
1.170

662
700
755
6.640
4.980

15,100

2,660
2,220
10,900

11,700
4,760
3,340

,460
,410
. 510

,920

. 550
. 410
. 330

. 310
. 500

. 260
. 950

. 040
. 670
. 630
. 580
. 510

. 410

. 360
. 220
. 860

,200
,890
,800
a, 480
2,140
1,640

87,813 47,570
2,833 1,699
15,100 3.220
379 1,280
174,200 94,360

1,650
1.530
1.460

1.430

1,240
1.170
1.170

1.100
1,120

1,060
1,120

1,200

1,520
1.570
1,570

1,740

1.650
1,760
1.640

1.990
2,240
2,500
2,670
3,160
3,540

52.160
1,663
3,540
1,080
103,500

3,190
2,740
3.650

3,610

2,670
2,560
2,460

2,690
3.160

3,360
2,640

2,660

3,440
3,440
4,130

4,900

5.600
4,460
3,570

3,300
3,460
3,990
4.590
4,960

107,610
3,567
5,600
2,460
213,400

4,700
4,030
4,030

5.190

7,620
9.100
9.200

8,750
9,460

9,450
6,610

6,970

10,400
9,960
9,390

9,560

10,900
11,300
11.300

10,700
10,600
10,400
10,500
11,400
11,900

274,670
6,860
11,900
4,030
544,800

12,000
11.400
10.500

10,000

8,000
6,600
5,260

4,370
4,120
4,630
6,130
6,100

7,060

4,550
4.940
5,600

5,430

5,740
4,800
4,870

4,280
4,060
3,720
3,530
3,700

197,130
6,571
12,500
3,530
391,000

3,630
3,440
3,260

3.150

2.930
2,900
2,770

2,650
2.560
2.600
2.950
2.360

2.110
1.930
1,610
1,600
1,760

1,630
1.630
2.370
1.610
1.490

1,260
1.120
1,070
964
957
936

70,967
2,289
3,690
936
140,600

610
732
726
714
666

595
530
465
446
427

448
435
435
407
391

379
359
415
423
348

314
293
278
263
255

252
245
226
212
202
192

12.907
416
810
192
25,600

160
172
166
166
166

166
162
168
164
176

174
162
152
141
134

130
127
126
122
121

121
121
116
110
105

102
99
96
94
94

4,161
139
186
94
6,290

CAL YR 1966 TOTAL 199.096 MEAN 544 MAX 2.790 MIN 27 AC-FT 394.900 NTR YR 1969 TOTAL 676,620 MEAN 2,406 MAX 15,100 MIN 26 AC-FT 1.743,000

DISCHARGE, IN CU6IC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
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TOTAL
MEAN
MAX

MIN AC-FT
CAL YP.
WTR YR

93
93
92
92
92

93
93
92
90
89

89
67
66
85
102

827
1,290
620
423
334

296
269
266
272
263

242
232
210
202
196
192 --

7,502 7
242
1,290
65
14,680 14

1969 TOTAL
1970 TOTAL

190
168
190
192
190

275
348
305
296
287

296
302
308
305
299

299
287
246
232
225

216 1
212 1
196
190
164 1

176 1
172

166 1 co 13O
154

,092 13
236
348 1
154
,070 26

682,647
367,991

152
146
146
143
139

136
141
143
158
141

143
143

143
139

137
136
132
145
821

,610
,680
901
684
,360

,060
676
465
444
415
379

,245
427
,660
132
,270

MEAN
MEAN

352
334
302
269

246
260
284
444
1,540

726
595

1,070
1,240

5,990
4,370
2,420
1,750
1,560

3,670
4,460
2,650
2,630
1,960

1,640
1,740
1,460
1,290
1,170
1,040

48,507
1,565
5,990
246
96,210

2,419
1.008

1.010
922
667
873
859

817
610
624
610
792

780
929

1.150
1.030

950
1,120
978
936
666

617
786
750
762
732

756
760
904

24,710
683
1,150
732
49,010

MAX 15,100
MAX 5,990

2,260
1,910
1,360
1.220
1.200

1,160
1.130
1.040
1.020

936
694

1.040
1.100

1.090
1,170
1,130
1,010
964

957
1,030
1,140
1,290
1,490

1.730
1,650
1,490
1,460
1.400
1.210

36,566
1,245
2,260
694
76,540

MIN 85
MIN 37

1,070
1,100
I. 170
1.250
1.360

1,760
1.730
1.830
2.110

2.300
2.150

1.670
1.420

1.380
1,240
1.200
1.250
1.160

1.110
999
999
1,010
1,090

1,330
1,200
1,070
999
1,090

41,697
1.390
2,300
999
62.710

AC-FT
AC-FT

1.250
1.570
2,150
2,670

2,560
2,540
2,150
2,670

2,540
1,960

3,120
4,170

4,960
5,360
5,460
4,970
4,210

3,610
4,190
4,550
4,520
4,190

4,140
4,090
3,610
3,540
3,630
3,780

106,950
3,450
5,460
1,250
212,100

1.751,000
729,600

3,790
3,540
3,390
3,010

2,280
2,340
3,490
2.690

1,940
1.730
1,670
1,530
1,310

1,160
1.240
1.390
1.610
1,640

1,660
1.650
1,730
1,590
1,490

1,370
1,600
1,570
*887

60,377
2,013
3,790
863
119,600

760
731
739
737

764
764
703
635
606

533
517
479
463
456

461
441
378
360
359

357
334
329
291
263

246
256
230
208
193
186

14,520
468
764
186
26,800

162
173
160
149

141
138
132
126
122

117
109
106
107
104

102
102
100
96
94

91
89
66
62
79

76
73
70
69
69
68

3,356
108
182
68
6.660

68
64
62
61

56
57
55
53
50

49
47
45
45
46

46
47
45
44
43

42
44
4?
41
42

40
39
39
38
37

1,449
48.3
66
37
2,670

SAN JOAQUIN RIVER BASIN 371

11268500 MERCED RIVER AT BAGBY, CALIF.

LOCATION.--Lat 37°36'40", long 120°07'50", in S.Ek sec.6, T.4 S., R.17 E., Mariposa County, on left bank 800 ft upstream from highway bridge at Bagby and 0.3 mile upstream from Flyaway Gulch.

DRAINAGE AREA.--911 sq mi.

PERIOD OF RECORD.--October 1922 to September 1966 (discontinued). Published as at "Horseshoe Bend" November 1922 to September 1931 and as "at Kittridge" October 1931 to September 1947. Monthly and yearly discharge only for some periods, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is 779.52 ft above mean sea level. Prior to Nov. 24, 1928, water-stage recorder at site 5.0 miles downstream at different datum. Nov. 24, 1928, to Nov. 3, 1947, water-stage recorder at site 3.8 miles downstream at different datum. Nov. 4, 1947, to Nov. 1, 1950, water-stage recorder at present site and datum. Nov. 20, 1950, to Nov. 4, 1951, nonrecording gage at site 800 ft downstream at
datum 51.62 ft lower.

AVERAGE DISCHARGE.--44 years, 1,158 cfs (839,000 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet) for the water year 1966 are contained in the following table:

Wtr yr Date
1966 Nov. 24, 1965

imum discharge (*), peak discharges above base (6,000 cfs), and annual minimum daily discharge

Maximum Minimum daily Time Discharge G.H.
1700 «6,900 5.99

Date
Sept.15, 16, 1966

Discharge

Period of record: Maximum discharge, 92,500 cfs Dec. 23, 1955 (gage height, 26.80 ft), from rating curve extended above 25,000 cfs on basis of change in contents in Lake McClure; minimum, 13 cfs Oct. 5, 1925. REMARKS.--Records good. No regulation. Some diversion above station (see REMARKS for station 11268000).

REVISIONS (WATER YEARS).--WSP 1445: 1926-27, 1929(M), 1932, 1935(M), 1936, 1948-50(M). WSP 1930: Drainage

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
1*
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

OCT

98
92
88
84
80

78
76
72
68
67

67
67
65
65
7*

94
98
90
88
86

84
82
78
7*
72

68
67
65
65
65

NOV

64
62
62
64
62

57
65
64
64
64

65
67
76
166
990

864
2.600
2.200
2.470
970

670
537
2,880
5.580
2.970

1.820
1.260

1.000 866 2.
774 3.

2.382 29.453 20.
76.8
98
65

982
5.580 3.
57
4.720 58,420 40.

1965 TOTAL
1966 TOTAL

589,352
323.836

DEC JAN

694 1.560
642 1,090
621 902
621 790
614 726

572 782
537 814
518 798
SOO 766
494 686

470 635
506 586
476 5S1
459 530
426 524

395 518
360 488
350 *64
350 448
350 432

350 415
350 410
33S 405
310 390
385 385

395 380
365 380

385 370 200 365

080 *59 100 476

210 18.525
652 598
080 1.560
310 365
090 36.740

MEAN i.6is
MEAN 887

FEB

432
442
*15

(.15
(.42

839
857
678
586
544

500
476
454
442
437

420
410
415
415
410

405
415
442
464
482

(.59
448
437

. . . . . .

13.581
485
857
405
26.9*0

MAX 11.300
MAX 5,580

MAR

437
442

(.10
395
400

415
420
432
459
551

782
766
875
1.040
1.000

1.000
893
848
875
839

814
822
970
1.170
1.230

1.330
1.540
1.780
2.000
2.210
2.480

29,625
956
2,480
395
58,760

MIN 57
MIN 29

APR

2.890
3.200
3.200
3.370
3.390

3.390
3,360
3.420
3.420
3.080

2.580
2.230
1.990
1.930
2.200

2.700
3.230
3,180
2,450
2.020

1.790
1.780
1,840
2,200
2,800

3.340
3.340
3.340
3.150
3.180

83.930
2.798
3.420
1.780
166,500

AC-FT
AC-FT

MAY

3,400
3.510
3,870
3,800
3,920

3,740
3,940
3.960
3.650
3.640

3.340
3.050
2.830
3,100
3,070

3,000
3,050
3,100
3,180
2.860

2.890
2.800

2,590
2,650
2.470

2.310
2.280
2.140
1.900
1.640
1.380

93.060
3.002
3,960
1,380
184,600

1,169,000
642.300

JUN

1.170
1,050
920
875
875

884
950
990
920
884

884
893
866
902
920

866
884
830
710
710

694
621
524
59
26

05
05
10
10
05

22, 42
SB

1,170
405
45.110

JUL

390
360
330
297
270

254
242
238
230
220

202
186
177
168
162

156
150
144
135
135

138
150
156
156
153

150
144
144
138
130
132

6,037
195
390
130
11.970

AUG

141
141
242
302
234

183
156
135
120
108

100
94
90
86
80

76
74
70
68
65

64
64
60
57
57

54
51
49
49
48
48

3.166
102
302
48
6.280

SEP

48
48
48
46
43

40
38
35
35
34

33
30
32
30
29

29
30
30
35
41

48
52
46
41
37

35
33
33
33
33

1.125
37.5
52
29
2.230

SAN JOAQUIN RIVER BASIN

11269300 MAXWELL CREEK AT COULTERVILLE, CALIF.

DRAINAGE AREA.--17.0 sq mi.

PERIOD OF RECORD.--October 1959 to Septe GAGE.--Water-st -. Altitude o ± gage is 1,74

AVERAGE DISCHARGE. --11 years, 8.37 cfs (6,060 acre-ft (4,560 acre-

EXTREMES . - -Maxi
1966-70 are

Wtr yr Date
1966 Nov. 23

1967 Apr. 7
1968 Mar. 8
1969 Jan. 19
1970 Jan. 16

Period of
in each year

ft per year

contained i

, 1965
, 1967
, 1968
, 1969
, 1970

record: M

0 tt (.irom top

per year) ; med

ograpnic mapj

ian of yearly mean discharges, 6.3 cfs

i the following table:

Maximum

iximum dischar

Disc arge G
,750 5
,220 5
347 4
,250 5
,080 5

ge, 1,770 cfs

DISCHARGE. IN CUBIC FEET PER SECOND.

1 0
2 0
3 .10
4 .10
5 0

6 0
7 0
8 0
9 0
10 0

11 0
12 0
13 0
14 .10
15 .10

16 .10
17 .10
16 .10
19 .10
20 .10

21 .10
22 .10
23 .10
24 .10
25 .10

26 .10
27 .10
28 .10
29 .10
30 .10
31 .10

TOTAL 2.00 MEAN .065
MAX .10

MIN o
AC-FT 4.0

. 10
. 10
. 10
. 10
. 10

. 10
. 10
. 10
. 10
. 10

. 20
. 20
. 50
2.5
1.6

4.4
3.4
49
25
4.0

2.7
2.4
276
181
57

25
10
5.8
4.3
3.5

659.70
22.0
276
. 10
1.310

CAL YR 1965 TOTAL 4,631.20

3.1 53 6.9
2.7 24
2.4 15
2.0 12
2.7 12

2.0 10
1.7 6.
1.5 7.
1.4 5.

6.4
6.9
6.1
6.6

73
> 30
18
! 13
1.4 5.0 9.9

1.6 4.
3.4 4.
2.2 4.
2.1 4.
2.1 4.

2.0 3.
1.8 3.
1.7 3.
1.6 3.
1.6 3.

1.6 3.
1.5 3.
1.5 3.
1.4 3.
3.1 3.

3.0 3.
2.7 3.
20 2.£

8.1
7.2
6.3
5.8
S.5

5.1
4.4
4.3
4.1
3.8

3.8
3.6
3.7
4.2
4.0

4.3
4.0
3.6
159 3.0

478.0 237.1 266.6
15.4 7.6S
159 S".
1.4 Z.t

9.52
73
3.6
948 470 529

MEAN 12.7

. H.
. 66
. 48
. 75
. 63
. 52

Dec. 22, 1964

Date

Many days
do.
do.
do .
do.

(gage height,

WATER YEAR OCTOBER 1965 TO

3.4 1.5
3.5 1.4
3.3 1.4
2.9 1.3
3.1 1.4

2.9 1.3
2.6 1.4
2.6 1.4
2.6 1.5
2.6 3.4

2.
2.
2.
2
2,

2.
2,
2.
2.
2.

2.
2.
1 .
2.
2.

2>
1.
1.
1.'

75.
2.4
3.
1.
14

1.9
1.6
1.4
1.4
1.3

1.2
1.1
1.1
1.2
1.1

1.4
1.3
1.2
1.2
1.1

1.1
1.1
1.2
1.1
1.1

41.1
1.37
3.4
1.1
62

MAX 656 MIN 0 AC-FT 9

. 90
. 90
. 80
. 60
. 90

. 60
. 90
. 90
. 60
1.1

1.0
. 90
. 60
. 60
. 70

. 60
. 50
. 40
. 40
. 40

. 40
. 30
. 30
. 30
. 30

. 30
. 20
. 20
. 20
. 20
. 20

16.20
. 59
1.1
. 20
36

190

Mi

5.71

nimum daily

ft) ; no flow

Discharge
0
0
0
0
0

for many days

SEPTEMBER 1966

. 20
. 20
. 20
. 20
. 20

. 20
. 20
. 20
. 20
. 20

. 10
. 10
. 10
. 10
. 10

. 10
. 10
. 10
. 10
. 10

. 10
. 10
. 10
. 10
. 10

. 10

. 10.in
. 10
. 10

4.00
. 13
. 20
. 10
7.9

. 10
. 10
. 10
0
. 10

. 10
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0
0

. 50
. 016
. 10
0
1.0

0
0
0
0
0

0
0
0
0
0

0
0
. 10
. 10
. 10

. 10
. 10
. 10
0
0

0
n
n
n
0

0
o
0
0
0

0 .60
0 .020
0 .10
0 0
0 1.2

SAN JOAQUIN RIVER BASIN

11269300 MAXWELL CREEK AT COULTERVILLE, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR 1966

NOV

0
0
. 10
0
0

. 20
. 10
. 10
. 10
. 10

. 10
. 10
. 10
. 20
. 20

. 50
. 30
. 30
. 50
2.1

1.1
4.9
1.6
1.0
. 70

. 60
. 50
. 90
. 60
. 70

17.70
. 59
4.9
0
35

L 1.110
L 5,817

DEC

. 80
B.2
5.6
2.0
50

313
22
9.2
6.1
4.0

3.5
3.0
2.3
2.2
2.0

1.6
1.4
1.4
1.1
1.0

. 90
. 80
. 80
. 70
. 80

1.1
. 80
. 80
. 80
. 80
. 80

449.50
14.5
313
. 70
892

. 50 MEAN
. 70 MEAN

JAN

. 80
. 80
. 80
. 80
. 70

. 70
. 70
. 70
. 70
. 70

. 70
. 60
. 60
. 60
. 70

. 70
. 70
. 60
. 50
. 50

3.6
34
6.7
26
18

8.2
5.3
5.3
91
127
69

407.70
13.2
127
. 50
809

3.04
15.9

FEB

22
13
9.8
7.4
6.1

5.2
4.6
4.6
3.9
3.4

3.2
3.2
2.8
2.6
2.6

2.3
2.0
1.9
1.8
1.8

1.7
1.4
1.5
1.4
3.1

2.0
1.6
1.3

118.2
4.22
22
1.3
234

MAX 313
MAX 496

MAR

1.2
1.0
1.0
1.0
. 80

. 80
. 90
. 90
. 80
. 60

4.6
440
296
139
57

190
66
29
17
11

8.1
6.7
5.9
4.8
3.9

3.7
3.2
4.0
4.0
3.6
11

1,317.50
42.5
440
. 60
2,610

MIN 0
MIN 0

APR

16
23
18
45
98

220
496
107
54
47

110
88
58
40
51

43
48

186
134

181
170
152
144
95

66
52
40
33
28

3,133
104
496
16

6,210

AC-FT 2
AC-FT 11

MAY

24
21
20
IB
17

14
13
12
11
IB

11
9.7
9.6
8.5
8.3

6.8
6.4

5.7
6.0

5.5
5.4
5.4
4.7
4.S

3.8
3.8
3.8
3.7
3.7
4.2

294.9
9.51
24
3.7
585

,200
,540

JUN

3.8
3.2
3.0
2.B
3.2

2.8
2.4
2.2
2.1
1.9

2.1
2.1
. 9
. 9
. 9

. 8
. 6

. 6
. 6

1.5
1.4
1.4
1.3
1.3

1.1
1.0
1.1
1.0
1.0

57.6
1.92
3.8
1.0
114

JUL

1.0
. 90
. BO
. 80
. BO

. 80
. 80
. 80
. BO
. 70

. 60
. 50
. 50
. 50
. 60

. 50
. 50

. 50
. 40

. 40
. 40
. 30
. 30
. 30

. 30
. 40
. 30
. 20
. 20
. 20

16.50
. 53
1.0
. 20
33

AUG

. 20
. 20
. 20
. 20
. 10

. 10
. 10
. 10
. 10
. 10

. 10
. 10
. 10
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
. 10
. 10
0

1.90
. 061
. 20
0
3.8

SEP

0
. 10
. 10
. 10
. 10

. 10
. 10
. 10
. 10
. 10

. 10
. 10
. 10
. 10
. 10

. 10
. 10
. 20
. 20
. 20

. 10
. 10
. 10
. 10
. 10

. 10
. 10
. 10
. 10
. 10

3.20
. 11
. 20
0
6.3

DISCHARGE. IN CUBIC FEET PER SECOND. MATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
it
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

. 10
. 10
. 20
. 20
. 20

. 20
. 20
. 20
. 30
. 30

. 30
. 30
. 30
. 40
. 30

. 40
. 40
. 40
. 50
. 50

. 50
. 50
. 50
. 50
. 70

. 70
. 70
. 60
. 70
. 70
. 70

12.80
. 41
. 80
. 10
25

. BO
. 70
. 70
. 70
. 90

1.0
. 90
. 80
. 90
. 90

. 80
. 80
. 90
1.1
1.0

. 90
. 90
1.1
. 9
. B

. 5
. 4
. 4
. 4
. 0

. 90
. 90
1.0
1.3
4.1

. 6
. 9
. 8
. 9
. 9

. 0
. 1
. 2
. 4
. 2

t j
. 9
. 6
. 6
. 8

. 6
. 5
4 2
. 6

9 j

. 8
. 8
. 6
. 6
. 8

. 6
. 6
. 5
. 5
. 3

34.40 64.8
1.15 2.09
4.1 4.9
. 70 1.3
68 129

1.4
1.3
1.1
1.0
1.0

1.0
. 90
. 90
. 90
1.9

1.9
1.4
1.1
1.1
3.2

1.9
1.5
1.3
1.1
1.1

1.1
1.0
. 90
. 90
. 90

. 90
1.0
1.1
1.0
1.4

41.80
1.35
4.6
. 90
83

2.4
1.8
1.5
1.4
1.3

1.3
1.1
1.1
1.3
1.4

1.3
1.1
1.3
1.3
1.1

1.5
21
B.9
3.6
30

25
B.9
4.6
3.2
2.B

2.4
2.4
2.2
2.1

139.3
4.80
30
1.1
276

1.9 2.8 1.9
1.9 2.6 1.9
1.9 2.4 1.6
2.1 2.1
2.2 1.9

2.1
2.6
87
16
7.8

5.4
4.6
30
18
9.B

13
25
15
9.3
6.4

5.2
4.1
3.6
3.4
3.0

2.8
2.6
2.6
2.6
2.4

. 8
. 6
. 8
. 8
. 8

. B
. 8
. 8
. 6
. 6

. 8
. B
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. 6
. 8

.a
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. 5

. 6

B j
. 2
. 0
. 4

. 2
. 9
. 9
. 9
. B

. B
. 9
. 8
. B
. B

. 8
. 8
. 6
. 5
. 5

296. 5 56.0 56. 0
9.56 1.87 1.81
B7 ?.B 3.0
1.9 1.6 1.5
5B8 111 111

. 3
. 4
. 3
. 1
. 4

. 5
. 8
. 4
. 3
. 0

. 80
. 80
. 50
. 50
. 50

. 40
. 40
. 30
. 30
. 20

.20
. in
. 20
. 20
. 10

. 10.in
0
0
0

19.20
. 64
l.fl
0

3f>

SAN JOAQUIN RIVER BASIN

11269300 MAXWELL CREEK AT COULTERVILLE, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PEH SECOND. WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

2122
as
24
25

26a?28a9

30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
KTR YR

OCT NOV

0 .10
0 .30
0 4.6

1) 1.5
0 1.0

0 .80
0 .80
0 .70
0 .80
0 .80

0 .70
0 1.6
. 40 1.3
. 20 1.4
. 10 5.8

. 10 2.4
. 10 1.8
. 10 1.5
0 1.5
0 1.4

0 1.4
0 1.3
0 1.3
0 1.5
0 1.5

0 1.4
0 1.4
0 1.5
. 10 1.5
. 20 1.5
. 10

1.40 45.10
. 045 1.50
. 40 5.8
0 .10
2.8 89

1968 TOTAL 1.016
1969 TOTAL 8,910

DEC

2.2
2.2
2.1
1.9
1.9

1.8
1.8
1.6
1.5
1.8

6.1
3.4
2.6
3.6
29

20
4.6
3.2
3.0
2.6

2.2
2.2
2.1
21
86

54
15
42
21
11
7.4

360.8 3
11.6
86
1.5
716

. 10 MEAN
. 10 MEAN

5.8
4.4
3.4
2.6
2.1

1.8
1.4
1.3
1.0
. 80

. 80
. 80
296
149
20

8.2
5.2
113
597
168

635
164
63
46
467

322
95
67
49
40
33

. 363.60
109
635
. 80
6,670

2.78
24.4

DISCHARGE, IN CUBIC FEET

DAY

1a
3
4
5

6
7
e
9
10

11
12
13
14
15

16
17
IB
19
20

ai
aa
as
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

OCT NOV

0 .50
0 .50
0 .50
0 .50
0 1.4

0 14
0 4.6
0 2.1
. 10 1.5
. 10 1,3

. 10 1.1
. 10 .90
. 10 .80
. 10 .80
1.2 ,80

3.2 .90
1.9 .80
. 80 .80
. 50 .80
. 40 .80

. 40 .70
. 30 .70
. 30 .70
. 40 .70
. 40 .70

. 40 .70
. 40 .70
. 40 .70
. 40 .60
. 50 .50
. 50

13.00 42.10
. 42 1.40
3.2 14
0 .50
26 84

1969 TOTAL 8,696
1970 TOTAL 3,182

DEC

. 50
. 50
. 60
. 60
. 60

. 60
. 60
. 80
1.3
1.1

. 90
. 80
. 80
. 90
. 90

. 90
. 80
. 80
3.4
6.4

16
8.2
3.4
4.9
58

9.8
4.6
3.2
2.4
2.2
1.9

138.40
4.46
58
. 50
275

. 30 MEAN
. 40 MEAN

JAN

1.8
1.6
1.8
1.
1.

1.
1.
1.
4.
27

11
11
11
243
40

523
81
35
19
16

186
55
26
52
26

IB
35
23
IB
14
12

1,499.6
48.4
523
1.5
2,970

23.8
8.72

34
34
32
29
63

135
80
54
40
31

28
39
30
31
142

118
77
123
131
97

73
58
81
498
183

127
101
98

2,567
91,7
498
28
5,090

MAX 87
MAX 635

PER SECOND

FEB

10
8.5
7.4
7.0
6.4

6.1
5.8
5.4
5.2
5.2

5.2
6.7
26
50
20

18
150
41
25
19

15
13
12
11
8.9

8.5
8.2
9.8
_ . . «

514.3
18.4
150
5.2
1,020

MAX 635
MAX 523

119
112
105
83
67

56
8
0
8
6

5
4
43
39
36

31
29
26
23
37

86
57
44
36
30

26
23
20
18
16
14

1,437
46.4
119
14

2,850

MIN 0
MIN 0

, WATER

MAR

176
108
44
81
71

47
33
29
23
22

18
15
14
13
12

11
11
9.3
8.5
8.2

7.8
7.0
6.7
6.4
6.1

5.8
5.2
5.2
4.9
4,9

818.4
26.4
176
4.4
1,620

MIN 0
MIN 0

13
16
22
15
185

138
89
58
44
35

30
27
24
22
20

18
16
16
14
13

12
11
16
13
11

10
9.4
8.8
8.2
8 2

922,6
30.8
185
8.2
1,830

AC-FT 2
AC-FT 17

7.9
7.4
7.4
7.6
7.1

6.8
6.3
5.8
5.6
5.3

5.1
4,7
4.7
4.2
4.2

4.0
3.5
3.5
3.5
3.3

3.2
3.2
3.0
2.8
2.6

2.6
2.6
2.6
2.4
2.2
2.1

137.2
4.43
7.9
2.1
272

,020
,670

YEAR OCTOBER 1969

APR

4.4
4.1
3.8
3.4
3.2

3.2
3.2
3.2
3.0
3.0

2.8
2.8
3.4
4.4
3.4

3.0
2.8
2.4
2.6
2.4

2.4
2.4
2.2
2.1
2.1

2.4
2.6
2.2
2.2
1.9

87.0
2.90
4.4
1.9
173

AC-FT 17
AC-FT 6

MAY

1.9
1.9
1.9
1.8
1.6

1.6
1.6
1.6
1.6
1.6

1.5
1.5
1.5
1.5
1.5

1.3
1.1
1.1
1.1
1.1

1.3
1.1
1.0
. 80
. 80

. 80
. 80
. 80
. 70
. 60
. 60

39.60
1.28
1.9
. 60
79

,250
,310

JUN

1.9
1.9
1.8
1.5
1.5

1.6
1.6
1.8
1.9
2.1

2.2
2.1
1.9
1.6
1.6

1.6
1.6
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1.5

1.5
1.5
1.5
1,4
1.3

1.3
1.4
1.3
1.3
1.1

48.4
1.61
2.2
1.1
96

JUL AUG

1.0 .40
1.1 .40
1.0 .30
. 90 .30
. 80 .40

. 80 .40
. 90 .40
. 90 .30
. 80 .30
. 70 .30

. 80 .30
. 70 .20
. 70 .20
. 60 .10
. 70 .10

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. 40 ,10
. 40 .10

19.60 6.20
. 63 .20
1.1 .40
. 40 .10
39 12

SEP

. 10
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1.20
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2.4

TO SEPTEMBER 1970

JUN

. 60
. 50
. 50
. 50
. 50

. 50
. 50
. 90
3.2
1.5

1.1
1.0
1.0
1.0
1.0

. 90
. 80
. 80
. 80
. 70

. 60
. 60
. 50
. 50
. 40

. 80
. 80
. 70
. 70
. 60

24.50
. 82
3.2
. 40
49

JUL AUG

. 50 .10
. 40
. 40
. 30
. 20

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SEP

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SAN JOAQUIN RIVER BASIN

11269500 LAKE McCLURE AT EXCHEQUER, CALIF.

DRAINAGE AREA.--1,037 sq mi.

PERIOD OF RECORD.--April 1926 to September 1930 (daily gage heights; also summary of yearly contents in WSP 881) October 1930 to September 1970.

EXTREMES.--Maximums and minimums (contents
tained in the following table:

rding gage

2-feet, elevation in feet) for the water years 1966-70 are con-

wtr y
1966
1967
1968
1969
1970

no

r Date
May
June
Oct.

July
June

Period

31
28
1
14
13

of

, 1966
, 1967
, 1967
, 15, 1969
, 1970

record: Maximu

393,000
991,600
714,900
1,026,000
844,000

m contents, 1

743.5
862.3
817.3
867.2
839.7

,026,000 acre-

Date
Dec.
Oct.
Sept
Nov.
Jan.

ft July 14

6,
1-

. 30,
1,
9,

, 15

7, 1965
8, 13-18, 21
1968
1968
1970

, 1969 (elev:

Conte
88,
, 1966 267,
355,
327,
542,

ition, 867.2

nts
800
900
300
300
800

ft);

Eli

prac

606.9
701.9
732.2
723.2
781.9

tically

REMARKS.--Reservoir is formed by a rockfill dam with a reinforced concrete face completed in March 1967. Dam i

April 1926. Usable capacity, 1,024,000 acre-ft between elevations 440.0 (invert entrance to outlet tunnel)
and 867.0 ft (top of spillway gates). Dead storage, 300 acre-ft. Water is released through a series of powerplants down Merced River to a diversion dam for Merced Irrigation District's main canal. Records,

REVISIONS (WATER YEARS).--WSP 881: 1926-32 (yearly summaries only). WSP 1345: 1951CM). WSP 1930: Drainage
area.

Capa

600
620
640
660

79,900
106,700
137,800
173,500

680
700
720
750

215,200
263,000
317,800
415,900

780
820
870

s, in acre-ft)

534,500
729,600
1,046,000

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

1
2
3
<t
5

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11
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14
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18
19
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21
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23
24
25

26
27
28
29
30
31

MAX
MIN

It)
It)

CAL YR

101,000
101,100
101,200
101,400
101,500

101,700
101,800
101,800
101,800
101,600

101,800
101,900
101,900
102,100
102,100

102,100
102,100
102,200
102,200
102,400

102,400
102,500
102,500
102.500
102,600

102,600
102,600
102,600
102,800
102,800
102,800

102,800
101,000
617.2
+1,400

1965 MAX

102,900
102,900
102,900
102,900
103,100

103,100
103,100
103,100
103,100
103,100

103,100
103,100
103,200
103,200
104,600

106,400
110,400
114,500
121,100
123,900

125,500
126,700
129,900
142,600
152,600

157,900
160,600
158,600
150,700
142,900

160,800
102,900

+40,100

280,800

134,700
126,300
116,800
107,200
97,700

86,800
88,600
89,800
90,800
91,900

92,900
94,000
95,100
96,100
97,000

96,000
96,700
99,400
100,100
100,600

101,500
102,400
102,900
103,600
104,300

105,200
105,900
106,400
109,700
114,600
110,300

134,700
68,800

- 32,600

MIN 8E
MIN 8f

105,200
104,200
106,300
108.200
110,000

111,600
113,400
115,100
116,800
118,200

119,600
120,800
122,000
123,100
124,300

125,400
126,500
127,500
128,300
129,200

130,000
131,000
131.800
132,600
133,200

134,000
134,700
135,500
136,100
137,100
138,100

138,100
104,200

+27,800

,800 t
,800 t

139,300
40,400
41,200
41,900
42,900

44,300
46,800
148,500
149,900
151,100

152,100
153, ?00
154,100
155,000
155,900

156,800
157,700
156,400
159,100
160,000

160,900
161,500
162,600
163,500
164,400

165,300
166,300
167,200

167,200
139,300

+29,100

- 110,000
+166,300

168,000
166.900
169,700
170,500
171,200

172,200
172,900
173,700
174,700
175,700

177,300
176,900
180,500
182,500
184,500

186,500
186,500
190,100
192,000
193,700

195,400
197.100
199,000
201,000
203,400

206,000
208,600
211.700
215,700
219.800
224,200

224,200
168,000

+57,000

229,200
232,200
235,000
240,100
245,600

249,000
252,500
255,800
259,200
262,000

264,300
265,300
266,100
266,600
267,400

269,200
271,800
275,000
280,500
281,300

282,100
282,400
282,600
263,400
285,100

287,800
290,800
293,600
296,300
300,200

300,200
229,200

+76,000

304,200
308.500
312.300
316,300
320,800

324,900
328,800
333,100
337,100
340,800

345.100
348,600
351,800
355,000
356.700

361,400
364,700
366,000
371,600
374,900

377.600
360,700
363,000
384,700
366,800

388,100
369.500
390.900
391.900
392,600
393,000

393,000
304,200

+92,800

392,300
391,200
390,200
369,200
367,800

386,400
385,400
384,400
383,400
382,300

381,000
380,000
379,000
377,600
376,600

375,300
373,300
371,300
369,300
367,300

365,400
363,400
361,100
358,500
356,300

353,700
351,500
349,200
346,400
343,600

392,300
343,600

- 49,400

340,600

334,900
331,900
329,100

326,100
323,100
320,200
317,500
314,300

311,700
308,800
305,900
303,100
299,700

296,300
293,000
289,700
266,400
283,200

279,700
276,500
276,000
276,000
275,700

275,700
275,700
275,500
275,500
275,200
275.200

340,800
275,200

- 68,400

275,200

275,000
275,200
275.200

275,200
275,200
275.000
275,000
275,000

274,700
274,400
274,200
274,200
273,900

273,700
273,400
273,100
272,900

272,400
272,100
271,800
271,600
271,300

271,100
270,300
269,800
269,000
268,200
267,400

275,200
267,400

- 7,800

266.900

267,200
267,200
267,200

267,200
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267,200
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267,200
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267,200
267,200
267,200
267,200

267,400
267,400
267,400
267,700
267,700

267,700
267,700
267,700
267,700
267,700

267.700
266.900
701.8
+ 300

t ELEVATION, IN FEET, AT END DF MONTH, t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11269500 LAKE McCLURE AT EXCHEQUER, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEET. AT 2400, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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MAX
MIN

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WTR

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DAY

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31

MAX
MIN

(*)
It)

267,900
267,900
267,900
267,900
267,900

267,900
267,900
2 7,900
2 8,200
2 8,200

2 8,200
2 8,200
2 7,900
2 7,900
2 7,900

267,900
267,900
267,900
268,200
268,200

267,900
268,200
266,200
268,200
266,200

266,200
268,200
268,200
268,500
266,500
268,500

268,500
267,900

+8,000

268,500
268,500
368,500
268,500
268.500

268,500
260,500
268,500
268,500
268,500

268,500
268,500
268,500
268,500
268,500

268,500
268,700
269,000
269,200
269.500

270,500
271,300
271,800
272,400
272,600

272,900
273,100
273,400
277,600
279,700

279,700
260,500

+11,200

YR 1967 MAX 991,600

ELEVATION, IN FEET,
CHANGE IN CONTENTS,

281,000 390,500
282,900 391,600
288,900 392,300
291,300 393,000
300,500 393,700

336,400 394,300
351,100 395,000
356,900 395,700
360,500 396,100
363,400 396, BOO

365,700 397,500
367,600 398,200
369,600 398,900
371,300 399,600
372,600 400,300

374,300 401,000
375,600 401,300
376,600 402,000
378.000 402,700
379,300 403.800

380,300 405,200
381,700 408,000
382,700 410,200
383,700 413,400
384,700 416,300

385,400 418,400
386,400 420,600
387,100 422,400
387,800 427,900
388,800 436,800
389,900 447,300

389,900 447,300
281,000 390,500

+110,200 +57,400

MIN 104,200 t
MIN 260,500 J

AT END OF MONTH.
IN ACRE-FEET.

CONTENTS, IN ACRE-FEET

714.900
711.700
709,000
707,400
705,300

703,100
701,000
698,900
696, BOO
695,200

692.500
691,000
688,900
686,600
685,200

683,600
661,000
679,000
676,900
674,800

672, BOO
671,200
668,700
666,600
664,100

662,100
660,000
658,500
657,500
658,000
656,000

714,900
657,500

- 60,200

658,000
656,500
658,500
658,500
658,500

658,500
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659.500
644,500

- 13,000

643,500 622,900
642,500 621,900
643,000 621,000
642,000 620,500
641,500 619,500

641,000 618,100
640,500 617,100
640,000 616,200
640,000 616,600
640,000 617,100

640,000 616,200

637,100 615,700
635,100 616,200
634,100 616,600

632,600 616.200
632,200 617,100
632,600 616,200
631,700 615,700
630,700 616,600

629,700 616,600
628,300 616,200
628,300 615,700
628,700 616,200
628,300 616,200

627,800 614,700
626,300 615.700
625.300 616.200
624,400 615.200
623,900 615,200
623,400 615,200

643,500 622,900
623,400 614,700

- 21,600 -8,200

MIN 390,500 t

452,600
456.100
458,800
461,100
463,100

465,000
467,000
468,500
470,500
472,100

474,000
476,000
477,600
479,600
481,200

482, tOO
483,600
485,200
486,400
487,600

488,900
490,100
491,300
492,500
494,100

494,600
495,400
496,600

496,600
452,600

+49,300

+279,600
+450,500

, AT 2400

614,200
613,300
614,200
613,800
613,800

612,800
610,400
606,000
604,300
602,800

603,300

604,300
605, ?00
605,700

606,600
609,000
610,900
612.300
616, ?00

620,500
623,400
626,300
629,200
631,700

633,600
635,600
637,600
639,000

639,000
602, POO

+23,800

+233,500

497, BOO
499,100
500,300
501,500
502,800

503,600
504,800
505,700
506,900
508,200

511,100
521,600
534,100
541,900
546,700

570,900
588,300
598,600
605,200
611,900

617,100
621,500
628,700
630,700
634,100

637,600
641,000
644,500
648,500
652,000
655,500

655,500
497,800

+158,900

, WATER

MAR

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+8,000

659.500
663.600
666,600
669,700
674,300

661,600
697,300
705,300
710,600
715,500

722,000
727,400
731,800
735,700
740,100

744,000
747,300
758,600
766,500
770,500

775,700
779,700
783,200
784,900
783,800

782,000
780,300
776,600
775,700
772,200

784,900
659,500

+116,700

768,200
764,800
761,400
758,000
754,100

749,600
746,200
744,000
743,400
743,400

741,800
737,900
734,000
730,700
729,600

732,400
739,500
746,800
754,600
764,200

776,800
789,600
802,500
814,900
826,300

836,000
845,200
852,000
856,900
861.300
863,800

863, HOC
729,600

+91,600

YEAR OCTOBER 1967

APR MAY

649,000 65B.500
650,000 660,500
651,000 661,500
650,500 664,600
650,500 667,100

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667.700
667,100
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666,100
666,100
667,700
669,700
670,200

672,300
673,300
673,300
672,300
672,300

672,800
674,300
676,400
677,400
677,900
678,500

678,500
658, "500

+22,000

863,800
861,900
860,000
859,400
863,800

866,900
871,900
B78.200
885,800
8B9,000

893,500
900,600
907,700
913,600
920,800

928,700
934,000
941,300
952,700
962,800

975,100
982,600
985,400
986,800
987,400

988,100
9B9.500
991,600
990,900
991,600

991,600
859,400

+127,800

991,600
991,600
990,200
986,800
984,000

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969,600
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955,400

948,000
948,600
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949,300
950,000

952,000
952,700
952,000
951,300
949,300

948,600
947,300
945,300
943,300
940,600

939,300
937,900
935,300
932,000
929,300
926,700

991,600
926,700

- 64,900

TO SEPTEMBER 1968

JUN JUL

678,500 618,100
678,500 614,700
679,000 610.900
678,500 606,600
678,500 604,300

677.400
675,900
673,800
672,300
671,200

668,200

664,100
662,100
660,500

659,500
657,500
655,500
652.500
650.500

647,500
644,500
642,000
639,000
635,600

633,100
630,200
626,800
623,900
621,000

679,000
621,000

- 57,500

601,400
596,600
594,400
591,100
586,900

583,200
579,500
576,300
573,100
569,100

565,400
562,300
558,700
555,600
551,600

548,500
545,400
541,500
538,000
534,100

530,600
526.800
523,300
519,500
515,700
511,900

616,100
511,900

- 109,100

923,400
920,100
917,500
913,600
909,700

905,800
902,500
898,600
894,100
B90.300

BBS, BOO
883,300
879,500
875,100
871,300

867,500
863,800
860,600
857,500
853,200

849,500
B45.200
840,900
836,600
833,600

830,000
826,300
822,100
817,900
813,700
809,600

923,400
B09.600

- 117,100

AUG

508,600
505,300
502, BOO
499,500
496.200

492,900
489,300
485,600
482,400
478,800

476,400
473,300
469,700
466,600
463,100

460,000
457,200
454,600
451,500
448,400

445,400
443,200
440,100
437,500
435,700

433,400
431,200
428.600
425,300
422.000
419.500

508,600
419.500

- 92,400

806,000
802,500
798,900
795,400
791,900

789,000
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782,000
779,100
775,700

772,200
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766,000
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759,700

756,300
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750,100
747,300
744,500

741,800
739,000
736,200
733,500
731.300

728,500
725,800
723,600
720,900
718,200

606,000
718,200

- 91,400

SEP

417,300
414,800
412,700
409,100
406,600

404,100
401,700
400,300
397,100
394,700

393,000
390,500
388,500
385.400
385,400

383,700
360,000
377,600
375,300
373,600

371,600
369,300
367,000
365,400
362,700

360,500
359,200
357,600
355,900
355,300

417,300
355,300

- 64,200

WTR YR 1968 MAX 714,900 MIN 355,300 t -362,900

+ ELEVATION, IN FEET, AT END OF MONTH.
t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN 377

11269500 LAKE McCLURE AT EXCHEQUER, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP

355,300 327,300 343,600 373,900 713,300 712,200 646,000 700,500 941,300 1.020M 993,700 864,400
355,300 327,900 343,900 374,600 717,600 710,600 647,500 704,700 950,000 1,022M 989,500 859,400
355,300 329,100 344,200 375,300 721,400 708,500 648,500 707,900 958,700 1.023M 986,100 854,400
355,300 330,600 344,500 376,300 725,200 704,700 648,000 709,500 965,500 1.025M 982,600 849,500
355,300 331,300 344,500 377,300 729,600 700,500 655,500 711,100 971,000 1.025M 979,900 843,400

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MAX
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MAX
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355,300
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340,500
340,500
340,500

338,600
337,400
336,400
334,900
333,700

333,700
333,700
332,200
331,300
329,700
328,500

355,300
328,500
723.6
- 26,800

331,900 344,200
332,500 344,500
332,800 344,800
332,800 345,500
333,100 345,500

334,000 346,100
334,000 346,100
334,600 346,700
335,200 346,700
336,400 348,300

337,100 351,100
338,000 352,100
338,300 353,100
338,900 353,700
339,800 353,400

340,500 354,000
340,500 354,300
341,100 354,700
342,000 355,900
342,300 360,800

342,600 365,400
342,600 367,600
343,000 369,300
343,000 371,000
343,300 371,900
372,900

343,300 372,900
327,300 343,600
728.4 737.6
+14,800 +29,600

YR 1968 MAX 679,000 MIN
YR 1969 MAX 1,026,000 MIN

ELEVATION,
CHANGE IN
EXPRESSED

OCT

747,900
745,100
741,800
738,400
735,100

732,400
729,600
726,300
723,600
720,900

717,600
716,000
713,800
709,500
707,900

706,900
706,900
705,800
703,700
701,000

697,800
695,200
692,000
688,900
685,700

682.100
678.500
675,900
673,300
670,700
666,700

747,900
668,700
808.5
- 80,900

378,000
378,600
379,600
380,300
380,700

381,000
382,000
390,900
403,100
407,000

409,400
411,600
415,200
459,200
476,000

542,800
563,200
571,800
579,500
622,900

662,100
677,900
688,900
696,200
702,600
707,900

707,900
373,900
816.0
+335,000

327,300
327,300

735,100
735,100
731,300
726,300
720,900

714,900
710,100
704,700
699,400
697,800

698,300
695,200
694,600
693,100
690,400

686,800
682,600
680,000
696,200
706,300

710,600
712,800
712,800

735,100
680,000
816.9
+4,900

t -250,
t +394,

695,700
691,000
685,200
679,500
675,900

673,300
670,700
668,200
665,100
662,600

659,500
657,000
654,500
652,500
651,000

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649,500
647,500
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644,500

643,000
641,500
641,500
642,000
642,500
644,000

712,200
641,500
803.6
- 68,800

500
300

IN FEET, AT END OF MONTH.
CONTENTS, IN ACRE-FEET.
IN THOUSANDS.

NOV DEC

666,100 600,000
665,600 597,700
662,100 594,800
660,000 592.000
657,000 589,700

655.000 586,900
653,500 584,200
651,000 581,800
649,500 578,600
647,500 576,300

644,500 574,100
641,500 572,700
638,500 570,900
635,100 569.500
635,100 567,700

635,100 565,900
631,700 564,100
629,700 562,700
627,300 562,300
624,400 562,700

621,900 565.000
621,500 567,700
621,500 567,200
618,600 566,300
615,700 568,600

613,300 567,200
610,400 566,300
608.000 564,500
605,200 562.300
602,800 559,200
556,000

666,100 600,000
602,800 556,000
795.1 784.9
- 65,900 -46,800

YR 1969 MAX 1,026,000 MIN
YR 1970 MAX 844,000 MIN

JAN

554,300
552,900
551,100
549,400
547,200

545,900
544,100
543,200
542,800
545,400

547,200
548,900
550,700
558,300
562,700

593,000
605,200
612,300
616,600
621,000

632,200
644,000
651,000
658,500
663,600

667,700
672,800
676,900
680,000
683.100
685,700

685,700
542.800

+129,700

373,900
542,800

FEB

688,300
689,400
686,800
684. POO
681,600

679,500
677,900
675,900
673,300
672,300

670.700
670.200
670,700
671,800
672,300

672,300
673,300
672.300
670.700
669.700

670,200
670,200
670,200
669,700
668,200

668,200
668.700
669.200

689.400
668,200

- 16,500

MAR

679,500
685,200
685,200
686,200
686,200

685,700
684,700
683,600
682,100
683,100

682,100
682,600
684,200
685.700
687,800

689,900
691,000
692,500
693,600
694,600

696,800
698,900
699,400
700,500
702,100

704,200
705,800
706,900
708,500
708,500
708,500

708,500
679,500

+39,300

662,100
665,100
661,100
666,600
666,600

666,600
667,700
669,200
679,200
669,700

668,200
667,700
668,200
668,200
669,700

673,800
679,000
684,200
687,300
687,800

687,800
687,800
689,400
692,000
695,700

695,700
646,000
813.7
+51,700

APR

708,500
707,400
706,900
706,300
705,800

705,800
705,800
706.300
706.300
707.400

708.500
709,500
710,600
711,100
711,700

710,600
709,500
709,000
708,500
707,900

707,400
705,800
705.300
703,700
703,100

702.600
702,100
702,100
701,000
700,500

711.700
700,500

- 8,000

715.500
722,500
731,800
741,800
752,900

763,100
774,000
783,800
793,100
800,700

807,800
816,700
825,700
833,600
840,900

847,600
855,100
864,400
873,800
883,300

891,600
899,900
907,100
914,200
923,400
932,000

932,000
799,500
853.5
+236,300

975,700
979,200
980,500
979,200
975,700

972,300
971,600
972,300
976,400
980,500

986,100
990,200
990,900
993,700
999,200

1,004M
1.009M
1.014M
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1.016M
1.017M
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1.018M
941,300
866.2
+86,900

1.025M
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976,400
972,300
968,200
964,200
960,100

955,400
953,300
949,300
945,300
940,600

936,600
932,000
928,000
923,400
919,400

914,200
910,300
906,400
901,200
897,400

1.011M 892,200
1.009M 887,800
1.006M 882,700
1.003M 878,200
999,900 873,800
997,200 868,800

1.026M 993,700
997,200 868,800
863.1 843.7
- 21,700 -128,400

iER 1969 TO SEPTEMBER 1970

MAY JUN JUL

699,900
699,900
701,000
703,100
705,000

709,500
711,700
713,100
714,400
716,500

718,700
719,800
721.400
724.100
729,100

736, ?00
744,500
752,400
759,700
765,400

769,400
774,500
779,700
786,100
791,300

796,000
800.700
804.800

812,500
816,700

816.700
699.900

+116,200

820,900
824,500
828,100
830,000
831,800

833,600
834.800
836.000
839,700
842,700

843,400
842,700
844.000
843, 40n
842,700

842,100
840,900
840.300
839.700
840.300

840.300
840,300
840,300
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838, 50n

837,900
837,200
837,900

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844,000
820,900

+18,100

833,000
830,600
828,100
826.300
823.900

821.500
819.700
816.700
814.300
811.900

809,000
806,000
802,500
799,500
796,600

793,700
790,700
787,200
784,300
781.400

778.000
775,100
771,700
769,400
765,400

762,000
758,600
755,200

747.900
744,000

833.000
744.000

- 90,800 -

AUG

740,700
737.300
733.500
729,600
725,800

723,100
719,200
716,000
712,800
708,500

705,300
701.500
697.800
694.600
691.000

687.800
684,200
680,000
676,400
673,300

670,200
666,600
663,100
660,000
656,500

653,500
650.500
647.000

641.500
638,000

740.700
638.000

106,000

839,100
835,400
830,600
825,700
820,900

816,100
810,800
806,600
803,100
798,300

794,800
790,700
787,200
784,900
780,300

776,800
772,800
770,500
767,100
764,200

761,400
758,600
755,800
752,900
749,600

864,400
749,600
823.6
- 119,200

SEP

635,100
632,200
629,200
626,300
623,400

620,500
618,100
615,700
61?, 800
610,400

607,100
604,300
602.400
599,100
596,200

593.900
592,000
589,200
586,900
586,000

581,800
579,500
577,700
575,400
572.200

570.400
568,200
566,300

561.400

635,100
561.400

- 76,600

t +183,100
t -188,200

ELEVATION, IN FEET, AT END OF MONTH. CHANGE IN CONTENTS, IN ACRE-FEET.

LOCATION. --Lat 37
0. 1 mile south

DRAINAGE AREA. - -1

PERIOD OF RECORD.

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Lake

GAGE. --W

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EXTREMES
1966-

Wtr yr
1960
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REMARKS.

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DISCHARGE

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Date
De c . 3 ,

Jan. 3l[
June 1,
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26, 46,200 cfs Dec

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on 11269500) , and

REVISIONS (WATER
tion 11-2700) .

DAY OCT

1 119
2 46
3 33
4 33
5 31

6 31
7 33
8 35
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11 45
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16 45
17 44
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22 45
33 44
24 44
25 45

36 44
27 41
28 43
39 43
30 43
31 43

TOTAL 1,355
MEAN 43,7
MAX 119
MIN 31
AC-FT 2,690
(t) 367
MEANt 725

long 120°
d Falls,

equivalen

r. Datum
, 1964.

Maximum

flow for
. 4, 1950

er Dam in

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19'53",
0.2 mile

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Dis

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1926, 3

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YEARS). --WSP 1315-A: 1901
WSP 1930: Drainage area

DISCHARGE, IN CUBIC FEET

NOV DEC JAN

41 4,840 4,860
41 5.110 344
41 5,380 66
46 5,320 52
46 5,180 48

46 3,630 45
45 142 45

44

46
47
53
83
51

40
55
60
55
50

50
54
201
145
130

77
198
4,030
5,060
4,980

15.906
530
5,060
40
31.550
361
1,210

38

40
48
38
38
37

37
39
37
39

37
37
37
37
49

43
41
47
447
3.390
5.140

39,414
1.371
5.380
37
78,180
355

41

43
41
41
40
41

40
41
40
40

41
41
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38
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41
40
42
43
71
54

6,488
209
4,860
38
13,870
246

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6,970 10
9,980 12
3,240 8
9,360 12
5,590 10

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Nov. 21, 1901. Ma
eight, 22.6 ft, fr

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. 5 S. , R. 15 E. , Merced County,
erced Falls Dam, and 5.8 miles east

ion to North Side Canal and change i

e mean sea level. See WSP 1930 for

nge in contents of McSwain Res

Date
Mar. 5, 1966
Dec. 14, 1966
Oct. 30, 1967
Oct. 3, 1968
Jan. 13, 1970

ximum discharge since construe
om floodmarks, site and datum

daily

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5, 1966.

cSwain, and Merced
oir since 1966 (ca

- 9, 1911(M)

PER SECOND.

FEB

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1,188 3,
42.4
54
39
2.360
220

. WSP

WATER

M»R

39
184
158
15
3.4

4.7
34

46

26
14
9.3
7.5
52

125
415
385
366

408
412
271
138
182

44
20
25
25
38

641.9
117
415
3.4
7,230
526

Falls powerplants, Lake McClu
pacity, 9,200 acre-ft). Water

1515: 1918-20, 1942-

YEAR OCTOBER 1965 TO

APR MAY

51 1,220
40 1,370
758 1.520

1,320 1,540

1,490 1,510
1,550 1,560
1,620 1,520

1,630 1,380

1.610 1,340
1,500 1,240
1,480 1,350
1,470 1,350
1,380 1,350

1,360 1,280
1,350 1,380
1.240 1,270

1,410 1,330
1,410 1,380
1,410 1,390
1,480 1,410
1,510 1,430

1,590 1,430
1.670 1,430
1,630 1,430
1,470 1,430
1,320 1,420

40,059 42,650 4
1,335 1,376
1,670 1,560
40 1,320
79,460 84,600 9
2,947 3,455

43 (publi

SEPTEMBE

JUN

,420
,430
,400

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,410
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,660
,650
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,620
,610
,630
710
,730

,970 3'
,533
,720
,390
,180 7'
3,695

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1966

JUL

,660
,660
,680

,630

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,610
,610
,580
,610

,630
,680
,700
. 700
. 730

. 720
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,730
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155
154
152

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184

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3,039

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of Snelling

history of

th Side Can
since 1969

Disc

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173

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147

146
147
150
155
159

4,778
154
177
131
9.460
811

OBSERVED

ADJUSTED t

harg
3.
6.
79
46
133

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Dam

for

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3
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3

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3
3

1,36
45.
10
3
2.71
5
50.
3,55

WTR YR 1966 MEAN 912 AC-FT 660,100

+ DIVERSION, IN ACRE-FEET, TO NORTH SIDE CANALf FURNISHED BY MERCED IRRIGATION DISTRICT.
t ADJUSTED FOR CHANGE IN CONTENTS IN LAKE McCLURE AND DIVERSION TO NORTH SIDE CANAL.

SAN JOAQUIN RIVER BASIN

11270900 MERCED RIVER BELOW MERCED FALLS DAM, NEAR SNELLING, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

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MAX
MIN
AC-FT

(t)
MEAN*

CAL YR

OCT

35
36

3848
79

42
39
40
40
40

61
70
48
61
61

59
59
59
58
58

58
49
36
33
32

35
41
38
35
34
33

79
32

446
184

1966 MEAN

NOV

34
33
32
32
32

33
34
34
33
34

35
34
35
36
35

38
36
34
34
34

32
35
35
34
34

33
34
34
43
44

44
32

298
228

ADJUSTED

932

DEC

36
40
40
36
42

70
58
25
7.0
7.0

6.8
6.7
6.7
6.6
53

74
42
40
43
27

27
38
40
39
36

38
38
69
38
36
36

74
6.6

50
1,829

t

AC-FT

JAN

37
38
38
38
55

37
34

36

38
38
35
39
41

39
41
42
38
43

40
40
41
62
50

43
39

62
106
49

106
34

60
978

OBSERVED

675,000

FEB

25
19
16
17
26

38
41

39

39
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39
39
37

37
39
40
40
40

39
39
73
36
46

42
41

73
16

56
926

MAR

125
122

42

38
65

76

70
109
191
166
128

251
209
87
126
125

124
239
328
359
373

111
129

129
129
128

373
38
8,770
54
2,728

APR

128
128

588

615
574

602

684
610
607
603
609

607
614
718
718
2.050

2,810

2,920
3,360
3,820

3,890
3,900

3,940

128
94,700
242
3,557

371,900
1,217,000

MAY

3,790

4,300

4,290
4,?90

4.520
4,660
4.700
4,690
4,080

3,560
2,990
3,360
3,510
3,520

3,510

4,910
4,940
4,910

4,820
4,930

4,930

4,800

2,990
266,000
2,660
5,859

JUN

4,830

3,540

2,790
2,760

4,890
2,950
2,910
3,150
3,140

3,130
4,950
4,930
3,310
3,140

3,060

6,960
7,520
8,220

8,370
7,160

9,120

2,760
292,300
3,735
7,123

JUL

9,140

7,900

8,270
7,600
7,770

7,390
3,640
3.620
3,660
3,590

2.700
2,700
2,720
2.770
2,880

2,620

2,550
2.520
2,540

2,450
2,550

2,460

2.810

2.450
291,700
4,483
3,761

AUG SE"

2,590

2,540

2.570
2,530
2,320

2.4BO
2,350
2,500
2,480
2,440

2,440
2,420
2,430
2.430
2.430

2,450

2,450
2,420
2,440

2,440
2,460

2.460

,920

. 920

,930
,930
,B30

,780
,790
,710
. 680
,680

,680
,680
,650
,640
,640

,580

,500
,470
,450

,430
. 390

,330
,350
2.440

2.320 1,330
151,900 100,100
4,501 3,671
639 208

t DIVERSION, IN ACRE-FEET, TO NORTH SIDE CANALt FURNISHED BY MERCED IRRIGATION DISTRICT, t ADJUSTED FOR CHANGE IN CONTENTS IN LAKE McCLURE AND DIVERSION TO NORTH SIDE CANAL.

SAN JOAQUIN RIVER BASIN

11270900 MERCED RIVER BELOW MERCED FALLS DAM, NEAR SNELLING, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

NOV DEC JAN FEB MAR APR MAY JUN JUL

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J J
12

13i*
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2*
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31

TOTAL 3
MEAN

MAX MIN
AC-FT 6

(t)
MEAN*

,3*0 99 590 600 548 106 1,160
,290 139 57* 599 77* 87 856 ,250 1*2 564 576 796 370 858 ,220 132 588 587 805 603 850 ,180 135 5S6 585 482 60S 825

,160 288 585 486 607 743 824 ,150 427 585 581 1,410 763 944 ,120 474 584 767 1,500 618 1,010 ,120 481 584 581 1,500 601 1,120 ,120 316 592 342 1,300 611 1,340

,120 207 586 354 100 623 1,420
,110 205 596 83 109 608 1,440
,120 203 603 92 110 606 1,490
,120 187 583 345 100 595 1.610

,100 180 580 408 100 573 1,720 ,040 174 5S2 409 100 508 1,650 ,100 174 588 420 101 508 1,620
,100 172 589 341 99 508 1,600
,110 250 592 95 102 510 1,590

,100 567 583 99 107 565 1,620
. 100 591 590 310 99 603 1,530
,100 581 587 408 96 605 1,450
,090 566 5S4 406 95 60S 1,440
,090 568 593 405 94 666 1,490

,080 580 584 343 99 767 1.480
,080 576 596 84 102 864 1,470
,090 583 588 102 102 896 1,490
377 583 580 *57 110 1.030 1.560
79 377 589 *28 1,190 1,650
94 570 638 1,320

J, 70 10,173 18,152 12,512 11,990 19,863 40,507 4
1, 41 339 586 404 *13 6*1 1,350
I. 40 591 603 767 1.500 1.320 1.720
79 99 564 83 94 87 824
., 10 20,180 36.000 24.820 23,780 39,400 80,350 9
L. 20 161 0 101 14 387 2,610
93.2 123 234 272 827 777 1,554

,670
,660
,620
,630
,640

,720
,740
,7*0
,730
,660

,6*0
,550
,490
,420

,390
,380
,380
,360
,370

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,350
,370
,370
,380

,400
,400
,450
,480
,500

,040 5
,517
,740
,350
),300 10
t,030

,580
,550
,570
,570
,580

. 600
,580
,590
,620
,670

,690
,670
,670
,670

,660
,680
,700
,750
,7*0

,750
,780
,790
,790
,830

,850
,850
. 810
,790
,780

,850 5
,695
,850
,550
,900 111
,930 '

. 770
. 820
,830
,810
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,860
. 870
,870
,830
,830

,820
,810
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,820
,850

,870
,860
,840
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,860

,820
,820
,820
,830
,820
. 830

,760 4
,831
,870
. 770

',600 9
t,400

. 700
. 650
,630
,630
,630

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. 630
,640
,640
,630

,650
,600
,590
. 520
,490

,440
,420
,410
,390
,360

,350
,330
,330
. 330
,330

,300
,300
,310
. 290
,270
. 290

. 710 3
,475
,700
,270
),670 6
t,040

. 250
. 290
. 280
,280
. 280

. 220
. 210
,220
,140
,070

,040
,050
,020
,010
,020

,030
,000
,000
,010
,030

,020
,010
994
981
968

944
951
949
952
971

>,190
,073
,290
944
3,850
5,310
49.7

330,000
749,800

t DIVERSION,IN ACRE-FEET, TO NORTH SIDE CANAL; FURNISHED BY MERCED IRRIGATION DISTRICT. t ADJUSTED FOR CHANGE IN CONTENTS IN LAKE McCLURE AND DIVERSION TO NORTH SIDE CANAL.

SAN JOAQUIN RIVER BASIN

11270900 MERCED RIVER BELOW MERCED FALLS DAM, NEAR SNELLING, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

NOV DEC JAN FEB MAR APR HAY JUN JUL

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B
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1*
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16
17
IB
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23
24
25

26
27
26
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

(t)
MEANt
AC-FTt

95B
122
46
53
52

52
56
309
484
4B6

483
484
495
481
502

496
487
466
472
469

479
495
496
487
482

471
471
463

482
494

12,762 3
412
958
46
25,310 6
498
27.8
1,710 22

293
113
116
108
109

109
110
109
109
110

110
116
112
113
111

113
112
111
112
112

109
110
112
112
114

113
112
112
112
112

,526
118

293 ioa
,990
137
374
,270

114
US
114
115
115

114
115
115
114
115

115
113
113
116
115

115
115
114
113
112

113
142
144
118
133

169
118
116
118
115
155

3.730
120
169
112
7,400
95
604
37,140

119
116
116
117
118

115
117
118
191
231

214
102
217
262
122

117
127
136
363
174

699
191
117
125
436

297
129
137
121
113
112

5,669
183
699
102
11,240
30
5,630
346,200

110
109
110
115
782

2,800
4.1BO
4.B80
5.100
5.040

5.020
5.040
5.000
4,950
5.050

4.630
4.930
4,730
4.960
4.880

4.890
4.900
4,800
4.440
4,150

3,460
3,340
3.950

106,546
3.805
5,100
109
211,300
0
3,907
217,000

4,910
4,960
4,950
4,930
4,910

4,930
4,990
4,980
5,000
4.090

3.290
3,290
3,260
3,280
3,260

3,270
3.260
3,260
3,260
3,270

3,280
3,260
3,250
3,240
3,240

3,230
3.220
3,220
3,070
3,220
3.220

116,640
3,769
5,000
3,070
231,800
0
2,646
162,700

3.230
3,270
3.270
3,260
3,530

3,350
3,300
3,290
3,290
3,280

3,280
3,280
3.260
3,450
3,740

3,730
3,740
3,740
3,730
3,730

3,720
3,720
3,750
3,750

3,760
3,760
3,750
3,750
3,750

106,240
3,541
3,760
3,230
210,700
1,010
4,428
263,500

3,720
3,730
3,740
3.740
3.710

3,700
3,730
3.910
4.240
4.280

4,280
4,320
4,720
5,100
5,420

5,580
5,670
5,720
5,940
6,200

6.340
6.370
6.360
6.360

6.460
6.620
6,620
6.780
6.970
7.100

163.770
5.283
7.100
3.700
324,600
3,780
9,194
565,300

7.340
7.660
7.500
7.570
7.840

7.860
7.820
7.850
7.650
7.150

6,100
4,830
4,280
4,230
4,210

4,210
4,220
4,230
3,640
2,860

2,840
2,640
3.260
4,550

4,510
3.700
2,980
2.840
2.600

154.340
5.145
7.860
2.600
306.100
3,650
6,657
396,100

2,790
2. BOO
2.610
2.B40
3,020

3.090
3,200
2.920
2.640
2.840

2.640
2.430
2.430
2.450
2,460

2.430
2.440
2.450
2.440
2.410

2.480
2.420
2.430
2,460

2,460
2,400
2.390
2.420
2.450
2.460

80.500
2.597
3.200
2,390
159,700
4,210
2,309
142,000

2.460 2,540
2,460 2,530
2,430 2,540
2,450 2,540
2,460 2,550

2.440 2,520
2,440 2,280
2.440 2,530
2.440 2.530
2.440 2.550

2.210 2.570
2.050 2.570
2.060 2.190
2.130 ?,030
2.500 2,400

2,510
2.530
2.530
2.520
2.520

2.500
2.520
2.550
2.540
2.510

2.540
2.550
2.540
2,510
2.510
2.530

75.640 6
2.446
2.550
2.050
150,400 12

4,180 426 J.TU

,940
,970
,990
,990
,990

,990
,990
,660
,470
. 470

. 470
,470
,470
,470
**'-

. 670
,089
. 570
,460
. 300
,430

26,210 8,310

OBSERVED

CAL YR

WTR YR

1968 TOTAL 337,440 MEAN

ADJUSTED t

1969 MEAN 3,022 AC-FT 2

922

,188,000

MAX 1,870 MIN 46 AC-FT 669,300

t DIVERSION, IN ACRE-FEET, TO NORTH SIDE CANALs FURNISHED BY MERCED IRRIGATION DISTRICT.
t ADJUSTED FOR CHANGE IN CONTENTS IN LAKE McCLURE, McSWAIN RESERVOIR, AND DIVERSION TO NORTH SIDE CANAL.

SAN JOAQUIN RIVER BASIN

11270900 MERCED RIVER BELOW MERCED FALLS DAM, NEAR SNELLING, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PEP SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 19TO

DAY

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IB
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29
30
31

TOTAL
MEAN
MAX

AC-FT

(t)
MEAN*

OCT

1,410
1.430
1.450
1.440

1.450
1.440
1.450
1.450
1.450

1.450
1.430
1.410
1.430
1.480

1,500
1,500

1.490
1.520

1.780
1.950
1.990
1,990
1.980

2.010
1,720
1,480
1.470
1,500
1.510

48,490
1,564
2,010
1.410
96.180
1.940
271

NOV

1,540
1.520
1,510

1,500
1,490
1,470
1,470
1,480

1,490
1,840
2.010
2.000
620

495
1.460

1.500
1,500

1.500
566
Bll
1.460
1.480

1.480
1.500
1.500
1,600
1,500

41,884
1,396
2,010
495
83.080
99
298

DEC

1,500
1.500
1.510

1.510
1.510
1.510
1.510
1,510

1,210
1,000
990
995
995

998
998

678
665

667
881
,230
,510
,490

,500
,510
. 510
1.790
2,000
2,000

40,510
1,307
2,000
665
80,350
48
548

JAN FEB

,220 2,030
,210 2.010
,220 2,020

,210 2,010
,070 1,980

834 1,990
882 1,830
1,020 1,510

344 1,510
140 1,370
133 1,530
179 1,530
153 1,530

283 1,540
158 1.850

14 2,010
14 1,850

16 983
14 1.020
14 1,000
14 1,650
13 1,390

13 1,000
14 919
14 544
I It ......
14

u ......

14,53 41,180
46 1.471
1,24 2,030
133 144
28,830 81,680
20 0
2,538 1,214

MAR

2,020
2,300
2,420

2,380

2,410
2,440
941

1,490
975
524
516
522

504
503
519
531
520

516
510
509
568
740

860
929
965
1.020
1.160
1.340

35,042
1.130
2,440
503
69,510
413

APR

1,600
1.620

1,650

1,650
1,660
1,670

1,700
1,690
1,690
1.660
1,640

1.590
1,560
1,530
1,520
1,530

1,530
1,530
1,570
1,580
1,520

1,480
1,460
1,440
1,420
1,420

46,960
1,565
1,700

93,150
2,800

MAY

. 580
. 580

,630

,650
,630
,610

1,570
1,560
1,520
1,500
1,490

1,500
1,490
1,510
1,530
1,540

1,570
1,550
1,540
1,540
1,540

1,570
1,590
1.580
1,570
1,570
1,570

48,260
1,557
1,670

95,720
3,710

215*500

JUN

1.580

1.820
1.800

1,750

1.740
1.690
1.630

1,620
1,610
1,600
1,600
1.550

1,630
1,710
1,680
1,740
1,770

1,760
1,760
1,800
1,8*0
1,840

1.830
1.790
1.760
1.770
1 ,770

51,560 5
1,719
1,840

JUL

,740

,740
,760

,780
,800
,870
. 930
,940

. 940
,930
,920
,910
,900

,910
,880
,860
,820
. 810

,880
,920
. 910
,910
. 910

,880
,880
,930
,910
,920
,910

,880 5
. 867
,940

AUG

,890
,860

,830
,810

,800
. 810
. 830
. 840
. 800

,810
,820
,840
,830
,790

,770
,770
,780
,750
,740

,710
,670
,630
,620
,620

,590
,620
,590
,570
,560

,870 3
,738
,890

SEP

,450
. 430

,410
,430

,450
. 390
,320
,360
,380

,410
,380
,370
. 320
,260

,220
,170
,160
,160
,190

. 220
. 190
. 180
,150
,160

,140
. 130
. 110
. 160
,200

,310
,277
,450

102,300 114,800 106,900 75,990 3,830 4,480 3,910 3,330
2,086 465 81.4 27.4

ADJUSTED t

t DIVERSION, IN ACRE-FEET, TO NORTH SIDE CANALi FURNISHED BY MERCED IRRIGATION DISTRICT.
t ADJUSTED FOR CHANGE IN CONTENTS IN LAKE McCLURE, McSWAIN RESERVOIR, AND DIVERSION TO NORTH SIDE CANAL.

SAN JOAQUIN RIVER BASIN 38

11271290 MERCED RIVER AT SHAFFER BRIDGE, NEAR CRESSEY, CALIF.

LOCATION.--Lat 37°27'15", long 120°36'28", in NWsSW's sec.36, T.5 S., R.12 E., Merced County, near center of span

DRAINAGE AREA.--1,117 sq mi.

PERIOD OF RECORD.--October 1965 to September 1970 (low flow only).

following t

Wtr yr
1966
1967
1968

P

REMARKS

dam,

1
Z
3

5

7
8
9
10

11
12

14

16
IT

19

21
22
23

25

26
27
28

30

HE AN

MIN
AC -FT

(t)

able:

Date

Sept. 29, 30, 1966
Oct. 5, 6, 1966
July 11, 1968

eriod of record:

. --Reco

irriga

69
65
60

56

47
43
42
40

38
38

37

35
33

33

34
34
34

32

29
30
30

27

39.4

26
2.420
0

rds good.

tion return

Minimum disc

Most water r

flow, and t

DISCHARGE. IN CUBIC

27
27
28

30

31
35
36
37

36
37

83

154
174

130

115
108
167

0

207
164

139
139

133

108
103

93

95
85
83

85

87
89
85

0

f gage is 116.79

Discharge
13
11
23

harge, 11 cfs Oc

eleased from Lak

ributary

FEET PER

164

125
115
110
103

99
97

89

83
79

77

69
71
71

67

65
62
62

87

3
0

inflow.

SECOND

112
93
81

75

79
83
79
75

71
73

65

60
59

59

5B
56
56

54

56
58
SB

-

69.0

54
. 830
0

ft abo

t. 5, 6

e McClu

No re

. MATER

59
59
56

44

38
36
33
34

33
39

44

37
35

54

49
44
40

38

33
37
36

24

41.1

23
2.530
5,370

Wtr yr Date
1969 Oct.

1970 Aug.

, 1966.

re (see stati

cords compute

YEAR OCTOBER

22
20
20

20

30
35
41
81

103
110

93

91
99

97

65
73
97

99

85
65
65

60

70.7

10

4,210 4
70,480 69

9, 1968
25, 1970

D ischarge
26
47

ons 11269500, 11270900) is diverted

d abo'

1965

62
56
36

43

65
83
112
120

112
125

115

115
108

79

64
56
59

38

52
67
93

99

80.0

36
. 920
,550

ire 200 cfs.

TO SEPTEMBER

73
62
65

85

97
103
101
73

75
67

67

58
65

108

110
110
93

91

67
71
56

60

80.7

40
4,800 3
78,460 65

1966

81
62
43

62

58
54
44
49

60
7T

85

71
97

54

37
35
33

2T

28
23
20

33

51.4

20
. 160
,030

37
37
34

27

38
42
42
43

40
32

27

33
26

29

29
33
40

26

26
27
27

37

32.2

24
1,980
0

58
79
52

33

25
23
22
20

18
18

18

18
18

16

16
16
15

14

15
15
14

13

23.4

13
1.390
0

t DIVERSION, IN ACRE-FEET, TO MAIN CANAL NEAR DIVERSION DAM, NEAR MERCED FALLSi FURNISHED BY MERCED IRRIGATION DISTRICT.

11271290 MERCED RIVER AT SHAFFER BRIDGE, NEAR CRESSEY, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

176
145
148

145
162
180
145
111

114
129
142
119

130
128

102
105

119
116
100
119
102

31

TOTAL
MEAN
MAX
MIN
AC-FT

+ DIVERSION,
DISTRICT.

0 0 1,230 1,100 1,580 19,000 86,100 104,400 120,000 112,400 85,390

IN ACRE-FEET, TO MAIN CANAL NEAR DIVERSION DAM, NEAR MERCED FALLSi FURNISHED BY MERCED IRRIGATION

31 138

TOTAL

MEAN
MAX
WIN
4C-FT

(+) 40,590

+ DIVERSION,
DISTRICT.

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

102
145
132

190
183
186

200
180

197
162

194
152

0

194
155
145

145
166
162
152
162

166
166
155
135
105

119
122
122

______

0

125
135
111

92

114
125
142
169
135

129
125
142
148
135

129
152
145
114
111

129
132
125
125
125

129
114
97
92
100

3,868
125
169
92

32,630

114
122
111

97

85
82
85
78
69

62
73
78
87
92

69
62
73
58
60

62
78
69
57
55

53
52
52
55

2,242
74.7
122
52

69
71
76

69

73
69
89
89
85

80
87
97
87
111

1D8
102
97
97
94

89
76
73
76
69

62
67
73
71
78

2,507
80.9
111
57

JUN

78
71
73

75

75
115
125
101
105

79
54
83
54
43

41
47
38
40
38

46
54
58
52
38

41
39
46
54

1,858
61.9
125
36

JUL

73
47
38

48

41
30
33
33
26

23
24
33
50
60

49
59
71
73
99

97
115
75
71
67

43
38
32
39
41

1,622
52.3
115
23

AUG

38
58
64

73

60
75
59
38
37

31
33
39
40
54

44
50
46
58
60

62
59
85
95
8$

95
52
37
5Z
56

1,789
57.7
95
31

SEP

50
SO
42

35

46
69
44
60
73

59
44
36

3*
38

43
42
33
30
29

32
41
52
62
53

52
53
37
30
38

1,344
44. B
73
29
2,670

IN ACRE-FEET, TO MAIN CANAL NEAR DIVERSION DAM, NEAR MERCED FALLS; FURNISHED BY MERCED IRRIGATION

SAN JOAQUIN RIVER BASIN

11271290 MERCED RIVER AT SHAFFER BRIDGE, NEAR CRESSEY, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

33
37
42
37
33

29
29
27
26
44

71
136

7.110

167

125
118
118
118
118

115
133
136
120
148

148
133
130
128
125

125
125
128
118
115

118
122
120

120

1,310

125
122
128
133
130

130
118
120
125
122

133
128
125
145
154

148
145
139
136
139

133
130
142
192
160

184
170

1,350

192
174
157
151
148

142
139
139
139

174

192
188

1,020

192
170
154
139
145

t DIVERSION, IN ACRE-FEET, TO MAIN CANAL NEAR DIVERSION DAM, NEAR MERCED FALLS: FURNISHED BY MERCED IRRIGATION DISTRICT.

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1969 TO SEPTEMBER 197D

NOV DEC JAN FEB MAR APR MAY JUN JUl

194 131
190 122
155
169
183

180
158
149
122
118

112
112
122
125
125

143
137
131
128
108

105
96
92
97 98
58 94

4 94
5 105
4 115
4 125
13 125
122

3,779
126
183
92
7,500
795 16,760 84,100

10D
100
110
122
102

86
76
68
74
82

86
84
78
84
76

84
86
92
92
84

77
74
72
68
64

63
63
82
84
78

2,579
83.2
122
63
5,120
86,220

78
77
77
66
68

82
65
63
86
100

92
80
77
71
65

128

72
74
59

80
80
71
65
70

80
78
88
86
77

92,570

80
63
58
60
51

5
1
6
8
8

76
86
82
74
72

71
80
76
76
76

66
70
72
71
63

63
76
78
64
66
63

2,151
69.4
86
51

105,500

54
71
71
66
74

71
66
72
77
80

74
57
68
70
74

70
76
54
63
64

49
51
61
65
47

51
48
50
65
54
68

1,981
63.9
80
47

97,290

60
55
84
82
78

77
99
98
80
90

110
110
120
102
115

120
105
98
72
66

65
70
82
78
64

68
76
74
76
82

2,556
85.2
120
55

67,500

31 ______

TOTAL
MEAN
MAX
MIN
AC-FT
(t) 28,460 7,390 3,540 1,

+ DIVERSION, IN ACRE-FEET, TO MAIN CANAL NEAR DIVERSION DAM, NEAR MERCED FALLS; FURNISHED BY MERCED IRRIGATION DISTRICT.

SAN JOAQUIN RIVER BASIN

11271320 DRY CREEK NEAR SNELLING, CALIF.

DRAINAGE AREA.--67.6 sq mi.

PERIOD OF RECORD.--October 1966 to September 1970.

GAGE.--Water-stage recorder. Altitude of gage is 230 ft (from topographic map).

EXTREMES.--Maximu mums (discharge in cubic feet per second, gage height in feet).

Date
Dec. 6,
Jan. 29,
Jan. 30,
Mar. 12,
Mar. 13,
Apr. 7,
Apr. 11,
Apr. 18,
Apr. 21,
Apr. 23,

a From

No fl
Pe
flow

REMARKS .
Small

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
HIN
AC -FT

Annual maximum dischar

Time Disch. G
1966 0800 1,020 8
1967 1100 1,640 9
196 1900 1,960 10
196 1500 1,980 10
196 2100 2,450 11
196 0200 3,690 13
196 0300 3,200 12
196 0600 2,320 10
1967 2000 *4,930 14
1967 2200 1,750 9

floodmarks.

ow for several months in
riod of record: Maximum

- - Records good except th

ge (*) and

. H. Dat
. 28 Mar
. 69
. 23 Dec
. 25 Jan
. 08 Jan
. 40 Jan
. 33 Jan
. 86 Feb
. 79 Feb
. 80 Feb

each year
discharge
ch year,

ose for pe
weir above gage regulates a image

DISCHARGE, IN CUBIC FEET

OCT NOV DEC

0
1.2
1.3
2.1
41

476
70
22
11
6.8

4.
3.
2.
2.
2.

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1.
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1.
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. 0
. 80
. BO
. 80

0 0 664.60
0 0 21.4

000

0 0 476

0 0 1,320

JAN

. 80
. 70
. 70
. 70
. 80

. 70
. 70
. 70
. 70
. 70

. 70
. 70
. 70
. 70
. 70

. 70
. 70
. 70
. 70
. 70

. 90
49
14
275
62

20
11
8.5

621
331

1,802.60
5B.1
621
. 70
3,580

peak discharges above base (1,000 cfs), water years 1967

e Time Disch. G.H
. 16, 1968 2000 *1,080 8.3

. 26, 1968 0530 1,720 9.7
. 13, 1969 1800 2,200 10.6
. 19, 1969 0600 3,690 13.0
. 21, 1969 1000 *6,710 a!7.0
. 25, 1969 1800 6,070 16.2
. 6, 1969 1700 1,030 8.3
. 15, 1969 2400 1,760 9.8

Date Time
1 Feb. 24, 1969 1000

) Jan. 14, 1970 1530
j Jan. 16, 1970 0700
t Jan. 21, 1970 1030
L Feb. 17, 1970 0300
L Mar. 1, 1970 2100
2 Mar. 4, 1970 2100
3

- 70

Disch.
4,120

2,330
*2,650
1,210
1,450
1,780
1,370

G.H.
13.69

10.78
11.37
8.52
9.05
9.72
8.86

. 18, 1969 0700 1,420 9.41

, 6,710 cfs Jan. 21, 1969 (gage

riod of no gage-height record F

height, 17.01 ft from flo

ib. 17 to Mar. 13, 1967, w

odmarks

hich ar

); no

e poor.

PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

FEB MAR APR MAY JUN JUL

77 .80 12 15 0 0
35 .80 11 13
22 .70 13 1
16 .70 7.5
12 .70 159

9.8 .70 194
7. .70 1,149
6. .70 196
5. .70 72
5. .70 55

4. 100 848
4. 400 105
3. 424 52
3. 201 32
2. 49 63

2. 338 99
1. 83 36

l.Q 36 858
1.0 22 44B
. 90 15 246

. 90 13 1,290
. 90 10 440
. 90 6.3 336
. 90 6.6 347
5.0 5.6 106

4.0 4.5 59
3.0 4.0 40

1.8 0
1.0 0
. 8 .30 0
. 1 .20 0

. 2 .10 0
. 0 .10 0
. 1 .10 0
. 5 .10 0
. 5 .10 .40

. 5 0 .30
. 8 0 .20
. 0 0 .10
. 5 0 .10
. 2 0 .20

. 8 0 1.2
. 1 0 .40
. 50 1.9 .20
. 30 2.1 .10
. 20 1.7 .10

. 10 1.2 1.0
. 10 .40 2.3
. 10 .20 .40
. 10 .10 .20
. 10 .10 .10

. 10 .10 .10
J .10 .10
2.0 3.7 29 0 .10 .10
3.4 22 P " ">
3.7 18 1 0 .10

238.40 1,742.70 7,333.5 116.70 11.90 7.80
8.51 56.2 244
77 424 1,290
. 90 .70 7.5

5.76 .40 .25
15
000

2.1 2.3

AUG

0
0
0
0
0

0
. 20
. 10
. 10
0

0
0
0
. 10
. 10

. 10
0
1.3
. 40
. 10

. 10
. 10
0
0
0

0
0
0
0
0
0

2.70
. 087
1.3
0
5.4

SEP

0
0
. 20
. 10
. 10

. 10
. 10
0
0
0

0
0
0
0
. 10

. 30
. 20
1.0
. 40
. 10

. 10
. 10
. 80
3.0
2.3

1.2
. 20
. 40
4.2
3.2

18.20
. 61
4.2
0
36

SAN JOAQUIN RIVER BASIN

11271320 DRY CREEK NEAR SNELLING, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
IT
18
19
20

21
22
23
24
25

26
27
28
29
30
31

HE AN
MAX
MIN
AC -FT

CAL Y*
HTR YR

DAY

1
2
3
4
5

6
T
8
9
10

11
12
13
14
15

16
IT
18
19
29

21
22
23
2*
25

26
2T
28
29
30
31

TOTAL
HE AN
MAX
MIN
AC-FT

OCT

3.5
2.8
1.2
. 22
. 09

. 07
. 05
. 05
. 05
. 05

. 04
. 05
. 05
. 04
. 03

. 03
. 03
. 03
. 02
. 02

. 02
1.1
5.0
4.5
4.2

3.0
. 82
. 15
. 18
. 22
. 11

. 89
5.0
. 02
55

196T TOTAL

NOV

. 07
. 06
. 06
. 06
. 05

. 05
. 05
. 03
. 03
. 03

. 03
. 03
. 03
. 03
. 03

. 02
. L-2

. 02
. 03
. 03

. 03
. 11
. 2T
. 27
. 27

. 27
. 27
. 27
. 27
. 43

3.22
. 11
. 43
. 02
6.4

11,317

DEC

. 54
. 82
. 82
1.2
1.2

. 67
. 6T
. 54
. 34
. 43

. 54
. 27
. 22
. 18
. 18

. 18
. 18
. 22
. 27
. 27

. 27
. 22
. 18
. 18
. 18

. 18
. 15
. 15
. 13
. 13
. 13

11.64
. 38
1.2
. 13
23

. 13
. 11
. 11
. 13
. 13

. 13
. 13
. 13
. 13
. 18

. 18
. 18
. 18
. 18
. 43

. 34
. 2T
. 22
. 18
. 15

. 13
. 11
. 09
. 09
. 09

. C7
. 07
. 06
. 06
. 07
. 13

. 15
. 43
. 06
9.1

. 08 HEAN 31.0

DISCHARGE, IN CUBIC FEET
OCT

- -

0
0
0
0
0

NOV

0
0
0
0
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0
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0
0

l.T
l.T
. 82
. 54
. 34

. 2T
. 22
. 18
. 54
1.4

. 34
. 22
. 13
. 11
. 15

8.66
. 29
1.7
0
IT

DEC

. 22
. 27
. 18
. 18
. 15

. 11
. 11
. 11
. 13

. 22
. 22
. 22
. 54
2.1

7.3
6.1
2.3
1.2
. 82

. 54
. 34
. 22
. 55
130

453
48
32
32
16
11

T46.26
24.1

. 11
1,480

JAN

8.2
6.1
5.3
4.5
4.3

3.2
3.0
2.8
2.3

2.1
2.1
803
947
89

42
30
141
1,380
401

2.TTO
288
104
122
2.200

8T8
154
229
129
T5
62

10,891.1
351

2.1

21,600

. 18
. 22
. 22
. 18
. 15

. 13
. 11
. 09
. 13
. 13

. 13
. 13
. 13
. 13
. 11

. 11
43
32
9.3
115

97
31
13
7.6
4.8

3.2
2.5
1.9
1.4

12.6
115
. 09
T22

HAX 1,290

PER SECOND

FEB

49
45
3T
33
59

146
69
49
39

33
51
42
31
381

30T
78
735
3T4
138

T5
5T
422
1.660
258

441
114
240
- - - - - -

6,669 1
238

31
13,230

1.0
. 82
. 54
. 54
. 43

. 27
. 27
68
26
9.9

5.4
3.5
4.0
14
9.1

157
88
24
12
T.9

4.5
3.2
2.5
1.9
1.4

1.0
. 67
. 54
. 43
. 34
. 18

14.5
157
. 18
891

MIN

, WATER

HAR

2T5
111
126
T9
66

48
41
36
95

44
39
49
3T
31

23
17
13
8.4
9.0

106
3T
20
15
12

9.3
T.3
5.9
4.6
3.6
2.9

. 426.0
46.0

2.9

2,830

. 11
. 09
. 06
. 05
. 04

. 03
. 03
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. 02
. 02

. 01
. 01
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. 03
. 03
. 02

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22,450

YEAR OCTOBER 1968

APR

2.2
20
9.0
4.9
2.7

125
45
30
23
18

15
12
9.3
7.3
6.2

5.4
4.8
4.0
3.4
3.2

3.0
2.8
2.8
2.2
2.0

1.8
1.6
1.5
1.4
. 76

3T0.26
12.3

. 76
734

HAY

. 44
. 34
. 34
. 34
. 32

. 28
. 24
. 20
. 16
. 24

. 32
. 26
. 22
. 16
. 12

. 08
. 02
. 43
. 53
. 48

. 34
. 26
. 20
. 12
. 06

. 01
0
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0
0
0

6.51
. 21

0
13

3,120

JUN

0
0
0
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0

TO SEPTEMBER

JUN

0
0
0 0
0 0
. 16

!53
. 38
. 34
. 32

. 26
. 18
. 14
. 06
. 01

0
0 0
0 0
0 0
. 52 0

. 46 0
. 44 0
. 44 0
. 41 0
. 38 0

. 26 0
. 24 0
. 24 0
. 18 0
. 14 0
0

6.55 5
. 22

0
13

JUL

0
0
0
0
0

1969

JUL

. 08
. 04

. 61

. TO
. 58
. 76
. TO
. 53

. 36
. 26
. 24
. 18
. 12

. 05

. 21
. IT

0
10

0 0
0 0
0 0
0 0
0 0

0 2.05
0 .068
0 .53
0 0
0 4.1

11271320 DRY CREEK NEAR SNELLING, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
2*
25

26
27
28
29
30
31

TOTAU

MAX
MIN

OCT

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

. 15
1.7
1.1
. 90
. 76

. 64
. 53
.34
. 26
.20

. 18
. 14
.08
. 02
0
0

7.00

1.7
0

NOV

0
0
0
0
0

l.l
3.8
2.6
1.2
.90

. 70
.64
. 53
. 53
.64

.48
.44
.41
. 38
. 38

. 36
. 36
. 36
. 34
.34

. 34
. 34
.34
. 36
.36

18.23

3.8
0

DEC

. 34
. 34
.32
. 34
. 32

. 32
. 32
.32
. 34
. 34

. 34
. 34
. 32
. 30
.28

.28
.28
.28
. 30
.34

.44
14
2.8
27
72

40
8.1
3.8
2.4
1.8
1.4

180.10

72
.28

JAN

1.3
1.1
1.0
.97
.97

.83
.90
.90
.97
44

28
34
32
511
110

1,090
123
74
40
38

424
98
51
35
27

29
57
40
20
15
12

2,931.94

1,090
.83

FEB

9.7
8.4
7.2
6.3
6.1

5.2
4.7
4.4
3.9
3.9

3.9
28
58
115
26

15
403
58
30
20

15
11
8.8
7.5
6.1

4.9
4.7
4.1

873.8

403
3.9
1,730

MAR

294
225
44
283
214

56
33
29
26
24

20
14
12
9.7
8.1

7.2
6.3
4.9
4.1
3.5

3.1
2.9
2.7
2.5
2.3

2.D
1.8
.91
.40
.25
1.0

1,337.66

294
.25
2,650

APR

1.0
. 64
.30
.21
. 21

. 14
.08
.06
.04
.02

.01
0
0
0
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0
9
D
0
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0
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0
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2.71

1.0
0
5.4

AC-FT

HAY Jl

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D
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. 24
. 17
. 06
.01

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9
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o

.48
.016
. 24
0
1.0

38,840
10,630

. 37
. 82
. 40

1.3
. 73
. 40
. 21
. 11

4.85
. 16
1.3
0
9.6

SAN JOAQUIN RIVER BASIN

11272500 MERCED RIVER NEAR STEVINSON, CALIF.

LOCATION.--Lat 37°22'15", long 120°55'46", in SW-sNE't sec.36, T.6 S., R.9 E., Merced County, on right bank upstream from mouth and 6 miles northwest of Stevinson.

DRAINAGE AREA.--1,273 sq mi.

PERIOD OF RECORD.--October 1940 to September 1970.

GAGE.--Wa 40 to Aug. 15, 1955, at datum 55.74 ft higher and Aug. 16, 1955, to Sept. 30, 1959, at datum 54.74 ft highe

AVERAGE DISCHARGE.--30 years, 700 cfs (507,200 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, elevation in feet) for the
1966-70 are co

Wtr yr Date
1966 Dec. 4,
1967 July 4,
1968 Feb. 10,
1969 Feb. 25,
1970 Mar. 6,

Period of r

July 19 to Aug

return flow en
the largest of

1965
1967
1968
1969
1970

ecord:
21,

tfrs a
which

Maximum
Discharge E
4,780
6,510
1,360
7,190
3,280

Maximum discharge, 13,6
1961, result of temporary

bove station. Flow regul
is Lake McClure (see sta

levation
67.60
69.41
61.25
70.56
65.10

00 cfs Dec. 5,
dam.

ated by three
tion 11269500)

Date

Aug.
Nov

July
Oct.

July

1950 felev

reservoirs
Water-qu

Minimum da

19, 1966
3, 4, 1966
12, 1968
8, 1968
22, 1970

ation, 73.79 ft, pres

(combined capacity, 1
ality records for the

ily
Discharge
34
55
70
122
121

ent datum) ; no flow

,034,000 acre-ft) ,
water year 1966

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

1

3
*

5

6

8

10

11

13
14

16
IT
IB
19
20

21

23
24

26
27
28
29

MEAN
MAX
MIN

OCT

231

267
275
263

250

223

183

166

169
163

172
150
136
129
137

147

133
131

128
127
130
127

775
126

NOV

128

127
130
129

128

125

116

120

128
145

164
175

189
177

169

174
227

517
411
315
1.840

4,030
113

. 283

,480
,760
,730

,680

,170

540

442

368
380

292

223

216

202
195

188
188
195
191

4,760
188

4,280

1.630
818
622

492

361

312

293

270
261

244

21

21
21

20

2019'
19

4,280
198

338

254
234
219

210

272

220

208

193
191

180

164

159
157

152
151
150
- - - - - -

338
150

148

152
151
152

153

152

131

115

120
133

137

157

150
139

130
111
116
112

164
111

94

87
101
83

76

85

156

201

2DO
208

173

171

138
151

142
138
135
129

208
76

147

122
1D4
104

108

139

205

207

215
207

208
184

169

151

173
150

141
134
134
146

215
104

JUN

130

147
135
149

155

168

146

132

114
99

118
110

115

126

114
125

131
143
103
99

174
95

JUL

91

97
116
103

96

85

95

93

84
83

104
109
114
105

87

92
106

95
91
88
65

116
58

AUG

69

46
44
54

47

58

44

61

62
65

59
47
45
34

61

43
59

58
70
68
64

1,705

70
34

SEP

72

80
87
81

72

71

58

8

5
6

4
8
4
0
83

82

81
82

84
75
87
69

2,174

87
54
4.313

11272500 MERCED RIVER NEAR STEVINSON, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

I
3
3
4
5

6
7
B

9
10

11
13
13
14
15

16
17
IB
19
20

21
22
23
34
25

36
27
?8
29
30
31

MAX
MIN

DAY

1
2
3
4
5

6
7
8
9
13

11
12
13
14
15

16
17
18
19
20

31
22
23
24
25

26
2T
28
29
30
31

MEAN
MAX
MIN

CICT NOV DEC

58 57 96

68 73

85 76 141

91 7
80 7
71 7
76 7
79 8

BO 8
71 8
67 8
73 9
70 B

77 8
83 9
75 9
74 9
BO 8

128
122
12T
119
118

117
116
115
114
115

113
110
111
112
111

58 55 90

DISCHARGE. IN CUE

297 331 375
3C4 285 333
287 255 373

297 253 362

319 241 390

299 339 529
274 295 531
257 278 543

286 260 554
258 255 551

981 343 557

831 353 553
832 358 560
828 358 552
830 366 559

440

521 30(
981 40
257 24

561

} 501

L 333

108

114

116
117
117
117
118

121
126
127
140
190

207
166
141

108

1C FEET

588
591

607

586

500
542

320

351

412
430
388
311

396

471

283

380

10?

103
102
101
103
102

102
98
92
92
96

97
104

92

PER SECOND,

532
522

726

505

1.280

768
500

282

295

232
215
209
206

512

206

103

288

388

561
452
351

280

231
215
179

199
189
157

91

MATER

213
217

200

188
195

264

244
241
254

269

244

233

207
196
206
208

195

234

188

MIN 91

186 3

589 3

606 1
1,310 1
1,390 1

1,960 1

3,310 2

3,560 2

3,530 2
3,410 2

,440

,430

,880
,780
,840

,780

. 180

. 710

,610
,600

180 1,780
89,540 175,200

YEAR OCTOBER

238
255
255

21B

185
174

172

151
132
141

158
141

156

157

176
158
148
149

170

116

AC-FT 781,

1967

147
143
153

176
164

179

185
188
199
186

210
205

180

160
150

150
155
150
140

130

169

130

200

JUN

2,580 6,

1,540 5,

2,270 I,
2,700 1.
1,950 1,

1,550

2,230

4.840

5,620
4,920
5,100

1,330
162,300 183,

TO SEPTEMBER

130
120
125

120
120

130

135
130
130
125

128
134
107

108

118
105

89
92
81
90
108

115

81

JUL

370

730

430

190
100

140
140
100

972

693

813

642
588
609

480
588
400

1968

128
116
117

105
116
130
104

92
70
84
101

96
90
96

124

110
107

106
96
103
114
109
109

109

70
720

AUG

672
966

579

606
702

560

532
568

530
560
542
588

615
606
600

660

660
702
738
723

966
530
38,880

96
103
115

1Z7
117
111
130

133
129
119
113

122
137
133

153

153
158

173
153
139
133
1ZT
121

133
173
96
8.180

SEP

603
654
505

372

351
342

376

397

316
293
289

313
325
329
314
309

319
347
338
313
329

324
336
309
320

654
289
21,410

129
144
148

153
150
170
166

173
164
164
167

141
135
134

153
155
160
176
158

154
140
138
155
154

153
176
129
9,100

SAN JOAQUIN RIVER BASIN

11272500 MERCED RIVER NEAR STEVINSON, CALIF.--CONTINUED

DAY

1
2
3
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8
9
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11
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13
14
15

16
17
16
19
20

21
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23
24
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26
27
28
29
30
31

TOTAL

DISCHARGE

OCT NOV

138 528
147 543
155 446

138 256
141 228
122 207
126 194
130 197

127 199
137 186
170 188

340 216
420 219
429 204
428 186
446 161

457 189
464 188
478 184
493 188
495 IBS

496 186
491 189
476 189

IN

DEC

166
184
186

189

188
186

189
191
194

222

214
209
211

209
209
207
216

236

517 186 302
525 280

J.602 7.C98 7,159

MIN 122 181 184
AC-FT 19,440 14,a80 14,200

DAY

1
2
3
4
5

6
7
6
9
10

11
12
13
14
15

16
17
16
19
20

22
23
24

26

30
31

MAX
MIN
AC-FT 6

DISCHARGE

OCT NOV

477 1,470
463 1,480

499 1,420
522 1,500

559 1,490
578 1,530

594 1,430

575 1,400
575 1,360
598 1,550

,380 715
,400 996

,410 1.34C

,640 908
,900 595

. 900 1.210

,430 1,330

. 910 1,830

IN

,340
,340

,340

. 420
,448

,460

,470
,330
,050

CUBIC FEET PE

JAN

258
250

216

I SECOND, MATER

FEE MAR

779

803

196 4,400

240 4,760
247 4.810

685 5,200

396 5,170

4,400

3,900

3,800

3,500
3,450

3,320

YEAR OCTOBER 1968

APR MAY

2,850

3,400

3,130
3,040

3,030

2,250

2,120

2,420
2,430

3,420

1,670 5.630 3.300 2,880 3.740

1,110 4.B40

833 -

25,538 113,378

50,650 224,900

3,410

2,990

110,470

219,100

CUBIC FEET PER SECOND, HATER

,950
,470

,210

,190
,160

918

998
818

983
963

821

815
,010

,420

,590

,880

»,74D 78,200 76,360

MTR YR 1970 TOTAL 248,200

1,180
818

495

365
373

350

324

317
306

,200

,860
. 940

,950

,610
,560

,610
,120

,120

. 160
. 110

,600

1.950 2,140

46,710 83,100

MEAN 680 MAX 3,000

911

2,000

3,000
2,700

2,680
2,660

1,600
1,610

626
536

454

428
394
380

352

325

1,118
3,000
289
68,750

MIN 121

2,590

86,960

176,500

4,270

4,920

101,790

201,900

171.800
AC-FT 1,260,000

YEAR OCTOBER 1969

264

302
318

354
344
305
302
266

295
281

278
271

268

245
259
268
287

303

272

281
354
226
16,730

AC-FT

254

266
252

227

236
254

272
240

216
214
227

222

192
185
181
161

187
184

166
165

219
272
166
13,480

492,300

TO SEPTEMBER

JUN

4,890 1

5,690 1

4,320
3,350

2,600

2,500
2,450

1,460
1,560

2,790

104,430 23

207,100 46

TO SEPTEMBER

JUN

201
178
168
157

144

172
195

187
185
182
188
188

164
160
158

154

159
158
159
135

152
167

172
159

169
221
135
10,060 8

1969

JUL

,010

,250
,130
,000

960
879
778

659

618
602

547

502
505

540

516

469

,249
750

,110

1973

JUL

180
166
166
165
159

175

127
130

128
136
158
141
138

155
156
146

149

121
136
142
151

147
159

131
131
124

146
180
121

,960

AUG

505
533

524
543
574

583
522
398

336

62G
658

668

700
758

732
755

803

869

18,877
609

37,440

AUG

125
150
171
174
155

149

186
194

169
175
165
153
157

161
170
177
161
163

155
165
179
158

161
165

164
166
184

167
194
125
10,260

SEP

884
893
917

989

977
,030
,050

,080
. 100
,080

717

740
642

707

804
829
768

510
479

474
481

24.645
822

48,860

SEP

186
189
203
207
220

224
215
212
218
210

221
220
241
249
244

235
247
234
215
215

214
212
220
213
210

215
212
213
213
206

218
249
186
12,960

SAN JOAQUIN RIVER BASIN

11273000 MERCED RIVER SLOUGH NEAR NEWMAN, CALIF.

LOCATION.--Lat 37°21'36", long 120°57'38",

PERIOD OF RECORD.--October 1941 to Septembe

GAGE.--Water-stage recorder. Datui

Ln NEWJEH sec.3, T.7 S., R.9 E., Merced County, on left bank 0.1 mi ;am from head of slough between Merced and San Joaquin Rivers, and

AVERAGE DISCHARGE.--29 year, 65.9 cfs (47,740 acre-ft per year).

the following table

feet pe

Wtr y
1966
1967
1968
1969
1970

flow in South Slough,
for entire year.

a827

a6,410

ily discharge

Entire yea
Long perio
Most of ti

7,770 cfs Apr. 6, 1958;

feet)

Minin daily
Discharge

for several months

12,165.96; mean, 33.3; maximum, 825; and minimum, zero cfs; and runoff, 24,130 acre-ft. DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

NOV. 12, 1965.... 3.0 DEC. 9, 1965.... 1.0 JUNE 9, 1966.... 2.2 JULY 30

MONTH

NOTE. FLOW OCCURRED ONLY ON DAYS LISTED ABOVE.

DISCHARGE' IN CUBIC FEET PER SECOND,

L
2
3
4
5

6
7
8
9

I)

11
12
13
14
15

16
17
18
19
20

21
??
?3
24
?5

26
27
?H
2 q

TOTAL 3 0 : 3 C "EAN 0 0 0 J C

y«x 3 c : ; i
MIM 3 C) C D 4C-FT D C 1 3 1

CFS-DAY5

WATER YEAR OCTO

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
7.5
77
?87
562

727
825
694
504
514

0 4,197.5
0 140
0 825
0 0
0 8,330

MAXIMUM N

3.0
13
692

9.4
1.8
. 10
2.2
6.8
8.1
2.5
13

BER 1966 TO S

510 2
518 2<
50 3
51 3
50 3

45 3
14 2
87 1
308 1
252 1«

199 1
150 3
133 2
156 1
142

78
38
?4
16
13

11
9.6
9.5
17
19 4

19 6
IB 11
18 4
17 6
17 10

INIMUM MEAN

0 .17
0 1.93
0 4.50

0 .49
0 .074
0 .003
0 .17
0 .85
0 .81
0 .093
0 .39

PTEHBER 1967

UN JUL

t 170
* 193
20$
) 215
221

132
143

r 95
100
105

102
82
18
5.7
. 3 4.9

. 4 4.4
. 1 3.6
. 9 3.1
. 3 2.4
. 9 1.8

. 4 1.1
. 2 .45
. 0 .07
. 4 0
0

0
D
0
2.0
5.2

5,330.1 801.9 1,817.62
172 26.7 58.6
530 112 221
9.5 1.0 0

1966....

0
0
0
0

9
0
0
0

0
0
0
0

0
0
0

1
3

0
0
0
0

0
D
2
1
1

12

RUNOFF
ACRE-FE
9
119
3,250

30
4

10
52
50
5
281

AUG S

. 2$ 0
0
0
0
0

0
c
. 06 0

. 31 0
1.
2.

0

0
0
0
. 5 0
. 8 0

. 69 0
0
c
0
0

0
0
. 8 0
. 9 0
. 2 0

. 55 6.
. 40
3.8 2
0

70
20
0
1
0
5
20
0
5
30

IN
ET
. 9

. 6
. 2

. 6

EP

76
99

6
7
24

29
21
. 7
0
12

SAN JOAQUIN RIVER BASIN

11273000 MERCED RIVER SLOUGH NEAR HEWMAN, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND. HATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY OCT

1
2
3
4
5

6
7
8
9
1C

11
12
13
1*
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL 0
MEAN 0
MAX 0
MIN 3
AC-FT 0

CAL YR 1968 TOTAL

0 404
0 330
0 286
0 284
0 350

0 412
0 898
0
0
0

0
0
0
0
0

D
D
D
0
0

0
34
63

96

231
If 000
If 180

,740
. 950
. 810

. 720
,650
,550
,530
,510

,520
,720
,960
,260
,550

,630
,390
,280

,800

,080
,970

. 420
,300
,260
,960
,710

,440
,190
,020
. 020
. 010

,970
,910
. 870
,580
,500

. 360
. 290
. 230
. 190
,160

,140
. 180
. 300

,150

,100
,060
,540 896

480 494
395 296

0 ? 136 2,019 1,676
0 G 1,189 6,980 3,420
0 0 0 284 296
0 0 8,380 112,100 103,000

0.03 MEAN .0 MAX 0 MIN

215
179
176
161
171

265
414
765
690
498

367
329
251
146
80

80
74
70
69
60

47
40
33

28

24
22
22
20
14

178
765
14
10.590

0 AC-FT

10
6.2
7.9
25
42

46
44
34
20
2D

38
56
62
69
84

102
115
120
130
148

201
262
291

301

310
313
388
422
437
474

157
474
6.2
9,670

0

JUN

500
538
585
610
631

775
. 030
,330
. 640
. 810

,830
,570
,150
842
602

389
262
211
180
130

67
55
47

32

30
18
5.7
. 7
. 4

564
1,830
. 40
33,530

JUL

. 25
. 20
. 16
. 12
. 08

0
0
0
a
3

0
D
0
0
0

0
0
a
0
a

3
0
0
0
0

0
0
0
0
0
0

. 81
. 026
. 25
0
1.6

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

31

TOTAL 0
MEAN 0
MAX 0
MIN 0
AC-FT 0

CAL YR 1969 TOTAL
HTR YR 1970 TOTAL

SAN JOAQUIN RIVER BASIN

11274000 SAN JOAQUIN RIVER NEAR NEWMAN, CALIF.

DRAINAGE AREA.--9,520 sq mi (revised).

Oct. 1, 1943, flow that

Aug. 10, 1960.

AVERAGE DISCHARGE.--58 ye;, 2,099 cfs (1,521,000

contained in the following table

:re-ft per year).

feet per second, elevati in feet) for the

Wtr yr
1966
1967
1968
1969
1970

Date
Jan .
Apr.
Feb.
Feb.
Mar.

2,
27,
10,
26,
8,

1966
1967
1968
1969
1970

5charge
6 ,080
15,400
1,680
28,000
6,050

Elev.
58.94
64.41
52.41
65.90
58.59

Date
Aug. 19, 1966
Oct. 12, 1966
June 28, 1968
Oct. 11, 1968
July 18, 1970

daily

148
137
167
211
257

referred to datum in use 1931-59. Discharges unknown.

REMARKS.--Records good. No gage-height record Feb. 25-28, 1969. Natural flow of stream affected by of return water from irrigated
bypassing station.

Record for Merced River Slough (see station 11273000) sho

inly

COOPERATION.--One discharge measurement furnished by California Department of Water Resources.

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
4
5

6
7
a
9
10

11
12
13
14
15

16
17
18
19
2C

21
22
23
24
25

26
27
28
29
30
31

MEAN
MAX
MIN
AC-FT

CAL YR
HTR YR

501
510
469

404
336

330
288
279

280

285
261
241
220
23C

263
251
244 1

250 1

245 1

245 *
229

510 4
220
19,520 52

1965 TOTAL
1966 TOTAL

254

279

259

271
304

457

529
704
819
919
937

926
948
. 010

. 710

. 980

. 430

. 430
232
,770

578,
230.

5,430

5,790

1,740

1,260
1,209

1,110

,850

. 650

. 600

. 310
. 220

. 090

903 9B8
831 950

739 864

715 833
714 805

686 713

966 631
2,870 692

5,790 5,930
686 608
130,100 97.730

876 MEAN 1,586
835 MEAN 632

871

859

772
689

603

556
536

507

513
508

477

967
473
37.000

MAX 11,100
MAX 5,930

480

394

318
338

337

337
368

338

375
409

412

429

441

485
318
24,390

MIN
MIN

386

322

371

512
514

471

408
391

378

370
371

364

345

326

388
516
311
23.080

220 AC-FT
148 AC-FT

304

305

362

421
462

411

400
372
389
375

357
341

312

321

334

352
462
292
21.640 16

1.148.000
457.900

313

334

338

280
295
270
252

256
256
245
256

242
252

250

254

219

279
362
219
,590

212
217

226
208
200
215

298
205
200
195
190

190
200
215
230
220

220
220

190

180

1BO

206
233
165
12,640

205
210
210
178

174
178
175
154
159

179
188
1B7
195
189

192
170
157
148
160

175
175

191

196

177
178

181
210
148
11,140

194
293
209
205
295

200
190
180
170
180

190
200
210
217
192

182
178
18B
179
187

175
180

183
194

203

178
162

190
217
162
11,280

SAN JOAQUIN RIVER BASIN

11274000 SAN JOAQUIN RIVER NEAR NEWMAN, CALIF.--CONTINUED

DISCHARGE! IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

1
2
3
4
5

6
7
8
9
10

11
12
13
1*
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN

WTR VR

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL VR

UCT

161
160
157
152
161

151
147
160
163
164

137
140

170

149
139
138

185

191
228
219
201

220

5,208 8,
168
228
137

223
221

217
221

236
267
279 I
271 2
266 2

265 1
277 1

290

28B
258
253

337
338
337

564 26
285
357 2
217

1967 TOTAL 1.156,941

DISCHARGE,

OCT NOV

663 515 I
697 444
720 405 I
769 382 I

734
711

638
623

583
530
494
505

537
515
556
772
1.030

. 120
. 160
. 160
. 190
. 140

. 050
. 050
. 020
,010
977

24,673 17.
796
1,190

48,940 33,

1967 TOTAL 1

399
405

490 1
561 1

537
46B
450
453

463
475
482
508
540

617 1
631 1
716 1
769
770

775
792
808
854
916

020 29

916 1

760 58

,188,307

DEC

339
34

38
46

56
78
. 560
,430
,683

. 760
. 360

948

746

598

463
447

423

,192 19

. 680 I
339

MEAN 3

IN CUBIC

DEC

. 000
993
. 030
. 040

988
973

. 040
,070

998
926
898
911

899
879
870
880
935

,050
,060
,020
966
913

882
897
900
883
863

. 637 27

. 070 1

780 55

MEAN 3
MEAN

JAN

417
414

409
478

540
560
585
594

521
506

478

428

405

120
360

FEB

,000
,500

,200
,303

,000
,500
,590
,650

,650
,290

442

425
411

419

399
402

432
454

700
827
1.150

1.220

2.730

4,160
4.250

14,200 10.900
14.000 11,000
13,800 11,100

13,700 11,200

13.400 10,400

3,160 1,210
1,290 1,120
3,390 1,040

1.230 1,020
3,180 1,090
3,200 1.090

12.300 11.000 8,460
12,200 10,500 6,710

831 2

682 3

488
492

630 ------

,548 48,603 31

. 630 3.650 3
405 488

,170 MAX 15,400

FEET PER SECOND,

JAN FEB

854 838
911 893
886 974

,030
. 000

,170
,310

,110
. 140
,010
881

81B
867
905
8B9
880

813
707
650
691
772

777
781
737
617
558

,070
840

,560
,660

,240
865
660
557

519
534
579
695

887
937
967
891
791

682
631
598
558

. 786 26,293 19

,310 1.660

. 110 52.150 38

,256 MAX 15.400

,470

,020

730
700

628

. 731

,020
399

MIN
MIN

WATER

MAR

537
527
612

488

465
465
525
587
674

708
717
731
757
777

773
833
902
904

747
671
624
618
580

505
454
442
451
420

. 263

904

,210

MIN

3,680

4,510

6,470

15,100
15.400
15,000

189,811

15,400
654

11,200 8,210
10.600 8,010
10.100 8,110

9,620 6.700

10,100 8,140
10.000 8,520
10,000 7.870

10,300

361,000 271,800 13<

,550
,250
. 930

. 850

. 200
. 090
,010
. 100

. 320

,930 3

14,300 11,300 8,700
9.540 5,720 1,010

137 AC-FT 334,800
137 AC-FT 2,295,000

YEAR OCTOBER 1967 TO SEPTEMBER 1968

APR MAY JUN JUL

425 386 246 233
550 366 248 225
629 370 275 223

724

618
526
520
472
451

415
402
375
380
425

409
398
373
404

389
428
400
411
387

401
412
395
410
387

13,653

730

382 278

425 254
406 262
384 258
393 292
380 315

407 295
428 294
533 260
563 267
596 262

621 254
547 289
528 252
475 226

447 228
442 236
412 226
382 224
369 219

374 192
381 192
362 167
315 187
279 195

13,076 7,391 t
422 246
621 315

27,080 25,940 14.660 P

3B2 AC-FT 2.357,000

218

194
208
226
205
194

216
224
214
231
241

229
203
199
209

999

1,010
1,000
976

988
932
945
933

,050
,030

,C70
,110
. 160
,130

,110

,124

,210
932

AUG

300
300
300
300
320

318
319
295
288
275

283
302
296
298
330

365
392
413
401

236 450
257 426
254 435
208 417
200 460

198 471
187 451
222 426
250 411
299 402
320 364

,954 11,248
224 363
320 471
187 275
,790 22,310

1,050
1.080
941
872
837

832
791
749

752
685
664
631

670
715
723
724
727

695
679

658

724
712
707
674

22.430

1.080
631

SEP

394
433
433
400
375

383
363
379
383
431

439
450
429
439
394

389
392
399
399

396
4B4
404
464
451

400
350
325
343
322

11,958
399
464
322
23.720

SAN JOAQUIN RIVER BASIN

11274000 SAN JOAQUIN RIVER NEAR NEWMAN, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY

1
2
3

5

6
7
8
9
10

11
12
13

15

16

17ia
19
20

21
22
23
24
25

26
27
28
29
30
31

MAX
KIN

OCT

319
316
334
340
363

301
278
248
221
228

211
230
406
518

612

706
508
476

488
516
562
f>05
638

655
655
695
684
671
713

713
211

M EXPRESSED IN

DAY OCT

1 990

5

6
7
3
9
10

11
12
13

15

3D
31

KIN

991

987

1.010

988
983

1,780

744
757
723
620
621

649
609
542
489
469

458
445
492
526

684
664
636

620

581
590
603

598
597
558

501

445

THOUSANDS.

DISCHARGE

NOV

1.780

1,580

2,020

..:.._

480
479
483
507
520

499
469
463
420
400

420
450
489
520

673

63)
580

553

500
510
570

740
900
1,250

1,150

400

, IN

DEC

2,000

1,960

1,590

2,050

980
911
833
734
656

587
542
530
530
524

522
557
731
956

3,480
2,960
3,720

5.100

11.900
12,800
12,300

12,800
15,600
16,200

14.100

522

CUBIC FEET

JAN

2,110

1,550

1,480

3,300

13,800
13,500
13,400
13,400
13,700

13,900
15,700
17,400
17,600
17,200

17,000
16,800
16,500
16,500

17,600
18,100
18,800

19,000

ie,200

21,500

27,200
26,900
23,600

13,400

21,000
20,800
21,000
20.500
20,000

19,500
19,100
18,700
18,800
19,000

19,200
19,400
19,500
18.700

17,900
17,800
17,700
17,700

17,600

18,200

17,600

17.500
17,300
16,800
16,100
15,400

14,400

PER SECOND, MATER

FES MAR

3,230 1,510

2,940

3,470

1,800

4,010

3,850

2,780

1,070

1,020

896

822
818
774

13,900
13.700
13.700
13,500
13,600

13,800
14,700
16,100
15,800
15,200

14,600
14,400
14,100
13,400

12,300
12,300
12.200
11,900

11,400

10,700

10,400

10,200
10,100
10,100
9,860
9,450

9,450

MAY

9,080
8,720
9,650
10,300
10.800

11.000
11,500
10,800
9,850
9,910

11,200
12,000
12,200
12,400

13,100
13,100
13.200
13,200

13,500

13,900

13,900

14,000
14,100
14,400
14,500
14,400

8,720

YEAR OCTOBER 1969

APR MAY

774 838

758

826
804

758

748

762

802

688
672

682

730

821

662
610

598

701
676
666

604
583

583

544
505

412

412
402

581

386

JUN

14,400
14,500
14,600
14,600
14,500

15,000
16,000
17,200
18,200
19,000

19,300
19,000
18,100
17,000

14,300
14.000
13,800

12,800

12,000
11,100
10,700

10.400
9,430
8,300
7,260
6,600

6,600

JUL

6,200
5,940
5,730
5,530
5,230

4,960
4,720
4,310
3,240
2,720

2,310
2,010
1,690
1,520

,350

,160

,150
. 210
,180
. 070
. 020

. 000
,010
1,020
989
996

938

000

TO SEPTEMBER 1970

JUN JUL

440 350
417 335
381 320

319
351

373

434
417
412

437

404
380

335

355
360

400

330

330

373

295
22,200

385

420
400

300

270
285
312

276

281
270

301

276
268

266

287

266
274

301

257

AUG

932
932
948
980
952

958
941
926
919
911

917
896
806
740
745

967

1.020

1,120
1,110
1, 140
1,170
1.200

1.200
1,230
1,270
1,270
1,320

740

AUG

281
310
341

338

310
308

346

381
381
361

341

353
366

338

314
319

417

346

333
336

344

281

SEP

1,370
1.380
1.430
1,540
1,590

1.560
1,620
1,790
1.960
1.940

1,870
1.790
1,790
1,770
1,520

1,580

1.430

1,440
1,490
1,510
1,420
1,220

1,130
1,090
1,060
1.050
1,030

1,030
88,980

SEP

363
378
426

428

445
451
386
397

437
412
410

420

410
402

412

417
437

415
407

399
420

384
412

414

363

WTR YR 1970 TOTAL 481,947 MEAN 1,320 MAX 5,990 MIN 257 AC-FT 955,900

SAN JOAQUIN RIVER BASIN

11274500 ORESTIMBA CREEK NEAR NEWMAN, CALIF.

ight bank
est of New

DRAINAGE AREA. -- 134 sq mi.

PERIOD OF RECORD. --January 1932 to September 1970.

GAGE. --Water- stage re
1,320 ft downstrea
datum 27.14 ft low

AVERAGE DISCHARGE. --3

(6,200 acre-

Date
Dec.

Dec.
Jan .
Jan.
Jan.
Mar.
Mar.
Apr.

30,

6,
22,
24,
30,
16,
31,
11,

Annu;

1965

1966
1967
1967
1967
1967
1967
1967

.8 years
ft per year) .

il maxi

Time
0800

1400
0500
1000
1400
1300
0700
0900

mum dis

Disch. *128

760
1,920
*4,200
2,300
1,320
95
105

turn 24.14 ft lo

, 15.5 cfs (11,

charge (*)

G.H.
5.52

6.65
6.79
7.50
6.35
5.80
4.20
4. 24

harge

and

Date
Apr.

Jan.
Jan.
Feb.
Feb.
Feb.

230 ;

peak

22 ,

1968

19,
25,
6,
12,
15,

Oct

icre-

disc

1967

1969
1969
1969
1969
1969

. 1, 1958, to Aug. 13,

ft per year); median of

harges above base

Time
1200

1200
0500
1000
0200
1430

Disch.
275

(a)

3,020
*5,080
935
681
1,680

gage

(50 c

G.H.
4.71

6.69
8.40
5.85
5.60
6.43

1969, at s

yearly me

height in

fs) , water

Date
Feb. 24

Jan. 16
Jan. 21
Jan. 24
Mar. 1
Mar. 4

ite 1,200 ft dc

an discharges,

feet),

years

, 1969

, 1970
, 1970
, 1970
, 1970
, 1970

1966-70

Time
1600

1300
1300
1100
1300
2000

8.6 cfs

Disch.
2,810

778
500
420

*1,010
614

n at

G.H.
7.33

5.74
5.27
5.10
6.04
5.49

a No flow fo

ight, 6.57 ft, and datum then in

ept for minor
tal, 9,962.90;

REVISIONS (WATER YEARS) .--WSP 1445: 1932 (M), 1938(P), 1940-41(M), 1945, 1951(10. WSP 1930: Dra

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

8.7
5.5
7.5

5.5
3.0
2.1
1.7
2.9

3.0
1.1

1.2
92
107

27.80
. 90
2.5

SAN JOAQUIN RIVER BASIN

11274500 ORESTIMBA CREEK NEAR NEWMAN, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

nAY

1

1
l
13
L4
15

L6
L7
L8
19
20

21
22
23
24
25

26
27
28
29
3C
31

TOTAL
MEAN
1AX
MIN
AC-FT

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

0
0
0
0
29

365
104
35
L8
11

4.7
1.1
0

r)
C

0
0
c
0
0

0
0
0
6 1
0

9
0
0
0
0
0

0 0 567. B 4
0 0 18.3
0
000

0 365 1

DISCHARGE, IN CUBIC

OCT NOV DEC

1

2

1

0 08
0 0
0 02
0 0

0
0
0
o
J

0
0
0
0
0

a
0
0
0
0

0
0
0
0

j
0
561
92
,580
508

172
90
48

740
467

140
,580
0

FEET

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0

,220
681

772
486
163
123
,060

,440
470
254
179
150
139

. 137
262
. 060
0

203
124
8L
56
4L

38
3
9
5
1

9
7
6
4
1

1
1
1
11
9.7

7.8
7.8
8.5
8.5
9.2

7.8
7.8
7.B

31.2
203
7.8

PER SECOND,

121
106
99
90
131

686
351
188
146
121

149
415
204
151
731

430
232
IBS
152
134

122
164
293
1,530
1,960

818
413
591

9,813
350
1.530
90

7
7
7
7
5

5
5
5
4
4

6
14
70
1C5
53

524
320
155
102
72

54
43
33
26
20

18
16
13
12
13
66

57
5
4

. 1 56 41
. 1 38 36
. 1 29 33
. 1 25 32
. 7 23 30

. 7 25 29
. 0 Bl 28
. 0 93 26
. 5 69 23
. 0 52 28

. 4 86 25
76 21
56 IB
45 16
41 15

45 13
36 11
77 11
78 8.
95 8.

184 7.
239 6.
180 4.
180 5.
128 5.

102 4.
86 3.
69 3.
58 3.
47 2.

. 9 80.0 16.
24 239 4
. 0 23 2.

WATER YEAR OCTOBER 1968 TO

695 27 6.3
3
2
1

57 25 5.9
21 27 5.5
74 25 5.1

0
0
0
0
0

0
0
0
. 0
0

. 10
. 20
. 30
0
0

0
0
. 0
0
1. 0

1. 0
. 0 0
. o o
. o o
. 0 o

. 90 0
. 80 0
. 60 0
. 50 0

.20 a
0 ______

2.53 .019 0 0
7.1 .30 0 0
. 20 0 0 0
151 1.2 0 0

SEPTEMBER 1969

JUN JUL AUG SEP

137 29 4.7

116 9 4.3
1 02 9 4.0
91 5 3.7
83 4 3.3
77 2 3.0

74 1 2.7
72 9 2.4
71 B 2.1
70 7 1.8
63 6 1.5

59 5 1.3
55 4 1.1
52 3 .80
50 3 .62
48 2 .50

48 1 .40
43 1 .31
41 0 .25
37 9.5 .20
33 9.0 .15

33 8.5 .10
31 8.2 .10
29 7.7 .10
29 7.2 .08
27 6.8 .06

3,045 518.9 62.41
98
6

. 2 17.3 2.01
95 39 6.3
27 6.8 .04

MIN 0 AC-FT 0

000
000
000
000
000

SAN JOAQUIN RIVER BASIN

11274500 ORESTIMBA CREEK NEAR NEWMAN, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

NOV DEC JAN FEB MAR APR MAY JUN JUL

0 It 452
3 8.C 30C

j 8.0 120
0 8.0 189
0 8.0 284

8.0
8.0
8.0

137

. 20
. 20

. 20
. 20
. 05
. 05
. 05

474
343
142

31

TOTAL
MEAN
MAX
MIN
AC-FT

2,372
76.5
474

. 922.
62.
452

SAN JOAQUIN RIVER BASIN

11274600 DEL PUERTO CREEK TRIBUTARY NO. 1 NEAR PATTERSON, CALIF.

DRAINAGE AREA.--0.71 sq mi.

PERIOD OF RECORD.-Annual maximums, water years 1959-63. October 1963 to September 1969. Annual
year 1970.

EXTREMES.--Maximums and minimums [discharge in cubic feet per second, gage height in feet) for the water years 1966-70 are contained in the following table:

Maximum Minimum daily
Wtr yr Date Discharge G.H. Date Discharge
1966 Jan. 29, 1966 .30 7.19 Most of time 0
1967 Jan. 21, 1967 16 8.35 do. 0
1968 Jan. 30, 1968 2.1 7.51 do. 0
1969 Jan. 26, 1969 17 8.37 Long periods 0
1970 Mar. 4, 1970 2.6 7.57 -

REMARKS.--Records good. No regulation or diversion above station. Rainfall records are available in files of the district office.

DISCHARGE, IN CUBIC FEET PER SECOND, DECEMBER 1965 TO JANUARY 1966

DEC. 29, 1965.... .10 DEC. 30, 1965.... .10 DEC. 31, 1965.... .10

MONTH CFS-DAYS MAXIMUM MINIMUM MEAN RUNOFF IN
ACRE-FEET
DECEMBER 1965.. .30 .10 0 .010 .6
CAL YR 1965.. 9.50 1.4 0 .026 19

. . . . 20 .10 0 .007 .4
. . . . 50 .10 0 .0010 1.0

NOTE. FLOW OCCURRED ONLY ON DAYS LISTED ABOVE.

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

IAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP

31

TOTAL
MEAN
MAX
MIN
AC-FT

. 10
. 20
. 30
. 40
. 50

. 70
. 20
. 10
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0 2.50
0 .081
0 .70
0 0
0 5.0

IL 2.70 MEAN .007
IL 43.60 MEAN .12

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

1.7
1.1
. 20
1.0
. 50

. 30
. 20
. 20
. 40
. 90
. 50

7.00
. 23
1.7
0
14

MAX
MAX

.40
. 30
. 30
. 20
. 20

,20
. 20
. 20
. 10
. 10

. 10
. 10
. 10
. 10
. 10

. 10
0
0
0
0

0
0
0
0
0

0
0
0
. . . . . .

2.80
. 10
. 40
0
5.6

. 70 MIN

4.6 MIN

0
0
0
0
0

0
0
0
0
0

. 20
. 30
. 70
. 50
. 40

4.6
1.3
. 80
. 60
. 50

. 50
. 50
. 40
. 40
.40

.40
. 30
. 30
. 30
. 50
. 50

14.40
. 46
4.6
0
?9

0 AC-FT
0 AC-FT

. 50
. 40
.40
.40
.40

. 50
. 50
. 50
. 40
. 50

. 50
. 50
.40
. 40
.40

. 40
. 40
. 50
. 50
. 50

. 60
. 50
. 60
. 50
. 50

. 50
. 50
. 40
. 40
. 40

13.90
. 46
. 60
. 40
28

5.4
86

. 30
. 30
. 30
. 30
. 30

. 20
. 20
. 20
. 20
. 20

. 10
. 10
. 10
. 10
. 10

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0
0

3.00
. 097
. 30
0
ft.O

0
0
0
0
0

SAN JOAQUIN RIVER BASIN

11274600 DEL PUERTO CREEK TRIBUTARY NO. 1 NEAR PATTERSON, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

OCT NOV DEC JAN FEB MAR APR MAY JUN JUU

27
28
29
30
31

TOTAL
MEAN
MAX
WIN
AC-FT

CAL YR 1967 TOTAL »1.10
WTR YR 1968 TOTAL 0.69

. 69
. 022
. 52

DISCHARGE! IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
it
5

6
7
8
9
10

11
12
13
1*
IS

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL 0 0
MEAN 0 0
MAX 0 0
MIN 0 0
AC-FT 0 0

CAL YR 1968 TOTAL 3.69

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
1.3

1.7
0
0
0
0
0

3.0
. 097
1.7
0
6.0

MEAN

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
. 33
2.8
3.4

3.3
1.9
1.1
. 86
6.0

5.7
1.6
1.1
. 73
. 61
. 52

29.95
. 97
6.0
0
59

. 010 MAX

. 48
. 44
. 40
. 38
. 41

1.7
1.3
1.1
. 98
. 90

1.1
1.7
1.2
1.2
2.1

1.7
1.4
1.4
1.2
1.2

1.1
1.2
1.4
3.9
3.3

2.9
2.5
3.6

____ _

42.19
1.51
3.9
. 38
84

1.7 MIN

?.4

2.1?.o
. 9
. 7

. 6
. 6

,lt
. 4
. 3

. 2
. 2
. 2
. 1
1.0

. 98
. 90
. 90
. 86
. 90

. 86
. 82
. 79
. 79
. 76

. 73
. 70
. 67
. 64
. 64

35.68
1.15
?.4
. 64
71

0 AC-FT

. 64
. 70
. 67
. 64
. 90

. 79
. 76
. 73
. 73
. 67

. 64
. 59
. 57
. 57
. 54

. 54
. 54
. 54
. 54
. 52

. 54
. 54
. 61
. 59
. 59

. 59
. 59
. 59
. 59
. 59

18.64
. 62
. 90
. 52
37

7

. 59
. 59
. 59
. 57
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. 54
. 54
. 54
. 57
. 54

. 54
. 54
. 54
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. 54

. 54
. 52
. 52
. 52
. 52

. 50
. 50
. 50
. 48
. 46

. 46
. 46
. 44
. 42
. 42
. 38

15.95
. 51
. 59
. 38
32

. 40
. 40
. 38
. 34
. 38

. 3P
. 3R
. 38
. 40
. 36

. 34
. 28
. 25
. 25
. 34

. 23
. 25
. 24
. 2?
. 23

. 20
. 20
. 17
. 17
. IS

. 18
. 17
. 17
. 16
. 12

8.0?
. 27
. 40
. 1?

16

. 09
. 09
. 09
. 09
. 08

. 11
. 09
. 07
. 07
. 05

. 04
. 03
. 01
0
0

0
0
. 01
. 01
0

0
0
0
0
0

0
0
0
0
0
0

. 93
. 030
. 11
0
1.8

.11

. 004.11

SAN JOAQUIN RIVER BASIN

11274630 DEL PUERTO CREEK NEAR PATTERSON, CALIF.

LOCATION. --Lat 37°29'12", long 121°12'29", in SE'ttMk sec.21, T.5 S. , R.7 E., Stanisl 1.0 mile upstream from Delta-Mendota Canal crossing and 4.4 miles west of Patters

County,

DRAINAGE AREA.--72.6 sq mi. Are

PERIOD OF RECORD.--Annual maximu

GAGE.--Water-stage der and
June 1965, cres

oncrete cc

;ed prior to June 1965, 73.1 sq mi.

;ars 1959-65. June 1965 to September 1970.

itrol. Altitude of gage is 200 ft (from topographic map).

AVERAGE DISCHARGE.--5 years, 5.71 cfs (4,140 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (50 cfs), water years 1966-70

Date
Dec.

Dec.
Jan.
Jan.
Jan.
Mar.

29,

6,
22,
24,
30,
16,

1965

1966
1967
1967
1967
1967

Time
1100

1900
0300
1500
1600
1200

Disch. *24

75

*1,180
366
403
501

G.H. I
1.96

2.48
6.72
4.25
4.43
4.88

ate
an.

an.
an.

eb.
eb.
eb.

31,

19,
25,
6,
12,
15,

1968

1969
1969
1969
1969
1969

Time
0100

1300
0700
1400
0100
1000

Disch. *75

173
913

194
333
389

G.H.
2.48

3.23
5.92
3.35
3.96
4.16

Date
Feb.

Jan .
Jan.
Jan.
Jan.
Mar.
Mar.

24,

14,
16,
21,
24,
1,
4,

1969

1970
1970
1970
1970
1970
1970

Time
1600

1900
1400
1500
0830
1430
2230

Disch.
787

142
130
90

64 *182
90

G.H.
5.50

3.02
2.93
2.60
2.38
3.28
2.60

8 ft, site and datum then
in each year.

REMARKS.--Records good. No gage-height record Nov. 14 to Dec. 20, 1967. Some tock ponds and small diversions above station.

REVISIONS (WATER YEARS).--WSP 1930: 1959-60(M), drainage area.

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

31

TOTAL MEAN
MAX
MIN
AC-FT

NOV

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0

1.1
3.<>
7.2

5.6
3.8
2.9
2.4
2.2

28.6
. 95
7.2
0
57

L 353.30

DEC

2.0
1.8
1.6
1.6
1.4

1.4
1.4
1.4
1.4
1.3

1.3
1.8
2.0
1.8
1.6

1.4
1.3
1.1
1.1
1.1

1.1
1.1
. 90
. 60
1.4

1.8
1.6
1.6
14
16
20

89.90
2.90
20
. 60
178

MEAN

JAN

18
11
7.2
5.6
4.6

4.3
4.1
3.8
3.6
3.4

3.1
2.9
2.7
2.7
2.7

2.4
2.2
2.2
2.2
2.0

1.8
1.8
2.0
2.0
2.0

2.0
2.0
1.8
1.8
4.3
4.9

117.1
3.78
18
1.8
232

. 97 MAX

FEB

4.1
3.8
3.1
2.7
3.4

5.2
5.2
4.3
3.8
3.6

3.1
2.9
2.7
2.7
2.4

2.2
2.2
2.2
2.2
2.7

2.4
2.2
2.2
1.8
1.8

2.0
1.8
1.8

80.5
2.88
5.2
1.8
160

20

MAR

1.6
1.6
1.4
1.4
1.3

1.1
1.1
1.1
1.3
1.4

1.3
1.3
1.3
. 90
. 90

. 90
. 80
. 60
. 80
. 60

. 60
. 60
. 40
. 40
. 40

. 40
. 40
. 40
. 40
. 40
. 30

27.40
. 88
1.6
. 30
54

MIN 0 AC-FT

APR

. 20
. 20
. 20
. 20
. 30

. 30
. 30
. 40
. 30
. 40

. 50
. 60
. 50
. 40
. 30

. 30
. 20
. 30
. 30
. 20

. 20
. 20
. 10
. 10
. 10

. 10
. 10
. 10
. 10
. 10

7.60
. 25
. 60
. 10
15

701

MAY JUN

. 10
. 10
. 10
. 10
. 10

. 10
. 10
. 10
. 20
. 30

. 30
. 20
. 10
. 10
. 10

. 10
0
0
0
0

0
0
0
0
0

0
0
0
0

0o

2.20
. 071
. 30
0
4.4

SAN JOAQUIN RIVER BASIN

11274630 DEL PUERTO CREEK NEAR PATTERSON, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1986 TO SEPTEMBER 1967

DAY AUG 1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
1 8
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTH YR

OCT NOV DEC

0
0
0
0
. 30

38
25
8.2
4.3
3.6

2.9
2.2
1.8
1.8
1.6

1.6
1.4
1.4
1.4
1.3

. 90
. 90
. 90
. 90
. 90

1.1
. 90
. 80
. 60
. 80
. 80

0 0 106.30
0 0 3.43
0
000

0 38

0 0 211

1966 TOTAL 341.10 MEAN
1967 TOTAL 2,914.10 MEAN

JAN

. 80
. 60
. 60
. 60
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. 80
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. 60
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. 60
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. 60
. 60
. 60
. 60
. 80

4.7
247
40
204
103

45
33
27
34
144
90

964.50
31.8
247
. 50
1,950

. 93
7.98

FEB

41
28
21
17
13

10
9.2
8.2
7.2
6.8

6.4
6.0
5.6
4.9
4.6

4.6
4.6
4.3
4.3
4.1

4.1
4.1
3.8
3.8
4.1

3.8
3.6
3.6

241.7
8.63
41
3.6
479

MAX 38
MAX 247

MAR

3.4
3.1
3.1
2.9
2.9

2.7
2.4
2.2
2.2
l.B

3.B
6.5
29
35
16

211
81
40
29
22

20
17
16
13
12

12
11
9.2
9.2
11
23

653.4
21.1
211
1.8
1,300

MIN o
MIN 0

APR MAY

20 16
16 14
13 13
12 12
11 12

12 12 24 in
32 9.7
22 10
17 12

21 9.7
19 9.2
16 7.7
16 7.2
14 6.8

13 6.4
11 6.4

16 6.0
17 6.0

25 6.0
31 5.2
28 4.9
27 5.2
22 4.9

20 5.2
19 6.0

17 6.0 17 6.0
16 6.0

JUN JUU

. 2 .30
. B .20
. 2 .10
. 4 .10
. 0 .10

. 7 .10
. B .10
. 4 .10
. 2 .10
. 9 0

. 9 0
. 9 0
. 9 .20
. 6 .10
. 3 0

. 1 0
. 6 0

. 7 0
. 4 0

. 2 0
. 0 0
. 6 0
. 3 0
. 3 0

. 1 0
. 90 0
. 80 0

. 50 0 .40 0

558 253.9 114. BO 1.50
18.6 8.19 3
32 16
11 4.9
1,110 504

AC-FT 677
AC-FT 5,780

. 83 .048
8.7 .30
. 40 0
22B 3.0

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY

1
2
3
4
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6
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14
IS

16
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27
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29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
MTti YR

OCT NOV DEC

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
. 50
1.3

1.1
. 94
. 94
. 94
. 94

. 94
. 94
. 78
. 78
. 78

0 0 11.52
0 0 .37
0
000

0 1.3

0 0 23

1967 TOTAL 2,819.32 MEAN
1968 TOTAL 217.05 MEAN

JAN

. 78
. 94
. 78
. 78
. 78

. 78
. 78
. 78
. 78
. 94

1.1
. 94
1.1
1.1
1.1

1.3
1.3
1.1
1.1
1.1

1.1
1.1
. 94
. 94
1.1

. 94
. 94
. 78
. 64
3.4
30

61.24
1.98
30
. 64
121

7.72
. 59

FEB

6.8
4.9
4.1
3.1
2.7

2.2
2.0
l.B
2.0
1.8

l.B
1.8
1.8
1.8
1.6

2.0
3.1
3.8
3.4
2.9

2.7
2.4
2.2
2.2
2.0

1.8
1.8
1.6
1.6
. . . . . .

73.7
2.54
6.8
1.6
146

MAX 247
MAX 30

MAR

1.4
1.4
1.3
1.3
1.3

1.1
1.4
4.3
3.6
2.4

2.0
1.4
1.8
2.2
2.2

2.2
2.4
2.4
2.2
2.0

1.8
1.8
1.8
1.6
1.6

1.6
1.4
1.3
1.1
. 94
. 94

56.18
1.81
4.3
. 94
111

MIN 0
MIN 0

APR MAY

1.0 .08
1.6 .08
1.6 .08
1.3 .08
1.1 .08

. 94 .06
. 78 .06
. 64 .06
. 50 .06
. 38 .06

. 38 .06
. 28 .06
. 28 .06
. 28 .08
. 21 .OB

. 17 .06
. 17 .04
. 14 .02
. 14 .02
. 14 .04

. 11 .04
. 11 .06
. 11 .04
. 11 .02
. 11 .02

. 08 0
. 08 0
. 08 0
. 08 0
. 11 0

13.01 1.40
. 43 .045
1.6 .08
. OB 0
26 2.8

AC-FT 5,590
AC-FT 431

JUN JUL

0 0
0 0
0 0
0 0
o o

SAN JOAQUIN RIVER BASIN

11274630 DEL PUERTO CREEK NEAR PATTERSON, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

NOV DEC JAN FEB MAR APR MAY JUN JUL

CAL YR 1968
WTR YR 1969

0 1
0
0
0
0

EAN
EAN

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

. OS
. 19
. 57
B9
107

142
BO
35
26
353

261
90
51
40
32
27

. 335.61
43.1
353
0
2,650

. 56
15.0

25
22
19
IB
19

131
79
42
3?
26

33
143
55
39
222

125
74
65
53
42

37
44
69
399
251

153
103
147
. . . . . .

2,467
B8.1
399
18
4.B90

MAX 30
MAX 399

167
107
B6
74
65

58
51
45
41
3B

35
34
33
29
26

26
25
23
23
23

23
21
20
20
19

19
17
17
17
16
16

1,214
39.2
167
16
2,410

MIN 0
MIN 0

16
14
14
13
16

23
16
14
13
12

11
11
11
10
9.7

9.2
9.2
8.7
B.2
8.2

7.7
7.7
7.7
9.2
8.2

7.8
7.4
7.0
6.6
6.3

322. 8
10. 8
23
6.3
640

AC-FT
AC-FT 10

5.9 .76 ,2B
5.6 .64 .28
5.3 .64 .21
5.0 .78 .17
4.8 .76 .14

4.5 .94 .11
4.3 .78 .14
4.0 .76 .14
3.8 .94 .17
3.6 .94 .17

3.4 1.3 .17
3.2 1.3 .17
3.1 1.
2.9 1.
2.B 1.

2.6 1.
2.5
2.3
2.2
1.4

1.1
1.1
1.1
1.1
1.1

1.4
1.6
1.6

. 17
. 17
. 17

. 17
. 14
. 14
. 14
. 14

. 11
. 06
. 01
4 0
4 0

0 0
4 0
4 0
1.3 .50 0
1.1 .3ft 0
. 78 0

86.48 29.34 3.57
2.79 .98 .12
5.9 1.4 .28
. 76 .38 0
172 58 7.1

408
,830

TOTAL 205.53
TOTAL 5,459.00

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

:T NOV DEC JAN FEB M«R APR MAY JUN JUL

1
2
3
4
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14
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16
17
18
19
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21
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23
24
25

26
27
28
29
30
31

TOTAL MEAN

MAX MIN
AC-FT

CAL YR 1969

0 1.
0 1.
0 1.
0 1.
0 1.

0 1.
0 1.
0 1.
0 1.
0 1.

0 1.
0 1.
0 1.
0 1.
0 1.

0 1.
0 1.
0 1.
0 1.
0 1.

0 2.
. 40 3.
. 72 3.
. 84 2.
. F>4 2.

. 9H 3.
. 9H 2.
1.1 2.
1.3 1.
1.3 1.

0 8.46 53.5

0 .28 1.7:
0 1.3 3.t
0 U 1.
0 17 10<

TOTAL 5,520.96 ME

i 1.5
1.5
1.3
1.5
1.3

1.1
1.3
1.1
2.4
10

10
11
7.4
31
35

80
48
25
16
12

50
4U
22
38
31

20
17
14
11
10

18. 1 an
l.l
1,110

AN 15.1

8.6
7.8
7.4
7.4
7.0

7.0
6.6
6.6
6.3
7.8

7.0
6.3
7.8
9.0
7.8

7.0
7.8
8.2
7.4
7.0

7.0
6.6
6.6
6.3
6.3

6.3
6.6
9.8
. . . . . .

7.26
9.8
6.3
403

MAX 399

85 3.6 1.7 .08
66 3.6 .5 .08
31 3.6 .5 .05
38 3.1 .3 .05
50 3.1 .1 .03

30 3.1 .98 .05
24 3.3 .1 .05
20 3.3 .3 ,08
17 3.6 .5 .20
17 3.6 .3 .20

14 3.3 .3 .12
13 3.3 .3 .08
11 3.3 .3 .05
10 4.5 .1 .05
9.4 5.2 .84 .03

8.6 4.5 .72 .03
7.8 4.2 .60 .01
7. 3.6 .50 .01
6. 2.8 .40 0
6. 2.6 .40 0

5. 2.6 .30 0
5. 3.1 .30 0
5. 2.6 .30 0
5. 2.3 .12 0
5. 2.1 .12 0

4. 2.1 .12 0
4. 2.1 .12 0
4. 2.3 .12 0
4. 2.1 .12 0
3. 1.9 .12 0
3. .12

16. 3.15 .76 .042
8 5.2 1.7 .20
3. 1.9 .12 0
1,04 187 47 2.5

MIN 0 AC-FT 10,950
MIN 0 AC-FT 2,920

SAN JOAQUIN RIVER BASIN

LOCATION.--Lat 37°45'09", long 119°16'52" , in
middle of stream 650 ft upstream from large unnamed lake, 2.3
of town of Tuolumne Meadows.

DRAINAGE AREA.--0.37 sq mi.

PERIOD OF RECORD.--May 1967 to September 1970 (no winter records).

GAGE.--Water-stage recorder and artificial control. Altitude of gage is 11,520 ft (from topographi map).

Annual maximum discharge (*) and pe

Date Time Disch. G.H. Date
July 4, 1967 2330 11 1.89 June
July 14, 1967 0030 10 1.84
July 26, 1967 2130 10 1.87 July
July 28, 1967 2130 *28 2.64 July
Aug. 17, 1967 2100 12 1.96

Annual minimum d

Wtr yr Date
1967 June 5, 6, 1967
1968 Oct. 31, 1967

Period of record: Maximum discharge, months in each year.

in cubic teet per second, gage height in teetj.

ak discharges above base (10 cfs) , May 1967 to September 1970

Time Disch. G.H. Date Time Disch. G.H.
27, 1968 - *6.9 1.73 June 26, 1970 2400 11
July 6, 1970 2100 11
20, 1969 2300 *18 2.36 July IS, 1970 2000 14
30, 1969 2200 10 1.87 July 19, 1970 2030 *14

ally discharge, May 1967 to September 1970

Discharge Wtr yr Date Disch
. 01 1969 Oct. 17-25, Nov. 2, 1968
. 01 1970 Oct. 23 to Nov. 1, 1969

28 cfs July 28, 1967 (gage height, 2.64 ft); no flow during winte

1.86
1.86
1.97
2.02

arge
. 01
. 02

r

Glacier in Yosemite National Park.

DISCHARGE, IN CUBIC FEET PER SECOND, MAY TO SEPTEMBER 1967

DAY MAY JUN JUL AU
1 .23 7.6 8.
2 . 08 8*2 8 >
3 .04 8.4 9.
4 .02 8.B 8.
5 .01 9.4 8.
6 .01 8.7 7.
7 .02 7.6 5.
B .04 6.6 5.
9 .13 5.b 5.
10 .18 5.1 6.
11 .44 5.4 6.
12 .51 6.3 7.
13 .51 7.9 7.
14 .50 8.5 7.
15 .69 7.2 6.

TOTAL. .... MEAN......................................

MI N................... ....

DISCHARGE, IN CUBIC FEET

1 1.6
2 1.4
3 1.2
4 .98
5 .82

6 .71
7 .57
8 .48
9 .40
10 .3?

11 .33
12 .30
13 .30
14 .30
15 .29

16 .26
17 .24
IB .21
19 .19
20 .17

21 .16
22 .14
23 .12
24 .10
25 .C9

26 .07
27 .Ci
26 .03
29 .C2
30 .C2
31 .01

TOTAL 11.85
MEAN .39
MAX 1.6
MIN .M
AC-FT 34

SEP DAY MAY JUN JUL AUG
5.3 16 1.0 7.3 7.4
4.7 17 1.4 6.B 9.3
5.5 18 1.9 6.7 8.6
5.6 19 2.7 7.2 6.7
5.5 20 2.2 6.4 5.7
4.5 21 2.8 6.2 6.2
4.1 22 3.2 6.4 6.2
3.9 23 .80 2.7 6.1 5.9 3.4 24 .84 3.3 6.5 6.0 2.5 25 .87 3.9 7.3 6.4 2.1 26 .89 4.0 8.6 5.8
2.2 27 .94 4.4 8.2 5.3
2.5 28 .89 4.8 14 4.6
2.5 29 .76 5.6 15 4.5
2.2 30 .60 6.8 9.6 5.2
31 .45 8.8 5.6

. . . . 54.11 242.4 206.5
. . . . 1.80 7.82 6.66
. . . . 6.8 15 9.3

. . . . 107 481 410

PER SECOND, MATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

2.7 3. 3.2
3.3 3. 4.0

2.9 3. 3.B
1.5 3. 3.4

. 70 3. 3.4
. 60 3. 3.4
. 63 4. 3.4
. 64 4. 3.4
. 70 3. 3.2

. 83 3. 3.1
1.2 4. 3.1
1.7 4. 2.6
2.4 4. 1.7
3.3 4. 1.4

3.6 4. 1.4
3.8 4. 1.4
4.2 4. 1.4
4.5 4. 1.3
4.2 4. 1.1

3.8 4. .96
4.2 4. .87
4.7 4. .76
. 09 4.1 4. .70
. 08 4.1 4. .70

. 28 4.4 4. .70
. 66 5.1 4. .74
1.3 4.8 5. .9f>
2.2 3.6 5. l.f>
2.0 3.0 4. 2.2
2.1 3. 2.2

88.67 133. 66.39 4
2.96 4.3 2.14
5.1 5. 4.3
. 60 3.1 .70
176 265 132

SEP
2.0
2.1
1.9
1.6
. 5
. 4
. 4
. 4
. 2
1.1
1.3
2.0
2.2
2.0
1.8

81.4
2.71
5.6
1.1
161

SEP

. 2
. 2

. 4
. 5

. 5
. 6
. 7
. 8
. 6

B ^
. 2
. 8
. 6
. 4

. 4
. 5
. 6
. 5
. 2

. 99
. 87
. 76
. 70
. 70

. 8
. 0
. 2
. 2
. 6

9.80
. 63
2.B
. 66
97

SAN JOAQUIN RIVER BASIN

11274710 MACLURE CREEK BELOW MACLURE GLACIER, NEAR TUOLUMNE MEADOWS, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

1
2
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6
7
B
9
1C

11
12
13
14
15

16
17
18
19
2C

21
22
23
2*
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

DAY

1
2
3
4
5

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14
15

16
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19
20

21
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23
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25

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27
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29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

. 58
. 48
. 40
. 33
. 29

. 28
. 25
. 21
. 17
. 16

. 14
. 13
. 11
. 10
. 08

. 04
. 01
. 01
. 01
. 01

. Cl
. 01
. 01

. 01.:.l

. 03
. 04
. C6
. 38
. 07
. C4

4.16
. 13
. 58
. Cl
8.3

. 87
. 87
. 73
. 63
. 57

. 50
. 43
. 37
. 31
. 28

. 23
. 19
. 14
. 10
. 10

. 09
. 07
. 06
. 05
. 04

. 33
. 03
. 02
. 02
. 02

. 02
. 02
. 02
. 02
. 02
. 02

6.87
. 22
. B7
. 02
14

. 35

. 43
. 57
. 73
. 95
1.1

1.0
. 92
. 95

2.2

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1969

. C2
. 03
. 03
. 03

. 40
. 34
. 25

. IT
. 21
. 35
. 50
. 59

. 66
. 87
. 70
. 70
. 98

3.1
3.1
3.7
3.5
4.0

4.0
3.8
3.4
2.5
1.8

1.2
1.3

3.0

3.0
2.4
1.7
1.7
2.6

3.1
3.8
4.4
3.2
2.9

2.2
1.9
1.7
1.7
2.4

3.2
3.3
3.2
3.5
3.B

3.8
3.6
4.2
4.6
4.9

6.0
6.6

6.5

6.3
5.6
6.0
7.1
10

12
12
13
9.2
7.7

7.1
6.5
5.B
7.1
8.1

80.9 200.3
2.70 6.46
4.4 13
1.2 3.2
160 397

TO SEPTEMBER 1973

JUN JUL

2.1 2.7
2.5 3.6
2.6 4.1
2.5 4.2
2.2 5.9

2.6 7.6
2.3 6.6
2.3 6.2
1.4 5.5
. 96 5.1

. 76 5.2
. 63 4.9
. 55 5.5
. 45 6.6
. 35 6.5

. 30 6.8
. 34 6.2
. 52 7.5
9.2
8.6

10
7.2
5.4
5.1
4.9

4.5
3.8
3.9
5.4
4.7

7 .08
. 47
6.6
. 30
147

179.4
5.79
10
2.7
356

6.4
7.4
7.5
6.9
5.7

4.9
4.5
4.5
4.6
5.1

5.B
5.B

5.7

5.5
7.7
5.8
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4.5

4.4
4.2
4.4
4.7
4.4

3.7
3.1
2.9
2.6
2.4

153.4
4.95
7.7
2.4
304

AUG

3.4
3.4
3.6
4.4
4.0

4.0
4.4
4.0
3.7
3.9

4.8
5.1
5.3
5.0
4.7

4.5
4.1
3.8
4.1
4.0

3.4
3.2
3.2
2.8
3.2

3.3
3.6
3.9
3.6
3.4

121.3
3.91
5.3
2.6
241

2.9
3.2
3.4
3.2
2.9

3.0
3.0
3.4
3.4
2.6

1.9
l.B

1.5

. 3
. 2
. 2
. 2
. 1

. 92
. 84
. 90
. 96
1.1

1.2
1.2
1.2
1.0
. 90

56.34
1.86
3.4
. 64
112

SEP

2.4
2.2
2.0
1.7
1.3

1.2
1.5
1.9
2.1
2.2

2.2
1.9
1.4
1.1
. 95

. 90
. 90
. 92
. 90
. 61

. 73
. 70
. 70
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. 66

. 66
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. 66
. 63
. 63

37.27
1.24
2.4
. 63
74

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i H M

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Rjner Tuolumne

River Claney

Powerhouse i
Creek^ Cherry

Creek Cherry
Canal

C. » ''tDHobert Powerhouse Kirkwood

-cH

0

Lily
Creek ^

SAN JOAQUIN RIVER BASIN

11275000 FALLS CREEK NEAR HETCH HETCHY, CALIF.

DRAINAGE AREA.--46.0 sq mi.

PERIOD OF RECORD.--October 1915 to September 1970. Monthly dis
WSP 1315-A. Prior to October 1918, published as "near Sequo

rge only for son

opographic map).

published

AVERAGE DISCHARGE.--55 years, 143 cfs (103,600 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (900 cfs), water yeai

Date
May

Dec.

May
July

8,

6,
22,
3,

1966

1966
1967
1967

Time
1000

1430
2100
0600

Disch. *604

*1,880
1,340
1,650

G.H.
5.06

6.70
6. 20
6.50

Date
May

May
June
June
June

29,

11,
3,
15,
23,

1968

1969
1969
1969
1969

Time
0900

1600
0600
0800
0900

Disch. *755

1,230
*1,560
992
985

G.H.
5.37

6.07
6.42
5.82
5.81

Date Time Disch.
Dec. 20, 1969 2000 1,020
Dec. 25, 1969 1130 920
Jan. 16, 1970 1230 1,280
Jan. 21, 1970 1700 *1,350
May 18, 1970 0600 950
June 9, 1970 0900 1,100

G.H.
5.80
5.65
6.13
6.21
5.70
5.91

daily discharge ater years 1966-70

Wtr yr Date Discharge
1966 Sept. 4-30, 1966 0
1967 Oct. 1 to Nov. 15, 1966 0
1968 Sept. 30, 1968 .02

Period of record: Maximum discharge, 6,660 cfs Nov. floodmarks) , from rating curve extended above 2,500 cfs

REM RKS R d d 1 ' d' ' b

Wtr yr Date
1969 Oct. 1-12, 1968
1970 Sept. 24-30, 1970

19, 1950, Dec. 23, 1955 (gage height, 9.0 on basis of velocity-area studies; no flov

S h f T 1

Disch;

ft, from
/ at time.'

ounty of San Francisco

basin elsewhere in this report.

COOPERATION.--Gage-height record and 38 discharge measurements furnished by city

REVISIONS (WATER YEARS).--WSP 531: 1917(M). WSP 931: 1938. WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
34
25

26
37
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

3.9
3.7
3.3
2.9
2.7

2.5
2.2
2.0
1.9
1.7

1.6
1.4
1.3
1.5
4.9

3.3
2.7
2.7
3.1
2.9

2.9
2.8
2.7
3.5
2.2

2.0
1.9
1.7
1.7
1.5
1.4

75.4 1,
2.43
4.9
1.3
150

1965 TOTAL
1966 TOTAL

. 3 53
. 2 54
. 1 56
. 1 54
. 1 52

. 0 0
. 0 8
. 0 7
. 0 6
. 0 5

. 0 3
. 3 3
. 3 3
9 8
86 35

142 33
155 31
185 31
132 28
78 33

56 23
57 23
178 22
127 22
91 33

83 25
74 25
64 26
60 31
56 35
38

738.4 1,146
57.9 37.0
185 56
1.0 22

60,617.00 MEAN
35,000.40 MEAN

33
29
27
27
28

31
34
35
34
38

38
38
38
39
40

37
35
3ft
34
39

30
29
28
27
26

26
36
35
35
28
29

977
31.5
40
25

166
95.9

29
29
29
29
30

32
34
32
30
30

39
30
29
28
28

28
30
31
31
33

35
37
37
36
35

35
35
35
. . . . . .

886
31.6
37
38

MAX 1,030
MAX 572

35
33
31
31
33

37
44
54
62
122

110
110
141
145
136

120
96
93
94
86

84
91
115
134
157

162
202
235
275
303
332

3,722
120
332
31
7,380

MIN
MIN

376
418
403
421
430

430
424
421
427
421

322
355
193
175
192

253
330
333
252
172

140
138
151
202
298

394
418
412
391
388

9,567
319
430
138
18,930

1.0 AC-FT
0 AC-FT

437
458
528
556
568

540
560
573
516
512

486
444
418
468
462

444
451
458
493
516

520
493
448
412
397

373
364
335
305
245
182

13,961
450
572
182
27,690

130.200
69,420

149
122
105
97
99

107
120
124
115
108

112
107
104
105
99

90
84
78
74
70

62
55
48
4?
37

3ft
34
33
33
33

2,480
82.7
149
33
4,920

30
27
23 1
20 1
18 1

16
16
15
14
13

13
11
10
10

,5
. 2

. 0
. 3
. 1
. 0
1

. 4
. 8
t ^
. 0
9.5 1.7

8.8 1.3
8.3 1.2
7.8 1.0
7.3 .80
6.9 .70

6.5 .60
6.5 .50
6.5 .40
6.5 .40
6.3 .30

5.9 .30
5.7 .20
5.3 .20
4.9 .10
4.5 .10
4.5 .10

346.6 100.70
11.2 3.25
30 14
4.5 .10
687 300

. in
. in
1 f>
0
n

0
0
0
0
0

0
0
0
0
0

n
0
0
0
0

0
0
0
0
n

0
0
0
0
0

. 30
. 010
. 10
n
. 6

SAN JOAQUIN RIVER BASIN

11275000 FALLS CREEK NEAR HETCH HETCHY, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
4
S

6
7
8
9
10

11
12
13
1*
15

16
17
18

19 20
21
22
23

2*25
26
27
28
29
30
31

TOTAL
MEAN

MIN
AC-FT

CAL YR
WTR YR

188
275
258
141
339

1,420
702
275
165
132

110
96
90
80
78

20 79

3
1
l e

80
r so
> 80
78 79

65 72
46
3«
3

64
59
55
26 53

25 50
Si 52
259 55

33 C 42

0 1,594 5,332
0 53.1 172

0 0 39
0 3.160 10.5SO

1966 TOTAL 38,966. 60 MEAN
1967 TOTAL 81,920.10 MEAN

38
39
39
39
40

37
35
33
33
33

35
37
40
44
46

47
44
43
40
44

61
56
54
52
60

66
66
68
84
90
82

1,525
49.2

33
3,020

107
224

DISCHARGE, IN CUBIC FEET

DAY

1
2
3
It
S

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24

25

26
27
28
29
30
31

MEAN
MAX
MIN
AC-FT

CAL YR

OCT NOV DEC

5.7 1.1 '"
5.5 1.1
6.1 1.1
8.5 1.1
12 1.0

11 1.0
10 .92
8.5 .88
7.3 .84

21
23
24
28

26
26
29
30
6.5 .84 29

b.7 .79 29
5.0 .75 25
4.5 .75 24
4.1 .84

3.7 .97

3.3 1.1
3.1 2.1
2.8 7.2
2.7 26
2.5 19

2.3 15
2.3 12
2.2 10
2.1 9.8
1.9 9.5

1.8 9.2
1.7 9.0
1.6 9.R
1.5 10
1.4 17
1.3

4.47 6.02
12 26
1.3 .75
^75 35«

1967 TOTAL 76,1

22
20

17
14
18
20
18

20
21
25
30
38

44
46
44
37
33

26.8
46
14

45.38 ME«M

JAN

25
24
22
20

19
18
17
15
18

19

20
23
126

79
53
43
40
43

46
47
47
46
46

43
43
43
40
38
4?

37.0
126
14

209

75
71
70
72
78

80
84
88
86
96

93
91
91
86
70

62
60
65
67
59

58
59
59
57
58

55
55
59

2,006
71.6

55
3,980

MAX 1,420

MAX 1,420

PER SECOND,

FEB

52
59
56
52

46
44
41
51
SO

46

42
38
34

41
119
108
137
479

379
248
248
240
200

182
165
155
143

122
479
34

i"AX 1,370

66
68
75
68
58

57
61
72
80
78

69
66
59
69
74

250
430
300
225
200

188
175
151
125
112

97
99
112
110
96

3,777
122

57
7,490

MIN 0
MIN 0

WATER

MAR

120
115
113
112

99
91
93
96
83

74
72
70
75
73

73
72
78
73
73

76
80
78
86
96

93
93
117
170
225
225

ini
225
70

MIN
MTN

81
76
72
70
69

67
69
66
70
72

70
70
70
76
76

71
70
70
69
66

63
60
59
59
57

60
67
60
60
59

2,024
67.5
8 1

57
4,010

AC-FT 77
AC-FT 162

64
83
110
122
129

175
255
343
385
367

320
232
202
232
322

462
612 1
735 1
800 1
860 1

1,090 1
1,200 1
1,220 1
1,150
1,110 1

1,040 1
985 1
902 1
730 1
650 1
508

17,395 24
561
1,220 1
64
34,500 49

,290
,500

YEAR OCTOBER 1967 TO

APR

220
151
134
147

125
120
136
172
238

308
325
290
290
318

258
190
140
129
127

115
104

120
151
190

?85
3*6
370
440
504

224
504
104

MAY

520
532
496
482

370
318
355
391
302

312
308
235
202
212

230
280
355
476
548

620
421
262
192
222

355

465 ieo
635
536
437

392
635
192

. 75 AC-FT 151.000

340
242
208
340
476

385
465
608
705
715

760
675
630
660
800

926
,060
,160
,230
,010

,120
,210
,030
985
,090

,190
,120
,100
,230
,300

,770
826

,300 208
,130

1.350
1,370
1,320
1,200
1,080

964
964
872
7B2
695

635
680
720
770
735

616
695
580
520
440

382
373
373
352
343

322
290
272
275

245

20,483
661
1,370
245
40,630

215
178
161
147
127

107
91
79
68
66

69
67
62
60
60

68
78
87
76
90

75
59
52
51
76

115
76
54
43
35
31

2,623
84.6
215
31
5,200

29
26
27
30
27

24
21
18
16
15

13
12
10
9.
B.

7.
6.
8.
8.
9.

8.
8.
7.
6.
6.

6.
5.
5.
5.
5.

391.
13.
3
5.
77

SEPTEMBER 1968

JUN

479
524
462
394

240

17f)
141
129
155

208
245
235
208
228

232
235
202
195
18R

136
12n
118
115
102

84
76
68
56
46

208
524
46
,350

JUL

35
32
29
28

27
25
25
30
32

28
23
19
18
17

15
14
12
11
9.8

9.0
8.2
7.5
6.9
6.3

5.9
5.5
5.3
5.2
5.2
5.3

539.1
17.4
39
5.2
1,070

AUG

6.1
7.1
6.9
6.1
5.5

4.9
4.2
3.5
3.2
2.6

2.3
2.2
3.3
3.8
4.5

4.7
4.1
3.3
3.4
31

45
30
23
18
14

11

9.2
8.0
6.9
5.9
5.0

288 7
9.31
45
2.2
573

SE

5.

4.
3.
3.

2.
2.
2.
1.
1.

1.1 j!
. 8
. 7

. 6
. 5
. 4
. 3
. 3

. 2
. 1
. 1
. 1
. 1

. 0
. 0
. 0
. 0
. 0

41.2
1.3
5.
. 0
8

SAN JOAQUIN RIVER BASIN

11275000 FALLS CREEK NEAR HETCH HETCHY, CALIF.--CONTINUED

DISCHARGE) IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

1
2
3
4
s

6
1
8
9
10

11
12
13
14
15

16
17
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19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
HIN
AC-FT

CAL YR
KTR YR

0
0
0
0
0

0
0
0
0
0

0
0
3.0
25
30

19
14
1*
IS
16

16
15
14
1*
1*

14
14
12
12
25
26

312.0
10.1
30
0
619

1968 TOTAL
1969 TOTAL

25
42
424
245
147

108
83
76
100
131

117
172
145
97
105

105
99
125
195
140

110

86
84
81

70
64
56
51
49

3,426
114
424
25
6,600

39,434.
89,631.

52
S3
52
SO
45

43
42
40
39
44

6B
59
53
58
87

72
68
64
59
56

52

64
102
75

79
100
83
75

62

1,920
61.9
102
39
3,810

09 MEAN
00 MEAN

59
58
61
78
88

99
94
86
73
62

60
72
167
140
105

BO
67
98
452
272

342

113
117
471

446
195
136
110
90
80

4,520
146
471
58
8,970

108
246

DISCHARGE. IN CUBIC FEET

DAY

1
2
3
4
5

6
7
8
9
10

11
IS
13
14
IS

16
17
16
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN
MAX
MIN
AC-FT

OCT

1.3
1.3
1.2
1.1
. 97

. 79
. 70
. 70
. 70
. 67

. 61
. 49
. 36
. 36
Id

302
259
114
70
58

49
49
51
51
45

38
34
30
25
23
22

40.3
302
. 36
2.480

NOV

22
22
23
23
23

46
51
52
51
SO

50
52
55
54
52

53
51
39
33
30

29
28
25
22
19

IB
17
IS
13
13

34.4
55
13
2.040

DEC

12
11
11
. 8
. 2

. 0
. 0
. 8
11
10

12
13
14
14
13

12
11
10
90
641

720
504
255
195
457

205
113
84
70
64
58

118
720
9.0
7,250

JAN

53
49
47
46
47

43
33
36
77
97

70
70
69
157
102

18
64
IB
11
19

50
53
68
72
198

145
178
113
91
83
73

224
953
33
13,790

70
66
64
62
60

60
60
59
58
59

61
60
61
56
56

55
58
56
56
55

58

54
57
64

59
56
54

1.648
58.9
70
54
3,270

MAX 635
MAX 1,390

PER SECOND

FE8

68
62
65
70
75

72
75
79
78
74

76
87
81
80
78

72
72
68
62
55

55
57
61
64
66

72
79
91

- - - - _-

71.2
91
55

S3
61
57
70
66

58
58
57
53
SO

49
47
44
44
48

56
64
73
75
72

62

83
87
97

115
136
170
205
252

2,728
88.0
298
44
5.410

MIN 0
MIN 0

. WATER

MAR

91
83
80
70
72

73
79
80
70
72

65
62
76
97
107

107
113
97
81
78

81
94
118
143
168

175
155
141
136
124

99.6
175
62

MIN .

300
278
270
310
282

188
155
147
145
161

215
260
278
270
210

212
240
272
305
385

465

516
424
308

290
295
320
391
458

8.A70
296
520
145
17,590

AC-FT 78
AC-FT 177

504
520
465
394
418

560
700
860
971
1,120

1,190
1,050
1,080
1,060
999

908
1,010
1,100
1,070
908

920

1,190
1,160
1,170

1,130
1,200
1,170
1,110
1,190
1,150

29,337
946
1,200
394
58.190

,220
,800

YEAR OCTOBER 1969

APR

87
93
105
112
132

170
190
188
198
248

270
235
198
165
149

131
118
117
120
100

87
84
79
83
97

131
129
118
117
131

139
270
79

36 AC-FT

MAY

143
175
242
320
391

433
308
280
238
312

260
190
210
355
540

670
776
B54
750
596

524
592

695
680
635

690
765
604
588
635

488
854
143

178,300

,310
,360
,390
,340
,230

,190
,080
, 30
95
04

72
48
568
755
914

860
710
520
650
776

794
720
842
625
665

588
536
496
437
462

23.967
799
1.390
437
47,540

TO SEPTE.

JUN

710
695
670
710
715

625
548
620
932
568

379
325
280
218
175

19?
295
38?
476
55?

520
540
496
47?
437

379
490
462
280
200

478
93?
175

528
588
584
504
486

479
465
458
479
482

479
458
462
548
472

391
328
322
325
338

325
308
282
268
230

182
163
145
134
132
115

11,460
370
588
115
22.730

*8ER 1970

JUL

182
198
208
188
210

228
195
159
143
117

115
104
97
93
89

88
75
66
61
58

54
51
45
37
32

?9
25
22
20
18
17

97.5
228
17
6.000

93 9.2
80 9.0
81 9.0
78 9.0
73 9.2

65 9.0
5S 8.8
50 9.0
46 8.5
46 8.8

47 8.8
48 7.8
47 6.7
43 6.1
41 5.3

40 5.0
39 4.7
38 4.1
34 3.8
29 3.4

25 3.3
24 3.1
22 2.8
21 2.7
21 2.5

20 2.3
18 2.1

15 1.8 13 1.7
12 1.5
10

1,274 169,0
41.1 5.63
93 9.2
10 1.5
2,530 335

AUG SEP

IS 1.6
13 1.5
12 1.4
10 1.3
9.5 1.1

9.2 .96
8.9 .84
8.2 .70
. 3 ,5B
. 1 .46

. 4 .38

. 8 .3(1
. 9 .22
. 8 .IB
. 8 .14

. 6 .10
. 3 .08
. 0 .05
. 7 .04
. 7 .03

. 7 .03
. 6 .02
. 3 .01
. 9 0
. 6 0

. 3 o
. 2 n
. 0 0
1.8 o

1.7 o 1.6

174.9 12.02
5.64 .40
IS 1.6
1.6 0
347 ?4

WTH YR 1970 TOTAL 54,840.97 MEAN 150 953 MIN 0 AC-FT 108.800

SAN JOAQUIN RIVER BASIN

11275500 HETCH HETCHY RESERVOIR AT HETCH HETCHY, CALIF.

DRAINAGE AREA.--455 sq mi.

PLRIOD OF RECORD.--May 1923 to September 1970.

GAGE.--Water-stage recorder. Datum of gage is

Prior to October 1930 monthend contents, published in WSP 1315-A. it mean sea level (levels by city and county of San Francisco).

EXTREMES. --Maximums and minimums (
tained in the following table:

Maxima

Wtr yr Date
1966 May 27, 1966
1967 July 14, 1967
1968 Oct. 1, 1967
1969 July 22, 1969
1970 June 20, 1970

Period of record:
times in 1929-31.

REMARKS. --Re

in 1949.
3,806.0 i
tunnel tc
in a do;
capacity

Don Pedrc

servoir is fo

Usable capac
:t (top of dru
> Robert C. Ki
;ed conduit th

> Reservoir at
Act requirements. Het

REVISIONS. --WSP 1930: Dr

Maximum c

contents in acre-fe

354,900 3,803.2
363,900 3,807.8
307,000 3,778.2
360,200 3,805.9
361,500 3,806.6

ontents, 369,100 acre-ft Dec

rmed by concrete g

ity, 360,
m-type sp
rkwood po
rough Het

Red Moun
ch Hetchy
tic diagr

ainage ar

3,600 57,400

3,620 ;'6,500
3,640 97,000

DAY

1 307,
2 306,
3 305,
4 303,
5 302,

6 300,
7 299,
8 298,
9 296,
13 295,

11 294,
12 292,

14 289,
15 288,

16 286,
17 285,
18 284.
19 282,
20 281,

21 280,
22 278,
23 277,
24 275,
25 274,

26 273,
27 271,
28 270,
29 269,
30 267,
31 266,

MAX 307,
MIN 266.

(t] 3,75
<t> -42,

CAL YR 1965
WTR YR 1966

400 acre-

illway ga
werplant
ch Hetchy

tain Bar.
Reservoi

ea.

:er years

3,660
3,680
3,700

ition in feet) for the water years 1966-70 ar

Minimum

Mar. 23, 24, 1966 156,100
May S, 6, 1967 68,200
Mar. 28, 1968 100,700
Mar. 26, 27, 1969 73,000
Jan. 13, 1970 203,500

:. 3, 1950 (elevation, 3,810.4 ft); no c<

ravity-type dam, completed to crest

ft betweei

tes) abov<
15 miles <
aqueduct

Flow doi
r is main

119,900
146,200
175,000

i elevatii
; mean se;
lownstreai

TOS 3,512,
i level.
n where f:
to Moccasin Creek

<rn river :

storage i

3,
3,
3,

is for Sti

jnit of H(

720 206
740 238
760 273

elevation

. 0 (somewhat above
Water is
Low is di
powerpla

ate Depar

diverted
verted fr.

OTten

of 3,726.5 ft in

bottom outlet) an
from reservo
om powerplant
nt with flow in excess

tment of

;tch Hetchy water-

,000
,900
,700

3,780
3,800
3,810.4

Fish and Game
supply system

310,400
348,600
369,100

ir th
tail
of a
sduct
^nd1

for

e Con-

3, 687.1
3,611.4
3,643.3
3,616.4
3,718.4

ts at

1923

d

rough
race

queduct

Raker
San

600 265,400
300 264,000
000 262,600
800 261,200
400 259,800

900 258,400
400 257,000
100 255,600
800 254,000
300 252,800

000 251,200
400 249,700

600 248.300
400 247.800

900 247,800
400 248,300
000 249,000
700 249,000
300 248,500

000 247,600
600 246,800
ICO 247,800
500 248,500
400 248,600

200 248,300
900 247,800
700 247,100
300 246,600
800 245,900
600

600 265,400
600 245,900

500 -20,700

MAX 358,600
MAX 354,700

245,200
244.500
243.800
243.500
243,500

242,100
241,400
240,600
239,800
238,900

238,100
237,400

235,700
234,700

233,700
232,700
231,700
230,700
229,500

228,300
227,300
226,300
225.200
224,000

223,000
222,000
220,700
220,300
219,600
218.900

245,200
218,900

- 27,000

217,900
217,100
216.300
215.500
214.800

213,900
213,200
212,300
211,600
211,000

210,300
209,500
208,700
207,900
207,100

206,300
205,500
204,700
203,800
202,800

201,900
200,800
200,000
198,900
197,800

196,800
195,900
194,800
193,700
192.700
191,900

217,900
191,900

- 27,000

MIN 120,400 t
MIN 156,100 t

190,800
189,700
188,800
188,100
187,200

186,400
185,500
184,700
183,700
187.800

181,800
180.900
180,000
179,000
178,000

177,000
175,900
175,000
174,100
173,200

172,300
171,400
170,600
169,700
168,600

167,700
166,700
166,000

190,800
166,000

- 25,900

- 41,900

164,900
164,000
163,000
162,100
161,200

160.200
159,500
158,700
158,000
157,700

157.500
157.300
157.400
157,400
157,500

157,700
157.700
157,400
157,300
157,000

156,600
156,400
156,100
156,100
156,400

156,800
157,800
159,100
160,600
162,600
164.800

164,900
156,100

- 1,200

167,900
171,300
174,600
178,300
182,300

186,400
190,500
194,900
199,200
202,700

205,400
207,400
208,900
210,300
211,900

215,000
218,400
221,700
223,700
224,800

225,800
226,800
227,700
229,500
232,500

236,400
240,400
245,500
249,500
253,800

253.800

167,900

+89,000

258,500
264,000
270,100
276,800
283,800

290,600
297,500
304,200
309,800
315.300

319,400
322,200
325,100
328,700
331,800

334,900
338,100
341,400
344,100
346,300

348,600
350,600
351,900
353,100
354,100

354,700
354,500
354,100
352.700
350.700
349,000

354,700
258.500

+95,200

347,600
346.300
345,300
344,100
343,200

342,800
343,500
344,300
345.100

345,700

346,300
347.000
347,600
348,600
349,200

350,000
350,400
350,700
352,200
351.300

351.300
351,100
350.700
350,200
349,800

349.000
347,800
346,300
344,900
343,200

352,200
342.800

- 5,800

341.600 292.
339.900 291,
337,900 290.
336,200 289,
334,300 288,

332.290 286,
330.300 285,
328,200 284,
326,200 282.
324,290 281,

322,100 280,
320,000 279.
317,900 2T7,
315,600 276,
313,600 275.

312.200 273.
310.900 272,
309,600 271,
308,500 269,
307,200 268,

306,100 267,
305.000 265.
303,709 264,
302,400 262.
301.100 261,

300,000 260,
298,500 258,
297,200 257,
296,800 255,
294,800 254,
293,500 253,

341,600 292,
293.500 253,

- 49,700 -40,

200
300
400
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100
700
300
900
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100

200
100

400

251,800
250,400
248,800
247,400
246,100

244,700
243,700
242.300
240,900
239,600

238,100
236,700
235,200
233,800
232,500

231,000
229,700
228,300
227,000
225,500

224,200
222,900
221,400
220,100
218,600

217,300
216,000
214,500
213.600
211,900

251,800
211,900

- 41,200

+ ELEVATION, IN FEET, AT END OF MONTH. t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11275SOO HETCH HETCHY RESERVOIR AT HETCH HETCHY, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEET, AT 2*00, MATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

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MAX
MIN

(t)
(t)

CAL
WTR

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t

BAY

1
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S
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11

13
14

OCT NOV

211,300 167,000
210,000 165,800
208,600 164,500
207,100 163,800
205,700 163,500

204,300 162.100
203,000 160,600
201,900 159,400
200,600 158,000
199,400 156,700

197,800 155,400
194,900 154,000
194,000 152,800
192,100 151,100
190,500 150,000

189,100 148,900
187,800 147,900
186,203 146,500
184,900 145,400
183,500 144,600

182,100 143,800
180,800 142.700
179,303 141,600
177,900 140,400
176,500 139,200

175,200 137,200
173,800 136,600
172,500 138,400
171,000 140,000
169,700 140,500
168, SCO

211,300 167,000

DEC

140,400
141,200
141.600
142.200
144,400

158,100
161,400
162.000
162,400
162,600

162,400
162,100
161,703
161,200
160,600

159,900
159,400
158,800
158,400
158,000

157,300
156.600
155,700
155,000
154.200

153,500
152,500
151.700
150,800
149,800
148,900

162,600

3,695.6 3,675.8 3,681.9
- 43,400 -28,000 +8,400 -

YR 1966 MAX 354,700 MIN 136
YR 1967 MAX 363,700 MIN 68

ELEVATION, IN FEET, AT END OF f
CHANGE IN CONTENTS, IN ACRE-FE

CONTENTS, IN AC

OCT NOV DEC

305,700 258,400 213,700

301,100 253,500
299,600 251,200

298,300 249,500
296,800 248,300
295,200 246,600
293,700 245,000

290,700 242,300

286,400 237,900

209,200
208,400

207,000
205,800
204,600
203,200

200,500

48,000
47,000
46,100
45,100
44,200

43,400
42,400
41,500
39,600
38,200

37,200
36,300
35,300
34,300
33.103

32,200
31,200
30,400
29,400
28,500

28,300
28,300
28,100
27,700
27,200

26,800
26,400
26,600
27,700
29,400
30,300

48.000
26,400
5,668.1
- 18,600

600 t
200 t

10NTH.
IT.

(E-FEET,

JAN

171,300

166,100
164,500

162,700
161,100
159,200
157,800
156,100

154,700

195,300 150,100

130,400
130,100
129,600
129,100
128,600

128,600
128,300
128,000
127,700
127,500

127.100
126,700
126,400
126,300
125,500

124,900
124,300
123,200
122,200
121,300

120,200
119,700
117,400
116,900
114,800

113,200
111,800
110,300

130,400
110,300
3,651.8
- 20,000

- 70,000
+95,100

AT 2400,

FEB

127,800

124,600
123,500

122,100
120,300
119,400

117,600

115,600
114,600

108,100 97,800
106,100 96,800
104,200 95,600
131, 900 93,700
99,800 92,300

98,000 90,800
97,000 90,100
96,200 88,300
95,300 86,700
94,500 85,200

93.800 B4.100
93,300 82,800
92,700 81,800
91,900 80,400
91,200 79.000

96.200 78.200
99,500 77,000
101,100 76,000
101,700 75,800
102,300 75,700

102.300 75,400
102.300 75,300
102,500 75,000
102,700 74,500
102,200 74,000

101,400 72,400
100.500 71,900
100,100 71,400
99,900 70,600
99,200 70,100
98,500

108,100 97,800
91,200 70,100
3,641.3 3,613.3
- 11,800 -28,400 +

WATER YEAR OCTOBER

MAR APR

117,100 103,500

116,000
115,700

114,800
114,300
113,500

111,800

110,500
110,000

104,300
104,300

104,100
104,100
104,400

107,100

110,300
111,900

69,200
68,700
68,400
68,300
68,200

68,300
69,800
72,700
76,300
79,100

80,400
81,100
81,800
82,800
85,200

90,700
97,300
105,000
112,600
122,300

135,400
148,900
165,400
179,600
193,500

206.300
218,300
225.500
230,300
233,700
234,000

234,000
68,200
3,737.1
163,900

1967 TO

MAY

135,800

149,800
154,100

159,800
162,900
165,800

170,900

174,700
176,100

230,200
225,000
223,200
220,100
218,100

214,800
214,000
214,500
217,500
219,200

221,900
223,700
224,000
225,000
227,700

231,800
236,500
245,000
252,400
257,800

265,400
272,300
277,100
282,200
288,400

294,600
301,100
306,500
313,400
320,900

320,900
214,000
3,785.6
+86,900

SEPTEMBER

JUN

251,800

267,800
271,200

273,000
274,400
275,300
275,800

278,600

282,200
284,000

329,100
337,400
344.130
348,400
351,100

352,130
352,300
353,300
356,200
360,600

363,100
363,300
363,530

362,700

362,300
361.500
360.630
360,433
360.000

358,800
357,600
356,330
355,200
355,800

356,830
357,200
357,800
359.290
360,030
360,430

363,700

3,806.0
+39,500

1968

JUL

292,800

290,000
289,100

287,800
286,900
286,000
285,300

283,600

281,300
280,400

360, 000
360,400
36 ,200
36 .400
36 ,400

36 ,400
36 ,000
360.600
360, 000
359.600

358,800
358,200
357,200

356, OOC

355,600
355,200
354,900
354,303
353,700

353.100
352.300
351,500
350.700
350,900

350,900
350,400
349,600
348,400
347,400
346,300

361,400

3,798.8
- 14,100

AUG

257,300
255,900

253,100
251,800

250,400
249,000
247,400
246,100

242,100

239,200
237,500

345,100
343,700
342,830
342,003
341,200

340,300
339,300
337,900
336,600
335,400

333,900
332,603
331,230

328,200

326,630
325,130
323,800
322,233
320,930

319,430
318,100
316,800
315,400
314,100

312,830
311,500
309,800
308,300
307,000

345,100

3,778.2
- 39,300

SEP

212,100
210,600
209,200
207,900
206,500

205,100
203,600
202,400
200,900

198,100

195,300
193,700

17
18
19
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21
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24
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30

MAX
MIN

(t)
(t)

281,800 233,300

278,900 231,000

275,800 228,200
274,200 226,800

271,200 224,000
270,000 222,700

268,400 221,100

264,800 218,300
263,100 216,600
261,300 215,200

305,700 258,400
259,800 215,200

- 47,200 -44,600

91,000 147,200

87,800 144,400

84,900
83,700

180,900
179,900

178,600

140,700

138,000

135,400

176,200 133,000
175,000 131,700
173,800 130,400

213,700 171,300
172,500 128,900

- 42,700 -43,600

111,900

110,900

115,600

117,000

117,300

117,300
117,200

127,800
110.900

- 11,700

107,900

106,600

104,300

102,800

101,600

100,700
100,900
101,600

117,100
100,700

- 14,800

114,800

115,200

114,800

114,900

117,200

123,000
126,800
131,300

131,300
103,500

+28,900 +

181,500

189,700

205,800

209,500

215,500

228,200
235,700
241,400

246,600
135,800

289,800

292,800

294,600

295,200

295,200

294,800
294,200
293,700

295,200
251,800

276,600

274,100

270,100

267,500

264,800

262,400
261,200
259,800

292,800
258,500

233,200

230,800

226,300

223,800

221,400

218,400
217,000
215,500

257,300
213,700

189,700

87,000

84,300
82,800
181,100
179,600

176,500

173,500
172,000
170,600

212,100
170,600

- 43,100

WTR YR 1968 MAX 305,700 MIN 100,700 } -136,400

t ELEVATION, IN FEET, AT END OF MONTH,
t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11275500 HETCH HETCHY RESERVOIR AT HETCH HETCHY, CALIF.--CONTINUED

CONTENTS. IN ACRE-FEET, AT 2400. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1969

DAY

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MAX
MIN

(t)
< t)

WTR

t
t

QCT

169,400
168,000
166,700
164,800
164,200

163.000
161,800
160,500
159,200
158,000

157,000
155,900
154,900
153,900
152,600

150,300
149,100
147,900
147,200

145,900
144,700
143,800
142,600
141,200

139,000
137,800
136,500
135,400
134,500

169,400
134,500
3,671.3
- 36,100

NOV

133,500
132,600
134,700
135,300
135,300

135,000
134,600
133,800
133,200
133,100

132,700
132,800
133,000
133.000
133,000

132,600
132,600
133, 100
133,100

133, OJO
132,700
132,300
132,100
131,700

130,700
130,700
130,100
129,500

135,300
129,500
3,667.5
- 5,000

YR 1969 MAX 360,000

ELEVATION, IN FEET,
CHANGE IN CONTENTS,

128,700 108,800
128,000 108,100
127,200 107,300
126,300 106,900
125.400 106.900

124,500 106,900
123,600 106,600
122,500 106,200
121,400 105,700
120,700 105,100

120,000 104,500
119,300 103,900
118,600 104,500
117,900 104,500
117,700 105,200

116,900 104,600
116,000 104,300
115,500 109,100
114,600 111,400

113,800 116,400
113,000 117,600
112,400 117,700
112,300 117,900
112,300 123,200

111.800 129,600
111,200 129,900
110,500 129,900
110,000 129,800
109,500 129,200

128,700 129,900
109,500 103,900
3,651.1 3,667.3
- 20,000 +19,700

MIN 101 t

MIN 73,000 }

AT END OF MONTH.
IN ACRE-FEET

126,600
128,100
127,200
126.300
125,400

124,600
123,700
122,600
121,700
120,700

119,700
118,700
117.800
116.900
116.200

115,700
114,800
113,300
111.600
109,700

107.900
106,000
104,300
102,800
100.900

99,700
98,200
96,700

128,600
96,700
3,639.7
- 32,500

- 63,000
+125,300

95,200
94,000
92,600
91,000
89,500

88,400
87,600
86,700
85,700
84,800

83,800
82,800
81.500
81,000
79,000

78,300
77,600
77,000
76.500
75,900

75,300
74,700
74,200
73,700
73.300

73,000
73,000
73,600
74,900
76,800
79,300

95.200
73,000
3,622.8
- 17,400

81,900
84,000
85,500
86,800
89,300

90.600
91,300
91,900
92,100
91,500

91,600
92,800
94,400
95,200
95,200

95,000
95,200
96.200
97,300
99,800

103,700
108,300
112,800
115.200
116,400

117,400
118,400
120,000
123.100
126,800

126,800
81,900
3,665.4
+47,500

131,200
135,300
138,200
140.800
143,200

148,000
155,000
164,000
174,900
186,700

197,900
208,700
219,700
224,800
227,000

229,000
232,800
237,400
240,600
242,300

245,200
250,200
255,400
261,500
267,500

273,200
278,400
283,400
289,600
297,000
305,300

305,300
131,200
3,777.3
+178,500

JUN

315,600
325,700
331,600
331,800
331,000

333,300
336.200
338,100
335,000
328,300

320.200
314,100
314,900
319,800
324,900

330.100
331,600
330,600
332,000
334,300

336,000
338,900
341,800
342,400
343,400

345,100
346.800
347.600
348,600
350.900

350,900
314,100
3,801.2
+45,600

JUL

353,900
356.400
357.400
356,400
356,000

356,409
357,000
356,800
356,800
357,000

356.800
356,800
357,600
358,000
357,400

356,600
356,800
357.400
358,400
359,200

360,000
360.000
359,800
359,200
358,600

358,400
358,000
357,200
357,000
357,800
358,400

360,000
353,909
3,805.0
+7,500

AUG

358,600
358,600
359,400
359,400
359,200

358,800
358,200
357,800
357,000
356,600

355,800
355,200
354,500
353.500
352.500

351,700
351,500
350,900
350.000
349,000

348,000
347,000
346.100
345,700
344.700

343,500
342,200
340,800
339,500
337,900
337,000

359,400
337,000
3,794.0
- 21,400

SEP

336,200
334,700
333,300
332,000
330,600

329,300
328,300
326,800
325,500
324,000

322,400
321,100
319,600
318,700
317,100

315,800
314,500
313,000
311,530
310.200

309.130
307,800
306,190
304,800
303,300

301.400
299,800
298,800
297,200
295,900

336,200
295,900
3,772.2
- 41,100

CONTENTS, IN ACRE-FEET. AT 2400. WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY OCT NOV DEC JAN FEB MAR APR HAY JUN JUL AUG SEP

1 294,600 262,400 231,200 212,400 237,000 250,400 236,200 221,900 322,200 353,900 337,900 291.700
2 293,300 261,700 229,800 211,500 236,400 250,200 235,700 222,200 327.600 353.500 336.600 290.200
3 291,800 260,300 227,700 210,300 235.900 249,500 235,200 223,400 333,100 355,000 335,100 288,700
4 290,400 259,200 227,200 209,700 235,200 248,800 234,700 224,800 338,100 356,000 333,500 287,300
5 289,500 258,200 225,800 208,700 234,700 248,000 234,800 226,300 341,400 357,800 332,000 285,800

6 287,800 257,300 224,500 207,600 234,000 247,100 235,200 227.800 343.500 358,600 330,600 284,500
7 286,400 256,100 223,500 206,500 233,300 246.600 235,900 228,000 345,300 358,009 328.900 283.400
8 284,900 255,000 222,000 205.200 233,000 245,700 236,400 228,000 348,200 357,000 327.400 281,800
9 283,600 254,700 220,600 204,900 233,500 245,000 236,700 228,000 352,300 356,400 326,100 280,430
10 282,000 253,700 219,400 204,900 234,200 244,400 237,000 227,700 352,900 355,800 324,500 279,100

11 280,400 253,100 217.900 204,700 235,000 243,500 237,700 228,300 351,900 355.200 322,800 277,700
12 279,500 252,100 216,500 204.100 236,000 242,600 237.900 227.500 351.600 354,900 321.300 276,000
13 277,800 251,100 215,300 203,500 237,000 241,800 238,100 226.700 351.300 354.500 319,800 274,800
14 276,200 249,900 213.600 203,900 238,100 241,400 237,500 228,000 350,900 354,300 318,300 273,200
15 275,300 249,000 212,100 203,900 238,900 241,300 236,400 232,200 350,700 354,300 317,000 271,700

16 276,400 248,600 210,800 212,900 239,800 240,800 235,000 238,100 351,500 354,100 315,300 270.300
17 276,800 247,300 209,500 217.000 240.800 240,400 233,500 245,700 353,500 353,500 313,800 268,700
18 276,000 246,200 208,100 217.900 241,400 239,900 232,000 252,600 357,200 352.900 312,400 267,300
19 275,500 245,COO 207,100 218,400 242,500 239,400 230,800 259,200 360,800 352,500 310,900 265,900
20 274,609 243,800 209,200 218,900 242,800 238,600 229,200 262,900 361,200 351,900 309,300 265,200

21 273,500 242,600 212,900 227,200 243,700 237,900 227,500 266,200 361,000 351,100 307,800 263,600
22 273,000 241.300 214,500 232,500 244,400 237,400 226.000 270,700 360,800 350,400 306,300 262.200
23 271,900 240,900 214,700 234,800 245,200 237,200 224,700 276,400 360,000 349,200 305,100 260,800
24 271,000 239.600 214,700 236,900 245,700 237,000 223,800 281,800 359,000 348,200 303,500 259,200
25 270,000 238,400 217,100 237,500 246,600 237,200 223,400 286,900 358,200 347,030 301.600 257,700

26 269,400 236,700 217,500 237,700 247.400 237,400 223,400 292.800 358,600 346,100 300,100 256,100
27 268,200 236,200 217,000 238,600 248.300 237.400 223,400 297,900 360,800 344,900 298,500 254,900
28 267,100 234,800 216,100 238,600 249,300 237,500 222,900 302,400 359,800 343,500 297,000 253.530

30 264^500 232,700 215,200 238,100 237,200 221,900 311,500 355,600 340,800 294,600 250.500

MAX 294,600 262,400 231,200 238,600 249,300 250,400 238,100 317,000 361,200 358,600 337,900 291,700

(*) 3,754.2 3,736.3 3,724.4 3,739.2 3,746.1 3,738.8 3,729.8 3,783.5 3,803.6 3,795.3 3,770.7 3,746.8
(J) -32,500 -30,700 -19,600 +24,400 +11,800 -12,400 -15,000 +95,100 +38,600 -16,100 -46,400 -42,600

CAL YR 1969 MAX 360,000 MIN 73,000 t +103,600
WTR YR 1970 MAX 361,200 MIN 203,500 } -45,400

+ ELEVATION, IN FEET, AT END OF MONTH.
t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11276500 TUOLUMNE RIVER NEAR HETCH HETCHY, CALIF.

DRAINAGE AREA.--457 sq mi.

PERIOD OF RECORD.--October 1910 to September 1970. Monthly discharge only for some periods, published in WSP 1315-A. Published as "at Hetch Hetchy damsite, near Sequoia" 1910-14 and as "below Hetch Hetchy damsite, near Sequoia 1915-18.

GAGE.--Water-stage recorder. Concrete control since May 5, 1970. Altitude of gage is 3,480 ft, revised (from topographic map). Prior to Jan. 1, 1915, water-stage recorder at site 1 mile upstream (different datum at

May 4, 1970, nonrecording gage at site 0.5 mile upstream at different datum.

AVERAGE DISCHARGE.--57 years (1910-67), 999 cfs (723,800 acre-ft per year), prior to diversion to Robert C. Kirk-wood powerplant and Hetch Hetchy aqueduct.

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet) for the water years 1966-70 are contained in the following table:

Wtr yr Date
1966 May 26-28, 1966
1967 July 6, 1967
1968 Aug. 11, 1968
1969 June 4, 5, 1969
1970 June 20, 1970

a Maximum daily.

Discharge G.H.
3,110 9.65
6,160 11.59
1,010 6.79
a9,940
3,550 9.70

Minimum daily

. 26, 1965
. 7, 1967
. 13, 1968
. 3, 4, 1968
. 16, 1969, Feb. 20-26, 1970

Period of record: Maximum discharge, 12,900 cfs June 1, 1943 (gage height, 13.90 ft); no flow Oct. 3, 4, 1968, Dec. 16, 1969, Feb. 20-26, 1970.

REMARKS.--Records good. Beginning in April 1923, flow regulated by Hetch Hetchy Reservoir 1 mile upstream (see station 11275500). Beginning Apr. 26, 1967, flow diverted above station through tunnel to Robert C. Kirkwood powerplant and Hetch Hetchy aqueduct. See schematic diagram of Tuolumne River basin elsewhere in this report. COOPERATION.--Gage-height record and 86 discharge measurements furnished by city and county of San Francisco. REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY OCT NOV DEC JAN FEE MAR APR MAY JUN JUL AUG SEP

1
2
3
4
5

6
7
8
9
10

11
12
13
1*
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
3l>
31

TOTAL
MEAN
MAX
M1N
AC-FT

WTR YR

751
751
TiB
T>8

T>2
739
748
751

748
748
745
745
742

742

736
736

757

766
736

652

688
688
712
733

22,747 22
734

45,120 45

1966 TOTAL

742

742
742

742
739
739
739

766
763
763
763
763

763

769
763

760

781
784

769

766
763
763

,743
758

,110

314, E

760

757
757

754
754
745
721

721
718
718
715
715

718

718
718

715

712
724

724

724
736

724

22,654 21
731

44,930 43

33.3 MEAN

721

718
724

718
718
715
715

712
70
69
69
69

69

709

700

703

700

712
718

715

. 910
707

. 460

863

688

682
691

691
676
661
658

679
700
697
694
694

691

694

09

12

12

09

19,438 22,
694

38,560 43,

MAX 3, 110

706

718
724

718
718
715
715

715
715
715
715
715

706
703

715

712

712
712

712

718
721

730

135
714

700
900

M1N

742 727

733 745

724
718
724
733

721
709
709
712
715

721

709

712

718

730

718
724

21.687 5
723

724
736
742
751

,350
,800
. 820
,850
,870

,890

. 630

,683

1,770 ,180

1,530 ,200

1.220 ,210
727 ,200
727 ,200
730 ,200
733 ,190

733 ,200
733 ,210
733 ,200
736 ,20C
736 ,200

736 842

739 736

739 748

751
751

748

745
745
745
742
742

742
739
739
736
745

748

739

733
730

730
739
742

739

739
736
733
730
739

739
736
736
736
733

730

739

733
730

,110
,100

,360

,654
,860

43.020 114,400

652 AC-FT 624

1,200 742
1,200 742

28,991 29,915
966 965

57,500 59,340

,700
. 500

736
733
733

22,957
741

45,540

724
724
721
697

22,032
733

43.640

SAN JOAQUIN RIVER BASIN

11276500 TUOLUMNE RIVER NEAR HETCH HETCHY, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR HAY JUN JUL

1
2
3
4
5

6
7
8
9

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MAX
MIN
AC-FT

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN
MAX
MIN

CAL YR
HTR YR

259
828
741

738

735
744
744
744

756

747
750

753

747

723

696

684
684
665

68

786
756
747
744

750

753

774

771

780

828 786
259 66
44.850 42,680 45

OCT

39
39
39
33
37

34
105

39
40

40
40
40

39

39
39

143
260
42
41
41

41
41
329
637
336

105
637
33

1967 TOTAL
1966 TOTAL

DISCHARGE,

NOV

42
42
42
252
696

206
42

39
39

39
39
39

42

42
39

38
39
41
41
41

42
40
40
39
252

81.6
696
38

337,673.0
30,007.3

783
7B9
792

49?
501
705
762

759

756

771

768

756

765

762
759
759

768

768
771

756

771

786

795

544

792 795
492 544
,640 46,490

MEAN 860

IN CUBIC FEET

DEC JAN

40 41
191 193
234 327
41 165
44 45

40 217
41 339

166
245

168
373
177

278

361
162

44
44
43
43
43

44
44
43
42
42

113
373
40

MEAN
MEAN

44
44

42
42
189

46

42
41

41
41
41
40
39

39
39
39
39
38

90.0
339
38

925
82.0

637
753

771

528

771
668

771

765

828

756

. . . . . .

528
42,010

MAX 3,110

PER SECOND

FEB

36
36
45
237
38

36
36

39
78

185
46
46

45

47
225

164
42
43
41
43

44
42
42
42

68.1
237
36

MAX 6,140
MAX 696

717
708

370

45
41

55
135

321

282

281
281

273

271

273

273

32
18,370

MIN 68
MIN 32

, HA7ER

MAR

42
82
200
41
43

42
42

166
339

148
29
8.3
17
43

50
47
46

45
43
80
181
44

43
44
45
45
45

71.4
339
8.3

MIN
MIN

273 68
271 66

738 78

726 80
711 83

684 75

656 69

783 75

777 75
780 79

762 87

517 89

69 2 370

3 270

4,010
3.960
2,290

3,800

3,740
3,330
3,820

3.880
3,910

4,020

4,380

4,440
4,620
4,700
4,710
4,740

4,840

5,550

5,850
5,940
5,980

6,140

4,920
2,310
2.660

2.820
4,090

4,629

2,569

2.560
2,560
2.560

2,140
1,350

1.050

1,050
1.959
1.050

69 66 2.290 1,050
35,620 27,060 250.900 215,809

AC-FT 622,500
AC-FT 784,700

YEAR OCTOBER 1967 TO SEPTEMBER 1968

APR MAY JUN JUL

46 64 63 64
44 75 64 64
44 75 64 64
44 76 64 64
44 77 64 64

100 78 64 64
219 79 65 64
43 79 107 64
44 75 189 64
44 71 66 63

44 114 66 70
45 241 66 71
45 64 54 70
45 66 4B 70
46 66 62 70

296 66 63 70
269 66 64 70
34 66 64 70
34 66 64 69
35 67 64 69

35 68 64 69
35 69 111 69
35 69 206 69

33 126

44 69
44 70
44 70
44 66

65.1 83.2
296 241
33 62

32 AC-FT 669,800
8.3 AC-FT 59,520

64

64
64
64
64

75.1
206
48

68

72
73
72
T4

68.2
74
63

1,050
397
112
298
324

290
184
84
60
59

62
69

69

68
66
68
68
68

68
68
68
68
69

70
70
70
69
69
69

1,050
59
9,830

AUG

72
72
71
70
72

73
73
73
74
454

498
149
150
152
153

153
135
127
125
125

123
105
98

95

74
73
73
73

124
498
66

69
256
263
67
66

66
66
67
214
248

72
63

69

214
232
44
43
35

49
35
52
51
40

38
38
39
39
39

2.T01

263
35
5.360

SEP

5
5
5
5
4

36
34
34
34
34

34
34
34
34
34

34
32
32
32
32

32
32
32
32
32

31
31
31
31

36.1
54
31

SAN JOAQUIN RIVER BASIN

11276500 TUOLUMNE RIVER NEAR HETCH HETCHY, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND. MATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY

1
2
3
4

6
7

9
10

11
12
13

15

16
17
18
19
20

22
23

25

26
27

29
30

MEAN

MIN
AC-FT

1

3
4

7
B

10

11
12
13

15

16
17
18

20

22

24
25

26

28
29
30

MAX
MIN

CAL YR

OCT

31
10

0

33

32
34

35

35
35

35

35

31.1

3
1,910

44

44
44

46

46

46
47
46

46

46

46
46

46

46

47
44

1969 TOTAL

NOV

35
35
3B
35

33

33
34

33

32

32

33.6

32
2,000 2

DISCHARGE,

46

46
46

46

46

46
46
4

4

4

4
46

46

46

49
45

349,668

DEC

34
34
34
34

35

36
36

36

34

34

34.7

33
,130 2

IN CUBIC

45

45
45

4B

47

D
25
4B

49

49

50
54

49

49

54
0

MEAN 958

JAN

34
34
33
32

36

37
37

37

43

57

42.5

32
,610

FEET

49

48
48

50

50

80
56
51

52

52

51
51

51

51

80
48

35 372
36 360
36 342
35 322

35 35
34 35

36 33

465 33

160 96.5

34 32
8,860 5,930

PER SECOND, MATER

49 46

49 46

50 46

52 46

52 46
53 46
52 46

0 31

a 46

0 46
0 45

16 45

52 47
0 15

31 646
30 510
38 525
37 536

37 560

578 702
578 734

5B4 4,950

595 5,120

620 5,360

424 3,327

30 510
25.22C 204,600

YEAR OCTOBER 1969

45 703

45 1,030

441 1,050

572 1,050

638 1,060
638 1,070
638 1,080

630 1,570

461 1,590

45 1,630
45 1,640

45 1,690

638 1,730
45 88

5,120 2
5,200 2
8,410 3
9,940 3

7,860 3

6,720 3
6,030 3

3,340 3

4,000 1

4,000 1

4,932 2

1,960
293,500 134

TO SEPTEMBER

1,770 1

1,790
1,800

2,340 1

1,390

713

4B3
485
488

2,820

3,410

3,250
2,670

2,440
2,180

60,379 11

3,420 1
483

. 190
,550
,120
,770

,240

,040
,040

,050

,810

,530

. 920
,B90

980

332

,191

161
,700

1970

. 600

79
84

. 030

691

567

309

255

253
238
212

212

212

185
183

183

189
189
183

. 927
385
,600
79

96
96
97
98

97

89
85

93

92

90
91

90
89

89

88
88

86
85

91.8

85
5,640

167

165
164

141

140

140

129

114

114
114
114

114

84

84
84

84

46
46
46

3,513
113
167
46

95
95
95
95

94

94
93

93

46

6
6

6
6

46

45
45

45
45

70.4

45

4,190

38

32
32

32

31

31
31
31

30

30
30
30

30

30

30
30

32

34
34
34

947
31.6
38
30

SAN JOAQUIN RIVER BASIN

11276900 TUOLUMNE RIVER BELOW EARLY INTAKE, NEAR MATHER, CALIF.

County, Stanisla
Robert C. Kirkwo

National
power-

DRAINAGE AREA.--487 sq mi.

PERIOD OF RECORD,--October 1966 to September 1970.

GAGE.--W

EXTREMES
1967-

Wtr yr
1967
1968
1969
1960

Pe
Nov.

REMARKS,
by He
Water

. --Maxi urns (di

Date

July 5, 1967
Apr. 17, 1968
June 4, 1969
June 22, 1970

riod of record: Maximum dis
18, 19, 25-27, 1966, Feb. 1,

- - Records good. No gage-hei
tch Hetchy Reservoir 13 mile
is diverted to Hetch Hetchy

this report.

COOPERATION. --G

CAY OCT

1 156
2 82
3 37
4 36
5 34

6 24
7 21
8 31
1 15
13 21

11 35
12 34
13 34
14 31
15 IB

16 17
17 22
18 31
19 30
20 29

21 25
22 37
23 61
24 72
25 70

26 66
27 64
28 62
29 68
30 89
31 96

TOTAL 1,448

MAX
WIN 15

age-height rec

DISCHARGE,

NOV

76
74
70
103
63

89
69
37
19
16

17
17
15
28
34

14
13
13
16

22
28
16
14
13

13
13
17
26
24

1.0C5 3,

13

ord and

IN CUB1

DEC

24
134
154
139
580

698
133
163
178
137

148
127
96
64
45

34
44
55
51

41
41
26
26

24

29
2T
25

388

23

scharge

Dis

charge,
1967.

ght rec
s upstr
aquedu

63 dis

C FEET

JAN

22
19
28
26
75

27
25

31

28

24

31

42
36
34
23

187
1C7
145
119

102

104
326
233

2,141

19

age is 2

in cubi

charge
6,180
1,180
11,300
3,900

11,300

ord Oct.
earn (see
ct from

c feet pe

G.H.
8.43
5.30
9.82
7.30

cfs June

1 to Dec
station
tailrace

r second,

Da
No
Au
Ja
No

4, 1969 (g

. 11, 1969
11275500)
of the pow

charge measurements furnish

PER SECOND, HATER YEAR OCTC

FEB MAR APR

13 809 500
73 802 500
112 781 509
86 809 1,010

14
65

16

62

69

57
138
227
167

364
385
375

361

402

4,287
153

13
8.50C

237
222

182

351

304

631
614

431

258
223
485

460

500
530
495

15,010
484

182
29,770

783
1,040

901

797

546
659
791

210
240
442

1,070

440
435

18,596
620

210
36,890

raphic map) .

gage height in feet) for the water years

Minimum daily
te Discharge
v. 18,19,25-27,1966, Feb. 1,1967 13
g. 18, 1968 24
n. 9, 1969 33
v. 22, 1969 43

age height, 9.82 ft); minimum daily, 13 cfs

. Beginning Apr. 26, 1967, flow regulated and by Robert C. Kirkwood powerplant. erplant through a closed conduit. Flow in

ed by city and county of Sa

BER 1966 TO SEPTEMBER 1967

MAY JUN JUL

455 4,010 4.880

485 2,330
490 3,790

460 3 , 550

440 3,810

422 3,830

445 4,080

358 4.480
370 4,500
338 4,520

334 4,560
1 100 4,580

2 380 5,060
2 700 5,000

23,094 121,080

334 2,330
45,810 240,200

4,900
5,420

5,520

4,680

3,920

3.520

2,490
2,340
1,520

1,060
1,070

1,930
936

101.236

936
200,800

n Franci

AUG

1,040

183
269
375

210
310

160

163

147

159
156
127

163
163
164

157
131
169
168
167

7,482

1,040
127
14.84C

SCO.

SEP

147

257
120
156

148
159

210

170
153

146

100

165
139
136

91
52
156

137
136
138
144
95

4,298

257
52
8,530

SAN JOAQUIN RIVER BASIN

11276900 TUOLUMNE RIVER BELOW EARLY INTAKE, NEAR MATHER, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

OAV

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
26
29
30
31

TOTAL
MEAN
MAX
MIN
AC -FT

DAY

1
2
3
4
5

6
7
a
9
10

it
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MIN

OCT

52
91
84
97
90

95
84
216
124
96

118
103
97
87
59

98
106
98
97
68

58
201
111
73
71

71
71
91
332
416
92

114
416
52
7,040

46
43
35

40
46
46
46

47
4R

50

57
64
77
48

64

49

54
83

50

35

NOV

79
71
73
60
372

389
109
91
61
86

65
66
77
75
82

88
64
73
84
90

81
91
83
88
68

72
92

92
252

107
389
60
6,340 8

DISCHARGE,

93
65
54

51
51
50
5C

6?
68

68

58
56
57
56

57

52

51
51

127
76
229
114
104

104
108
98
77
184

131
139
321
105
228

140
73
98
214
310

114
91
96
82
88

13B
111

107
96
79

131
321
73
,050

IN

56
56
55

91

82
69

96
8?
81
7?

71

111

110
IOS

95

96
183
367
299
192

133
249
395
196
186

180
178
106
240
256

197
188
192
191
108

110
187
188
189
191

186
113

185
188
197

193
395
96
11,850

CUBIC FEET

83
84
88

33

472

241

1,010
831

2,220

430

410
286

234

102
100
103
138
127

98
93
92
96
116

134
115
99
97
106

106
207
185
131
258

380
155
146
154
116

131
127

120

136
380
92
7,850

PER SECOND

320

365

450

584

957

1,190

81
59
113
54
43

43
46
68
89
150

280
91
72
61
67

92
127
137
124
116

106
96
138
118

100
98

96
87
84

98.1
280
43
6,030

, MATER

866

380

480

572

405

711

455

490

380

96
102
99
91
90

83
176
106
87
84

84
83
78
78
83

55

100
87
77

86
64
61
56

56
53

72
68

97.1
544
36
5,780

69
100
93
79
82

92
92
91
83
75

77
157
82
72
70

69

62
61
65

65
59
56
49

129
69

55
51
50

75.6
157
49
4,650

,000

YEAR OCTOBER 1968

350

325

388

880

845

831

894

859

1,050

971

934

978

I'LLO

5,420

5,620

5,600

5,850

5,800

5,520

JUN

58
63
71
72
71

71
71
67
130
83

71
65
70
54
50

61

70
70
69

67
135
77
63

61
61

56
56

70.4
135
50
4,190 3

TO SEPTEMBER

JUN

5,350 2

13,400 4

7,010 3

3:670- I

4,310 2

4,450 2

4,750 2

3,420 1

2,800 1
2,420

JUL

61
55
56
50
56

49
33
41
61
61

61
67
67
61
68

66

66
69
56

37
63
66
69

68
62
38
36
69
73

57.6
73
33
,540

1969

JUL

,580

,330

,710
,670

. 630

,390
,170

,080

,440

. 430

,070
608
365

AUG

77
76
70
70
76

82
81
82
83
174

203
280
39
43
45

46

24
15C
196

185
164
52
25

113
133
86
82
108
99

103
280
24
6,350

AUG

248

253
161

294
304

515

280

108
229
232
221

171
105

20C

190
212
108

247

SEP

79
67
66
66
67

60
50
48
48
48

47
54
54
50
48

47

69
53
55

55
54
66
64
64

64
64
58
57
64

1,735
57.8
79
47
3.440

SEP

111
198
191
184
170

165
180

182

113
160

118
117
113
54

118
121
122

126
51
51
141
136

130

50

WTR YR 1969 TOTAL 444,8«3 MEAN 1,219 MAX 13,600 M1N 33 AC-FT 882,400

SAN JOAQUIN RIVER BASIN

11276900 TUOLUMNE RIVER BELOW EARLY INTAKE, NEAR MATHER, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY

t

i
3

5

b
7
8
<>

M

11

13

15

16
17
18
1<>

21
22
23
24
25

27
28

30

KIN
AC-FT

CAL YR

OCT

58
76

s:
50
50
57

55

57

68

88
90
64
59
57

55
55
55

54

49
3,560

1969 TOTAL

NUV

54
54

82
58
57

54

56

53

88
112
80
55

47
43
57

54

43
3,690

444,875

56
55

52
58
63

T)

56

82

57
87
92

8)
111
90

83

48
4,600

MEAN

69
68

65
70
86

116

115

248

320
270
263

713
430
286

298

65
14,860

1.219

212
238

194
204

96

118

182

162
135
87

61
58
56

67

46
7,340

MAX 10,600

193
405

340
340

286

290

182

252
218
241

234
234
238

248

278

182
17,100

HIN 33

356
439
440

330
375

782

796

985

964
815
950

957
866
638

370

335

594

212
35,370

AC-FT

231
224
221

1,070
1,080

1,090

1,080

1.090

1,120
1,160
1,410
1,690

1,690
1,730
1,750

1,810

1,890

1,270

221
78,090

832,400

JUN

1.960
1,990
2.020

2,640

2.640

1,580

894

555
555
1,140
2,980

3,570
3,580
3,530
3,530
3,080

2.260

2,211

550
131,600

JUL

1,760
1,283
191

1.160

716

644

36$

274

270
228
21B
234

238
221
259
234
221

224

448

120
27,520

AUG

194
205
238

199

169

199

202

191

135

188
172
177
163

148
79
46
122
1*6

1*4
108

63

161

46
9,900

SEP

85
71
116

47

63

10*

72

86

131

139
190
105
59

1)4
90
73
72
72

61
64

70

86.7

47
5.160

SAN JOAQUIN RIVER BASIN

11277200 CHERRY LAKE NEAR HETCH HETCHY, CALIF.

DRAINAGE AREA.--117 sq mi.

PERIOD OF RECORD.--August 1956 to September 1970. Prior to October 1959, published as Lake Lloyd near Hetch Hetchy.

GAGE.--Nonrecording gage. Datum of gage is at mean sea level (levels by city and county of San Francisco).

Wtr yr
1966
1967
1968
1969
1970

Date

May 31, 1966
July 15, 1967
June 4, 5, 1958
July 14, 15, 1969
June 29, 1970

Contents
177,000
268,800
221,500
269,000
244,200

,644.7
,700.0
,672.5
,700.1
,685.9

Date
Mar. 12, 1966
Nov. 19, 1966
Sept.30, 1968
Nov. 2, 1968
Dec. 19, 1969

Coi nts
59,400
14,200
80,000
47,500
166,200

Elevation
4,558.7
4,513.1
4,575.9
4,548.1
4,637.7

Period of record: Maximum contents, 269,300 acre-ft July 1-3, 1957 (elevation, 4,700.6 ft); minimum,
30 acre-ft Dec. 5, 1964 (elevation, 4,438.0 ft).

REMARKS.--Reservoir is formed by rockfill dam completed in 1956; storage began in December 1955. Usable capac-ity, 268,810 acre-ft between elevations 4,430 (bottom of sluice gates) and 4,700 ft (top of spillway gates) above mean sea level. Additional storage of 20 acre-ft is not available for release. Water is released down Cherry Creek for power development and domestic supply as part of Hetch Hetchy system of city and county of San Francisco. Unmeasured diversion from Lake Eleanor into Cherry Lake began Mar. 6, 1960. Diversion from Cherry Lake through tunnel to Cherry powerhouse near mouth of Cherry Creek began Aug. 1, 1960. See schematic diagram of Tuolumne River basin elsewhere in this report.

COOPERATION.--Gage-height record furnished by city and county of San Francisco.

Capacity table, water years 1966-70 (elevation, in feet, and usable contents, i

4,510
4,520
4,540

11,700
19,700
38,900

4,560
4,580
4,600

60,800
85,100
111,800

4,620
4,640
4,660

4,680
4,700
4,705

re-feet)

234,100
268,800
277,900

CONTENTS. IN ACRE-FEET. AT 0800i

NOV DEC JAN FEB

WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MAX
MIN

(t)
(t)

CAL
WTR

169.100

167.600
167,400
165.700

165.600
164.900
164.000
163,000
162.400

162.300
161.200
160,200
159,400
158,500

157,600
156,900
156,600
155,500
154,300

153,600
152,500
151,500
150,500
149,900

148,700
147.400
146.200
144.900
143.700
142,700

169,100
142,700

- 27,300

YR 1965 MAX
YR 1966 MAX

142,300
140,900
139,500
136,200
136,900

135,600
134,500
133,900
132.700
131.200

12S.800
127.500
127,400
129.000

128.600
130,200
132,100
134,400
134,900

135,400
136,200
136,900

139,900
140,200
140,400
141,100
140,900

142,300
127,400

- 1,800

229,400
169,100

140,500
140,400
139,900
139,600
139,400

139,600
139,100
136,400
137,600
137,100

136,400
135,600
135,600
134,900
133,900

133,100
131,900
131,100
130,200
129,600

126,600
127.500
126,500
125,400
124,600

124,000
123,700
12?, 600

120,100
119.900

140,500
119,900

- 21,000

MIN 59
MIN 59

119,400
118,900
116,600
117,600
116,900

116,100
115,300
114,400
113.600
113.800

112,800
112,000
110,900
109,900
109,100

106,200
106,200
107,300
105,900
104,700

103,600
102,600
101,700
100,700
99,500

96,100
96,600
95,500
94,500
93,300
92,700

119,400
92,700

- 27,200

,400 t
,400 t

91,500
90,200
66.900
87,900
86.700

85.800
65.100
84.000
62.600
61.400

60.400
79.400
78,700
78,500
77,500

76,300
75,400
74,400
73,600
72,800

72,500
71,600
70.800
70,100
69,100

68,300
67,600
67,500
_ «--
. «..

91,500
67,500

- 25,200

+23,500
- 108,800

66,500
65,600
64,600
63,700
62,700

62,000
61,900
61,000
60,200
59,700

59,500
59,400
59,600
61.100
61.500

61.800
61,600
61.700
61,500
61,700

62,300
61,900
61,600
61,900
62,300

63,000
64,200
66,100
67,400
67,600
70,700

70,700
59,400

+3,200

72,800
75,300
77,800
61,000
83,500

65,900
66,400
90.700
92.900
95,600

98,500
100,000
101,300
102,200
103,200

104,400
106,300
109,100
110,400
111,300

111,500
112,000
112,400
113,200
115,100

117.100
119.200
121.000
122.600
124.600

124,600
72,800

+53,900

126.800
129.800
132,100
134.700
137,400

140,100
142,600
145,500
148,400
150,600

152,700
154,300
155,800
157,500
159,100

161,400
162,600
163.800
165.200
166.500

166.000
169,500
171,400
172,200
172,900

173,600
174, POO
174,600
175.600

177.000

177,000
126,800

+52,400

176.500
176,200
175,900
175,400
175,300

175,600

175,000
174,700
174,200

173,700
173,300
173,300
172,600
171,900

171,400
170,600
170,000
169,500
169,200

168,300
167,100
166,200
165,200
164,300

163,300
162,600
161,500
160.300
159.400

176,500
159,400

- 17,600

158,700
157,900
157,300

156,600

156,200
155,500
154,600
153.700
153.000

152.700
151,700
150,600
49,600
46,600

47,500
46.700
46.200
45.100
43.700

42.700
41.500
40,400
139,400
136.900

137,600
136,600
135,400
134,100
132,900
131,900

158,800
131,900

- 27,500

131,500
130,200
129,000
127,700
126,500

125,300
124,200
123,500
122,100
120,700

119.600
116.300
117.100
116,000
115,300

114,000
112,600
111,400
110,200
108,600

107,700
107,000
105,600
104,300
103,000

101,700
100,400
99,200
96,500
97,200
95,900

131,500
95,900

- 36,000

94,600
93,400
92,100
91,100

69,600
86.200
87,100

64,500

83,500
62.600
61.500
60,200
78.900

77,700
76,400
75,300
74,700
73,300

71.900
70,600
69,500
68,300
67,100

66,300
65.100
63,700
62.500
61.200

94,600
61,200

- 34,700

t ELEVATION, IN FEET, AT END OF MONTH, t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11277200 CHERRY LAKE NEAR HETCH HETCHY, CALIF.--CONTINUED

CONTENTS. IN

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
1*
15

16
17
18
19
20

21
22
23
2*
25

26
27
26
29
30
31

MAX
MIN

(t)
(t)

WTR YR

OCT

59,800
58,800
58,100
56,900
55,400

54,200
53,000
51,700
50,700
50,000

48,700

46,200
44,900
43,700

42,700
42,000
40,700
39,600
38,400

37,200
36,000
34,800
34,200
33,100

31,700
30,500
29,300
28,000
26,900
26,000

59,800
26,000

1967 MAX

NOV

24,900
23,900
22,900
21,900
21,000

19,700

18,200
17,500

16,100
15,500
15,200
14,300

14,800
15,400
14,900
14,200
14,900

16,300
16,400
16,300

16,600

16,300
16,200
16,400
22,900
22,500

24,900
14,200

268,800

DEC

26,500
27,500
30,300
31,700
33,800

36,700
45,200
47,100
4B,600
50,000

51,600
53,300
54,400
55,400
56,300

57,200
58,100
59,100
60,500
61,400

61,900
62,500
63,000
63,300

64,300
64,500
64,400
64,200
63,900
63,700

64,500
26,500

MIN 14

ACRE-FEET, AT 0800

JAN

63,400
63,200
62,400
61,800

61,100
60,500
59,800
59,500
58,600

57,700
56,900
56,100
55,300
54,800

54,400
53,600
52,700
51,900
51,100

50,800
50,800
50,800
50,500
50,000

49,600
49,200
49,000
49,200
50,600
51,600

49,000

,200 t

FEB

51,900
52,000
51,900
51,700
51,600

52,000
51,700
51,500
51,400
51,300

51,100
51,300

51,600
51,300

51,000
50,600
50,200
49,900
50,000

49,600

48,800
48,400
47,900

47,500
47,500
47,000
. . . . . .

52,000
47,000

+153,200

, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

MAR

46,400
46,000
45,600
45,300
45,000

45,000
44,500
44,000
44,000
44,000

44,000
44,300
45,000
45,100

46,400
55,300
59,900
63,000
65,900

67,700
69,500
71,000
72,200
73,600

74,900
76,600
77,700
79,500
BO, 700
81,700

81,700
44,000

APR

82,600
83,500
84,800
85,100
85,500

86,000
86,000
86,200
86,600
87,600

87,700
87,700
87,700
87,900
87,900

88,200
88,900
88,900

88,200

87,200
86,300
85,400
84,400
83,500

82,400
81,700
80,800
79,800
78,900

82,600
78,900

MAY

78,700
78,300
78,000
78,300
78,500

78,900
80,000
82,300
84,300
86,600

88,000
88,900
89,700
90,800
92,800

95,100
98,700
102,800
106,700
111,100

116,700
123,600
129,700
135,600
141,200

146,500
151,200
155,800
159,700

165,800

78,000

JUN

167,400
168,300
168,800
169,500
171,700

173,400
175,400
179,500
181,000
184,100

187,300
190,300
193,100
195,800
198,200

201,100
204,200
208,100
212,500
215,700

219,200
222,600
225,900
228,600
231,900

235,800
239,200
242,300
245,900
249,000

167,400

JUL

252,300
255,800
259,800

265,600

266,400
266,700
266,900
266,900
267,100

266,400
266,400
267,200
268,500
268,800

268,500
268,600
267,600
267,400
267,600

267,900
268.100
268,600
268,500
268,500

268,500
268,500
268,300
268,100
268,100
268.600

252,300

AUG

268,100

267,000
266,400
265,600

265,100
264,800
263.900
262,700
261,800

260,900
259,800
259,100
258,400
257,400

256,700
256.200
255.400
254,600
253.900

253,700
252.600
251,400
250.400
250,000

250,200
250,000
249.900
248,800
247.800
246.600

246,600

SEP

245,400
244,000
243,300

242,700

241,300
240,300
238,900
237,800
236,600

236,100
234,600
233,400
232,400
231,100

229,900
228,700
228,400
227,200
225.900

224,700
223,400
222,200
221,200
220,900

219,500
218,000
216,900
215,700
214,400

214,400
4,668.2

+ ELEVATION, IN FEET, AT END OF MONTH, t CHANGE IN CONTENTS, IN ACRE-FEET.

CONTENTS. IN ACRE-FEET, AT 0800, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

1
2
3
4
5

6
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9
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11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

27
28
29
30
31

MAX
MIN

1 1)
CAL YR
WTR YR

213,500
213,000
211,800
210,500
209,600

208,300
207,100
206,100
205,300
204,000

202.700

200,300
199,000
198,100

197,600
196,300
195.100
193,900
193.000

192.400
191,900
191,900
191,200
190,300

189,000
183,200
187,700
187,100
186,300

213,500
186,300

- 28,100

1967 MAX
1968 MAX

185.500
185.000
184.300
183.500
183.000

182.700
181,900
181.000
180.500
179.600

179,000
179,000
178,200
177,600

177,900
178,200
178,500
178,800
179,300

179,500
179,600

179,800
179,800

179,800
179,900
179,900
180,100

185,500
177,600

- 6,200

268,800
221,500

180.200
180,400
180,500
180,500
181.200

181.200
181.600
181.800
181.900
182.100

182.200
182.400
182.400
182,400
182.100

182.100
182,200
182.400
182.700
182.700

182.900
182.900
163,000
183,000

182,600
183.000
181,200
130,400
179,800

183,000
179,800

- 300

MIN 44
MIN 80

179,800
178.700
177,900
177,000

176.200
175.600
175,400
174,700
173,600

173,100
172,300
171,600
171,100
171.400

171,400
170,900
170,300
169,700
169,100

168,900
169,100
168.600
168,200
167,700

165,800
165.300
165.000
165,300
166,200
165,500

179,800
165,000

- 14,300

,000 t
,000 t

165.200
164.400
163.600
163.200
163.000

162,300
161,500
160,900
160.200
159.600

159.600

159,000
158,400
158,100

157,500
157,200
157,900
158.500
161,500

162.100

164.100
165,300
166,400

167,400
167,700
168, ?00
168,500

168,500
157,200

+3,000

+59,900
- 134,400

168,900

169,200
170,000
170,000

170,000
169,800
169,700
169,800
169,800

170,300
170,000
169,700
169,400
169,100

168,800
168,900
169,500
169,200

168,200
167,900
167,600
167,700
168,200

167,900
167,600
167,600
167,700
168,300
169,400

170,300
167,600

+ 900

171,100
172,000
172.200
172,300
172.600

172.800
173.100
174.200
174,300
175,100

176,500
177,400
178,400
179,800
181,600

182,600
183,200
183.000
183.000
183,200

183,600
184,600
184,600
184,400
184,900

185,700
186,900

190.600
192.500

192,500
171,100

+25,800

194.300
195,800
197,400
199,200
201,400

202,900
203,400
204,000
204,800
205.300

205.700
206.300
207.300
207,400
207,400

207,800
207,900
208.400
209,600
211,500

213,500
214,800
215,100
214,900
214,800

215,400
217,000
217,900
219,000
219,700

220,000
194,300

+27,500

220.200
220.500
221.200
221.500
221.500

221.200
220.400
219.400
218.300
217,400

216,600
215,900
215,300
214,600
214,000

213,100
212,800
212,200

210,200

209,200
208,100
206.800
205.700
204,400

202,900
201,600
200,100
199.000
197.900

221,500
197,900

- 22,100

197.100
196,000
194,700
192.500

191.600
190.400
189.500
188,500
187.400

186.300
185.500
185,000
184,100
183,600

182,600
181,600
180,500
179,600
178,500

177,400
176.400
175,300
174.000
172.800

172.000
70.900
69,700
68,600
67,600
66,500

197,100
166,500

- 31,400

165,500
164,600
163,300
162,300
161,700

160,600
159,600
158.400
157.300
156,200

155,000
154,000
152.800
151,700
150,500

49,300
48,100
46,700
45.300
44.300

42.900
41,500
40,200
138,800
137,200

135,600
134,200
132,500
131.000
129.500
12B.DOO

165.500
128,000

- 38,500

126,400

123,500
121.800
120,300

118,700
117,200
115,600

112.200

110,600
108,900
107,300
105,800
104,100

102,500
100,700
98,900
97,500
95,900

94,200
92,700
91,400
89,800
88,000

86,600
84,900
83,300
81,700
80,000

126,400
80,000

- 48,000

+ ELEVATION, IN FEET, AT END OF MONTH, t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11277200 CHERRY LAKE NEAR HETCH HETCHY, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEET. AT 0800, HATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

1
2
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4
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6
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9
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11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MAX
MIN

(t)
m

CAL
WTR

t
t

78>700 48,100
77,400 47,500
76,200 51,900
75,100 63,800
73,800 54,600

72.600 55.100
72,200 55,300
71,000 55,200
69,700 55,100
68,700 55,100

67,500
56.000
65,300 56,300
66,100 56,400
65,200 56,300

64,000 56,600
63,100 56,800
61,900 57.300
60, TOO
59,700 59.300

59,600 59,800
58,400 60,200
57,200 60.400
56,100 60.500
55,000 61.000

53.800 61,100
52.600 61,000
52,300
51.100 61,100
50,000 60.800

78,700 61,100
49,000 47,500

- 31,000 +11,800

YR 1968 MAX 221,500
YR 1969 MAX 269,000

ELEVATION, IN FEET,
CHANGE IN CONTENTS,

60,600
60,500
60,400
60,200
59.800

59,600
59,300
59,000
58,900
58,600

58,600
58,500
58,400
58,100
58,200

58,800
58,800
56,800
58,800
58,800

58,600
58,500
58,400
58,400

59.100
59.400
59,300
59,600
59,600

60,600

- 1,200

MIN 47,
MIN 47,

59.500
59.000

58.200

58.800
58.600
58.200
57,800
57.500

56.900
56,700
57.000
58,100
58.500

58.600
58,400
58,100
60,500
65,900

70,800
73,900
74,900
75,800
78,300

83.800
86.300
87,500

89.700

89,700
56,700

+30,100

500 t -
500 t +

90,600
91,400
92,900
93,600

95,900
96,200
96.900

96.900

96.000
95.500

95.300

94.600
94,100

94.000

92.900
92.700
92.700

91,000

90,600

+1,300

120,200
124,000

90(300
89(700
90(300
89(000

86(900
86.400
86.900

86.400

81.400

80(700

79(900
79(900

78(900
76(800
75(400
74(900

72.200
71.300
70,300
69,700
69.700
70.000

90,300
69,700

- 21,000

70,300
70.800
71.200
71,000
71,000

71,600
71,500
70,900
70,200
69,400

69,700
70.400
71.600
73,000
73,800

74,400
75,200
76.400
77.700

81,800
84,500
87.500

91.200

92.300
93.300
94,600
96,200
98,400

98,400
69,400

+28,400

100.900
103.300
105.500
107.300
108,800

111.400
115,300
119,600
123.900
129,100

134,500
139,800
144,800
150,000
155,200

159,600
163.800
168.800
173,900
177,800

181,500
187,100
190,000
194,600
197,800

200,900
204,800

211.700

217.400

217,400
100,900

+119,000

221,200
225,100
229.400
232,700
235.100

237.200
240.900
244,200
247.300
248.700

249.500
250.500
252.600

255(400

258.100
260.000
260.400
260.900
262.000

263.400
264,100
265.300
265.100

262.700
261,400
259.800
260.000

265,300
221,200

+42,600

260.700
261.800
263.000

264.200

264.600
265.100
265.500
266.000
266.500

266.900
267.600
268.100
269.000
269.000

267.800
266.900
266.400
265.800
265.500

265.100
265.100
265,100
265.100
264.900

264.400
263.700
263,200
262.500
261,600
260.700

269,000
260,700

+ 700

259,800
258.800

257(900
257(700
256(700

255(400
254,600
253.300
252.300
251.200

251.100
250.500
248.700
247.500

245.400
244,900
244,900
243,900
242,800

241.800
240.900
239,900
239,100
239,100

238.000
237.000
236.000
235,100
234,200
233,600

259,800
233,600

- 27,100

233,400
232,200
230,900
229,700

228,600
227,700
227,600

224,900

223,700
222,600
221,400
220,400
220,200

218,900
217,500
216,400
215,100
214,000

213.000
212.700
211.500
210.000
208,900

207,600
206,600
205,500
205,300
204,000

204,000

- 29,600

AT END OF MONTH.
IN ACRE-FEET.

CONTENTS, IN

DAY

1
2
3
it
5

6
7
8
9
10

11
12
13
14
15

16
17
IB
19
20

21
22
23
24
25

26
27
28
29
30
31

MAJT
MIN

(t)
(t)

CAL

OCT NOV

202.600 187.600
200.800
200.100 187.400
198.900 186,600
198.100 185.800

197.900 185.400
197,000 185,200
195,800 184,700
194,900 184.600
194,100 185.200

193,100

193.000 184.700
192,000 184.300
191,200 183.600

193,100 183.500
194,400 184.100
194,300 183.300
194,100 182,600
194,600 181.900

193,900 181,300
193,100 180.500
192.500 180.200
191,900 180,500
191,200 181.300

190,900 179,000
191,200
190,600
189,600 177,900
188,900 177,300
188,200

202,600 187,600
188,200 177,300

- 15,800 -10,900

DEC

177,400
176,700
175,700

174.300

173.400
172.900
173.100
172.500
171,600

170,200
169,400
169,100
169,400

168,500
167,600
166,800
166,200
167,600

173,400
180,700
181,600
182.100

185.800
186,000
185,800
186.800
186,300
185.700

186,800
166,290

+8,400

YR 1969 MAX 269,000 MIN 56

ACRE-FEET

JAN

185.400
185.000
184,600
185,000

184,000
183,200
182,600
182,100
182,200

181,800
181,300
180,800
180,400
180,500

181,900
187,300
189,000
189.600

190(000

191.200
197.800
200.000
201,200
201,700

201,600
201,400
200,800
200,100
199,300
198,400

201,700
180,400

+12,700

,700 { ^

, AT 0800

FEB

197.800
197.600
197.000
196.200
195.400

194,700
194,400
194.300
194,600
194.300

193(800

193(300
193,300

193,900
193,600
193,100

193, POO

191,900
191,700

191.700
191, POO

190.900

190(600
190(400

197,800
190,400

- 8,000

'126,100

. WATER

MAR

190.600
190.900
190.400
190,400
190,400

190,400
190,400
190.400
188.900
1BB.400

187,700
187,300
186,800
186.500
186.300

186.300
186,000
185,200
184,600

183,800
183.200
183,000
182,700
182.600

182.400
182.100
182.100
181.900
181.900
181.500

190,900
181,500

- 8,900

YEAR OCTOBER 1969

APR

180.900
180.400
180dOO
179(900
180,100

180,400
180,500
180,700
180,900
181,300

181,800
182.400
183,000
183,200
183,000

182,700
182,400
181,900
181,900
181.800

181,300

179,800
179,300

179,300
179,600
179,300
178,800
178,200

183,200
178,200

- 3,300

MAY

178,400
178,800
179,600
181,500
182,900

184,700
185,800
186.500
186,800
187.600

188, POO
188,400
188,400
189, POO
190,800

193.100
196.000
199,700
201,400
203.000

204,400
205,700
207,400
209,400
211,200

213,000
214,900
216,400
217.500

?20.400

220,400
178,400

+42,200

TO SEPTEMBER 1970

JUN

222.000
223.600
224.700
225.900
227.200

228.600
229.600
230.700
234,100
236,300

236.500
236,300
236,100
235,800
235,400

234,600
234,200
233,900
234,800
235,600

236,500
238,000
238,700
239,200
239,600

239,900
241,300
243,200
244,200
243.900

244.200
222.000

+23,500

JUL

243.300
242.800
242.700

241.800

242.300
241.800
241.300
240.400
239.900

239.100
238.200
238.200
237,200
236,100

235,300
234,400
233.200
232.400
232.400

231,400
230,200
229,100
228,100
226,900

225.900
225,900
224,700

221,000

243,300
221,000

- 22,900

AU6

219,900
218,900
218,900
217,500
216,400

215,300
214,100
213,100
212,000
212,000

210,900
209,600

207,300
206.100

205.000
204,800
203,700
202,400
201,300

200,000
198,900
197,900
197,800
196,800

194,400
193,600
193,000
193,100

219,900
193,000

- 27,900

SEP

192,400
191,400
190,400
190,400
189,000

188,400
188,700
188,900

18ft, 800

186,200
185,400
184,700
184,900
184,000

183,000
182,100
181.500
180,400
179,100

177,800
178,400
177,400

175,900

175,100
174,700
174,800
173,900
172,900

192,400
172,900
4,642.1
- 20,200

t ELEVATION, IN FEET, AT END OF MONTH. t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11277300 CHERRY CREEK BELOW CHERRY VALLEY DAM, NEAR HETCH HETCHY, CALIF.

ec.5, T.I N., R.19 E., Tuolumne County, Stanislaus National ry Valley Dam, 3.5 miles upstream from Eleanor Creek,
6.7 miles nor

DRAINAGE AREA.--

PERIOD OF RECORD

EXTREMES. --Maxim
1966-70 are c

Wtr vr Date

1966 July 2-
1967 July 5,
1968 Dec. 14,
1969 July 15,
1970 July 9,

Period of

1.6 cfs Apr.

REMARKS. --Record
between Lake
began Aug. 1,

2 4.3

4 5.1

6 5.1
1 5.1
8 5.8

23 5.3

29 5.5
30 5.3
31 5.3

TOTAL 167.5
MEAN 5.40

AC-FT 332

th of Early Intake, and 7.2 miles west of Hetch Hetchy.

118 sq mi.

. --November 1956 to September 1970.

ty of San Francisco) .

ontained in the following table:

Maximum Minimum daily
Discharge G.H. Date
4, 1966 18 3.11 Oct. 2, 3, 1965
6, 1967 1,180 7.36 Jan. 15, June 8, 24, 1967
1967 1,390 7.60 May 29, 30, 1968
1969 990 7.02 Oct. 2, 3, 1968
1970 181 4.57 Many days

record: Maximum discharge, 3,830 cfs Apr. 25, 1958 (gage height, 9.95 ft); minimi 10, 1957.

s good. Flow regulated by Cherry Lake 0.7 mile upstream (see station 11277200). Eleanor and Cherry Lake began Mar. 6, 1960. Diversion from Cherry Lake to Cherry

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

NOV DEC JAN FEB MAR APR MAY JUN JUL

5.3 6.2 6.2 6.0 5.5 5.5 5.0 5.5 16

5.3 6.2 6.0 5.5 5.5 5.5 5.0 5.5 16

6.2 6.0 6.D 5.3 6.0 5.7 5.0 5.5 16

9.2 5.8 6.0 5.5 5.5 5.7 5.3 5.5 16

6.5 6.0 5.5 5.5 16

192.8 1B9.8 186.6 154.7 176.1 171.6 161.3 163.7 496 6.43 6.12 6.02 5.53 5.68 5.72 5.20 5.46 16.0

382 376 370 307 349 340 320 325 984

Di

am daily,

powerhou

AUG

16
16
16
16
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16
16

16
16
16
16
16

16
16
16
16
16

16
16
16
16
16
16

496
16.0
16
16
984

scharge
4.3
5.0
4.8
4.8
3.9

n
se

SEP

16
16
16
16
16

16
16
16
16
16

16
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16
16

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16

16
16
16
16
16

16
16
16
16
16

480
16.0
16
16
952

11277300 CHERRY CREEK BELOW CHERRY VALLEY DAM, NEAR HETCH HETCHY, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY OC1

I 6
2 6
3 6
* 6
5 I

7 5.
8 5.
9 5.
10 5.

11 7.
12 8.
13 B.

15 8.

16 8.
17 8.
18 B.
19 8.
20 9.

21 9.1
22 10
23 10
2* 11

26 11

28 11

30 11

MEAN 9.8<
MAX If

AC-FT 60

1 12

5 5.1

7 5.1

9 5.7
10 5.5

11 5.5

13 5.5
1* 5.5

16 5.5

19 5.5
20 5.5

21 5.5
22 5.5

2* 5.5
25 5.5

26 5.5

30 5.5

MEAN 5.81
MAX 12
MtN 5.5
AC-FT 357

CAL YR 1967 T

NOV DEC

11 5.7
11 9.3
11 8.0

12 12

12 13
12 10

12 7.7

12 7.*
12 6.9
12 6.9

11 6.6

13 6.0
12 5.5
12 5.5
12 5.5
13 5.5

12 5.7
9.7 5.5
6.6 5.5
6.3 5.5

5.5 5.7

13 25

5.5 6.3

5.5 6.0
5.5 5.7

5.5 5.7

5.5 5.7
5.5 258

6.3 5.7
5.7 5.7

5.5 5.7
5.5 5.S

5.5 5.5
5.5 5.7

5.5 5.5

5.56 13.9
6.3 258
5.5 5.5
331 856

OTAL 19,898.8 MEAN

5.7 12
5.5 11
5.5 10

5.3 9.0

5.3 8.3

5.3 8.3
5.3 8.0
5.3 8.0

5.0 a.O

5.3 .7
5.5 .7
5.5 .7
5.5 .7
6.0 .7

13 .*
10 .*
8.0 .2
7.7 .2

16

16 12

5.5 6.0

5.5 6.3
6.0 6.3

5.7 6.3

5.5 6.3

6.0 a. 3
5.7 12

5.7 10
5.7 9.3

5.7 8.3
5.7 8.0

5.7 7.7

5.81 7.30
7.2 12
5.5 6.0
357 *2D

54.5 MAX 1,170

6.9
6.9
7.2

6.6

6.6

7.2
8.0
8.0

7.7

19
16
I*
I*
13

12
12
12
11

7.*

19

6.0

6.3

6.0

6.3

6.3
6.3

6.3
6.3

6.3
6.3

6.3

6.27
7.2
5.7
386

MIN 5.0

7.2
7.2
7.2

8.6

8.6

8.6
8.0
8.0

8.3

8.3
8.0
9.0
8.3
8.0

8.0
7.7
7.7
7.7

8.3

9.3

6.0

5.5
5.5

5.5

5.3

5.5
5.5

5.5
5.5

5.5
5.5

5.5

5.57
6.3
5.0
331

AC-FT

8.3
9.3
9.7

9.3

12

10
9.0
8.3

7.7

7.*
7.2
6.9
6.6
6.3

5.7
5.5
5.3
5.5

5.5

12

5.3

5.3
5.3

5.3

5.7

5.5

5.3
5.3

5.3
5.3

5.0
5.0

5.0

5.24
5.7
*.8
322

39,*70

6.0
5.7
5.5

5.3

5.7

5.7
5.7
6.0

5.7

5.5
5.5
5.5
5.5
5.3

5.3
5.3
5.3
5.0

530

530

5.3

5.5

5.3
5.3

5.3

5.3

5.3

5.3
5.0

5.0
5.0

5.5
5.3

5.3

5.30
5.5
5.0
316

JUL AUC

53* I
538 1
538 I
5*2 I
928 I

,179 1
,170 1
,170 1
,170 1

908 1
510 1
278 1

923 1

995 1
990 1
709 1
310 1
79 1

15 I
18 1
292 1
275 1

17 I

17 I

17 1

1,170 1
15 1

10 1
18 1

17 1
17 I

17 I

16 1
16 1

16 1

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16 1

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16 1
16 1
16 1

16 I
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18 IE
10 16
988 986

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17
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16.*
18
10
97*

11277300 CHERRY CREEK BELOW CHERRY VALLEY DAM, NEAR HETCH HETCHY, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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it
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2*
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31

TOTAL
MEAN
MAX
HIM

DAY

1
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31

MEAN
MAX
WIN

OCT

5.0
4.8
4.8
5.3
5.5

5.3
5.3
5.3
5.3

5.3
5.7
6.9
5.7
5.5

5.7

5.3

5.3

5.3
5.0
5.0
5.0
5.3

5.3
5.3
5.3
5.7
5.3
5.3

5.35
6.9
4.8

DCT

11

3.9

4.8

4.4

4.2
4.2
4.2
4.2
4.2

4.2
4.2
3.9
3.9

3.9

4.63
11

NOV

5.7
15
10
7.2
5.7

5.3
5.3
5.3
5.3

5.3
7.0
5.7
6.0
6.0

5.7

6.0

5.7

5.7
5.7
5.7
6.0
5.7

5.7
5.7
5.7
5.7
5.7

6.22
15
5.3

DISCHARGE

NOV

3.9

3.9

3.9

3.9
3.9
3.9
3.9
3.9

3.9
3.9
3.9
3.9

3.99
4.6

DEC

6.0
5.7
5.7
5.7
5.7

5.5
5.5
5.5
6.0

6.0
5.7
5.7
6.3
7.4

7.2

6.3

6.0

6.0
6.0
6.0
7.2
8.3

7.4
7.2
6.9
6.9
6.9

6.32
8.3
5.5

, IN cu

DEC

4.2

4.2

5.3

6.4
5.5
5.0
5.7
8.2

6.4
6.D
5.5
5.5

4.82
8.2

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6.6

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6.9
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9.7

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36
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14

17.0
55
6.6

1C FEET

5.0

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11.5
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9.7

9.7
9.3
9.7

10.5
12
9.3

PER SECOND

8.9

8.2

8.0
8.9
8.2
6.0
8.0

7.7
7.4
7.4
7.2

7.2
7.2
8.0

9.5

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9.0
9.0
8.6
8.6
9.0

8.6
8.6
B.6
8.6
8.6

9.0
9.3
9.7
10
11

14*
488
497
497
494

494
494
497
500
500

171
500
8.6

. HATER

9.2

8.0

7.7
8.0
8.0
7.7
6.7

5.5
5.5
5.3
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5.3
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10

500
500
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503
509

506
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500
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18
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315
48*

48*
48*
490
498
501

130

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YEAR OCTOBER 1969

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5.7

332

JUN

504
508
783
955
955

338
6.2
5.5
5.7
5.5

5.5
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5.5

6.0
190
*87
487
487

490
490
728
970
970

970
970
970
533
13

428

5.5

TO SEPTEMBER

JUN

5.3
5.3

5.7

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5.5
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5.3

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6.5

336

JUL

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IB

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IB
487
650

430
176
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,196
70.8

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1970

JUL

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SEP

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SEP

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476

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13
944

SAN JOAQUIN RIVER BASIN

11277500 LAKE ELEANOR NEAR HETCH HETCHY, CALIF.

DRAINAGE AREA.--78.1 sq mi.

PERIOD OF RECORD.--June 1918 to September 1970. Prior to October 1930, published in WSP 1315-A. Published as "near Sequoia" 1919-20.

level Clevels by city and county of San Francisco).

EXTREMES. --Maximums and minimums (c
con t

Wtr yr
1966
1967
1968
1969
1970

ontents in acre-feet, elei ation in feet) for the water years 1966-7 ained in the following table:

Date
June 1,
Aug. 3,
May 15 ,
July 6,
June 9 ,

Maximum

1966
4, 1967
1968
1969
1970

12,600
27,300
27,300
27,300
27,400

,644.9
,661.2
,661.2
,661.2
,661.3

Date
Sept. 23-30, 1966
(a)
Sept. 29, 30, 1968
Oct. 7-12, 1968
Dec. 18, 1969

Minimum
Contents

8,570

,604.2
,604.2
,604.7
,604.5
,639.8

a Oct. 1 to Nov. 5, Nov. 7-14, 1966

Period of record: Maximum contents, 31,000 acre-ft Dec. 11, 1937, from capacity table then in use Cele-vation, 4,663.4 ft); no usable contents at times in 1921, 1929-30, 1956-60.

REMARKS.--Reservoir is formed by a multiple-arch dam completed in 1918; storage began June 23, 1918. Usable

flashboards)
supply as pal

COOPERATION.--Gage-height record furnished by city and county of San Francisco.

REVISIONS.--WSP 1445: 1938(M). WSP 1930: Drainage area.

DAY

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30
31

MAX
MIN

(t >
(t)

WTR YR

,626.2 639 4,634 4,700 ,644 1,900 ,654 20,600
,627 996 4,636 5,960 ,646 3,500 ,656 22,400
,628 1,480 4,638 7,330 ,648 5,300 ,658 24,300
,630 2,450 4,640 8,710 ,650 7,000 ,660 26,100
,632 3,580 4,642 10,300 ,652 8,800 ,663 29,100

CONTENTS, IN ACRE-FEET, AT 2400. HATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

OCT NOV DEC JAN FEB MAR APR MAY JUN JUL

8,500 72B 2,350 1,720 1.5BO 1,620

6,850 639 1,960 1,720 1,530 2,510

6,020 639 1.870 1,670 1,480 3,010

5,100 2,210 1,770 1,670 1,480 3.130

1,290 4,700 1,480 1,380 1,620 3,630

11.200 6,780 3,460 1,770 1,620 4,080

- 10,560 +2,820 -2,280 -150 +190 +2,460

1966 MAX 12,600 MIN t

4,870 3,860 12,100
4,820 4,030 12,000

4,930 4,990 11,900

4,080 5,210 11,600

3,460 5,750 11,300

3,410 11,700 6,710

5,100 12,500 12,600

- 730 +9,150 -6,820

3,070
2,730

1,960
1,770
1.580
1,380
1.290

1.190
1,090
996
906
861

817
772

683

t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11277500 LAKE ELEANOR NEAR HETCH HETCHY, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

1
2
3
4
5

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lu

11
12
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14
15

16
17
IB
19
20

21
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23
24
25

26
27
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29
30
31

MAX
MIN

(+)
(t)

WTR

t
t

DAY

1
2
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18
19
20

21
22
23
24
25

26
27
28
29
30
31

MAX
MIN

(t)
(t)

OCT NOV

1,580

2,010

2,110

1,870

1,770
1,720
5,100
7,060
7,190

YR 1967 MAX 27,300

ELEVATION, IN FEET,
CHANGE IN CONTENTS,

CON1

25,500
25,400
25,400
25,400
25,400

25,400
25,400
25,400
25,400
25,400

25,300
25,300
25,300
25,300
25,200

25,200
25,200
25,100
24,800
24,400

23,900
23,400
23,100
22,600
22,200

21,600
21,300
21,000
20,500
20,100
19,800

25,500
19.800

- 5,700

19,300
19,000
18,500
IB, 100
17,600

17,300
16,800
16,500
16,000
15,700

15,300
15,000
14,700
14,300
14,000

13,800
13,500

13,500
13,700

13,800
13,900
13,900
13,900
14,000

14,000
14,000
14,000
14,100
14,100

19,300
13,500

6,990 3,243
8,230 3.010

9,020 2,620
10,100 2,350

17,800 2.160
19,000 2,010

IB, 000 1,820
17,200 1,720

15,300 1,620

12,600 1,620

11,000 1,670
10,200 1,620

6,640 1,670

7,950 2,160

6,580 2,210

5,540 2,210

5,100 2,210
4,700 2,260

4,080 3,240
3,800 3,520

- 3,730 -50

MIN t +1,680
MIN t

AT END OF MONTH.
IN ACRE-FEET.

ENTS, IN ACRE-FEET,

14,200 15,300
14.300 15.100
14,400 14, BOO
14.500 14,600
14,700 14,200

14,800 13,900
15,000 13,500
15.100 13,200
15,200 12,900
15,300 12,600

15,300 12,300
15,400 12.000
15,400 11,600
15,400 11,300
15,300 11,800

15,300 11,900
15,300 11. BOO

15,400 11,300
15,400 11,100

15,400 10,900
15,400 10,700
15,500 10,500
15,800 10,200
16,000 10,100

16,100 9,740
16,100 9,560
16,000 9,340
16,000 9,100
15,700 8,870

16,100 15.300
14,200 6,570

t

3,130

2,510
2,450

2,450
2,450

2,510
2,560

2.560

2.450

2,260
2,210

2,160

2.110

2.060

2.060

2,060
2,060

AT 2400,

8,360
8,230
8,020
7,880
7,680

7,470
7,260
6,990
6,850
6,640

6,370
6,160
5,890
5,540
5,160

4,990
5,540

6,370
8,950

10.400
10.900
11.500
12,000
12,200

12,400
12,500
12,700
12,800

12,800
4,990

2,060

2,160
2,110

2,110
2,060

2,210
2,210

2,350

2,400

10,400
11,100

10,700

10,200

9,340

8,230

7,610
6,990

6,510
6,090

5,040

3,690
3,350

3,070
2,900

2,620
2,620

2,510

2,620

2,450
2,510

2,400

2,350

2,260

2,210

2.210
2,260

2,260
2.210

2,210

2,620
2,640
3,010

3,410
4,200

6,780
7,610

7.260

7,400

10,300
11,900

15,000

17,200

21,700

25,100

26,200
26,600

26,300
26,000

WATER YEAR OCTOBER 1967 TO

12,800
12, BOO
12, BOO
12, BOO
12,800

12,700
12,500
12,600
12.500
12,400

12,300
12,200
12,100
12,000
11,800

11,700
11.600

11,400
11,300

11,100
11,000
10,900
10,900
10,900

10,900
10,900
10,900
11.300
12.000

12,800
10,900

12,900
13.300
13,500
13,500
13,700

13,800
14,000
14,100
14,600
15,100

15, BOO
16,400
16,800
17,300
17, BOO

18,200
IB. 300

18.500
18,500

18,600
18,600
IB, 700
19,000
19,200

19,900
20.500
21,100
22,000
22,800

22,800
12,900

23,500
24,400
25,200
26,000
26,700

27.100
27,200
27,200
27,200
27,200

27,100
27,100
27.100
27,200
27,300

27,200
27,200

27,200
27,200

27,100
26,900
26,600
26,400
26,300

26,300
26,500
26,600
26,700
26,700

27,300
23,500

+3,800

JUN

25,100

24,300
24,500
25,000

25,200
25,600

26,300
26,400

26,500

26,400

26,600

26,400

26,400

26,200

26,200

26,200
26,100

26,200
26,200

SEPTEMBER

JUN

26,600
26,600
26,500
26,500
26,300

26.100
26.100
26.000
25.900
25,800

25.900
26,100
26,400
26,700
26,900

27,200
27,200

27,200
27,100

27,100
27,100
27,100
27,100
27,100

27,100
27.100
26, BOO
26,500
26,200

27,200
25, BOO

- 400 -

JUL

26,200

26,100
26,100
26,000

25,990
25,900

25,700
25,800

26,503

27,000

26,900

26,600

26.500

26,400

26,300

26,300
26,300

26,600
26,800

27,000

+800

1968

JUL

25,900
25.500
25,000
24,700
24.300

23.800
23.300
22, BOO
22,300
21,900

21,300
20,900
20,300
19,900
19,300

IB, 800
IB, 300
17,800
17,300
16,700

16,200
15,700
15,200
14.600
14,100

13,500
12,900
12,400
11,900
11,300
10.800

25,900
10.800

15,400

AUG

27,200

27,300
27,300
27,200

27,100
27.100

27,000
26,900

26,800

26,600

26,500

26,500

26,600

26,500

26,500

26,600
26,700

26,700
26,700

27,300

- 300

AUG

10,100
9,660
9,020
6,430
7,950

7,400
6,920
6,300
5,750
5,160

4,650
4,140
3,580
3,070
2,620

2,160
1,870
1,620
1,460
1,330

1,290
1,240
1,140
1,090
996

950
906
B17
817
728
6B3

10.100
683

- 10,117

SEP

26,700

26,600
26,500
26,500

26,500
26.400

26,300
26,330

26,200

26,133

26,000

26,000

25,900

25,830
25,700
25,700

25,700
25,730
25,600
25,600
25,500

26,700
25,500

- 1,200

SEP

639

ELEVATION, IN FEET, AT END OF MONTH. CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11277500 LAKE ELEANOR NEAR HETCH HETCHY, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEET. AT 2*00, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY

I
2
3
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19
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24
25

26
27
28
29
30
31

MAX
MIN

(t)
It)

t
t

DAY

I
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
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19
20

21
22
23
24
25

26
27
28
29
30
31

MAX
MIN

(t)
It)

CAL

OCT NOV DEC

0 1,380
0 1,380
2,900 1,330
3,240 1,330
2,960 1,330

2.210 1,290
1,090 1,290
0 1,240
0 1,190

0 1,480
639 1,430

1,670 1,960

2,010 1,920
1,920 1,870
1,820 1,770

1,720 1,670
1,620 1,670

1,480 1,580

1,580

JAN

1,530

1,530
1,480
1,870

2.010
2,060
2,060
2,010

1,870
1,870

2,350

10,900
10,400
10.100

14,900
15,000

14,800

14,700

- 13,920

ELEVATION, IN FEET, AT END OF MONTH. CHANGE IN CONTENTS, IN ACRE-FEET.

CONTENTS, IN ACRE-FEET,

25.200
25,200
25.100
25,100

25,000
24,300

24,000
23,600

23,300
22,900
22,600
22,200
22,200

23,600
23,900
23,800
23,600
23,500

23,400
23,200
22,900
22,600
22,300

22.100
21,800
21.500
21.200
21,000
20,600

25.400
20.600

- 4,800

YR 1969 MAX

20,000 13,400
19,700 13,000
19,300 12,700
19,100 12,400

19,000 12,000
18,700 11,800

18,400 11,300
18,200 11,000

18,200 10,700
18,100 10,500
18,000 10,100
17,800 9,820
17,600 9,580

17,400 9,260
17,300 8,950

16,900 8,790
16,600 12,600

16,400 16,200
16,100 17,900
15,900 18,200
15,600 18,700
15,300 20,800

15,000 21,300
14,700 21.400
14,500 21,300
14,100 21,100
13,900 21,000

20,300 21,400
13,900 8.570

20,300
20.100
19,800
19,500

19,200
19,000
18,800
19,000
19,200

19,100
19,100
19,200
19,900
20,100

25,100
25,400

24,500
24,400

26,600
26,000
25,200
25,100
24,700

24,500
24,600
24,400
24,300
24,200

26,600
18,800

- 6,700 +6,900 +3,300

27,200 MIN 1,480 t +19

FEB

14,700

14,600
14,600
14,600

4,500
4,500
4,400

14,300
12,800

5,520

2.310
2,010
2,010

1,960
1,960

______

AT 2400,

24,000
24,100
24,100
24,100

24,000
23,900
23,800
23,800
23,700

23,700
23.800
23,900
23,900
23,800

23,300
23,800

23,600
23,500

23,403
23,400
23,400
23,400
23,400

23,400
23,400
23,500

24,100
23,400

- 600

,220

1,920

1,920
1,920
1,870

1,870
1,870
1,820

1,820
1,770

1,770

2,210
2,300
2,350

2,730
3,070

3,970

5,160

5,680

5,750
5,410
5,610

4,930
4,540
4.200

4,200
4,590

4,760

8,570
9,420
9,500

8,950
8,570

9,260

MATER YEAR OCTOBER

23,700
23,700
23,600
23,600
23,500

23,500
23,400
23,400
23,400
23,300

23,200
23,100
23,000
23, 100
23,200

23,300
23.400

23.200
23,000

22,800
22,800
22,800
23.000
23,200

23,300
23,400
23,400
23.400
23,400

23,700
22,800

- 300

22,900
22,800
22,700
22,600
22,600

22,800
22,900
23,100
23,300
23,500

23,700
23,800
23,800
23,700
23,600

23,500
23,400

23,200
23,100

22,900
22,600

22,100
22,000

22,100
22,000
21,900
21,700
21,700

23,800
21.700

- 1,500

10,500

10.900
10,900
11,300

14,000
15,600
17,400

21,200
23,000

25,200

25,600
25, BOO
25,800

25,700
25,700

25,700

25,700

1969 TO

MAY

21,600
21,800
22.100
22.700
23.400

23.800
23.900
23,900
23,900
24,000

23,900
23.800
23.800
24.100
24.500

24.800
24.900

25.900
26,300

26,700
26,900

27,100
27,000

27,200
27,000
26.900
26.900
26.900

27,200
21,600

+5,200

25,800

25,800
25,600
25,500

25,200
25,000
24,800

24,600
24,500

24,700

24,700
24,700
24,600

24,500
24,400

24,300

SEPTEMBER

JUN

26,900
26,900
26,800
26,900
26.900

26,800
26,800
26,900
27,300
27,100

26,800
26,900
27,000
27,100
27.100

27,100
27.100
27,200
27,300
27,300

27,300
27,300

27,200
27,200

27,100
27,300
27,200
27,100
27,000

27,300
26,800

+100

24,800
25,600
26,300
26,800
27.200

27,200
27,200

27,100
27,000

26,900

26,600
26,500
26,400

26,400
26,400

26,400

26.400

27,200

+2,000

1970

JUL

26,900
26,900
26,900
26,800
26.800

26.900
26,930
27,000
27,000
27,000

26,900
26,900
26,900
26,900
26.800

26, BOO
26,800
26,800
26,800
26,800

26,700
26,700

26,600
26,600

26,600
26,600
26.500
26,500
26,500

27,000
26,400

- 600

26,400
26,500
26,600
26,700
26,700

26.800
26.800

26,800
26,800

26,800

26,800
26,700
26,700

26,600
26,600

26,500

26,500

+100

AUG

26,400
26,400
26,400
26,300
26,300

26,300
26.200
26,200
26,100
26.100

26.100
26,100
26,100
26,100
26,000

26,000
25,900
25,900
25,800
25,800

25,700
25,700

25,300
24,900

24,600
24,200
23,800
23,400
23,000

26,400
22,600

- 3,800

26,500
26,500
26,400
26,400
26,300

26,200
26,200

26,100
26,130

25,900
25,900

25,700

25,730
25,700
25,600

25,600
25,500

25,400

- 100

SEP

22,200
21.900
21.500
21,300
20.700

20,300
20,130
19,700
19,400
19,100

18,700
18,300
17,900
17,600
17,300

17,000
16,600
16,200
15,800
15,400

15.000
14.700

13,900
13,500

13,000
12,700
12,400
12.UOO
11,600

22.200
11.600

- 11,000

t ELEVATION, IN FEET, AT END OF MONTH, t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11278000 ELEANOR CREEK NEAR HETCH HETCHY, CALIF.

DRAINAGE AREA.--78.4 sq mi.

PERIOD OF RECORD.--October 1909 to September 1970. Monthly discharge only for some periods, published in WSP 1315-A. Published as "near Sequoia" 1910-18.

GAGE.--Water-stage recorder and concrete control. Altitude of gage is 4,500 ft (from topographic map). November 1909 to November 1915 nonrecording gage and water-stage recorder at site 1 mile upstream at different datum. AVERAGE DISCHARGE. --50 years

M

Wtr yr Date
1966 July 7, 1966
1967 June 19, 1967
1968 May 21, 1968
1969 May 24, 1969
1970 Jan. 22, 1970

extended above 2,000 cfs o

11277500). Diversion from

COOPERATION. --Gage-height rec

REVISIONS (WATER YEARS) .- -WSP

DISCHARGE,

1 2.2 4.1

8 4.3 3.9
9 4.1 3.9

(1909-59) , 223 cfs (161,

Discharge
66
1,620
594
1,900
3,390

n basis of velocity-area

Lake Eleanor to Cherry

ord and 50 discharge mea

1315-A: 1923CM). WSP

IN CUBIC FEET PER SECOND

7.1 4.9 4.9

6.5 5.7 5.7

6.3 5.7 5.7

6.0 6.0 5.7

400 acre-ft per year),

G.H. Date
2.54 Sept. 28
5.80 Many da
4.44 Sept. 30
6.11 Oct. 11
7.34 Oct. 3

studies; no flow at t

prior to diversi

Minimum

- 30, 1966

, 1968
, 1968
, 1969

imes in 1910, 193

Lake began in March 1960. See schemati

surements furnished by

1930: Drainage area.

city and county

, WATER YEAR OCTOBER 1965 TO SEPTEMBER

7. 5.1 5
7. 5.1 5

6.3 4.9 5
6.5 5.1 5

. 1 5.1
. 1 5.4
5.1
. 9 5.1
. 1 5.1

. 4 5.1

. 1 5.1
. 1 5.1

on to

daily

0-31,

c dia

of Sa

1966

11
15
15
15
15

28

14

Cherry Lake.

Dischai

3.

3.

1933, 1956.

ram of Tuolum

i Francisco.

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70

70

60
SO
SO

3 3.9 4.9 5.7 4.6 5.1 6. 4 3.9 6.5 6.0 4.6 5.1 7.

9 3.9 8.1 5.7 5.1 5.7 7.

I .1 6.5 5.1 4.9 6.0 6. 2 .1 7.1 5.1 5.1 6.3 6.
3 .3 14 5.1 5.1 6.5 6.
4 .3 11 5.1 5.1 6.5 6.
5 .3 7.8 5.1 5.1 6.5 6.

8 .1 6.8 6.0 5.1 6.3 5.
9 .1 6.8 6.0 5.1 5.
0 .1 7.1 4.9 5.4 5.

AN 3.98 6.16 5.75 5.28 5.71 6.5 X 4.3 14 7.1 6.3 6.5 7.

i 5.7
5.7

5.7

5.4
5.1
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5.1
5.1

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5.1

5.28
6.0

314

3.9 5.1

5.1 5.1
5.1 5.1

5.1 5.1

5.1 5.1
5.1 5.1
5.1 5.1
5.1 5.1
5.1 5.1

5.1 5.1

5.1 4.9
S.I 4.9
5.1 5.1

5.22 5.09
10 5.4

321 303

4B5
15.6

14.00
. 47

MIN .20 AC-FT 4,470

SAN JOAQUIN RIVER BASIN

11278000 ELEANOR CREEK NEAR HETCH HETCHY, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND,

NOV DEC JAN FEB

WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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16
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31

MEAN
MAX
MIN
AC-FT

DAY

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16
17
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21
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26
27
28
29
30
31

MEAN
MAX
MIN
AC-FT

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65
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DISCHARGE,

OCT

1
. 3
. 4
. 2
. 2

8.3
12
11
11
11

11
11
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11

11
11
11
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12

12
11
11
11
10

11
11
11
11
12
12

10.7
14
6.2
655

NOV

12
12
11
11
11

11
12
12
12
12

12
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11
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11
12
12
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12

12
12
12
12
12

12
12
7
5
5

11

5

. 1
. 1
. 1

. 1
12
. 1
659

4.6
9.7
6.5
6.2
16

17

4.6
5.4

5.6
5.1
4.8
4.8
5.4

5.6
4.8
4.8
5.1
5.1

5.4
5.1
4.8
4.8
5.1

5.4
5.1
5.1
5.4
5.4
5.4

6.12
IT
4.6
376

114 CUBIC

DEC

5.1
5.1
5.1

6.8

5.9
5.9
5.6

5.6
5.6
5.6
5.6
5.6

5.6
5.6
5.9
5.9
6.2

6.2
6.8
7.1
6.2

6.2
6.5
6.?
6.2
5.9
5.9

5.90
7.1
5.1
363

5.1
5.1
5.1
5.1
5.1

5.1

5.4

5.1
5.1
5.1
5.1
5.1

5.1
5.1
5.1
5.1
5.6

12
8.3
6.8
6.5
6.2

6.5
7.1
8.0
11
10
8.6

6.28
12
5.1
386

5.6

FEET

JAN

5.9
5.6
5.6

5.4

5.4
5.*
5.4

5.6
5.1
5.4
5.6
8.5

6.2
5.9
5.6

5.6

5.6
5.6

5.9

5.6
5.6
5.6
5.6
5.6
5.9

5.70
8.5
5.1
350

7.4
6.8
6.5
6.5
6.2

6.2

6.2

6.2
6.2
6.2
6.2
6.2

6.2
6.2
6.2
6.2
5.6

5.4
5.4
5.4
5.4
5.6

5.6
5.6
5.6

6.06
7.4
5.4
337

MAX 28

PER SECOND,

FEB

5.4
6.2
6.2

5.6

5.9
5.6
6.5

5.1
4.8
4.8
5.1
5.1

6.2
9.3
6.2

9.6

6.8
6.8

6.5

6.5
6.2
6.2
6.2

6.19
9.6
4.8
356

5.6
5.6
5.6
5.6
5.6

5.6

5.6

5.9
6.8
6.5
6.2
7.4

16
8.3
7.7
7.1
6.5

6.2
6.2
5.9
5.6
5.4

5.4
5.
5.
5.
5.
5.

6.31
16
5.1
388

MIN

HATER

MAR

5.6
5.1
5.1

5.1

. 1
. 9
. 2

5.6
5.6
5.9
5.9
5.6

6.2
6.5
6.5

5.9

5.6
5.6

5.4

5.4
5.6
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5.68
6.5
5.1
349

5.4 5.9
5.1 6.5
5.1 5.6
5.6 5.6
5.6 5.1

5.4 5.1

5.4 5.1

4.8 5.9
4.8 5.4
4.6 5.1
4.8 5.1
5.4 4.8

5.4 3.8
5.1 3.2
5.4 3.8
5.1 4.4
5.1 4.4

4.8 4.8
4.8 5.1
5.4 5.9
5.4 18
5.6 101

5.9 238
5.9 678
5.1 869
5.1 744
5.4 648
490

5.24 126
5.9 869
4.6 3.2

312 1,130
184 1,100
123 1,030
111 911
155 855

188 771
253 70B
430 696

720 430

785 256
771 218
785 20
,100 25
,260 70

,280 50
,360 50
,510 20
,510 370
,330 316

,300 271
,300 245
,200 232
,110 225
. 140 218

,180 208
,110 159
,060 106
,070 72
,120 57

879 443
,510 1,130
111 51
312 7,750 52,280 27,250

. 10 AC-FT 4,050

YEAR OCTOBER 1967 TO

APR MAY

5.9 6.2
5.9 9.9
6.2 7.4

6.5 82

6.5 268
6.2 296
5.6 329

4.1 316
4.8 304
5.1 316
5.1 329
5.4 375

5.1 25
4.4 95
4.6 47

5.1 40

5.1 460
5.1 385

4.8 256

5.4 242
4.8 259
5.1 296
5.1 342
5.4 356
338

5.32 287
6.5 526
4.1 6.2

SEPTEMBER 1968

JUN JUL

316 14
308 16
312 15
304 14
277 13

242 15

210 16
188 16
166 16
145 15

60 15
11 15
15 15
13 15
11 16

24 16
90 16
124 16
110 15
99 15

77 15
70 15
64 15

57 15

52 15
48 15
48 15
21 15
11 15
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119 15.1
316 16
11 13
317 17,620 7,060 930

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53.7
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AUG

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21.4
22
20
1.280

SEP

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5.9
4.6
4.1
3.4
3.2

11.5
13
3.2
683

MTR YR 1968 TOTAL 15,230.3 MEAN 41.6 526 MIN 3.2 AC-FT 30,210

SAN JOAQUIN RIVER BASIN

11278000 ELEANOR CREEK NEAR HETCH HETCHY, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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MEAN
MAX
MIN

CAL YR

DAY

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TOTAL
MEAN
MAX
MIN

CAL YR
HTR YR

2.8
2.6
2.4
2.2
1.8

1.6
1.5
1.2
1.0
. 72

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2.2
3.8
5.4

22
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5.9
6.2

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35
16
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12
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16

9.15
35
. 60

17 4.
20 3
83 3.
98 3.
97 3.

158 3.
245 4.
250 5.
218 4.
169 5.

147 6.

143 5.
159 6.
103 8.

8.7 5.
5.6 4.
5.4 4.
5.4 4.
5.4 4.

5.6 4.
5.6 4.
4.8 4.
5.6 8.
5.9 8.

5.9 5.
5.4 4.
5.1 4.
4.8 4.

4.

1 4.8
6 4.6
6 4.6
6 4.8
4 4.6

2 4.6
4 4.8
1 5.4
6 5.1
4 5.1

5 5.1

4 11
8 7.4
6 5.9

4 5.6
8 5.4
4 7.9
4 21
4 11

6 22
6 8.6
8 6.5
0 8.3
0 18

1 13
6 7.4
6 6.8
6 6.5

6 5.9

71.0 5.01 7.85
250 8.
4.6 3.

1968 TOTAL 16,954.38

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DISCHARGE, IN

5.4 4.
5.4 4.
5.4 4.
5.4 4.

6 22
2 4.6
8 483

MEAN 46.3

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282

MAX 526

CUBIC FEET PER SECOND,

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6.8

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5.4 4.8 6.8

5.4 4.
5.4 4.
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5.4 4.

5.4 4.
5.4 4.
5.1 4.
5.1 4.
5.4 4.

5.4 4.
5.4 4.
5.4 4.
5.4 5.
5.4 8.

5.1 8.
5.1 7.
5.1 7.
5.1 8.
5.1 12

5.1 7.
5.1 7.
5.1 7.

6.8
6.8
6.8
9.0
8.6

7.4
7.4
7.7
13
9.0

201
1,560
942
510
465

1,700
2,830
1,520
1,210
802

543
464

98
76
67
64
67

157
105
83
77
71

60
71
96
102
86

76
82
65
48
30

18
13
10
9.3
9.0

8.6
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4.8 6.8 262

561.
IB.
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3.

1969 TOTAL
1970 TOTAL

158.1 182.8 14,224.5 2
5.27 5.9C
5.4 12

459
2,830
4.8 4.4 6.8

61,820.0 MEAN 169 MAX
40,169.4 MEAN 110 MAX

,167.5
77.4
198
8.6

4.6
4.4
4.4
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4.6

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4.6
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4.6

4.8

4.6
4.4
4.6

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6.5
5.6
5.4

5.4
6.2
6.2
5.9
6.2

6.2
6.2
6.2

5.9

5.27
6.5
4.4
324

MIN

MATER

40
61
52
37
28

19
15
13
12
10

9.0
8.3
8.0
8.0
8.0

8.0
8.6
6.6
8.6
9.3

4.1
4.6
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4.4
4.4

6.2
6.2
6.8
7.7
5.1

428.6
13.8
61
4.1

1,800 MIN 3.2
2,830 MIN 3.2

5.6
5.6
6.2
5.1
7.1

6.2
5.9
5.1
4.8
4.6

4.4

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4.4
4.4

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4.1
4.1
4.1
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4.4
4.4
5.1
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4.8
4.8
5.1

4.97
7.1
4.1

5.1
4.8
4.8
5.1
5.1

5.1
5.1
5.1
5.6
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5.4

121
747
968

911
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,730
,800
,770

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808
1,800
4.8

,710
. 730
. 730
,660
,490

,370
,270
. 160
968
841

690

600
764
855

932
813
660
648
702

726
666
696
642
612

542
490
445
390
329

891
1,730
329

151
38
60
83
140

338
410
365
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375

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445
415
395

334
288
268
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242

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230
222
225
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111
113
111
101
94
76

239
445
38

. 63 4C-FT 33,630
. 60 AC-FT 125,900

YEAR OCTOBER 1969 TO

4.1
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76
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902 19,340 19

AC-FT 122,600

SEPTEME

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320
352
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725

767
212
155
176
173

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198

188
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171

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JUL

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3,170

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441
14.7
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875

AC-FT 79,680

11278200 CHERRY CREEK CANAL NEAR EARLY INTAKE, CALIF.

LOCATION.--Lat 37°53'36", long 119°57' 17", in SlftSW's sec.36, T.I N., R.18 E., Tuolumne County, Stanislaus Na

PERIOD OF RECORD.--April 1956 to September 1970.

GAGE.--Water-stage recorder. Altitude of gage is 2,700 ft (from topographic map).

EXTREMES.--Period of record: Maximum daily discharge, 194 cfs July 30, 1959; no flow at times in 1964, 1969

at Early Intake and casional

COOPERATION. --Gage-height record and 32 discharge measurements furnished by city and county of San DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

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TOTAL 19
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44 6
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. Z 5.
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20 5.5
. 8 5.
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. 2 10

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. Z 10
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185.3 279.0
5.98 9.96
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8.5

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421.5
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AUG

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ID
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CAL VR 1965 TOTAL Z,904.00 MEAN 7.96 MAX 71 MIN

SAN JOAQUIN RIVER BASIN

11278200 CHERRY CREEK CANAL NEAR EARLY INTAKE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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6.3

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5.52
6.6

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6.3 5.9 4.1
6.2 6.2 4.1
6.3 6.1 4.1

6.5 7.0 3.8
6.6 5.8 3.B

6.5 5.1 3.8

6.5 5.1 3.8

6.3 5.0 3.8

6.8 5.0 3.8

6.2 5.1 3.6

6.45 5.28 3. BO
6.8 7.0 4.2

13 T.7 7.2

13 T.7 7.2

4.1 3.1 31 12
4.0 3.1 37 12
4.0 3.2 5.4 12

3.7 3.2 5.6 12

3.6 3.2 5.7 12
3.6 3.2 5.9 11

3.6 3.5 5.9 11

3.4 4.1 5.9 9.8

3.5 4.1 T.9 8.9

3.4 5.4 7.3 8.6

3.2 4.2 10 7.

3.58 4.90 9.35 9.38
4.1 20 37 12

7.0 8.0 8.3 7.7

JUN

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7.2 6.8 18 8.3
T.O 6.B 30 8.3
7.0 6.8 30 8.3
6.9 6.8 21 8.2
6.9 6.8 8.7 8.2

T.O 6.8 8.7 8.2
T.O 6.8 8.6 8.2
7.0 6.8 6.3 8.2
7.0 6.B 8.2 8.2

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6.5 7.3
6.3 7.0
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MEAN
MAX
MIM

T.23
T.T
4.2

6.92
T.2
6.3

A. 16
8.3
8.0

223.2 208.1
T.20 6.94
7.6 7.0

SAN JOAQUIN RIVER BASIN

11278200 CHERRY CREEK CANAL NEAR EARLY INTAKE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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TOTAL
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MAX
MIN
AC-FT

CAL YR

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MEAN
MAX
MIN
AC-FT

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211.9
6.84
7.2
6.6
420

1968 TOTAL

OCT

4.2
4.1
4.1

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3.7
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3.6
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3.86
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237

7.0
7.3
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6.55
7.5
5.8
390

2,692.30

DISCHARGE

NOV

3.6
3.5

3.3
3.2

3.0
3.0
2.9
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3.22
3.6

5.9 2.8
5.9 0
6.1 0
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6.1 0
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6.1 1.8
6.1 4.7

6.1 4.7
6.1 4.9

6.3 0
6.2 0
6.2 0
6.2 .04

6.2 .04
6.2 0
6.2 0
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6.5 .04

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i.3 .39

6.18 1.26
6.5 6.3
5.9 0
380 77

MEAN 7.36 MAX

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. 70
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. 88
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. 63 3.52
1.1 8.0
. 36 0
35 217

30 MIN 1.7

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3.2 3.3
3.2 3.3

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3.0 4.5

3.0 5.8
3.0 4.9
3.2 4.5
3.2 4.4

3.2 6.1
3.0 6.1
3.0 5.4
3.D 5.6

3.2 5.0
3.2 4.5

3.09 4.30
3.2 6.1

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YEAR OCTOBER 1969

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AC-FT

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TO SEPTEMi

JUN

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4.59
4.7
4.3
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655

SAN JOAQUIN RIVER BASIN

11278300 CHERRY CREEK NEAR EARLY INTAKE, CALIF.

LOCATION.--Lat 37°S3'40", long 119°57'42", National Forest, on right bank 1.2 miles southwest of Hetch Hetchy.

DRAINAGE AREA.--226 sq mi.

PERIOD OF RECORD.--May 1956 to September 19

:.35, T.I N., R.18 E., Tuo
Dm mouth, 1.3 miles north

umne County, Stanislaus
f Early Intake, and 10.3

inimums (discharge in cubic feet pe
in the following table:

Wtr yr Date Discharge G.H.
1966 Nov. 24, 1965 308 5.03
1967 July 5, 1967 1,980 8.15
1968 Dec. 14, 1967 1,330 7.32
1969 June 4, 1969 2,780 8.95
1970 Jan. 22, 1970 3,710 9.65

extended

REMARKS.--R

nd, gage height

daily

June 16,
Oct. 11,
Oct. 5,
Oct. 11,
Oct. 4,

1966
1966
1967
12, 1968
10, 13, 1969

Discharge
3.2
1.8
2.9
1.8
7.6

tation 11277500). Cherry Creek Canal diverts about 1.0

d by Lake Elea
station (see
is returned to

COOPERATION.--Gage-height record and 38 discharge measurements furnished by city and county of Sa DISCHARGEi IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

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. 6 6.
.1, 6.
. 8 6.

. 1 6.
. 1 6.
. 6 6.
. 4 6.
. 4 6.

. 1 6.
. 1 6.
. 1 9.

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2B
2B
2B
2B

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22
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22
25
23
. 2 28 2*
. 5 32 22

. 1 22 20
. 6 41 20
. 4 42 18
. 4 59 16
. 6 23 18

. 6 17 18
. 4 15 IB
. 4 104 17
. 6 200 17
. 6 93 22

. 6 56 19
. 4 43 19
. 4 39 23
. 2 35 52
. 1 33 53

31 .1 - »«

MEAN 6.37 32.2 24.8
MAX 11 200 53
MIN 3.6 6.0 17

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2B
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23

35
34
32
30
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32
35
41
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66

69
60
66
62
56

52
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44
42
41

38
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32

31
29
2B
26
24
2*

1.253
40.4
69
24

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19
IB
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11

590
19.7
36
11
1.170

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16
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9.5
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9.5

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545 2

24

669.4
21.6
27
3.4
1.330

354
11.B

SAN JOAQUIN RIVER BASIN

11278300 CHERRY CREEK NEAR EARLY INTAKE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

1 11 6.4 9.1 19
2 12 6.7 39 19
3 12
4 1
5 1

6
7
8
9
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11
12
13
14
15

16
17
IB
19
20

21
22
23
2*
25

26
27
28
29
30

6.2 62
6.2 22
6.9 149

1 7.8 532
8 9.7 157
8.0 79
7.8 56
7.6 49

7.6 37
7.4 34
7.2 31
7.4 28

22 28
13 26

12* 23
26 22

28 22
30 21
15 21
9.7 20
8.7 20

B.O 19
7.6 18
12 19
20 19
10 19

TOTAL 198.8 3*1.2 1,667.
MEAN 6.41 11.4 53.
MAX 12 30 53
MIN 1.8 6.2 9.

DISCHARGE, IN

18
18
18

18
IB
18
18
17

17
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17
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16
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16
17

165
146
82
78
63

56

76
269
253
233

1,832
59.1
269
16

CUBIC FEET

DAY OCT NOV DEC JAN

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31

TOTAL 21
MEAN 6
MAX
MIN

CAL YR 1967
WTR YR 1968

£ 11 0.1

. 1 8.7 8.0

. 1 8.7 6.9
. 1 31

. 0 15
. 2 13
. 4 13
. 4 12

7.4

8.0
7.8
7.6
7.6
. 4 9.5 12

. 2 8.
. 2 8.
. 2 9.
. 9 293
. 7 15

. 2 8.
. 1 7.
. 2 9.
2 9.
11 8.

8.9 6.
8.5 8.
8.3 8.
8.3 B.
8.1 9.

8.1 9.
8.1 9.
9.5 9.
4.2 8.
8.8 8.

228.3 604.
> 7.61 19.
20 29
4.2 6.

12
9.5
9.1
9.1
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353.7
11.4
33
6.9
453 1.200 tut

OTAL 80,203.6 MEAN 220
OTAL 20,358.0 MEAN 55.6

151
120
105
99
98

95
91
84
80
76

70
69
70
63

59

51
48

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44
42
41
47

45

42

1,960
70.0
151
41

PER SECOND,

FE B

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28

21
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20
20
19

12
65
53
33
178

123
90
72
60
50

44
41
37
34

______

1.153
39.8
178
12

MAX 1,880
MAX 522

41

42
40

38
37
36
35
34

77
87
68
70

352

182
168

165
163
157
144
131

119

129
148
115
108

3,418
110
352
34

MATER

MAR

29

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26

1.083
34.9
50
23

MIN 2.
MIN 2.

72

108
116

118
150
129
131
141

125
129
144
151

129

134

129
127
123
132
131

136

146
131
132

3,861
129
165
62
7,660

135

194
190

203
238
261
268
345

256
211
198
196
205

205

154

142
129
116
111
168

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546

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277
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YEAR OCTOBER 1967

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571
19.0
34
12

9 AC-FT
9 AC-FT

MAY

15

22
93

192
318
342
365
359

356
353
359
371
401

442
420
386
389
452

522
484
414
356
310

292
305
332
371
386
374

9.806
316
522
12

159,100
40.380

JUN

404

183
223

263
308
417
566
686

730
730
746
1.000
1,240

1,240

1,310

1,270
1.260
1,160
1,050
1,080

1,110

1,000
1,240
1,640

26,669
889
1,640
183
52,900

JUL

1,640

,4BO
,700

. 880
,840
,800
,720
,600

1,210
795
634
930
1,370

1,450

445

318
298
476
610
261

253
207
151
113
75
74

29,834
962
1,883
74

59,180

AUG

74
120
125
127
127

122
101
96
109
103

93
91
88
82

73

36

34
34
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32
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2,153
69.5
127
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SEP

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TO SEPTEMBER 1968

JUN

345

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325

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185

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86
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67

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4,263
142
356
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JUL

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9.7

AUG

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SEP

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23.2
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SAN JOAQUIN RIVER BASIN

11278300 CHERRY CREEK NEAR EARLY INTAKE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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TOTAL
MEAN
MAX
MIN

DAY

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MEAN
MAX
MIN

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2.0
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4.8
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5.3

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20
20
8.3
4.7

5.2
48
IT
15
14

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12
11
10
16
14

284.8 2
9.19
48
1.8

OCT

27
15
3.0
7.6
3.8

9.7
3.4
3.0
7.8
7.6

8.0
7.8
7.6
8.4
19

45
131
192
123
63

31

12
11
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27.5
192
7.6

1970 TOTAL

NOV

16
20
108
120
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170
285
308
268
210

178
182
172
192
170

20
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9.9
10
8.4

7.6
7.4
6.6
7.4
8.2

6.6
6.2
6.1
5.9
5.9

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88.1
308
5.9

DISCHARGE

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9.9

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9.4
7.6
6.6
6.4
6.1

6.1
6.2
7.0
6.6
8.5

22
11
9.0
12
35

34
18
IS
15
12

11
14
13
42
81

50
33
32
29
26
25

609.5
19.7
81
6.1

24
28
32
34
38

42

44
37
30

28
35
153
232
115

83
68
84
886
339

1,190
466
270
299
1,110

924
359
275
212
186
158

7,826 3
252
1,190
24

150
139
133
127
129

130

108
104
102

105
120
109
106
140

134
120
122
115
109

104
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103
124
112

108
100

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150
99

, IN CUBIC FEET PER SECOND

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9.9

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9.7
9.7
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42

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23
35
81

62
37
3D
26
23
22

21.4
81
9.7

53,634.9 MEAN

21

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19
20

20
18
20
31
1C8

58
49
61
212
145

852
1,910
1,140
686
654

2,090

1.630
1,360
910

662

602
484
410
362

591
3,040
18

147 MAX 3

335

292
282
282

272
202
162
152
142

i29
138
192
212
182

162
208
162
134
109

90

76
73
70

68

BO

335
66

. 040

104
102
100
96
92

9*

86
85
86

82
83
80
80
84

86 too
123
132
132

203
634
658
666
678

690
694

759
764

9,115
294
764
80

MIN

MATER

190

168
145
132

119
110
109
104
104

102
90
88
86
83

79
75
71
65
71

59
58
56
54
52

50

48
48
48
46

205
46

MIN 7.6

746
738
738
710
813

768

710
702
515

252
252
242
218
192

182
182
180
168
166

164
157
176
188
176

160
148

132
124

117
112
108
103
97

92

85
B3
79

77
74
122
720
865

925
. 020
. 260
. 280
. 120

. 100
,290
,760
,080
,270

,190
,210

,110
,170

10,761 29,929
359
813 :
124

965
,270
74

JUN

2,240
2.260
2,480
2,660
2,470

1.800
1.280
1,140
952
826

650
606
606
742
831 1

925
943
1,190
1.170
1.220

1.260
1.200
1.390
1.670
1.620

1.570
1,520

1,100
392

40,193 10
1,340
2,660 I
392

1.8 AC-FT 232,000

YEAR OCTOBER 1969 TO SEPTEMBER

43

42
40
39

39
37
37
36
35

48
92
119
136
100

73
56
48
50
48

46
47
47
45
43

47

49
48
53

136
35

AC-FT 106

56

46
43
40

89
208
215
186
218

242
190
151
194
348

522
658
686
464
326

395
470
558
578
562

558

558
504
487
480

686
40

600
400

480

452
438
442

410
377
383
884
714

498
281
IBS
222
222

208
202
212
252
310

322
312
278
275
252

238
328
371
278
212

884
188

JUL

260
63
83
116
170

368
389
410
404
417

445
410
362
821
. 120

813
583
335
320
310

302
295
288
292
228

152
154

144
130
116

,454
337
,120
63

1973

188
170
158
151
130

92
72
79
85
83

81
77
73
69
66

63
54
43
42
42

41

23
22
21

21
21
21
22
21
21

188
21

AUS SEP

73 28
45 27
42 26
34 26
34 26

33 28
33 28
33 30
33 28
34 27

34 27
33 27
33 26
33 26
32 28

32 28
32 28
32 28
32 28
31 28

31 28
30 28
30 26
30 26
29 26

28 27
28 28

28 28
28 27

1,036 820
33.4 27.3
73 30
28 26

2.050 1,630

21 18

21 18
21 18
21 18

21 18
21 18
21 18
21 18
21 18

20 18
20 16
20 15
20 17
19 18

19 18
19 18
19 18
19 18
19 18

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19 18
19 18
19 18

18 18

17 18
18 18
18 21

22 21
17 15
1,200 1.07D

SAN JOAQUIN RIVER BASIN

11278400 CHERRY CREEK BELOW DION R. HOLM POWERHOUSE, NEAR MATHER, CALIF.

DRAINAGE AREA.--234 sq mi.

PERIOD OF RECORD.--March 1963 to Septembe

GAGE. --water-stage recorder.

EXTREMES. --Maximums and mini
1966-70 are contained in

Wtr yr Date
1966 Nov. 23, 1965
1967 July 5, 1967
1968 May 21, 1968
1969 June 4, 1969
1970 Jan. 22, 1970

a Affected by backwater fr

Period of record: Max
extended above 3,200 cfs;

REMARKS. --Records good. Flo

COOPERATION

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
IB
19
20

21
22
23
24
25

26
27
28
29
30
31

MAX
MIN

. --Ga

OCT

706
574
268
703
679

695
698
577
262

700

699
707
708

575
268
708
699
700

699
691
646
407
703

713
713
707
691
529
255

713
255

ge-height re

DISCHARGE,

NOV

687
696
692
686
681

245
661
676
653

577

580

684

680

692
708
600

245
679
767
868
336

710

265
710
688

868
245

mums (discharge in cubic feet per the following table:

Maximum
Discharge G.H.
1,150 8.85
2,860 10.36
1,460 9.18
3,750 all. 46
5,240 11.64

om Tuolumne River.

imum discharge, 8,530 cfs Dec. 24 minimum daily, 3.6 cfs Oct. 26,

cord and

IN CUBIC

DEC

718
708
697
612
322

700
705
692
6B8

602

708

712

709

599
312
705

706
707
708
706
322

318

700
739
729

739
312

47 discharge measurement

FEET PER SECOND, WATER

523
277
686

6B2

721
615
300
707

708

70S

602

288

723
795
791

622
623
530
793
792

789

790
670
584

795
277

MAX

750
769
745

700

788
790
7B4
773

760

224

669

683
612
228

687
620
688
691
688

627

685

790
224

1,650 MIN
868 MIN

690
694
704

573

716
712
726
739

300

736

722
586
288

717
721
717
726
697

576

697
692
685
681

746
275

224
82

second, gage height in feet) for the

Minimum daily
Date

May 22, 1966
Nov. 13, 1966
Nov. 29, 1967
Sept. 1, 7, 1969
Nov. 27, 1969

, 1964 (gage height, 13.55 ft), from 27, 1964.

s furnished by city a

YEAR OCTOBER 1965 TO

653
514
200

628

622
633
502
206

646

619
618
622

610
618
484
188
619

616
616
608
619

653
174

AC-FT 548,
AC-FT 436,

135
593
598

556

463
129
582
586

572

546
546

398
82
598
610
608

608
618
455
107

619
82

400
600

nd county of San

SEPTEMBER 1966

JUN JUL

630 615
631 547
625 178

157

629
625
659
767

765

469
801

854
858
860
861
757

710
863
864
863

864
157

62B

628
606
538
174

620

626
634

636
635
558
177
635

635
630
624
631

636
168

water years

Discharge
82
94
6.6
27
14

rating curve

Francisco.

AUG SEP

658 651
653 652
651 563

664 312

325 653
654 653
651 648
654 557

590 641

639 651
587 647

315 657
643 658
642 658
647 574
642 382

650 656
587 648
310 661
651 653

664 661
309 333

SAN JOAQUIN RIVER BASIN

11278400 CHERRY CREEK BELOW DION R. HOLM POWERHOUSE, NEAR MATHER, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

1
2
3
I*
5

6
7
a
9
10

11
12
13
1*
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MAX
MIN
AC-FT

DAY

i
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
2C

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

WTR YR

OCT

612

588
58*
520

584

588
584
600
576
520

253
58*
576
576
580

580
516

580

580
580

580

640
2*9
32,650 22,

DI

OCT

170 5
617 5
611 5
602 4
601 3

602 5
488 5
293 5
602 5
606 5

603 1
606 1
606 5
504 5
162 1

604
578
573
584 1
552 1

163
544
540
535

536
540
444
388
556 1
547

15,802 6,55
510
617
162
31,340 13.

NOV DEC

140 1,100
460 660
428 504

420 393

278 181
333 464
94 476
432 484
424 444

440 448
436 369

339 453
122 445

460 451

1C7 365

367

476 1,100
94 152
030 27,440 36,

SCHARGE, IN CUBIC

NOV DEC

11
9.3
60
9.1
26

15
12
13
10
82

42
124
11
220
82

. 2 9.6
. 9 8.9
. 5 12
73
9.6

. 0 28
8.9 42
8.8 42
8.7 42

8.7 596
8.5 660
9.4 649
6.6 655
4 551
247

5.5 4,359.7 17,
219 141

6.6 8.2

JAN

583
556
324

603

602
603
597
550
321

598
599

609
607

712

669

843

257
589
868
321
210

FEET

JAN

225
629
670
667

543
267
626
615

640
634
552
278
657

651
634
637
638

632
589
586

588
503
179
583
583
586

034
549

179

1968 TOTAL 212,064.2 MEAN 579

FEB

686
648

644

568
325
620
620
600

600
608

308
600

592

592

15,980

MAR

564

568
460
413
419

197
468
532

800
700

293
584

506

553

462

15,196

742 800
298 197
31,700 30,140

X 1,100 MIN 82

PER SECOND

FEB

722
642
477

715
719
726
721

367
610
611
606
605

609
635
359
631

677

564

631

624
622

17,870
616

314

MAX 1,240

, WATER

MAR

189
604

604
618
434

613
609
615
617
618

433
170
624
626

626

204

617

613
612
419

16,009
516

146

MIN 6.

APR

406
163
484

664
438
224
550 1

559
613
530

264

803
815

911
910

917
914

950

19,568 28,

950 1,
163
38,810 55,

AC-FT 405,600

YEAR OCTOBER

APR

523
523

169
519
518

514
510

119
503

537
507
502
502

506 1,

509

503

219 1,
500 1,
496 1,

13,323 25,
444

110

6 AC-FT 420,

MAY

659
686
723

358
827
912
030

B67
703
545

882

839
668

510
838
802
801
854

550

450

101 5

770
358
740 10

1967 TO

MAY

JUN

,330
,190
,090

,200
. 330

,610

,660
,690
,900

,100

,290
,140

,120
,140
,060
,920
,790

,010
. 950

JUL

,080
,820
,130

AUG

662
640
632

SEP

570
524
227

,360
,240

. 130

,360
,170
,450

. 780

,310
,020

857
723
602
,200
791

766
736

625

,630 44,178

,450 2,440
,040 219
,400 87,630

SEPTEMBER 1968

JUN JUL

554 200
389 200

846 993
874 963
901 943

710 864
485 767

912
943

987
961
740
480

030

768
755

622
827
897
878
871

850
830

902 818

426 805

160 793
210 801
240 617

379 26,521 22
819 884

199 617

500
600

783
781

6BB
785
787

783
455

521
705

733
722
758
753
780

773
766

778

777

778
776
780
780

,143
747
787
455

624
621

621

626
523
367
619

590
585

480
195

568
557
556
554
561

471
187

557

16,806

662
187
33,330

AUG

61
59

62
64
62
64

760
763

770
765

766
763
762
763
761

764
763

761

767

765
761
763
765

23,466
757
770
559

624
623

223

614
611
611
611
610

536
197
615
611
610

610
611
520
231
602

612
612

619
554

15,906
530
626
170
31,550

SEP

766
769

765
761
769
763

765
761

765
766

763
764
761
762
763

761
600

763
761

763

771
771
765

22,602
753
771
595

11278400 CHERRY CREEK BELOW DION R. HOLM POWERHOUSE, NEAR MATHER, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND. HATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAr

i
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
IT
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MAX
MIN
AC-FT

WTR YR

DAr

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
IB
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

WTR YR

589
575
565
565
558

119

553
557

572
580
118
588
580

588
604
608
596
58

576
628
596

592
132

600

58
32,080

320
322
217
420
417

548
310

280
46B

321
129
307
333
309

298

29B

294
291

123
20,500 20

1969 TOTAL 337,331

DISCHARGE,

OCT NOV

623 462
614 15
597 599

615
610
627
666
614

17
593
595
607

633
721
656
111
647

615
603
596
596

16
595
595

597
593

16,357
52B
721
16
32,440

620
615

16
596

604
604
604
460

Z7
605
605
603
609

609

19
608

604
14
605

15

13,348 15
445
620
14
26,480 30

1970 TOTAL 260,259

320
317
313
315

315
319

336
326

391
340
334
336
304

188

332

382
355

161
,080

626
634
608
160

640

590
213

678
667
633
1,180
1,060

2,160

1,140

1.780
1,300

160
55,580

MEAN 924 MAX

IN CUBIC FEET

DEC JAN

597 1B3
601 658
596 559

488
15

600
600

595
4B4
15
594

595
603
595

525

55

609
622

653
516
32

610

,534
501
653
15
. 810

MEAN

655
658

701
839

864
B78
l.OBO
979

1,830
2,710
1,810

1,530

3,330

2.5BO
2,180

1,530
1.480

1,130

41,379
1,335
4,330
172
82,080

713 MAX

349
775
769

318

746

355
768
800
758
746

749

300

749
764

458 ,660
845 ,660

331 ,660

748 ,150

762 ,140 1

994
984
990

971

966

,010

349 ,070 1,870
774 ,070 1,960

795 ,060 2,170
819 B96 2,050

895 ,050 2,020

,380 ,050 3,110
,390 ,030 3.120

300
38.860

331 896
57,880 74,330 114

3,570 HIN 27 AC-FT 669,10

PER SECOND, HATER YEAR OCTOBE

FEB MAR APR

504 590 833

B80

832
660

710
700

715
765
700
205

725
780
720

660

545

620
610
605

600
595

18,020
644
910
95
35,740

4,330

820 828

765 829
620 831
435 829
755 830

743 665
747 922
642 932
648 896

787 B66
784 B4B
866 677

935 838

928 844

925 848
924 841
922 682

922 612
920 859

918 856

24,800 23,986 3
800 800
935 932
435 612
49,190 47.580 6

HIN 14 AC-FT 516,2

965
,800

0
0

(1969

MAY

6B7

357
681

729
883
968
902

989
942
903
955
. 130

,300

,500
,250
,070

,160

,320
,130
,360

,340
,370

,280
,220

. 579
. 051
,500
357
t,620

0
0

3,060
3,150
3,430

1.810

1,500

1.550

1.800
1,820

2,000
2,030

2,060

2,320
2,270

1,320

65,300 3

,130
946
946

981

,280

,260

,020

. 720
,490

,200
,190

,120
911

759
625

737
728

1.892

3,570 1,950
1.320 625
129.500 67,220

TO SEPTEMBER 197D

JUN JUL

1,240 720

1,220
1,190

1.130
904
1,130
1,650

1,260
1,020
889
798
925

920

890
817
839

430

845
811
784

780
860
490
BOO
740

690
640
219

629
601
615
622

584
181
605
601
602

594

541
37
574

5B3

563
560
527

22
554
561
560
557

29,048 16,585
968 535
1.650 720
430 22
57,620 32,900

647
620
143
600
599

613
618
132

619
623
615

339
31

505
503

506
507

500
503

339
30

14,234

647
29
28,230

AUG

49B

540
541
531

536
534
515
22
532

531
540
544
552
540

20

540
555
550

545

20
565
550

548
548
540
520
18

14,109
455
565
18
27,990

27
590
606
603
635

611
612
617

615
614
517

616
617
617
616
520

42
621

623

624
555

633

15,117
534
633
27
29,980

SEP

560

570
570
520

20
2D
570
570
565

565
510
15
570
565

560
575
575
710
250

550

575
575
570

515
15
570
575
575

14,514
484
710
15
28,790

SAN JOAQUIN RIVER BASIN

11281000 SOUTH FORK TUOLUMNE RIVER NEAR OAKLAND RECREATION CAMP, CALIF.

LOCATION.--Lat 37°49'18", long 120°00'43", in SE'.SE'j sec.29, T.I S., R.18 E., Tuolumne County, Stanislaus National Forest, on right bank 75 ft downstream from highway bridge on Big Oak Flat Road, 0.5
of Oakland Recreation Camp, and 0.6 mile upstream from Middle Tuolumne River.

DRAINAGE AREA.--87.0 sq mi.

PERIOD OF RECORD.--March 1923 to September 1970.

GAGE.-- Water-:stage recorder. Altiti

AVERAGE DISCHARGE. --47 years, 94.1 c

Annual maximum discharge

Date
Nov. 24

Dec. 2
Dec. 6
Jan. 30
Mar. 16
May 22

Wtr yr
1966
1967

, 1965

, 1966
, 1966
, 19b7
, 1967
, 1967

Date
Aug.
Oct.

Time Disch. G.H.
1200 *1,170 5.26

2300 1,180 5.60
1300 *3,770 8.08
1800 1,510 6.06
1400 3,510 7.89
2230 1,290 5.78

6, 1966
1, 11, 1966

ide of gage is 2,800 ft
itum.

:fs (68,180 acre-ft per

(*) and peak discharges

Date Time
June 19, 1967 2100

Feb. 20, 1968 1000

Jan. 13, 1969 1900
Jan. 19, 1969 0930
Jan. 21, 1969 1130

Discharge
1.9
4.8

(from topographi

year) .

er second, gage h

above base (900

Disch. G.H.
946 5.21

*339 3.83

1,440 5.98
3,550 7.92
*5,540 9.12

ge, water years

Wtr yr Date
1969 Oct. 1
1970 Sept. 30

c map) .

eight ir

cfs), v

Date
Jan.

Apr.
May

Jan.
Jan.
Jan.

1966-70

, 1968
, 1970

prior to

i feet) .

jater year

26, 1969
5, 1969
9, 1969

14, 1970
16, 1970
21, 1970

Nov.

s 196i

Time
0730
1430
2230

1530
1200
2030

lie southwest

22, 1931,

4,180
1,480
1,090

G.H.
8.34
6.03
5.45

5.33
6.79
5.30

scharge
4.2
6.6

ight, 10.9 ft, from floodmarks),
ents at gage heights 7.48 and

REVISIONS (WATER YEARS).--WSP 1445: 1945(M). WSP 1930: Drainage ar

1923, 1925(M), 1926-28, 1929-30(M), 1932(M), 1935-3b(M), 1937-38, 1943(M),

DAY

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MEAN
MAX
MIN

OCT

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11
10

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9.8
9.6

1C. 5
14
9.0

DISCHARGE

9.4
9.4
9.6
9.6
9.6

9.6
9.6
9.8
10
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10
11
21
141
102

119
211
304
229
79

56
48
668
732
256

151
115
102
92
83

121
732
9.4

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DEC

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73
73
76
73

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64
63
62

61
64
58
61
53

49
44
45
46
49

50
51
42
49

49
80
294
216
122

73.6
294
42

CUBIC FEET

JAN

77
78
73
12

79
80
83
83
78

73
68
67

66

64
60
56
58
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51
56
55
52

50

50
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64.6
87
49

PER SECOND,

50
52
53
58

123
86
71
67
64

53
63
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56

57
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64

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62.7
123
50

MATER

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57
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68
74
78
112

116
110
132

125

122
110
105
109
105

103
105
118
126

153

180
196
213

113
213
57

YEAR OCTOBER

248
250
259
256

243
240
233
236
265

213
192
173

182

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219
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150

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146
176

208

190
190

206
265
138

1965

200
204
202
208

190
1 2
1 8
1 0
2 6

1 8
1 0
1 6

129

123
122
122
120
114

105
93
85
80

64

56
55
52

133
266
52

TO SEPTEMBER 1966

JUN JUL AUG SEP

45
42
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27

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7.2 5.3
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4.1 4.6
5.4 4.6
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5.3 4.6

5.7 4.6
5.4 4.7
4.8 5.0
5.7 5.4
5.6 5.7

26 12 5.2 5.6
25 12 5.1 5.3
25 12 5.0 6.5
23 11 4.8 9.6
22 11 4.7 8.8

21 11 4.7 7.8
21 10 4.7 6.7
21 9.8 4.7 6.2
20 9.8 4.5 6.1

18 8.2 5.4 5.8
18 8.1 5.2 5.6

17 7.8 5.2 5.2
16 8.1 5.2 5.2
9.7 5.6

29.8 12.0 5.53 5.79
49 16 9.6 9.6
16 7.8 4.1 4.6

SAN JOAQUIN RIVER BASIN

11281000 SOUTH FORK TUOLUMNE RIVER NEAR OAKLAND RECREATION CAMP, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY DCT

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IB
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MAX
MIN

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AC-FT l t,

CAL YR 1966 TOTAL

DAY OCT

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2 18
3 20
4 22
5 20

6 20
7 19
8 18
9 18
10 18

11 17

NOV

5.6
5.4
5.6
5.7
5.6

7.2 2
18
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9.1

8.6
8.3
8.3
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8.6

56
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91

67
64
36
25
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19
19
137
159
66

159 2
5.4
1,880 12

26,524.1
69 , 208. 9

DISCHARGE,

NOV

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DEC

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352
359
109

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262
176

113
98
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83
77

73
71
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45
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42

,149
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,390 6,

MEAN 72

IN CUBIC

DEC

23
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24

JAN

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38
41

266
104
104
87

78
84

385
607
475

607
37
480

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FEET

JAN

24
24
22
23

23
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22
37

36

FEB

248
184
147
130

114

108
106

106
104
106
106
96

92
87
85
84
80

76
75
74
81

75

248
74
5,810

MAX 2,140

PER SECOND

FEB

34
36
37
37

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41
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62
68

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MAR

75
76
84
82

74

75
77

94
246
202
149
159

2,230
1,180
670
476
381

333
315
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260

230

303
248
244

2,230
73
19,159

MIN 4.

, HATER

MAR

85
77
73
72

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68
88
78
68

63

APR

228
220
210
228

248

278
262

258
234
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258

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295
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226 1.
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236 1,
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1 AC-FT 52

YEAR OCT08ER

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MAY

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1967

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JUN

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452

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TO SEPTEMBER

JUN

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JUL

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TOTAL
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5.7
6.0
5.4
6.0
8.7

8.6
9.1
8.3
7.0
6.0

5.6
5.1
5.1
5.1
4.8
4.4

168.2 12

5.43 4
9.1
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334

SAN JOAQUIN RIVER BASIN

11281000 SOUTH FORK TUOLUMNE RIVER NEAR OAKLAND RECREATION CAMP, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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MEAN
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CAL YR

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TOTAL
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MAX
MIN
AC-FT

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4.6
5.1
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9.1
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1968 TOTAL

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Z4
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96
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DISCHARGE

22
21
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27.5
68
21
1,640

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113

100
42
38
34 2,
21 1,

21 3,
25 I,
32

92 2,
57 1,
51

41

197 3,
15

MEAN 41

, IN CUBIC

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23

23
23
23
22
22

22 1,
21
22
33
90

208
151
76
63
165

116
6
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4

1,548 7,
49.9
208 1,
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3,070 15,

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412
175

114
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237
410
360

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670

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860
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FEET

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468
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212
200

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210

198

192

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214
214

241
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176

MAX 248

PER SECOND

144
132
126
122
116

111
107
106
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99

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116
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151
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123
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100
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121
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212

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142

MIN 2.

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178

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523
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10,330

588
536

436
809

690
532
488
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504
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700

790

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604

552
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420

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820
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725

735

760
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YEAR OCTOBER 1969

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TO SEPTEMBER 1970

JUN JUL

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80 31
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138 24
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70 24
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56 20
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46 19
44 18

41 18
40 17
37 17
36 17
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38 16
52 16
43 15
40 15
37 14

59.9
138
35
3,560

21.5
34
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1,320

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880
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226.
7.5
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44

11282000 MIDDLE TUOLUMNE RIVER AT OAKLAND RECREATION CAMP, CALIF.

DRAINAGE AREA.--73.5 sq mi.

PERIOD OF RECORD.--October 1916 to September 1970. Monthly di WSP 1315-A. Published as Middle Fork of Tuolumne River nea 1933-40.

charge only for Octobe
Buck Meadows 1917-32

1916, published in
id as "near Buck Mea

GAGE. --W

AVERAGE

EXTREMES

Date
Nov. 23,
May 1 0 ,

Dec. 6,
Jan. 22,
Mar. 16,
May 2 4 ,
June 19,

Wtr yr
1966
1967
1968

DISCHARGE. --54 years

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An

1965
1966

1966
1967
1967
1967
1967

Date

Sept.
Oct.
Sept.

nual maximum di

Time Disch.
2200 *626
1000 390

1700 1,070
0200 515
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2330 *1,250

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1, 2, 10, 11,
13, 14, 19, 20,

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Disch.
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Wtr yr
1969
1970

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G.H.
3.48

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6.33
9. 30
8.15
4.92
5.30

years

Date
Oct. 1

Sept. 3

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height

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Date

Apr.
May
June

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1966-70

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23, 1969
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16, 1970
21, 1970
17, 1970

Disch.
458
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0900
1700
2300

C.H.
4.56
6.66
6.12

4. 73
5.58
5.34
4.60

Discharge
. 90
1.9

Period of record: Maximum discharge, 4,920
11.05 ft, from floodmarks inside gage well), fr

REMARKS.--F 11 di

COOPERATION.--Gage-height record and 52 discharge measurements furnished by city and county of Sa

REVISIONS (WATER YEARS).--WSP 1395: 1919 CM), 1938(M), 1951(P). WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

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16
IT
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
HIN
AC-FT

HTR YR

OCT

5.4
5.0
4.8
4.5
4.4

4.2
4.2
3.9
3.9
3.9

3.9
3.8
3.B
3.B
5.7

7.5
T.I
6.4
6.1
5.9

5.6
5.1
4.8
4.6
4.5

. 4
. 1
. 1
. 1
. 1
. 1

4.76
7.5
3.8
293

1966 TOTAL

3.9
3.7
3.8
3.B
3.8

3^8
3.8
3.9
3.9

3.9
4.5
7.7
51
64

66
105
156
139
59

40
34
263
273
112

74
59
49
44
41

56.1
273
3.7
3f 340

19,722.

37
36
36
36
35

32
32
32
31

30
32
30
32
26

21
22
23
24

25
25
21
25
26

24
24
50
169
105
72

37.8
169
21
2,320

20 MEAN

45
39
41
38
39

42
44
42
40

38
36
34
34
34

32
3D
32
29

29
31
29
29
28

28
28
27
28
32
30

34.3
45
27
2,110

54.0

30
28
29
29
33

43
35
35

2B
34
30
30
30

30
30
30
31

31
33
36
36
31

36
34
34

33.5
69
28
1,860

MAX 313

35
33
31
32
32

36
38
39

61
55
66
6B
64

60
59
59
SB

57
58
64
70
74

78
B7
98
107
118

61.9
12B
31
3,810

HIN .

144
157
157
16B
174

182
187
190

171
162
148
147
158

203
206
166
147

138
136
138
160
192

221
225
223
213
215

176
225
136
10,470

BO AC-FT

228
238
256
252
262

262
262
250

250
230
217
223
204

197
194
196
1BO

176
15B
147
140
128

11B
107
9B
91
B7
82

194
313
82
11,910

39,120

76
71
67
63
59

55
63
67
69

50
44
40
37
36

32
30
2B
26

25
23
23
21
21

19
17
17
16
15

40.1
76
15
2,390

14 3.0 1.1
14 2.B 2.0
13 2.
12 2.
12 2.

11 2.
10 3.
9.B 1.
9.2 1.
9.4 I.

9.0 1.
8.6 1.
8.4 1.
8.0 1.
7.6 1.

8.0 1.
7.B 1.
5.2 1.
4.9 1.
5.4 1.

5.0 1.
4.7 1.
4.3 1.
3.9
3.4 1.

3.2 1.
3.0 1.
3.0 1.
3.0
2.B 1.

1.1
. 80
1.3

1.0
. 90
. 80
. 90
1.0

. 90
. 90
1.0
1.0
1.1

1.1
1.1
1.3
1.6
2.6

2.*
1.9
1.8
0 1.8
1.5

1.4
1.4
1.3
0 1.3
1.3

226.6 49.30 39.30

7.31 1.59 1.31
14 3.2 2.6
2.8 .90 .80
449 98 7B

SAN JOAQUIN RIVER BASIN

11282000 MIDDLE TUOLUMNE RIVER AT OAKLAND RECREATION CAMP, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

1
2
3
4
5

6
7
a
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN
MAX
HIN
AC-FT

CAL YR

DAY

1
2
3
4
5

6
7
a
9
10

11
12
13
14
15

16
IT
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN
MAX
MIN

CAL YR

OCT

1.3
1.3
1.4
1.4
1.4

1.4
1.4
1.4
1.4
1.3

1.4
1.4
1.4
1.5

1.5
1.7
1.7
1.7
1.7

. 7
. 7
.a
. 7
. 8

. 8
.a
. 8
1.8
1.8

1.56
1.8
1.3
96

1966 TOTAL

OCT

13
11
10
11
11

9.8
9.2

a. 8
a. 2
7.6

7.6

7.1
6.9
6.5

6.2
6.4
5.8
5. a
5.7

5.5
5.5
5.5
5.5
5.5

5.4
5.4
5.4
5.4
5.4

7.25
13
5.2

1967 TOTAL

1.8
1.7
1.7
1.7
1.7

2.0
3.6
3.6
3.9
3.8

3.0
3.0
3.1
3.5

11
19
10
8.0
27

26
34
14
9.2
7.4

12
70
38

11.4
70
1.7
677 5

19,629.00

DISCHARGE,

NOV

5.0
4.9
4.9
4.9
4.9

4.9
4.9
4.9
4.9
4.9

4.9

4.9
5.4
5.7

6.4
7.3
7.1
16
16

12
10
8.6

a. 2
7.8

7.6
7.3
7.8

a. 6
12

7.25
16
4.7

51,199.20

25
100
104
47
238

650
279
143
96
76

55
51
45
43

41

38
37
36

35
32
31
30
29

24
26
28

81.3
650
23

,000

MEAN

25
25
25
25

21
24
25
26
26

26
26
26
25

26

25
25
26

72
156
50

50

58
159
202

52.1
202
21
3,200

53.8

IN CUBIC FEET

DEC JAN

8.8 11
8.2 11
9.6 9. a
10 9.8
34 10

14 9.8
15 9. 8
13 9.8
1C 10
11 16

9.8 14

5.8
5.8
9.4

10
9.6
10
10
10

11 11 11 11 11

11
12
12
12
12

11.2
34
5. 8

MEAN

12
12
28

32
28
23
20
18

17
17
17
17
17

16
16
11
17
19

15.8

32 9. a

140

114
88
75
68

61
59
58
57
58

58
58
58
61

52

50
50
46

45

46

50

45

57.4
114
45

3,190

MAX 650

PER SECOND,

FEB

16
18
20
20
20

21
22
22
29
32

26
24
22
23
22

22
51
45
38

105
79
74
74
68

63
59
55
52

42.4
107
16

MAX 846

46

52
52

47
46
47
50
51

71
209
132
92

724

300
256
204

172

160

141

127
156
163
144

149
724
46
9,170

MIN .
MIN 1.

WATER

52
48
45
45
45

44
42
54
45
39

38
38
44
40
40

50
57
51
45

42
41
40
39
43

3
3
6
2
4

46.8
74
38

HIN 4.

140

128
137

161
217
163
156
157

163
147
147
152

140

179
156
152

152

150

154

182
162
148
148

154
217
128
9,190 26,

80 AC-FT 38
3 AC-FT 105

YEAR OCTOBER

88
80
72
67
68

67
65
68
75
88

104
107
105
107
111

107
95
85
82

76
74
76
86
95

114
136
145
162
171

95.2
171
65

7 AC-FT 101

151

174
172

163
187
223
266
305

242
206
202
215

329

449
476
563

680

846

814

734
704
626
587
506

425
846
151
120

,930
,800

1967

168
176
171
168
168

145
138
142
145
138

143
134
120
107
111

120
125
132
143

140
121
103
95
96

103
104
103
94
80

127
175
72
820

,600

410

338
398

415
485
533
545
551

578
578
563
563

632

734
782
830

778

668

677

632
611
620
623

589
830
338
35,040

TO SEPTEW

67
63
59
52
48

48
47
58
48
42

38
36
34
32
30

28
26
25
20
20

17
17
16
16
14

13
12
12
11
10

32.0
67
10
1,900

584 46

482 39
412 38
360 36

322 34
313 32
254 30
228 30
21D 29

201 27
197 26
174 25
160 24

151 25
133 26
124 22
119 20
110 15

98 17

85 17

73 26

61 22
56 18
52 16
50 15
48 13

193 25.8
584 46
48 13

11,870 1,590

ER 1968

9.6 .8
9.2 .8
8.8 .7
8.3 .0
7.7 .6

7.0 .6
6.4 .6
7.9 .6
8.3 .2
8.1 .1

7.0 .1
6.1 .1
5.4 .5
5.1 .8
4.6 .9

4.5 .6
4.4 .6
4.1 .5
3.8 .6
3.7 .0

3.3 .8
2.8 .2
2.8 .7
2.8 .2
2.4 .0

2.0 .7
2.0 .5
2.0 .4
2.1 .3
2.1 .2

5.04 1 93
9.6 .7
2.0 .1
310 19

13
12
12
12
12

11
11
10
9.8
10

9.8
9.4
9.0
8.8
8.6

8.2
8.2
11
14
13

10
9.8
9.8
11
11

11
10
9.2
8.6
8.6

311.8
10.4
14
8.2
618

1.8
1.0
. 90
. 90
. 80

. 80
. 80
. 80
. 80
. 70

. 70
. 70
. 60
. 60
. 80

. 80
. 80
. 80
. 60
. 60

. 80
. 80
. 90
. 90
1.0

. 90
. 90
. 80
. 80
. 30

. 83
1.8
. 60
49

WTR YR 1968 TOTAL 11,961.40 MEAN 32.7 MAX 176 MlN .60 AC-FT 23,730

SAN JOAQUIN RIVER BASIN

11282000 MIDDLE TUOLUMNE RIVER AT OAKLAND RECREATION CAMP, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECONDi WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

1
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4
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19
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25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN

DAY

1
2
3
4
5

6
7
8
9
13

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN
MAX
MIN

. 90
. 95
1.0
1.1
1.2

1.2
1.3
1.3
1.3
1.3

1.4
1.6
3.2
9.0
9.0

6.1
4.5
3.6
3.2
Z.9

2.8
2.6
2.5
2.4
2.2

2.2
2.2
2.1
2.4
4.2
6.2

87.85
2.83
9.0
. 90

5.0
4.8
4.6
4.5
4.6

4.8
5.0
5.1
5.4
5.4

5.2
5.2
5.4
5.6
10

69
80
36
26
21

19
18
18
18
17

16
15
14
14
14
13

15.8
80
4.5

4.8
5.0
43
34
15

11
8.3
7.5
6.6
6.6

9.0
17
15
11
15

13
11
11
13
16

13
12
10
11
11

8.1
9.2
7.7
7.3
8.8

12.4
43
4.8

DISCHARGE

12
12
12
12
11

34
24
20
17
16

16
16
16
16
16

17
19
15
16
16

15
15
14
13
13

14
12
12
10
11

15.4

1C

9.6
7.7
7.5
8.3
7.1

7.9
7.9
7.7
7.5
10

21
ID
13
14
59

43
18
16
17
9.6

9.6
12
17
44
89

42
28
28
25
22
20

20.6
89
7.1

, IN

11
12
12
11
11

12
12
12
13
12

12
12
12
12
11

11
10
12
14
35

70
109
58
47
88

75
47
30
27

23

27.7

10

20
20
21
21
22

23
23
24
22
19

20
22
160
144
84

58
43
112
696
414

1,530
430
203
177
891

1,040
366
246
189
166
143

237
1,530
19

CUBIC FEET

21
19
18
17
16

19
28
28
60
120

59
48
47
198
111

551
331

160
158

490
429
266
283
196

164
169
141
129

114

152

16

138
127
120
116
133

156
118
111
105
103

106
129
115
111

151
128
129
123
115

110
107
107
282
138

129
119
127
- - - - - -

130
282
103

PER SECOND,

111
101
98
97
94

89
88
86
85
84

84
95
115
111
103

99
123

94
91

66
84
81
81
79

79
60
98

______

93.4

79

124
119
118
109
106

106
103
100
99
100

95

95
92

103
111
125
129
132

148
136
140
144
150

156
168
184
197
217
244

130
244
92

WATER

238
156
116
110
107

107
106
106
100
100

92
89
90
95

97
100

92
90

69
91
97
104
114

123
123
116
116

105

109

89

248
240
242
213
368

300
242
228
217
204

215

252
242

206
228
256
260
298

344
390
418
351
302

279
273
296
347
385

277
418
204

YEAR OCTOBER

99
98
101
103
109

120
127
127
130
141

151
145
144
136

119
115

119
111

109
104
103
101
106

121
115
109
104

117

98

410
418
388
349
363

464
560
647
742
718

714

782
802

782
878
906
882
830

830
898
910
938
922

886
886
874
922
950

747
978
349

1969 TO

MAY

118
136
177
208
226

230
194
194
180
212

197
168
185
240

327
342

302
283

271
288
292
279
262

258
244
228
210

197

234

118

990
942
914
886
842

790
730
641
509
452

395

418
488

543
573
400
402
415

398
390
395
351
347

320
285
264
254
258

515
990
254

SEPTEME

192
176
168
ISO
138

125
116
112
230
147

116
107
109
103

89
80

67
59

59
53
48
45
43

45
59
57
47

98.5

43

260
252
240
215
192

184
177
172
163
156

143
128
127
140

110
101
86
80
74

70
67
63
60
55

51
47
49
45
41
37

120
260
37

IER 1970

JUL

40
36
33
32
31

30
27
25
24
24

23
21
20
18

16
15

13
12

12
11
11
10
9.6

9.0
8.6
8.3
7.5
7.3
7.1

16.5

7.1

36
34
34
30
29

28
27
25
23
22

20
21
20
18

16
15
14
14
14

13
13
12
11
11

11
10
10
9.6
10

18.6
36
8.8

AUG

6.5
5.9
5.6
5.3
5.0

4.8
4.5
4.4
4.1
3.8

3.7
3.3
3.0
3.2
3.0

2.9
2.8
2.7
2.7
2.6

2.5
2.4
2.1
2.2
2.1

2.1
2.1
2.1
2.2
2.2
2.2

3.35
6.5
2.1

8.1
7.7
7.7
7.3
7.1

7.0
7.7
8.3
7.1
7.0

6.4
6.4
6.2
6.1
5.9

5.9
5.9
6.1
5.9
6.1

6.2
6.4
6.1
5.9
5.6

5.4
5.2
4.8
4.5
5.1

191.1
6.37
8.3
4.5

SEP

2.2
2.4
1.9
2.1
2.1

2.2
2.1
2.1
2.1
2.2

2.1
2.1
2.1
2.1
2.4

2.5
2.5
2.5
2.5
2.5

2.5
2.4
2.5
2.5
2.5

2.5
2.4
2.4
2.2
2.2

68 8
2.29
2.5
1.9

SAN JOAQUIN RIVER BASIN

11283100 LILY CREEK NEAR PINECREST, CALIF.

LOCATION.--Lat 38°08'41"
left bank 1,500 ft dc

long 119°53'59", in T.3 N., R.19 E., Tuolu

DRAINAGE AREA.--11.9 sq mi.

PERIOD OF RECORD.--July 1964 to September 1970.

GAGE.--Water-stage recorder. Altitude of gage is 6,990 ft (from topog

AVERAGE DISCHARGE.--6 years, 48.4 cfs [35,070 acre-ft per year).

tJUKtMtb. --Maximums

Annual maximum discharge (*) and

Date
Nov. 18,
Ma . 13,
Ap . 1,

Ap . 25,

No . 28,
De . 6,
Ma . 16,

May 22,
June 17,

Time
1905 0600
1906 0200
1966 2030

1906 2100

1966 1900
1906 1600
1907 1800

1967 2000
1967 1900

Wtr vr Date
1966' M
1967
1968 S

Per
extend
Flo

REMARKS. -

Survey

DAY

i
2
3

4
5

6
7
8
9
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11
12
13
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15

16
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19
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21
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25

26
27
28
29
30
31

TOTAL
MEAN
MAX
HIM
AC-FT

any days
do .

Disch. G.H. Date
248 5.13 Feb.
238 5.07 Feb.

*275 5.30 Apr.
214 4.91 Apr.
264 5.23 May

765 7.70 Nov.
702 7.45 Nov.

*1,060 8.80 Jan.
264 5.31 Jan.

544 6.76 Apr.
544 6.72 Apr.

ept.29, 1968

iod of record: Maximum discharge, ed above 4
od of Feb.

- Records g

0 cfs; no flow for many
1, 19b3, reached a stage

peak discharges

Time
18, 1968 0400
20, 1968 1000
10, 1968 2000
28, 1968 2000
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18, 1968 1900
20, 1969 0800
26, 1969 1200
21, 1969 2200
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3.912
130
193
54

146
160
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76
82

64
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52
31
96

127
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106
98

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196
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Dec. 20, 1969
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NOTE. NO GAGE-HEIGHT RECORD JAN. 2 TO MAR. 10.

11283100 LILY CREEK NEAR PINECREST, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

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TOTAL
MEAN
MAX
HIN

CAL YR

NOTE

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MEAN
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HIN
AC-FT

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7.9
BB

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12
12
287
288
84

32.2
2BB
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1966 TOTAL 12.675.00

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81
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383
177
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48.6
383
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MEAN

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35
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37
46

18.2

11

34.7

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23
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33
41

35
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20
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22

26.4

20

MAX 383

27

32
26
22

22
28
35
37
32

22
26
37
43
29

574
472
212
126
80

64
66
60
46

36
32
47
45
38

78.2

22

HIN .10

NO GAGE-HEIGHT RECORD DEC. 21 TO JAN. 26.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER

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. 91
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6.5
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6.2
6.4

8.2
7.5

6.5
6.0

5.5
5.1
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4.7
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4.5
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B.B

19
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21
2.0
472

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7.0
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4.2

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4.8
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42

58
22
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IB

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13.6
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AC-FT

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YEAR OCTOBER 1967

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110

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84

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85
71

92.6
157
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JUN

83

76
166
190

175
240
257
267
262

259
270
248
269
297

327
358
365
316
302

318

285
299

284
277
292
289

258

62

TO SEPTEHf

JUN

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JUL

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168

151
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127
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103

101
107
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191
84

72
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ER 1968

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AUG SEP

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4.6 .50
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2.4 .30
2.2 .30
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1.5 .39
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1.4 .30
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17 .80
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AUG SEP

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. 13 .10
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. 27 .067
3.1 .10
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SAN JOAQUIN RIVER BASIN

11283100 LILY CREEK NEAR PINECREST, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 196B TO SEPTEMBER 1969

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TOTAL
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1968 TOTAL

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MEAN

NO GAGE-HEIGHT RECORD FEB.

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30.1 MAX

7 TO MAR.

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MIN .03
MIN .08

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72
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98
74
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150
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216
214
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101
75

69
91
137
176
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102
216
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AC-FT
AC-FT

191
166
109
93
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331

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21.820
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DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

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2BB
128
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288
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89
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129
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264
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184

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177
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130
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102
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89
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450 SAN JOAQUIN RIVER BASIN

11283200 BELL CREEK NEAR PINECREST, CALIF.

LOCATION.--Lat 38°09'46", long 119°56'32", in NEHs sec.36, T.4 N., R.18 E., Tuolumne County, Stanislaus Forest, on right bank 1,400 ft downstream from Bell Meadows and 3 miles southeast of Pinecrest. DRAINAGE AREA.--9.il sq mi.

PERIOD OF RECORD.--September 1963 to September 1970.

GAGE.--Water-stage recorder. Altitude of gage is 6,450 ft (from topographic map).

AVERAGE DISCHARGE.--? years, 28.5 cfs (20,650 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet). Annual maximum discharge (*) and peak discharges above base (125 cfs), water years 1966-70

Date
Nov.

Apr.
May

Nov.
Dec.
Mar.
May
May
June

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1966
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1967

Time
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1700
1300
1500
2100
1800
1800

Disch.

145 *163
150

234

409 *484
148
378
296

G.H.
4.27
4.40
4.31

4.86
5.72
6.04
4.31
5.58
5.19

Date
Feb.
Apr.

Jan.
Jan.
Apr.
May
June

Dec.

20,
28,

19,
26,
21,
11,
14,

20,

1968
1968

1969
1969
1969
1969
1969

1969

Time
0700
1930

1400
0600
2000
1900
1900

0930

Disch.

150
168
218
*339
248

G.H.
4.63
4.13

4.33
4.45
4.71
5.40
4.90

4.73

Date
Dec.

Time
21, 1969 1330

Di

25, 1969
16, 1970
Jan. 21, 1970
May 5, 1970
May 17, 1970
June 8, 1970
June 27, 1970

1000
0800
1400
2000
1900
2300
0800

sch.
326
128
371
'429
152
214
146
206

Wtr yr Date
1966 Many days
1967 Oct. 1, 1966
1968 Sept.16, 1968

Annual minimum daily discharge, wat

Discharge Wtr yr Date
1969 Oct. 3, 1968
1970 Sept.12, 30, 1970

G.H.
5.34

4.32
4.70

charge
. 04
. 06

Flood of Feb. 1, 1963, reached
measurement of peak flow.

of 8.79 ft, from floodmarks (discharge, 1,410 cfs), from slope-area

REMARKS.--Re

DISCHARGE, |M CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

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MEAN
M4X
MIN
AC-FT

OCT

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0 8.8
0 8.5
7.9
7.5
7.7

14 7.1
52 7.3
96 7.1
29 6.9
17 7.3

12 6.7
11 5.5
20 5.8
14 4.8
14 10

12 10
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97

11.8 8.60 6.94 6.79 36.3 96 13 18 7.6 104
. 30 4.7 5.3 6.2 7.7

111
110
111
121
117

113
112
110
103
103

84
67
60
63
74

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86.3
121
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89
86
82
112

80
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66
64
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54
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41

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34
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21
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62.9
112
19

JUN

17
15
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14
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12
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18
13

11
10
9.0
8.5
7.7

6.5
5.8
5.3
5.0
4.4

4.0
3.7
3.4
3.0
2.8

2.5
2.3
2.0
1.8
1.7

8.45
19
1.7

JUL

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. 4
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1.0
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. 80
. 80
. 70

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17.30
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1.6
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AUG

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. 10
a
. 6

C4L YR 1965 TOTAL 12.025.80 MtAN 32.9 MAX 182 MtN .30 AC-FT 23,850

SAN JOAQUIN RIVER BASIN

11283200 BELL CREEK NEAR PINECREST, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

I
2
3
4
5

6
7
B
9
ID

11
12
13
14
15

16
17
IB
19
20

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22
23
24
25

26
27
2B
29
30
31

MAX
MIN

CAY

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11
12
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14
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16
17
IB
19
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24
25

26
27
28
29
30
31

MEAN
MAX
MIN
AC-FT

0 .10 13 B.
. 10 .10 28 B.
. 10 .10 42 B.
. 10 .10 17 B.
. 10 .10 26 7.

. 10 .10 212 B.
. 10 .20 73 7.
. 13 .20 33 7.
. 10 .10 24 7.
. 10 .10 21 7.

. 10 .10 19 7.
. 10 .40 IB 7.
. 10 .20 17 9.
. 10 .20 15 10
. 10 .30 15 10

. 10 B.B 16 10
. 10 .3 16 9.B
. 10 .9 16 9.2
. 10 .8 18 7.9
. 10 1 17 7.5

. 10 .2 15 8.5
. 10 .0 14 35
. 10 .7 13 43
. 10 .9 12 34
. 10 .0 B.O 34

. 10 .8 9.0 25
. 10 .0 9.0 37
. 10 7 9.0 28
. 10 Bl 9.B 42

. 10 23 9.0 41 .10 8.3 31

. 10 81 212 43
0 .10 8.0 7.1

DISCHARGE, IN CUBIC FEET

. 36
. 39
1.5
1.7
. 90

. 68
. 54
. 45
. 36
. 33

. 30
. 30
. 27
. 27
. 24 1.

. 24
. 24
. 24
. 24 1.
. 24 2.

. 24 2.
. 27 1.
. 24 1.
. 24 1.
. 22 1.

. 22
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. 24
. 24
. 24

. 70 1.9
. 90 1.5
1.1 1.2
1.2 1.0
1.3 1.0

1.9 1.1
l.B 1.2
2.0 1.2
2.2 1.1
2.3 1.1

2.9 1.2
2.8 1.1
2.7 1.1
2.6 1.2
2.5 6.3

2 2.5 12
B 2.4 5.0

2 2.2 3.1 2.0 3.4
1.7 3.9

1.5 5.2
1.3 4.1
1.4 4.1
1.8 4.B
2.2 5.0

5 3.8 3.5
2 6.6 3.0
8 6.2 3.0
4 4.2 2.3
0 2.9 2.0

. 40 .72 2.38 2.92
1.7 2.5 6.6 12
. 22 .24 .70 1.0

22 19
19 20
17 21
16 IB
IB 16

18 16
21 19
22 23
23 23
27 21

26 IB
26 22
27 30
23 40

IB 267
IB 188
20 101
20 6B
19 55

18 52
IB 55
18 52
17 45
15 42

15 36
16 34
17 48
43
29
29

27 267
15 16

PER SECOND, WATER

2.6 28
2.9 25
3.3 27
4.5 28
3.8 27

3.0 21
2.9 19
2.7 17
2.8 15
2.7 15

2.6 15
2.7 14
2.7 14
3.0 13
2.9 12

2.7 11
4.8 17
B.8 14
13 11
108 13

66 15
53 16
80 15
57 20
44 22

40 20
35 26
30 38
30 54
62
56

21.3 22.6
108 62
2.6 11

29 14 86
24 17 70
25 19 76
22 22 111
21 21 132

19 2B 119
22 58 136
21 87 145
22 94 150
21 63 155

21 45 153
20 39 155
22 45 148

21 144 180
17 1T4 204
19 176 211
23 184 186
20 211 190

16 247 198
21 256 188
17 242 176
15 230 182
14 217 188

14 206 1B1
14 199 176
15 181 170
14 160 176
15 141 174
lls

29 256 211
14 14 70

YEAR OCTOBER 1967 TO SEPTEMBER

57 87 42
37 87 43
32 86 39
36 84 36
36 75 28

32 64 20
38 62 19

58 59 17
72 54 19

80 51 18
73 55 17
69 44 15
75 43 14
72 54 14

60 60 14
46 61 12
40 59 10

38 70 7.9

36 65 7.0
36 49 6.4
43 37 5.5
52 34 4.8
64 41 3.9

77 50 3.7
83 54 3.2
86 57 2.9
92 55 2.7
89 47 2.5
43

56.5 58.5 15.2
92 87 43
32 34 2.5

JUL AUG SEP

162 11 .0
155 10 .0
140 9.0 .1
123 7.5 .0
113 6.3 .0

104 5.5 1.0
95 4.8 .BO
84 4.4 .70
75 4.1 .70
70 3.8 .60

71 3.5 .50
71 3.0 .50
75 2.8 .50

54 2.3 .40
50 2.3 .40
45 1.9 1.7
40 1.8 1.3
34 1.7 .50

32 1.5 .40
31 1.4 .40
28 1.4 .40
26 1.5 .70
23 10 .50

21 6.4 .40
19 2.6 .30
IB 1.9 .30
17 1.5 .30
15 1.3 .30
13 1.1

162 11 1.7

13 1.1 .30 830 240 39

1968

JUL AUG SEP

. 4 .33 .21
. 1 .24 .08
. 0 .22 .06
. B .22 .06
. 8 .20 .05

. 4 .18 .04
. 5 .16 .04
. 4 .16 .04
. 4 .16 .04
. 2 .14 .04

. 1 .14 .04
. 0 .16 .04
. 0 .36 .04
. 95 .22 .94
. 90 .20 .04

. 85 .20 .03
. 76 .18 .04
. 72 .18 .04

. 57 3.8 .04

. 54 1.1 .05
. 48 .76 .35
. 45 .51 .05
. 39 .33 .05
. 36 .20 .04

. 33 .16 .04
. 27 .14 .05
. 27 .14 .05
. 27 .10 .04
. 27 .10 .05
. 36 .08

. 95 .36 .051
2.4 3.B .21
. 27 .08 .03
58 23 3.0

SAN JOAQUIN' RIVER BASIN

11283200 BELL CREEK NEAR PINECREST, CALIF.--CONTINUED

DAY

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MEAN

HIN
AC-FT

OCT

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. 08

. 10
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1.2
3.9
2.D

2.0
1.9
1.4
. 90
. 60

. 45
. 36
. 30
. 24
. 22

. 20
. 20
. 20
. 20
1.5
2.0

. 66
3.9
. 04
41

DISCHARGE, IN CUBIC FEET

l.D
13
44
9.0
6.8

4.7
3.7
5.4
8.5
6.2

4.1
9.0
6.2
4.2
4.8

4.4 1
5.0
17
14
9.3

7.9
6.8
6.8
5.4
4.5

3.8 1
3.2 1
3.0

. 5 B.5
. 3 7.7
. 8 7.5
. 8 ID
. 7 12

. 4 16
. 1 16
. 7 12
. * 8.3
. 2 7.7

. 1 6.8
. 1 6.8
. 1 10
. 1 17
. 5 13

11
. 9 10
. 4 11
. 2 96
. 7 114

. 0 103
. 7 45
. 0 33
. 2 24
. 2 90

134
65
. 5 3B
3.0 ., JL
3.0 8.8 29

7.59 5.84 32.8

1.0 3.1 6.8
452 359 2,020

PER SECOND

21
18
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9.7

9.3
9.0
8.5
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10
ID
10

12.4

8.5

, WATER YEAR OCTOBER

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9.7
9.5
9.0
9.0

9.0
8.8
8.4
8.4
8.4

8.3
7.9
7.2
7.5
8.1

9.3
9.7
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52
64
77

20. 0

7.2

HIN .03
HIN .04

94
82
59
54

52
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37
38
41

60
81
82
68
52

57
79
98
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41

64
62
32
83
65

64
72
101
131
138

83.6

37

AC-FT 11,
AC-FT 32,

1968

145
125
89
83

180
214
232
245
227

239
237
245
236
218

223
246
248
225
218

221
246
255
252
245

246
254
241
246

246

216

83

590
810

TO SEPTEMBER

246
246
243
225

204
187
157
131
106

87
81
100
148
140

119
97
111
121
116

100
101
96
88
82

72
70
62
60

129

60

1969

JUL AUG

62 .8
62
62
56

49
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42
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20 .90
19 .80
17 .72
14 .68
12 .60

19 .54
8.8 .51
7.9 .54
7.0 .51

5.5 .45

31.3 1.83

5.5 .45

SEP

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DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY OCT

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HEAN

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HIN .20

1.1
1.1
1.1
1.0
1.1

2.0
2.8
3.1
3.5
3.7

4.1
4.7
4.2
3.8
3.5

4.2
3.0
2.3
2.0
2.0 10

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6.7
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5.8
5.5
5.2
8.1
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8.3
7.9
7.2
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234
91
52
42
54

2.0 106 ait
1.9 38 168
1.8 18 107
1.7 15 89
1.5 59 60

1.5 23 50
1.5 15 45
1.3 16 37

1.2 12 28

2.33 14.6 50.3

1.0 1.0 5.2

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29.0

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HIN .18

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39.8

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AC-FT

48
63
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86
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127

142
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100
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JUN

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101
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JUL

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AUG

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SEP

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3.12
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6.2

SAN JOAQUIN RIVER BASIN

11283500 CLAYEY RIVER NEAR BUCK MEADOWS, CALIF.

>rth of

DRAINAGE AREA.--144 sq mi.

PERIOD OF RECORD.--October 1959 to September 1970.

GAGE.--Water-stage recorder. Datum of gage is 2,374.08 ft above mean sea level.

AVERAGE DISCHARGE,--11 ye 253 cfs (183,300 acre-ft per year); median of yearly (145,000 acre-ft per y

EXTREMES.--Maximums and minimums (discharge in cubic feet per s

Annual maximum discharge (*1 and peak discharges abov

cond, gage height in feet),

base (1,400 cfs), water year

No 18, 1965 1200 *1,850

Nov. 28, 1966 2330
Dec. 6, 1966 1330
Mar. 16, 1967 1800
May 21, 1967 2130
June 17, 1967 2245

1,520 9.57
*5,950 14.76
5,780 14.62
3,920 12.84
1,720 9.93

Time
2030
0930

Feb. 20, 1968 1300 *1,270 9.02

Apr.
Apr.
May

De

13, 1969
21, 1969
26, 1969 0645
5, 1969 1345
21, 1969 2245
9, 1969 0015

:. 21, 1969 1800
:. 25, 1969 1430

Disch. G.H.
1,410 9.34
*8,920 16.79
8,480 16.51
2,720 11.54
2,300 10.96
2,690 11.50

3,230 12.16
1,860 10.21

Date Time
Jan. 14, 1970 1445
Jan. 16, 1970 1030
Jan. 21, 1970 1500
Jan. 24, 1970 0500
Jan. 27, 1970 0945

Wtr yr Date
1966 Sept. 7, 8, 10, 11, 1966
1967 Oct. 1, 1966
1968 Sept.28, 29, 1968

Annual minimum daily discharge, water years 1966-70

Discharge Wtr yr Date
7.7 1969 Oct. 1, 1968
8.1 1970 Sept.13, 28-30, 1970
6.0

Disch. G.H.
1,900 10.29
6,860 15.44
6,970 15.52
3,200 12.12
1,440 9.33

Discharge
6.5

REMARKS.--Records excellent. No gage-height record July 25 to Sept. 10, 1970. No storage or di

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

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2D

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31

TOTAL
MEAN

MIN

OCT

20
20
1
1
1

1
1
18
18
18

18
18
18
19
26

24
22
22
21
21

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18

18
18
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18

19.4

18

NOV

8
8
8
8
8

8
8
8
8
9

19

31
228
195

199
548
1,130
605
314

215
172
574
721
423

304

213
197

226

18

181
175
180
193
190

179
171
164
159
154

147

139
138
118

110
100
103
103
105

107
108
88
102
103

100

201
204
166

141

88

138
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123
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181
205
327

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508
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482

438
389
381

375

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435
488
505

525

658
688
745

385

128

MIN is
MIN 7.7

775
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692
652
632
618
718

595

492
470
502

540
565
575

395

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371
381
435
488

515

432
435

551

371

AC-FT
AC-FT

442
430
468
448
460

438
425
419
381
535

417

318
319
292

283
276
268

255

248
234
215
198
184

177

150
139
125
116

305
535
116

241,000
119,700

JUN

106
96
90
86
83

81
89
100
107
94

81

69
63
58

54
50
47

42

39
39
37
36
35

33
31
29
28
27

61.6
107
27

JUL

26
25
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574
18.5
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8.3
8.8
9.0

9.0
8.6
9.2
13
13

12
10
9.6
9.3
9.0

9.0
9.0
8.7
8.4
8.1

8.96
13
7.7

SAN JOAQUIN RIVER BASIN

11283500 CLAYEY RIVER NEAR BUCK MEADOWS, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

2
3
4
5

6
7

9
10

11
12
13
1*

16

16
19

21
22
23
2*
25

26
27
28

TOTAL

MAX
MIN

2
3
4
5

6
7
B
9

12
13
1*
15

16
17

19
20

21
22
23
24
25

26
27
28

30

MAX
MIN

OCT

8.3
8.5
8.7
9.0

8.9
8.8

8.B
8.6

8.4
8.5
8.9
9.1

9.5

9.6
9.6

9.5
9.7
9.8
9.6
9.6

9.4
9.3
9.5

283.3

9.8
8.1

26
45
35
31

30
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27
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24
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24
23

23
23

22
22

21
22
22
22
21

21
21
21

21

45
20

9.2
9.3
9.3
9.3

12 3
27 1

15
14

13
13
13
13

148

60
42

202
176
102
74
60

57
54
353

3,056.4 13

803 3
9.2

DISCHARGE,

20
23
20
20

20
20
20
20

19
19
23
26

24
24

54
47

35
30
28
26
25

25
25
26

38

54
19

593
865
353
866

,590
,340

434
379

332
295
277
251

225

211
208

190
171
165
153
147

139
115
125

,240 6

,590
115

IN CUBIC

31
34
37
129

60
62
56
47

42
28
35
41

39
34

38
36

36
36
38
41
45

51
53
56

58

129
28

109
108
107
108

90
99

91
93

94
97
99
103

106

99
96

313

238
216
188

186
213
261

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726
90

FEET

43
37
39
37

37
36
37
36

43
4
4
14

16
12

84
78

80
85
88
87
88

87
B2
66

72

163
36

404
357
327
325

329
333

342
358

363
359
377
367

305

292
295

265

255
249
260

233
241
240

8,873

502
233

PER SECOND

85
92
97
101

100
9B
99
119

105
104
1C1
96

105
308

296
888

812
571
5B9
569
448

414
403
383

888
75

261
278
255
230

226
234

271
271

262
385
353
314

3,520

1,750
1,250

873

B48
759
693

636
601
802

22,764

3,520
226

MIN 8.

, WATER

309
301
302
302

274
255
288
272

230
228
228
211

233
235

219
214

227
243
236
256
284

284
295
334

497

281
497
211

MIN 6

510
483
493
478

500
573

502
513

494
465
481
511

454

490
471

426
431
421

424
453
426

14,144 4

573
398

1 AC-FT 31

YEAR OCTOBER

455
379
381
398

366
360
386
421

505
456
446
465

425
352

301
302

288
269
287
318
332

382
434
441

457

397
533
269

. 0 AC-FT 5

451
525
580
580

646
893

. 460

,420

,070
901
879
999

. 830

,250
,250

,790
. 560
. 300

,070
,940
,870

,996

,960
402

),400
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1967

420
422
401
379

325
299
301
298

281
294
263
306

331
334

306
311

338
267
205
175
177

219
235
245

208

291
422
175

1,720

JUN

804
755
949
1.160

947
1,090

1.120
1.110

1.C90
1.080
1.010
987

1.130

1,270
1.170

1.050
965
934
949

901
854
801

30.138 9

1,270
755

TO SEPTEMBER

173
169
153
142

116
110
104
96

91
85
78
74

71
66

55
51

6
3
0
8
5

32
30
28

27

80.1
173
27

JUL

683
626
557
502

460
423

366
333

317
317
312
298

245

224
208

162
160
150
142

130
122
116

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99

1968

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17.4
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12

AUG

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81
77
73

68
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41
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71
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45

1.648

92
34

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9.8
9.4
9.2

9.0
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9.?

11.8
22
B.5

SEP

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918

46
25

9.4
8.0
7.7
7.7

7.5
7.0
6.7
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6.8
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6.6

6.2
6.2

6.6
7.0
7.2
7.0
6.7

6.4
6.2
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6.2

fl
6.92
9.4
6.0

SAN JOAQUIN RIVER BASIN

11283500 CLAYEY RIVER NEAR BUCK MEADOWS, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY

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MEAN
MAX
MIN

DAY

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11
12
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14
15

16
17
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29

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24
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26
27
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29
30
31

MEAN
MAX
MIN
AC-FT

OCT

6.S
6.7
6.7
6.7
8.3

14
11
7.9
7.4
7.4

7.3
8.9
22
50
24

20
17
16
15
14

13
13
13
12
12

12
12
12
12
23
20

13.9
50
6.5

OCT

19
19
18
19
19

19
19
19
19
19

19
19
19
20

240
213
103
71

49
46
43
41

36
34
33
31
30
29

45,7
240
18
2.810

NOV

17
22
514
210

59
47
53
66

55
94
111
77
81

84
79
95

80
74
75
71

57

51
48
51

94.5
514
17

DISCHARGE.

NOV

28
28
28
27
29

102
77

68
61

61
73
65
63

62

52
47

42 1
41
39
37

35
34
32
31
31

4B.7
102 1
27
2,900 12

DEC

55
42

49

49
49

53

121
76
80
81
186

122
108

79
89
174

185

138
124
113

101
291
42

JAN

104
103

112

157
154

121

121
128
515
772
458

265
345

2,520
1,350
1,160

4,970

1,420
1,080
889

1,302
6,780
103

IN CUBIC FEET

DEC JAN

31
31
30
29

31
30

34
32

33
34
33
32

32

92

. 200
634
297
322

506
305
211
186
163

207
. 200
29
,750

116
105
96
89

91
104

233
624

362
319
333
928

4,660

1.020

4,640
3,260
1,680
1,970

951
1.120
870
717
638

1.070
4,660
89
65.800

FEB

688
630

572

525
482

425

438
532
472
450
601

502
482

379
377
407

389

373

483
688
369

PER SECOND

FEB

477
456
444
432

407
399

383
369

364
477
495
455

415

414

368
355
351
352

355
363
425

414
520
346
23,010

(6,780 M

MAR

373
361

337

322
313

312

298
298
290
288
296

337
381

438
490
542

662

934
1,110
1,300

1,420
288
30,530

MIN 6.

. WATER

590
497
461
439

441
442

429
421

389
381
418
481

500

429

411
430
457
485
530

543
503
466
472
443

466

381
28,640

IN 18

APR

1.460
1,370

1,080

1,180
1,060

1,190
1,400
1,430
1.330
1,140

1.270

1,980
1,880
1,400

1 140

1,320
1,460
1,550

1,980
992

81,030 10<

0 AC-FT 9(

MAY

1,560
,500

,190

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,800

,880

,650
,730
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,470
. 440
,440

,240
,190
,700

,510

YEAR OCTOBER 1969

370 468
411 545
396 585
418 616

458 630
458 492

443 421
490 525

483 449
451 387
439 395
387 537

354 712

369 607

324
308
298
305
336

400
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446
503
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384
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380 504

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22,590 30

AC-FT 403,50

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JUN

1.420
. 410

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630
588
615
808
895

648

572
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505
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363

JUL

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326
312

300

279

252
238
228
227
210

175

153

134
131
120
109

89
82
78
73

1,420 369
363 73
45,770 12.440

TO SEPTEMBER 1970

322
298
285
273

252
234
238
648
370

249
213
211
232
227

178
178
179
185

161
159
144
131
120

128
459
267
165
131

239

120
14,220 3

112
100
93
86
80

75
69
65
62
59

56
53
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45

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42
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35
33
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25

. 569
50.6
112
25
,110

AUG

67
63
59
56
53

51

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38.5
67
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2,370

AUG

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SEP

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682
22.7
30
19
1.350

SEP

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13
13

430
14.3
17
13
853

LOCATION.--Lat 37°50'31", long 120°11'02",

11284400 BIG CREEK ABOVE WHITES GULCH, NEAR GROVELAND, CALIF.

SWWE's :

DRAINAGE AREA.--16.4 sq mi.

PERIOD OF RECORD.--May 1969 to September 1970.

GAGE.--Water-stage recorder. Datum of gage is 2,561.79 ft above mean sea level (levels by Boise-Ca

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (150 cfs), May 1969 to Septembe

ight bank

;cade Corp.).

Dat

May

Tin Disch.
1,2,1969

Jan. 14, 1970 1500

G.H.
7. 7

Date
16, 1970 0845 S.f

Date Time
Jan. 24, 1970 0345
Mar. 1, 1970 1930

.4 ft, from floodmarks (discharge not determined).

n above sta-

DISCHARGE, IN CUBIC FEET PER SECOND, MAY TO SEPTEMBER 1969

MEAN.. .

AC FT

DAY

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3
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26
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2B
29
30
31

TOTAL
MEAN
MAX
MIN
AC -FT

DISCHARGE,

OCT NOV

0 .20
0 .20
0 .19
0 .19
0 .31

0 .56
0 1.2
0 .80
0 .58
0 .47

0 .42
0 .40
0 .38
0 .37
. 25 .37

1.5 .39
1.1 .37
. 80 .34
. 58 .35
. 46 .37

. 40 .37 2
. 35 .37
. 32 .37
. 29 .37
. 27 .38 1

. 26 .40
. 25 .40
. 23 .40
. 22 .40
. 21 .40

IM CUBIC FEET PER SECOND

. 40 1.8 10
. 40 1.8 8.3
. 41 1.8 7.3
. 43 1.7 6.8
. 43 1.6 6.1

. 43 1.6 5.6
. 45 1.6 5.3
. 46 1.7 5.0
. 67 5.8 4.8
. 69 32 5.1

. 66 14 5.4
. 61 9.3 9.1
. 58 7.7 25
. 56 218 34
. 54 54 18

. 54 562 14
. 54 111 57
. 94 47 30
. 5 26 22
. 5 23 17

176 14
. 0 67 11
. 0 32 9.
. 0 86 8.
37 7.

. 8 24 6.
. 6 32 6.
. 5 22 13
. 7 17
. 3 14
. 0 12

. 25 .41 3.02 53.0 13.3
1.5 1.2
0 .19
15 24

24 562 57
. 40 1.6 4.8
186 3,260 739

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. . . . 7.7

, HATER YEAR OCTOBER 1969 TO SEPTEMBER

184 4.0
118 4.0
45 3.9
39 3.8
39 3.7

34 3.6
25 3.5
23 3.5
20 3.4
19 3.3

16 3.3
13 3.3
12 4.7
11 8.4
9.8 6.7

8.8 5.6
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18
4.

4.7
4.1
4.3
4.0

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4.1
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3.3
3.2

4.0
5.1
4.0
3.5
3.3

4.13
8.4
3.2
1,390 246

3. .87
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2.0
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. 92
. 91
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. 97

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. 79
. 70
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. 33
. 27
. 26

. 67
1.3
. 91
. 78
. 72

2.12 .75
3.1 2.0
. 98 .26
130 45

2.00
3.0
1.0
119

1973

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. 49
. 32
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SAN JOAQUIN RIVER BASIN

11284500 BIG CREEK NEAR GROVELAND, CALIF.

LOCATION (REVISED).--Lat 37°51'30", long 120°12'19", in NEWs
bank 0.4 mile downstream from Pine Mountain Dam and 1.9 milt

ec.15, T.I S., R.16 E., Tuolumne County, on right northeast of Groveland.

DRAINAGE AREA. --25. 0 sq mi. Area at site used prior to Oct. 1, 1969, 24.7 sq m

PERIOD OF RECORD. --October 1931 to September 1933, July 1959 to September 1970.

GAGE.--Wa

site 1,700 ft upstre

AVERAGE DISCHARGE.--13

EXTREMES.--Maximums and

at different datum,

ars, 12.5 cfs (9,060 acre-ft per ye

inimums (discharge in cubic feet pe

discharge (*) and peak discharges

r), adjusted for stora

bove base (220 cfs), w

Feb.

Dec.

Jan.
Mar. 12, 1967

NOTE.--Peak d

Time
2015
0200

1115
0100
1230
1800

Lischat

Disch.
979
360

*1,140

1,270
598
324

*1,600

G.H.
4.67
3.61
4.90

5.06
4.06
3.54
5. 39

Date
Mar.

Apr.
Apr.

Mar.

Jan .
Jan.

16,
7,
21,

8,

13,
19,

1967
1967
1967

1968

1969
1969

Time
0930
0015
1700

1045

1830
0745

Disch.
1,460
1,220
237

*113

1,000
2,380

G.H.
5.23
4.96
3.33

2.92

4.69
6.12

Date
Jan.
Jan.
Feb.
Jan.
Jan.
Apr.

Mar.

21,
26,
6,
15,
24,
6,

1 ,

Mour

1969
1969
1969
1969
1969
1969

1970

Time
1130
0630
1245
1345
1545
-

2145

Lake Oi

362
,510
407

G.H.
6.40
5.14
3.91
3.62
5.23

daily discharge, wate

ischarge Wtr yr
0 1969
0 1970
0

Date

Long periods

Discharge
0
. 01

of record: mum discharge, 4,530 cfs Feb. 1, 1963 (gage height, 7.71 ft, site and datum then i
use), from rating curve extended above 1,500 cfs on basis of slope-area measurement of peak flow, no flow fo several months in most years. Maximum discharge since construction of Pine Mountain Dam in 1969, 550 cfs Mar. 1, 1970 (gage height, 3.38 ft); minimum daily, 0.01 cfs many days in 1970.
Flood in December 1955 reached a stage of 7.6 ft, from floodmarks, at site 1,700 ft upstream at different datum (discharge, 4,300 cfs).

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

JUL

ing Oct. 15,
gation of golf

DAY

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21
22
23
24
25

26
27
28
29
3D
31

TOTAL

MEAN MAX
MIN
AC-FT

0 4.9
0 4.2
0 3.7
0 3.3
0 3.2

3 2.9
0 2.8
0 2.6
0 2.6
C 2.4

0 2.5
0 6.2
. 10 5.2
4.0 5.1
1.3 4.7

6.5 3.6

57 2.7
29 2.6
5.8 2.6

202 2.3
261 2.3.
75 18

32 9.7
16 7.2
11 43
8.1 213
6.3 138
146

0 725.10 655.7
0 24.2 21.2
0 261 213
0 0 2.3
0 1,440 1,300

71
36
24
20
20

18
15
15
13
12

10
9.2
8.8
8. 1
7.7

6.7

6.0
5.8
5.4

5.2
5.0
5.2

5.0
5.0
5.0
5.0
40
30

433.8
14.0
71
5.0
86C

25 6.9
15 6.9
10 6.5
9.9 6.5
40 6.5

283 6.1
60 5.6
30 5.3
25 5.6
20 7.2

17 6.1
15 5.4
14 5.1
12 4.8
11 4.6

10 4.4

8.0 4.1
7.5 4.0
7.0 4.3

7.2 4.1
7.4 3.9
7.4 3.8

7.2 3.6
7.0 3.5
6.9 3.5
3.3
3.2
3.2

682.7 150.6
24.4 4.86
280 7.2
6.9 3.2
1,350 299

3.0
3.0
2.9
2.7
2.5

2.2
2.2
2.2
2.7
11

5.8
4.7
3.6
3.2
3.0

2.7

2.5
2.7
2.5

2.2
2.0
1.9

1.8
1.7
1.7
1.6
1.5

86.8
2.89
11
1.5
172

1.5
1.4
1.4
1.3
1.3

1.3
1.3
1.2
1.3
2.1

1.9
1.8
1.6
1.3
1.2

1.1
1.0
. 80
. 70
. 60

. 60
. 60
. 60
. 50
. 40

. 40
. 30
. 20
. 20
. 30
. 40

30.60
. 99
2.1
. 20
61

0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

2

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JUN

. 30
. 20
. 20
. 20
. 20

. 20
. 20
. 20
. 10
. 10

. 10
. 10

. 10
070
. 30
0
4.2

NOTE. NO GAGE-HEIGHT RECORD FEB. 5-27.

SAN JOAQUIN RIVER BASIN

11284500 BIG CREEK NEAR GROVELAND, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

25
9.2
171

4.6
4.4
4.2
4.2
3.8

9.5
8.6
7.8
8.8

31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR 1966 TOTAL 2,395.10 MEAN 6.56 MAX 552 MIN 0 AC-FT 4,750

1.1
. 97
. 87

. 86
. 79
0 24 1.
0 12 1.
0 8.8 1.

0
0
D

Q
0

. 10
. 20
0
. 40
8.1

3.3
17
1.6
. 50
. 20

. 20
. 20
. 50
. 70
. 40

. 8 1.
. 2 1.
. 4 1.
. 8 1.
3 1.

. 0 1.
m 7 i.
. 5 1.
. 3 1.
. 2 1.

10
9.1
8.5

7.7
7.2
6.9
6.8
6.1

5.8
5.5
5.3
5.2
4.7

. 1 7 4.3
. 0 1 7 4.2
. 9 0 4.2
. 8 0 4.1
. 1 5 12

. 6 4 7.9
. 9 4 5.7
. 8 23 5.0
. 8 152 ______
. 8 182

1.11 31.5 33.3 11.4
17 552 197 64
0 .50 1.2 4.1
66 1,930 2,040 631

3.5
3.3
3.3

23
558
377
208
125

887
209
88
53
38

30
25
22
19
17

15
14
19
20
17
32

91.4
887
3.3
5.620

171
88
76

107
86
70
55
65

51
50
181
152
129

175
177
162
170
116

87
74
60
49
41

116
589
31
6,910

19
20
44

24
19
17
16
15

14
13
12
12
11

10
9.8
9.
8.
8.

8.
8.
8.
a*

8.

16.
4
8.
1,04

. 3 .71 0
. 8 .65 0
. 4 .59 0

. 1 .53 0
. 0 .46 0
. 8 .40 0
. 3 .35 0
. 9 .33 0

. 7 .35 0
. 5 .28 0
. 1 .25 0
. 0 .21 0
. 8 .19 0

. 4 .16 0
. 1 .14 0
. 6 .11 0
. 6 .10 0
. 4 .11 0

. 1 .98 0
. 0 .08 0
. 8 .08 0
. 7 .05 0

*03 o

5.21 .43 .001
12 1.4 .02
1.5 .03 0
310 27 .08

0
0
0
0
0

31

TOTAL
MEAN
MAX
MIN
AC-FT

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

NOV DEC JAN FES MAR APR MAY JUN JUL

0 1.1 1.1
0 .53 1.0
0 .42 .92
0 .43 .86
0 7.2 .84

0 1.5 .83
0 3.6 .82
0 1.9 .86
D 1.1
0 .85 8

0 .75
0 .66
0 .63
0 .57
3 .58 1

a .5&
0 .56
0 .92
. 25 1.1
. 44 1.1

. 28 .88
. 18 .86
. 15 .93
. 15 1.0
. 15 1.2

. 17 1.3
. 21 1.4
. 30 1.3
. 56 1.2
2.6 1.1

7

. 3 2
. 9 2
. 6 2
. 5 2
. 4 2

. 9 2
. 5 3
. 9 48
. 0 19
. 3 10

. 1 7
. 6 6
. 6 23
. 2 20
. 5 12

3.7 20
28 43
23 28
11 16
30 12

26 9
16 8
10 7
8.1 6
6.2 5

4.9 5
4.2 4
3.6 4
3.2 3
3

. 18 1.24 2.98 8.35 11
2.6 7.2 13 33

. 9
. 7
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48

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f 5
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m 3
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f 2
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. 4
. 3

. 1
. 0
. 6 .89
. 6 .73
. 5 .65
. 61

55 1.61
. 7 5.4

. 53
. 44
. 36
. 32
. 29

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. 41
. 40
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. 19
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. 10

. 07
. 04
. 03
. 03
. 02

. 01
0
0
0
0

0
0
0
0
0

. 15
. 53
. 82
183

CAL YR 1967 TOTAL 8,407.27 MEAN 23.0 MIN 0 MIN 0

AC-FT 16,680
AC-FT 1,690

SAN JOAQUIN RIVER BASIN

11284500 BIG CREEK NEAR GROVELAND, CALIF.--CONTINUED

AY

I
2
3
4
5

6
7
8
9
10

11
2
3
4
5

6
7
a
9
c

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- FT

DISCHARGE

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i
2.4
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. 03

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C
0
0

. 65
. 15
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5.3

1.1
. 36
. 30
. 20
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. OB
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. 42

. 36
. 30
. 20
. 20
. 20

0 13.52 2

0 .45
0 5.3
0 0
0 27

, IN CUB

. 73
. BO
. 42
. 30
. 20

. 15
. 15
. 11
. 11
. 60

4.2
1.6
. 98
2.1
18

22
5.7
3.0
2.6 1,
2.0

1.4 1,
1.3
1.6
7
3

6
6
0
9
2
9.1

9.10
73
. 11
560 1

C FEET

7.4
6.1
5.2
4.5
4.0

3.6
3.3
3.0
2.B
2.5

2.9
327
234
43

21
14
128
3 BO
324

630
455
L18
83
879

644
170
104
67
54
41

218
1,630
2.5

PER SECOND,

41
38
35
33
85

347
139
78
57
45

69
47
51

147
85
130
118
93

80
63
78
698
320

170
123
126

127
698
33

WATER

MAR

158
126
130
93
76

66
5B
50
45
56

52
49
43

37
35
35
34
67

76
50
41
36
34

32
31
30
29

27

55.4
158
27

YEAR OCTOBER 1968 TD SEPTEMBER 1969

27 13 4.2
26 12 4.0
36 12 3.8
31 12 3.7
58 11 3.6

120 11 3.5
90 11 3.4
79 11 3.4
71 10 4.0
65 9.7 4.4

55 8
51 8
46 8

38
35
32
31
30

29
36
47
22
19

17
16
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14
13

4.3
3.9
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3.2
3.5
3.3
3.0
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. 8 2.2
8 2.1
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7 1.8

41.7 7.95 3.19
120 13 4.5 1
13 4.6 1.8

JUL AUl>

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5 .12

89 .10
83 .10
B .09
4 .09
7 .09

3 .09
6 .08
2 .OB
0 .08
8 .08

7 .08
6 .08
5 .07
5 .07
43 .07
40 .07

31 4.33
91 .14
. 7 .36
40 .07
56 8.6

SEP

. 07
. 07
. 07
. 97
. 07

. 06
. 36
. 96
. 06
. 36

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. 06
. 96
. 05

. 95
. 05
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. 34
. 04

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. 33
. 02

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. 02
. 01
. 01
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1.38
. 946
. 07
. 01
2.7

NOTE. NO GAGE-HEIGHT RECORD APR. 24 TO SEPT. 30.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

DAY

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OTAL
EAN
AX
IN
C-FT

(t)

OCT

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3.40
. 11
1.6
. 01
6.7

NOV

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. 06

. 34
. 18
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1.15
. 038
. 34
. 01
2.3
206

. 91
. 01
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. 01
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. 02
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. 02
. 02
. 92

. 01

. 91
. 01
. 01
. 11
. 14

1.1
. 09
. 06
. 20
. 48

. 96
. 05
. 05
. 04

2.78
. 090
1.1
. 01
5.5
729

. 04
. 04
. 03
. 03
. 03

. 03
. 05
. 06
. 51
. 21

. 13
. 15
. 13

. 37

3.9
. 77
. 34
. 29
. 25

1.4
. 46
. 39
. 74
. 31

. 26
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. 22
. 18

14.53
. 47
3.9
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29
5.B70

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8.72
. 31
. 90
. 15
17
7,140

111
219
75
78
67

46
34
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13
12
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9.9
9.2

8.9
9.9
9.6
8.0
7.4

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6.2
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935.8
30.2
219
6.0
1,860

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190.9
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379

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2.9

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1.0
. 98
. 88
. 85

. 54
. 58
. 59
. 57

64.59
2.08
4.6
. 54
128

7,080 MEAN*

JUN

. 51
. 48
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AC-FT* 27,

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310

SEP

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3.9
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7.01
. 23
3.0
. 02
14
7,160

WTR YR 1970 TOTAL 1,256.14 MEAN 3.44 MAX 219 WIN .01 AC-FT 2,490 MEAN* 13.3 AC-FTt 9,650

t CONTENTS, IN ACRE-FEET, AT END OF MONTH IN PINE MOUNTAIN LAKE.
t ADJUSTED FOR CHANGE IN CONTENTS, IN PINE MOUNTAIN LAKE.

SAN JOAQUIN RIVER BASIN

11284700 NORTH FORK TUOLUMNE RIVER NEAR LONG BARN, CALIF.

LOCATION.--Lat 38°05'56", long 120°05'55", in NW^SWs sec.22, T.3 N., R.17 E., Tuolumne County, Stanislaus 3.8 miles upstream from Wrights Creek.

DRAINAGE AREA.--23.1 sq mi.

PERIOD OF RECORD.--August 1962 to September 1970.

GAGE.--Water-stage recorder. Altitude of gage is 4,650 ft (from topographic map).

AVERAGE DISCHARGE.--8 years, 30.3 cfs (21,950 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (150 cfs), water yea

Date Time Dis
Nov. 23, 1965 2030 *

Dec. 2, 1966 2200
Dec. 6, 1966 1415
Jan. 30, 1967 2000
Mar. 16, 1967 1745 *
May 22, 1967 2400

Wtr yr Date
1966 Aug. 26, Sept. 5-
1967 Long periods
1968 Aug. 11, 1968

Period of record:
extended above 650 cfs
Sept. 18-25, 1962.

measurement) .

Apr. 3, 1969. No stor
in this report.

ch. G.H.
178 4.19

261 4.51
595 5.45
238 4.43

371 4.83

Annual

8, 1966

Maximum disch
on basis of

age or divers

Dat
Jan

Jan
Jan

Apr
Apr

mini

arge
slop

e

. 15, 1968

. 13, 1969
. 21, 1969

. 23, 1969

mum daily d

Discharge
. 30
. 60
. 27

, 1,670 cfs
e-area meas

Time Disch. G.H.
1115 *178 4.19

1915 347 4.79

0900 *1,670 7.61

0815 255 4.49

ischarge, water years

Wtr yr Date
1969 Oct. 2
1970 Sept. 30

Jan. 21, 1969 (gage h
urement at gage height

Date
May 9,

Dec. 21,
Jan 9

Jan. 21,
Jan. 24,

1966-70

, 1968
, 1970

eight, 7.61
9.8 ft; mil

Time Disch. G
1969 1845 233 4

1969 1545 197 4
1970 2345 169 4

1970 1615 739 5
1970 1530 *751 5
1970 0400 357 4

Discha

ft) , from rating curve
limum daily, 0. 20 cfs

. H.
. 41

. 27
. 15

. 81
. 84
. 82

rge
. 47
. 66

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

31

TOTAL
MEAN
MAX
MIN
AC-FT

DCT

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1.3

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35
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34
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58
26

17
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96
121
55

35
28
25
22
20

121

DEC

18
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1
1
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13
13
12

11
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10
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9.0
10
11

101*
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25
33
29

33

21
IB
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8.0
9.0

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15

15
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14

13
12
11
10
10

9.5
9.0
8.5
B.O
8.0

7.5
7.2
7.0
9.7
10
9.4

21

9.5
5.4
6.0
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16.30
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SAN JOAQUIN RIVER BASIN

11284700 NORTH FORK TUOLUMNE RIVER NEAR LONG BARN, CALIF.--CONTINUED

DAY

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MEAN
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DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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1.9
2.6
1.6
1.3
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1.0
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6.3
3.5
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4.9
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7.36
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103
89
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141

348
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8.9
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7.8
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8.4
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160
142

27.2
160
7.1

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73
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357
221
175
152

142
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129
115

104
97
121
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100
94

99. Z
452
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MIN .60

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65.1
85
52

AC -FT

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68
84
96
99

115
145
180
201
235

195
172
167
178
208

237
264
283
275
288

320
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316
290
261

232
210
200
185
165
147

200
328
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129
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9.3
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5.6
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11.1
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AUG

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4.2
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3.9
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SEP

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2.0
2.3
2.7
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2.0
1.9
1.8
1.8
1.8

2.38
3.8
1.6
124

DISCHARGE, IN CUBIC FEET PER SECOND,

NDV DEC JAN FES

WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

MAR APR MAY JUN JUL

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rOTAL
MEAN
MAX
MIN

1.8 1.7
1.9 1.7
3.5 1.7
2.7 1.6
2.3 1.7

2.2 1.7
2.1 1.6
2.0 1.6
1.9 1.6
1.9 1.6

1.8 1.6
1.8 1.6
1.8 1.6
1.8 2.7
1.7 2.4

1.7 2.1
1.7 1.9
1.6 2.3
1.7 6.8
1.7 4.3

1.7 3.1
1.7 2.6
1.7 2.4
1.7 2.4
1.7 2.2

1.7 2.2
1.7 2.2
1.7 2.4
1.7 2.6
1.7 3.2
1.7

58.3 69.1

3.5 6.8
1.6 1.6

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2.7
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7.3
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8.0
5.8

161.6

13
2.5

4.5
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4.2
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4.1
4.0
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4.6
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113

86
59
74
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6.0
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7.2
8.0
8.6
8.8
9.0

9.2
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478.3 11

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13.60
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SAN JOAQUIN RIVER BASIN

11284700 NORTH FORK TUOLUMNE RIVER NEAR LONG BARN, CALIF.--CONTINUED

DAY

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TOTAL
MEAN
MAX
MlN

CAL YR

DISCHARGE, IN CUBIC FEET

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. 90
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. 85
. 82
. S3

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. 81
. 76
. 99
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34.48 131.6
1.11 4.39
4.3 30
. 47 1.4

3.0
3.0
3.1
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4.4
3.3
2.9
2.8
7.2

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7.0
7.2
7.5
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8.6
6.8

5.9
7.2
8.2
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292.1
9.42
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2.8

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155
153
79

54
42
72
616
807

1,170
223
130
95
380

450
190
130
95
76
65

5,162.9
167
1,170
9.9

PER SECOND, WATER

58
S3
59
80
80

81
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43
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42
4B
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48.3
81
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73

82
92
110
137
175
225

1.831
59.1
225
28

MIN

YEAR OCTOBER 196B TO SEPTEMBER 1969

230
212
178
167
305

234
185
173
166
171

191
211
207
189
165

161
167
180
178
194

221
243
253
207
174

160
156
161
172
179

5,790
193
305
156

. 47 AC-FT

1BO
177
161
148
148

163
185
203
221
224

218
223
213
207
188

175
177
179
170
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143
138
138
13B
135

125
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108
102
100
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5,055
163
224
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8,800
41,960

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81
74
67
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3B
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6.4
6.2
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5.4
5.2
5.0
4.8

4.7
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4.4
4.3
3.9
3.8

239.8
7.74
14
3.8

AUG !

3.6
3.5
3.1
2.9
2.8

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2.4

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2.1
2.0

2.0
2.0
1.9
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1.6
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2.4
1.5

68.2 4
2.20 1
3.6
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DISCHARGE. IN CUBIC FEET PER SECOND!

NOV DEC JAN FEB

HATER YEAR OCTOBER 1969 TO SEPTEMBER 1973

1 1.
2 1.
3 1.
4 1.
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6 1.
7 1.
8 1.
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10 1.

11 1.
12 1.
13 1.
14 1.
15 6.

16 13
17 8.
18 4.
19 3.
20 3.

21 2.
22 2.
23 2.
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26 2.
27 2.
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31 I.

MEAN 2.6
MAX 1
MIN 1.
AC-FT 16

1.9
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7.1
5.8
4.7
4.0

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3.5
3.4
3.3
3.2

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3.9
3.3
3.2
3.1

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2.7
2.8

2.7
2.5
3.8
4.2
4.9

3.78
13
1.9
225

4.6
3.6
3.8
4.7
4.5

2.4
2.7
2.9
2.8
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3.1
3.0
2.9
2.7
3.1

2.6
3.5
2.7
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68
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19
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14.8
73
2.4
907

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11
9.6
8.8
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8.6
9.2
9.2
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82

43
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42
138
94

525
339
176
128
128

498
305
186
254
165

133
157
123
101
89

127
525
8.3

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51.2
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963
31.1
45
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9.4

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308.9 10
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37 1.14
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. 7 .89
07 70

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1.2
1.6
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26.30
. 88
1.6
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52

CAL YR 1969 TOTAL 21,349.5 MEAN 58.5 MAX 1,170 MIN 1.2 AC-FT 42.350

SAN JOAQUIN RIVER BASIN

11285000 NORTH FORK TUOLUMNE RIVER ABOVE DYER CREEK, NEAR TUOLUMNE, CALIF.

DRAINAGE AREA. --69. 2 sq mi.

PERIOD OF RECORD. --October 1958 to September 1966. Annual maximum, water year 1967 (discontinued). GAGE. --Crest-stage gage. Altitude of gage is 2,200 ft (from topographic map). Prior to Oct. 1, 1966, wate stage recorder and concrete control at present site and datum.

AVERAGE DISCHARGE. --8 years, 53.5 cfs (38,760 e-ft per year).

Annual maximum discharge (*), peak discharges abo

Maximum
Wtr yr Date
1966 Nov. 23, 1965
1967 Mar. 16, 1967

Time Discharge G.H.
2115 *1,020 3.59
*2,150 4.60

(600 cfs), and annual minimum discharge

Minimum daily
Date
Aug. 20-26, 1966

REMARKS.--Records good. No storage or large diversion above station. See schematic diagram of Tuolurane River basin elsewhere in this report.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND. MATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

I
2
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A
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B
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MEAN
MAX
MIN

CAL YR
HTR YR

OCT

8.4
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8.7
9.2
19

12
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11
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9.8
8.4
8.4
8.3
B.O

7.6
7.7
8.8
8.3
7.9
7.9

8.86
19
7.4

1965 TOTAL
1966 TOTAL

NOV

8.0
7.6
1C
9.6
8.4

8.4
8.4
8.4
9.5
11

11°

18
95
53

54
63
292
201
78

52
42
391
578
238

145
108
93

80

93.1
578
7.6

35,544.0
16,106.2

DEC

67
61
58
57
55

52
49
47
44
44

4B
44
43
38

35
32
33
32
32

33
33
27
31
37

33
34
53
149
101
87

49.4
149
27

MEAN
MEAN

66
56
54
51
60

68
75
81
78
71

59
57
56
56

54
51
49
49
46

44
45
42
41

40
38
37
39
52
47

53.7
81
37

97.4
44.1

46
42
44
45
57

183
1D7
85
76
69

61
54
55
53

54
53
54
54
54

55
58
70
81

71
68
67

65.9
183
42

MAX 1,140
MAX 578

68
63
5B
57
57

59
68
77
90
146

149
174
176
169

155
140
131
129
124

117
114
114
115

116
120
124
128
126
129

115
176
57

MIN 7.4
MIN 2.5

131
131
124
119
114

106
99
92
90
156

121
105
94
88

83
80
87
90
79

71
66
60
57

52
51
49
46
44

89.2
156
44

5,310

AC-FT
AC-FT

43
41
39
3B
37

36
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33
33
47

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28
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24
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22
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21
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19
18
20
20

28.9
47
18
1,780

70,500
31,950

JUN

19
IB
18
17
17

17
19
20
IB
17

16
16
15
14
13

12
12
12
11
12

12
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11

11
10
9.6
9.4
8.9

14.0
20
8.9
835

JUL

9.8
9.9
10
9.7
9.1

8.6
8.2
7.9
8.9
8.7

8.5
8.4
8.0
7.8
7.6

7.3
7.1
7.0
6.8
6.6

5.9
5.6
5.3
5.3
4.7

4.7
4.5
4.2
4.1
4.2
5.4

7.09
10
4.1
436

AUG

5.3
4.8
4.3
4.0
3.7

3.4
3.3
3.2
3.2
3.1

3.0
3.1
2.8
2.8
2.8

2.8
2.8
2.8
2.8
2.5

2.5
2.5
2.5
2.5
2.5

2.5
2.8
2.8
3.0
3.2
3.5

3.12
5.3
2.5
192

SEP

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242

SAN JOAQUIN RIVER BASIN

11286500 WOODS CREEK NEAR JACKSONVILLE, CALIF.

doi

DRAINAGE AREA.--97.2 sq mi.

PERIOD OF RECORD.--October 1925 to September 1968 (discontinued).

GAGE.--Water-stage recorder Datum of gage is 653.65 ft above me 2.00 ft higher.

AVERAGE DISCHARGE.--43 years, 60.0 cfs (43,470 acre-ft pe (35,500 acre-ft per year).

a level. Pri

r); median of yearly

to Oct. 1, 1947,

an discharges, 49

EXTREMES.--Maximums

Annual ma

Date Time
Nov. 18, 1965 1415
Nov. 24, 1965 0400
Dec. 29, 1965 2345
Feb. 6, 1966 0300

d minimums (discharge in cubic

mum discharge (*) and peak dit

feet pe cond, gage height in feet).

e base (900 cfs), water years 1966-68

Disch.
1,000
2,150
*3,100
2,920

6, 1966 1130 4,440 9.82

Wtr yr Date
1966 Long periods
1967 do.

Date Time
Jan. 22, 1967 0245
Jan. 24, 1967 1600
Jan. 29, 1967 1200
Mar. 12, 1967 1915
Mar. 16, 1967 1000

Disch. G.H.
*5,340 10.53
1,120 6.21
2,050 7.56
1,910 7.39
3,990 9.49

Date Time
Apr. 7, 1967
Apr. 18, 1967 0500

Jan. 30, 1968 2345
Feb. 20, 1968 0715

G.H.
10.33
8.52

inimum daily discharge, water years 1966-68

Discharge Wtr yr Date
0 1968 July 20, 1968

Period of record: Maximum discharge, 14,400 cfs Dec. 23, 1955 (gage height, 14.66 ft), from rati extended above 4,600 cfs on basis of slope-area measurement of peak flow; no flow for many days in m

REMARKS.--Rec

zfs from Tuolumne Canal (see station 11297500)
sf Tuolumne River basin elsewhere in this

s discharged into Woods Creek above station,
report.

REVISIONS (WATER YEARS).--WSP 1315-A: 1926(M). WSP 1930: Drainage area.

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

1
2
3
4
5

6
7
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9
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11
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13
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15

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21
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24
25

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27
28
29
30
31

MEAN

MIN

CAL YR
WTR YR

OC

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1.
1 B
I.
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I.

j a
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1.
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2.
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2.
2.
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2.
2.
2.

2.2
4.E
l.«

1965 1
1966

NOV

2.7
2.9
3.2
3.6
3.8

3.9
4.0
4.1
4.2
4.3

4.8
5.8
11
46
30

74
91
398
337
57

33
28
877
1,130
313

164
86
68
56
41

130

2.7

OTAL 31,896.
OTAL 16,733.

DEC

35
33
31
46
39

38
27
24
23
23

23
62
45
31
33

33
29
38
39
39

39
39
38
38
115

80
56
99

1,110
889
757

127

23

30 MEAN
00 MEAN

285
150
115
98
108

109
95
88
83
77

71
62
65
64
62

60
55
55
55
56

55
69
70
55
54

54
52
50
50
204
179

87.3

50

87.4
45.8

167
129
93
82
175

1,230
262
154
114
95

81
74
66
2
9

6
4
0
8
9

9
7
4
49
51

63
57
53

127

48

MAX 2,600
MAX 1,230

8
5
1
5
3

41
39
36
30
40

37
39
44
42
36

35
41
41
41
39

39
39
38
37
36

36
35
35
34
34
33

39.0

30

MIN 0
MIN 0

32
31
31
29
18

14
12
14
15
56

52
45
38
35
32

29
16
25
29
29

2B
16
23
14
20

25
21
22
19
19

26.3

12

AC-FT
AC -FT

17
15
9.1
6.6
6.4

6.5
6.8
15
15
13

14
12
11
9.4
9.6

14
9.7
7.2
7.1
7.0

6.8
6.8
7.0
7.0
6.8

7.0
7.2
8.3
8.7
10
12

299.0
9.65
17
6.4

63,270
33,190

JUN

13
12
12
11
11

11
12
12
12
11

10
9.8
8.7
7.2
6.8

6.2
5.8
5.5
5.5
5.4

5,2
5.0
5.0
4.9
4.9

4.9
4.7
4.7
4.6
4.4

236.2
7.87
13
4.4

SAN JOAQUIN RIVER BASIN

11286500 WOODS CREEK NEAR JACKSONVILLE, CALIF.--CONTINUED

DAY

1
2
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9
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11
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14
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16
17
18
19
20

21
22
23
2*
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC -FT

NOTE

DAY

1
2
3
4
5

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11
12
13
14
15

16
17
18
19
2J

21
22
23
24
25

26
27
28
21
30
31

MEAN
MAX
MIN

OCT

0
0
0
0
0

DISCHARG

NOV

. 10
. 30

. 50
. 50

1.2
17
7.2
4.7
3.9

4.C
4.7
5.0
5.0
6.0

47
50
21
13
59

56
221
63
52
34

21
17
19
26
18

25.9
221
. 10
1.540

23
817

146
1.180

2,370
407
168

99

63

57

46
44

26
24

21
20 1
20
21
22

33
26
24
21
20
19

217
2,370 1
19
13,340 13

NO GAGE-HEIGHT RECORD OCT. 1

OISCHARGEi IN CUBIC

OCT NOV DEC

. 9 5.4 33
. 9 4.6 20
2 4.4 15
. 4 4.2 13
. 3 4.2 58

. 4 5.4 30
. 7 6.3 54
. 8 5.9 50
. 8 5.7 25
. 4 6.0 19

. 3 6.6 Ifl
. 0 6.8 17
. 0 7.2 15
. 3 8.5 16
. 6 9.6 16

. 6
. 0
. 7
. 0

. 3
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. 3
. 4
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. 8
. 4
. 3

IB

21
1.9

9.7
14
49
28

20
15
13
13
13

13
13
29
12
30

49
4.2

15
26
33

20
19
18
20
24

24
24
40
21
17

$8
13

22
25

38
39

38
23
26

34

35

30

30
30

30
31

301
,700
226
484
504

226
175
161

215
,700
22
,190 4

TO NOV.

FEET PER

15
15
15
13
12

13
13
14
17
36

29
24
21
152

35
27
24

22
22
21
20
19

19
24
31
29

341
12

29B 44
159 44

112 43
102 38

94 36
85 38
75 37

62 119

58 789

34 241

34 2,030
39 879

47 205
45 157

44 128
44 Ml

45 93
78 86

75 82
53 80

75.2 244
298 2,030
34 36
,180 14.990

3.

SECOND, MATER

115 35
80 33
109 31
70 29
57 28

46 27
38 35
34 400
40 200
47 100

31 70
41 140

40 100

327 350
204 250
81 150

545 90
217 75
114 5
81 5
65 9

56 5
49 0
43 6
38 4

790 400
31 27

140
170

160
250

400
2,100
600

61B

251

234

203
164

7B7
519

933
736

688
411

309
275

204
189

461
2.100
140
27,450

170
153

128
124

114
107
99

152
116
102

87

81
78

43
42

42
42

41
40

40
39

38
38

89.5
331
38
5,500

YEAR OCTOBER 1967

40
70
40
38
36

33
32
32
32
29

23
21

17

17
16
14

14
14
14
13
12

11
9.9
9.8
8.5
7.9

70
7.9

02 AC-FT

8.3
7.2
7.1
7.9
8.6

9.0
8.8
9.8
11
11

12
16

27

27
38
34
23

22
21
21
20
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19
18
16
14
13

46
7.1

20,830

TO SEPTEMBER 1967

JUN JUL

70 14
56 14

51
59

64
58

52

51
53
49

32

31
29

36
32

25
22

21
21

20
20

17
15

38.9
70
15
2,310

TO SEPTEMBER

JUN

9.8
9.5
8.5
7.9
9.1

10
11
13
14
8.5

9.0
8.2

6.0

6.0
6.3
6.8
5.8
3.7

2.3
1.7
1.4
1.2
1.0

1.0
1.0
. 73
. 61

14
. 56

11
10

11
7.9

6.8

6.6
5.9
4.0
7.5
8.4

8.1
7.8

9.2
8.8

7.5
7.2

5.7
5.2

5.2
5.4

5.7
5.2

7.74
14
4.0
476

1968

JUL

. 54
. 53
. 63
. 55
. 58

. 45
. 35
. 30
. 24
. 21

. 11
. 10

. 07

. 06
. 05
. 04
. 93
. 02

. 03
. 09
. 12
. 14
. 18

. 17
. 19
. 19
. 20

. 22
. 63
. 02
14

AUG

4.6
4.0

2.4
2.1

9.0
9.5

1.5

1.3
1.1
1.1
1.0
. 93

. 85
. 79

. 62
. 58

. 66
. 68

. 50
. 47

. 47
. 44

. 48
. 52

1.78
9.5
. 43
109

AUG

. 20
. 20
. 20
. 24
. 20

. 20
. 20
. 20
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. 20

. 25
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. 20
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. 20
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. 80

. 70
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. 80
. 20
22

SEP

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1.7
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SEP

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. 71
. 22
30

NOTE. NO GAGE-HEIGHT RECORD MAR. 4 TO APR. 3, JULY 29 TO SEPT. 13.

SAN JOAQUIN RIVER BASIN

11287500 DON PEDRO RESERVOIR NEAR LA GRANGE, CALIF.

c.35, T. 2 S. , R.14 E., Tuolumne County, 300 ft from
downstream from Rogers Creek,
>m La Grange.

DRAINAGE AREA.--1,533 sq mi (revised).

PERIOD OF RECORD.--September 1923 to September 1970. 1923-24 (yearend contents only) and October 1924 to Septem-ber 1930 monthend contents, published in WSP 1315-A.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by Turlock Irrigation District). Prior to Feb. 1, 1941, nonrecording gage at present site and datum.

EXTREMES.--Maximums and minimums (contents in acre-feet, elevation in feet) for the water years 1966-70 are con-tained in the following table:

Wtr yr Date Contents Elevation Date Contents Elevation
1966 June 5-7, 1966 223,700 583.6 Dec. 23, 1965 63,500 509.5
1967 July 15, 22, 26, 1967 290,800 605.7 Dec. 31, 1966 72,400 516.0
1968 Apr. 12, 13, 1968 209,400 578.6 Dec. 26, 1967 65,500 511.0
1969 Jan. 26, 1969 292,400 606.2 Jan. 2, 3, 1969 60,200 506.9
1970 June 25, 1970 290,800 605.7 Dec. 10, 1969 58,500 505.5

Period of record: Maximum contents, 292,400 acre-ft Jan. 26, 1969 (elevation, 606.2 ft); minimum, 29,200 acre-ft Sept. 1-3, 5, 1934; minimum elevation, 475.0 ft Sept. 1, 2, 1934.

REMARKS.--Reservoir is formed by a concrete gravity-type dam, completed Jan. 1, 1923; storage began Nov. 14, 1922. Total capacity, 290,400 acre-ft at elevation 605.55 ft (top of drum type spillway gates), of which
30,000 acre-ft below elevation 476 ft (mutually agreed-upon minimum) is not available for release. Water
passes through powerplant at dam and down Tuolumne River to La Grange Dam, 4 miles downstream, where it is

Modesto Irrigation Districts. Figures given herein represent total contents. See schematic diagram of Tuolumne River basin elsewhere in this report.

500 52,200 540 113,500 580 213,400
510 64,200 550 135,800 590 242,400
520 78,100 560 159,900 600 272,900
530 94,100 570 185,600 607 295,000

CONTENTSt IN ACRE-FEET, AT 2*00. WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

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1112
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16
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19

20

2122

23

2425

^e> 2728a9

30
31

MAX

M]N

Ct) (*)
CAL YR
WTR YR

171,800
169,300
166,300
163,900
160,400

157,700
155,000
152,500
149,600
146,500

142,900
140,300
137,400
133,900
131,300

128,200
135,000
121,900
119,900
117,900

115,800
113,700
111,400
108,500
105,700

103,400
101.300
99.200
97.400
95,900
94,100

171,800
94,100
530,000
- 80,800

1965 MAX
1966 MAX

93.300
93,600
93,300
91,700
91.500

91,400
91.300
90,000
89,300
88,800

88,700
88,500
88,000
88,300
89.300

89,800
93,300
97.400
103,000
101,700

100,000
97,900
104,400
116,600
130,300

121,000
131,700
119,500
117,900
116,400

121,700
88.000

541,400
+22,300

291,200
223,700

114,900
113,500
111.800
110,100
108,100

105,900
104,000
101,800
99,600
97,200

94,800
9a,600
89,700
87,400
84,700

83.000
79,500
77.000
74,300
71.100

68.400
65,500
63.500
64,300
66,200

67,100
67,100
68,400
78,600
66,300
89,300

114,900
63,500
527,200
- 27,100

MIN 63,
MIN 63,

89,800
89,300
88.800
89,800
91.500

93,400
95,400
97.000
98,600
99.400

99,300
98.900
98.600
98,900
100,300

100,900
101,300
102,000
103,300
104,200

105.700
107,100
108,500
109,500
110,800

111,800
113,800
113.900
114.900
116.900
117.900

117,900
88.800

542,100
+28,600

500 t -99
500 * -87

119,200
130,300
121.200
122.100
123,900

132,300
135.100
137,000
138,400
139,600

140,500
141,200
141,900
141,700
142.200

142,900
143.600
144,100
144,800
145,300

145,000
146,000
146,500
147.400
148,200

149.100
149,900
149,900
. -._-

. »_*

149,900
119,300
555,900
+32,000

,000
,500

149,600
149,100
148,900
148,600
148.400

147,700
147.000
147,000
147,000
147,700

148,400
149,100
149,600
150,300
151,300

153,100
153.800
153,300
153,800
153,800

153,500
153,800
154,300
154,700
155,200

155,200
155,700
156,000
156,700
157,700
158,400

158,400
147,000
559,400
+8,500

158.900
159.700
159,400
159,700
160.400

160.700
160.900
161.100
161,400
161,900

161,900
162.400
162,400
162,100
161,900

161.900
161.100
160.700
160.400
159.900

159.400
158,400
157,700
156,500
155,700

156,000
156,000
156,000
155.700
155,500

162,400
155,500
558,200
- 2,900

154,700
154,000
154,000
154,500
155, ?00

156,000
156,500
156.900
156,900
158.400

159,700
162.400
165,200
168, ?00
170,500

172.500
174,600
176, ?00
178,000
181,100

184.600
188,100
191,100
194,300
197,400

300,400
304,300
208,500
213,300
215.900
319,400

219.400
154.000
582,100
+63,900

220.800
222.200
222,800
223,400
223,700

223.700
222,800
221,400
220.200
219.400

218,500
217,900
216,200
214,800
213.100

211.400
209,700
208,300
206,600
204,900

203,500
202,100
201,000
199,500
198,200

196.800
195.200
194.600
194.600
194.300

223.700
194,300
573,200
- 25,100

194,100
193,800
193,200
192,100
191.100

190,800
190.500
190.000
190.000
189,700

188,900
188.300
188,100
187,500
187,300

186,700
185,100
183,000
181,400
179,800

178,200
176,400
174,900
173,100
171,000

169,200
167,800
165,900
164,100
162,600
160,900

194,100
160.900
560,400
- 33,400

157.900
155.500
153.300
151.100
148,900

146.700
144,300
141,700
139,300
137.200

134,900
132,800
130.700
128.600
125.900

123.400
121.000
118,600
116,400
114,500

112,600
110,100
108,100
106,100
104,200

102,600
101,700
101,300
99,600
99,400
99,400

157,900
99,400
532,900
- 61,500

98,900
97,700
96,800
96,600
95,600

94,000
94,300
94.000
94,100
93,800

92,900
92.200
92.100
92.100
91,700

91,000
90,400
89,300
SB, 300
88,000

87,700
87,700
87,500
87.400
86,900

87,000
B7.400
87,400
87,000
87,400

98.900

8ft, 900
526,000
- 12,000

t ELEVATION, IN FEET, AT END OF MONTH. t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11287500 DON PEDRO RESERVOIR NEAR LA GRANGE, CALIF.--CONTINUED

DAY

I
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24
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26
27
28
29
30
31

MAX
MIN

(+)
(t)

CAL YR
WTR YR

86,900
87,<.00
86,500
86,100
8b,400

85, ion
84,700
84,900
85,600
84,500

84,700
84,900
84,900
84,900
85.SOO

86,700
86,500
87,000
87,500
88,000

88,500
89,200
90,000
90,400
90,700

91,400
91,700
92.400
93,100
93,800
94,100

94,100
84,500
530,000
+6,700

1966 MAX
1967 MAX

CONT

93,600
92.700
92,100
91,400
90.700

90,400
89,700
89.300
89.200
88,800

88,800
88,800
89,000
88,000
87,500

87,800
88.300
88,500
88,500
89.700

90,200
91,900
91,900
92,200
91,900

91,500
91,500
90.500
93.100
94,100

94.100
87.500
530,000
0

223,700
290,800

94.000
96.600
103.600
1U4.200
112,400

140.500
142,900
136.700
128.600
123,200

120,600
118,600
117,300
115,600
113,500

111,000
108,100
105,100
101,800
98,900

96,300
93,100
90,200
B7.000
83,700

80,100
77,400
76.100
7*. 300
72,900
72,400

142.900
72,400
516,000
- 21,700

MIN 72,
MIN 72,

72,900
73,500
72,800
73.700
74,100

74,700
75,800
77,000
77,300
78,300

79,200
80,200
81,300
82,500
83,600

84,200
85,300
86,200
87,000
88,300

92.400
105,700
109.700
114,900
120,600

124,100
126,000
132,100
142,200
154,300
165,200

165,200
72,800
562,100
+92,800

400 t -16
400 t +73

168,400
170,000
171.000
171,000
170,700

170,700
170. ?00
170,200
170.000
169,700

169,200
168,400
168,200
168,200
167,800

166,700
165,200
163,900
162,600
161,400

159,900
158.900
157.900
157.900
158.400

158.900
158,900
158,900
. ».-.
. . . _-.

171,000
157,900
559,600
- 6,300

,900
,500

159.900
160,900
161.600
163,400
165.200

166,400
166,900
167.400
167.800
167,200

168,200
176,200
184,600
188,900
184,800

203,500
212,200
211,400
207,100
201,500

195,200
192,400
193.500
194,100
196,000

197,400
198,700
201.200
204,300
204,600
200,400

212,200
159,900
575,400
+41,500

194,600
188,300
184,800
186,700
188,300

187,500
195,400
193,000
188,300
185,900

187,500
184,600
178,800
177,200
178,800

179,000
179,800
184,000
181,400
176,700

176,400
174,600
174,600
173,600
172.500

173,100
173,300
172,500
172,300
172.500

195,400
172,300
565,000
- 27,900

172,300
172.800
173.600
174,600
175.400

175,900
176,900
178.800
180.600
180.300

176,400
175,600
177, ?00
177,700
178, ?00

176,800
178.800
179,300
178,800
179,000

179,000
179.000
178,800
178, ?00
176,200

178,800
179.300
183,500
185,100
185,900
167,000

187,000
172,300
570,500
+14,500

JUN

189,700
191,300
188,900
190,000
192,100

194,300
198,200
203,200
206,600
211,100

214,800
218,200
223,700
233,000
243.600

248,400
252,000
256,000
256,700
260,500

262,400
264.500
265,100
265,100
265,100

265,500
265,100
265,500
265,800
266,400

266,400
188,900
597,900
+79,400

JUL

266,100
265,500
266,100
265,500
266,100

266,100
266,100
266,700
265,800
262,700

265,100
270,700
277,900
285,600
290.600

290,500
290.500
290,500
290,200
290,500

290.500
290.800
290,500
290,500
290,500

290,600
290,500
290,200
290,500
290,200
289.900

290,800
262,700
605,400
+23,500

«UG

290,500
290,500
289,300
288,000
286,700

285.100
283,600
282,000
280,400
278,500

277,000
275,100
272,900
271,700
270.100

268,200
266,400
264,500
262,700
260,200

257,800
256,000
253,800
252,000
249,900

247,800
245,400
243,000
241,000
238,900
236,800

290,500
236,800
588,100
- 53,100

SEP

234.800
232,400
230.100
226.900
224,300

222,000
219,600
217,300
214,800
211,900

209,000
206,800
204.300
201.800
199,300

196,500
193,500
190,800
188,300
185,600

183,000
180,100
176,900
173,600
170,200

167,400
164,900
163,400
162.400
160,900

234,600
160,900
560,400
- 75,900

t ELEVATION, IN FEET, AT END OF MONTH, t CHANGE IN CONTENTS, IN ACRE-FEET.

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

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25

26
27
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29
30
31

MAX
MIN

(t)
(t)

CAL Y

158,900
156,700
155,200
154,000
153,500

153,000
152,800
152,500
151,800
150,600

6,600
6,700
4,600
4,300
5,000

4,800
5,500
6,200
6,700
7,400

8,200
9,100
8,600
7,700
6,000

3,800
3,100
2,400
1,000
9,800
7,700

158,900
137,700
550,800
- 23,200

R 1967 MA

136.000
134.200
132,800
131,200
130,400

129,600
128,200
126,600
125,000
123,400

121,700
119,500
117,300
115,600
114,100

112,000
110,300
108,900
108,100
106,500

104.900
103,800
103,600
102,400
101,700

101,300
99,400
98,100
96,500
95,000

136,000
95,000
530,500
- 42,700

X 290,800

94,100
93,600
93,400
92,200
91,400

90,200
86,300
67,000
86,100
85,300

63,200
61,100
78,600
76,400
74,600

73,400
72,000
70,100
69,000
66,500

67,800
67,000
66,600
66,300
65,900

65,800
66,900
66,000
69,000
70,000
70,700

94,100
65,800
514,800
- 24,300

MIN 65,

70,700
71,100
72,400
73,800
74,800

76,400
77,900
76,700
60,200
62,200

64,200
85,900
67,700
89,300
90,400

95,000
97,400
99,600
100,300
104,400

107,100
106,700
110,800
113,000
115,400

117,700
120,100
121,900
123,200
125,700
129,600

129,600
70,700
547,300
+58,900

300 t -1

130,700
132,300
134,600
137,400
139,600

141,700
144,100
146,200
148,600
151.100

153,300
155,500
157,400
159,900
161,900

163,900
169,000
174,300
177,700
184,000

188,900
169,700
189,400
169,700
188,900

188,100
167,500
186,700
185,400

. . . . . .

189,700
130,700
569,900
+55,800

,700

165,100
166,400
187,000
187,500
167,800

166,100
188,100
167,800
189,400
190,600

191,100
191,600
192,100
193,000
193,500

194,900
197,600
197,900
197,400
196,300

195,700
196,300
197.100
197,600
197,900

196,200
198,200
199,300
199,500
200,400
201,200

201,200
185,100
575,700
+15,800

201,200
202,400
203,200
203,800
204,900

205,700
206,800
207,100
207,700
208,300

206,800
209,400
208,500
206,000
207,700

207,700
206,000
206,600
204,600
202.600

199,600
197,400
195,200
193,200
191,100

169,200
167,300
164,800
163,000
181,400
. . . . . .

209,400
181,400
568,400
- 19,800

179,800
176,200
176,700
174.600
172,300

170.200
168,400
166,900
165.400
163,900

161,900
159,900
156,900
159,400
160.400

160,900
161,400
161.900
163,400
163,400

164,400
165,200
165,400
165,700
165,900

166,400
165,900
166,400
167,900
170,000
171,500

179,800
158,900
564,600
- 9,900

172,600
174,300
175,100
176,700
177,700

178,000
176,000
178,000
177,700
177,700

177,200
176,700
175.900
174,600
173,300

172,000
170,200
169,000
167,400
166,400

165,200
164,400
163,400
162,400
160,400

159,700
156,700
157,900
157,400
156,500
. . . . . .

178,000
156,500
558,600
- 15,000

155,200
154,500
153.500
152,800
151,600

150,600
49,600
48,400
47,400
46,000

44,600
42,900
41,500
40,000
138,600

137,700
136,300
133,900
132,600
130,900

130,000
128,400
127.300
126,100
124,800

123,400
122,500
121,200
119,500
117,700
116,400

155,200
116,400
541,400
- 40,100

114,500
112,200
109,700
106,900
104,400

102,000
99,600
97,400
95,400
93,400

91,900
90,700
89.700
86,500
67,400

86,200
85,100
83.200
62,300
82,200

82,000
81,900
81,700
81,400
80,500

79,900
79,600
79,600
76,700
77,600
77,400

114,500
77,400
519,500
- 39,000

77,100
76,700
76,000
75,700
75.100

74,800
77,300
79,500
60,700
81,300

81,700
62,200
82,900
64,300
64,900

65,300
84,900
84,500
84,700
65.100

85,900
66,400
86,700
87,400
67,800

88,300
86,600
89,700
90,500
91,400

91,400
74,800
528,400
+14,000

WTR YR 1968 MAX 109,400 MIN 65,800 t -69,500

t ELEVATION, IN FEET, AT END OF MONTH,
t CHANGE IN CONTENTS, IN ACRE-FEET.

468 SAN JOAQUIN RIVER BASIN

11287500 DON PEDRO RESERVOIR NEAR LA GRANGE, CALIF.--CONTINUED

CONTENTS! IN ACRE-FEET. AT 2*00, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY OCT NOV DEC JAN FEB MAR APR MAr JUN JUL AUG SEP

1 90,700 84.300 83.900 62,500 260,200 176,700 172.500 171,300 220,800 259,600 284,200 204,900
2 89,800 83,900 83,100 60,200 257,500 172,300 170,200 170,500 222,200 263,900 282.600 201,500
3 88,800 85,800 81,700 60,200 249,900 169,500 169,200 169,200 226,300 269,800 280,400 199,000
4 88,000 86,200 80,400 61,000 241,000 168,400 168,400 167,000 236,800 276,000 277.900 196,500
5 88,000 86,100 79,300 61,400 235,100 169,700 176,200 168,400 246,300 279,500 276,000 194,100

6 88,300 85,300 78,100 60,400 232,400 171,000 179,000 170,700 252.300 281,000 273,800 191,100
7 86,700 84,900 77.600 61,200 230,700 171,500 177,200 171,000 253,200 283,900 272,000 187,500
8 86,100 84,700 77,000 62,400 223,700 171,500 172,800 171,300 251,400 288.000 269,800 183,500
9 85,300 85,300 76,100 63.800 215.100 170,700 169,500 171,300 250,800 289,900 267,900 180,600
10 84,300 85,400 75,700 65,900 206,800 170,500 169,500 171,300 250,500 288,900 265,500 177,700

11 83,600 84,300 76,000 67,400 198,500 170,500 169,000 170,700 249,000 288,600 263,300 174,600
12 83,900 83,700 76,000 69,300 192,100 170,000 168,700 170,700 246,000 288,600 261.800 171,BOO
13 84,600 83,400 75,200 80,500 185,100 169,700 168,400 170,200 240,700 288,300 259,300 168,700
14 83,900 82,300 75,800 96,800 177,700 169,500 167,900 175,100 233,000 289,900 257,500 164,600
15 83,700 82,900 77,400 101,500 177,200 169,000 167,800 180,100 229,500 288,600 255,400 16(1,700

16 83,600 83,400 79,900 103,600 174,100 167,900 169,200 182,500 229,200 287,000 252,600 157,700
17 83,400 83,900 79,600 105,300 170.500 169,000 170.000 184,600 228,300 288,000 249,300 154,500
18 83,400 83,200 79.200 107,700 172,300 170,000 170,000 187,300 227,200 289,300 246,000 151,600
19 83,700 83,200 78,400 152,800 172,000 171,800 170,700 190,000 230,100 289,600 243,600 148,400
20 84,200 83,100 77,100 169,700 170,200 173,600 170,000 191,900 234,800 288,300 241.300 144,800

21 83,200 82,900 75,400 240.400 169,700 174,100 170,500 193,000 239,200 287,000 238,300 140,700
22 83,200 82,800 73,700 256,300 170,500 173,800 171,300 194,600 243,000 287,600 235,900 135,800
23 83,600 82,900 72,000 256,000 172,000 173,100 172,500 197,600 245,400 288,300 233,300 132.300
24 83,900 83,400 71,500 252,900 182,700 172,300 172,000 201,200 245,100 288,900 230,400 129,100
25 84,000 82,600 76,100 283,900 184,300 170,500 170,000 204,900 243,300 289,600 226,600 125,200

26 84,600 82,600 78,100 283,300 184,000 169,700 169,000 208,500 242,400 288,600 224,000 121,200
27 85,100 82,300 76,100 280,700 180,900 170,700 168,700 211,600 245,100 287,000 221,700 117,300
28 84,300 82,900 73,900 278,900 178,500 172,000 169,700 213,600 250,200 287,400 219,100 113,700
29 84,200 83,100 72,000 275,700 - 174,600 171,300 216,200 254,500 287,400 216,800 109,900
30 84,500 83,600 69,000 271,300 175,600 171,800 218,500 256,900 287,000 213,100 106,300
31 84,600 65,800 266,700 174,600 219,900 286,100 209,400 ......

MAX 90,700 86,200 83,900 283,900 260,200 176,700 179,000 219,900 256,900 289,900 284,200 204,900
MIN 83,200 82,300 65,800 60,200 169,700 167,900 167,800 167,000 220,800 259,600 209,400 106,300
ft) 524,300 523,600 511,200 598,000 567,300 565,800 564,700 582,300 594,800 604,200 578,600 536,500
(t) -6,800 -1,000 -17,800 +200,900 -88,200 -3,900 -2,800 +48,100 +37,000 +29,200 -76,700 -103,100

CAL YR 1968 MAX 209,400 MIN 65,800 t -4,900
WTR YR 1969 MAX 289,900 MIN 60,200 t +14,900

t ELEVATION, IN FEET, AT END OF MONTH,
t CHANGE IN CONTENTS, IN ACRE-FEET.

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

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31

MAX
MIN

(t)
(t)

CAL
WTR

t
t

103.400
100,000
96,500
92,900
89,000

83,600
81,900
81,400
81,000
80,700

80,800
80,700
79,200
78,600
78,300

80,100
82,000
83.900
84,200
83,600

83,600
83,200
82,800
82,000
81,100

79,300
77,300
76,700
76,500
76,100
75,800

103,400
75.800
518,400
- 30,500

YR 1969 MAX
YR 1970 MAX

ELEVATION, I
CHANGE IN CD

75,500
74,400
72,800
72.800
72,500

73.700
74,400
74,600
73,800
72,200

71,400
69,900
68,900
68,600
68,600

67,800
65,900
65,500
65,500
65,800

65,900
66,700
66,900
65,300
64,700

64,200
63,500
62,400
62,400
62,000

75,500
62,000
508,300
- 13,800

289,900
290,500

N FEET,

59,900
59,500
59,600
59,500
59,500

60,200
60,600
58,900
58,600
58,500

58,600
59,200
60,200
60,900
60,000

60,000
60,000
60,500
61,100
64,500

70,400
74,100
73,800
7*. 700
77,900

79,300
79,600
78,700
77,000
76,800
77,900

79,600
58,500
519,800
+15,900

MIN 58,
MIN 58,

AT END OF

78,700
78,600
79,900
80,500
79,600

79,600
79,800
80,100
81,100
87,400

91,000
93,800
97,400
112,800
119,000

156,900
170,500
170,700
167,400
163,900

182,500
195,400
197,100
199,500
196,000

191,300
188,300
183,500
179,300
179,000
179,300

199,500
78,600
567,600
+101,400

500 t +12
500 t +4

MONTH.

177,700
178,500
179,300
179,800
180,600

180,900
180,900
179,600
177,700
176,200

174,300
173,100
172,500
173,100
171,500

170,500
173,800
174,100
173,600
172,800

171,300
169,200
166,900
164,900
163,100

161,100
158,900
157,700

180,900
157,700
559,100
- 21,600

,100
,700

165,400
171,800
177,500
178,200
181,100

182,500
182,500
182,200
181,900
181,700

180,900
179,800
178,800
177,700
176,400

176,400
176,900
177,200
177,700
178,200

178,500
178,800
179,000
179,600
180,300

180,900
181,100
181,400
181,100
181,100
181,100

182,500
165,400
568,300
+23,400

180,600
180,300
180,300
179,800
179,000

178,800

178,200
178,000
178,200

178,800
179,000
179,600
180,600
181,400

182,500
183,000
183,500
183,300
183,800

184,300
184,800
184,600
184,300
183,500

182,700
182,200
181,700
181,100
180,100

184, BOO
178,000
567,900
- 1,000

179,600
179,000
176,200
177,700
179,600

181,700

185,100
187,300
188,300

190,500
192,100
193,800
195,700
198.500

202,100
205,400
209,700
213,600
217,600

221,400
225,700
230,100
233.900
238,300

242,400
246,600
250,800
254,800
258,700
262,100

262,100
177,700
596,500
+82,000

264,800
265,500
265,500
265,500
266,700

269,200

273,800
278,500
282,900

286.100
287.000
284,500
284,500
286.100

286,100
286,400
286,700
286,700
289,300

290,200
289,900
289,900
290,500
290,200

290,200
290,500
289,900
289,900
290,500

290,500
264,800
605,600
+28,400

290,500
290,500
268,900
287,700
285,100

283,600
283,600
283,600
283,600
283,300

282,300
280,700
278,900
277,300
275,700

274,200
272,600
270,700
268,200
265,800

263,900
262,100
260,200
258,100
256,000

253,200
250,500
248,400
246,300
244,200
242,200

290,500
242,200
589,900
- 48,300

239,800
237,100
234,200
231,800
229,500

227,200
224,600
222.200
219,400
215,600

213,400
210,500
208,000
205,400
202,600

199,500
195,400
192,700
189,700
187,000

184,000
181,400
178,000
173,600
170,500

164,900
163,400
160,400
156,900
154,500
150,100

239,800
150,100
556,000
- 92,100

146,700
143,400
140,500
138,400
137,000

135,600
132,300
128,600
126,800
125,000

123,400
121,700
119,900
117,700
116,900

116,600
116,900
116,600
115,800
114,900

114,100
114,100
114,100
113,500
113,200

113,000
112,200
110,800
110,800
111,000

146,700
110,800
538,800
+39,100

SAN JOAQUIN RIVER BASIN

11288000 TUOLUMNE RIVER ABOVE LA GRANGE DAM, NEAR LA GRANGE, CALIF.

DRAINAGE AREA.--1,532 sq mi.

PERIOD OF RECORD.--August 1895 to September 1970 (discontinued). Monthly discharge only for periods, pub-

ry of

AVERAGE DISCHARGE.--74 years (1896-70), 2,558 cfs (1,853,000 acre-ft per year), adjusted for Hetch Hetchy di

(discharge in cubic feet per second, gage height in feet) for the water ye

Wtr yr
1966
1967
1968
1969
1970

Date
Dec. 18, 1965
June 30, 1967
Feb. 24, 1968
Jan. 26, 1969
Jan. 25, 1970

G.H.
9.65
15.47
10.13
37.09
13.75

Date
Dec. 25, 1965
Oct. 30, 1966
Sept. 8, 1968
Nov. 24, 1968
Dec. 20, 1969

mum daily
arge
715
290
132
444
500

Period of record: Maximum discharge, 61,000 cfs Dec. 8, 1950 (gage height, 43.8 ft); minimum daily,
2.1 cfs Dec. 27, 1922.

station. Div
sion for the

COOPERATION. --Fo

REVISIONS (WATER
Drainage area

DAY OCT

1 2,650

4 2,600

7 2.63C

15 2,670

16 2,650
17 2,610

25 2,310

29 2,180

31 2,120

ersion through Hetch Hetchy aqueduct to San Francisco began Oct. 19, 1934; average yearly d water years 1966-70 is as follows: 258, 288, 254, 288, and 285 cfs, respectively. See sche

in reports of the Geological Survey.

YEARS). --WSP 843: 1917(M). WSP 1315-A: 1897-1916, 1923-26 (yearly summaries only). WSP

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

NOV DEC JAN FEB MAR APR MAY JUN JUL AUG

1;*60 2!7W \',ll°0 U380 I'JsS I'.tw U950 l'M°0

1,350 2,810 1,340 1,600 1,860 2,500 1,810 2,050

2,640 715 1,340 1,500 2,070 2,500 2,060 2,040

2,970 1,510 2,220 1,820

,810 2,150
,810 2,040

,880 1,990

,950 1,810

,880 2,030

,939 2,020

,930 1,540

,810 1,140

1930:

SEP

1.310

1,420
1,150

1,320

1,339

1.430

1.420
1,320

1,240

1,140

1,070

1,110

1,030

WTR YR 1966 TOTAL 710,686 MEAN 1,947 MAX 3,000 HIN 715 AC-FT 1,410,000

SAN JOAQUIN RIVER BASIN

11288000 TUOLUMNE RIVER ABOVE LA GRANGE DAM, NEAR LA GRANGE, CALIF.--CONTINUED

DISCHARGE, IM CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

1
2
3

5

6
7
8
9
10

11
12
13
14
15

16

18
19
20

21
22

24
25

26
27

29
30

MEAN
MAX

AC-FT

OCT

1,170
678

1,430

1,370

1,040
750
1,340

1,010

1,150
1.090
732

502

866
B92
895

851
622

811

883

551
290

1,430

56,740

NOV

1,300
1,280

1.22C
1,070

1,020

1,260
1,230
1,160

947

1,180
1,280

1,140

1,080
1.C90
814

1,190
1.180

971

1.190
1.200

1,420

67,980

DEC

1,470
1,680

2,570

3,320

6,520
6.610
5,020

3,370

2,790

2,800

2,830
2,820
2,870

2,880
2,390

2,113

6.610

183,000

925
943

1,160

1,110

761

950

951

879

951
978
994

710

701

1,430

58,020

2,460 2,130 6,820 3,850 7,560 10,500 2,230 2,600 2,180 6,700 3,540 7,580 10,100 2,250

2,490 ,860 6,630 3,530 7,330 10,100 2.250

2,690 ,700 5,440 7,400 7,130 5,080 2.260

2,640 7,610 7,440 6,680 8,780 6,020 2,290 2.610 7.580 7,410 6,160 9,140 4,690 2,280

2,710 7,690 7,570 7,530 10,500 10,500 2,370

140,300 222,000 341,400 340,200 472,200 363,300 140,400

SEP

2,380
2,380
2,380

2,410

2,430

2.440

2,470

2.510

2,550
2.570

2,570

2,640

145,230

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17

19

21
22
23
24
25

26

28

30
31

MIN
AC-FT

1,930

1,970

1,440
1,310
1,130
1,680
2,080

2,300
2,440
2,360
1.560
855

1,180

1.140

916
768
1.440
1,930

2,330

1,700

2,340

768
102,800

DISCHARGE,

2,110 1,

2,070 1,

2,040 1,
2,130 1,
2,150 1,
2,160 1,
2,160 1,

1,920 1,
2,080 2.
2,130 1,
2,100 1,

1,760 1,

1,400 1,

1,650 1,
1.320 I,
948
1.380

1,040

1,480

948
105,900 78,

IN CUBIC

540

010 1

500
580

080

870
100
903
750

513

203

170
010
859
857

872

880

841

841
640 52

FEET

837

906

915

869
804
813
836

850

813

242

802

679

618

650

242
,540

PER SECOND

1,420

994

696

699
814
701

781

2,650

3,020

2.530

, MATER

2,210

1,810

1,340

1,820
1.700
1,600

1,460

2.220

1.390

1.670

1.220

282 1,220
81,370 106,700

YEAR OCTOBER 1967

1,790 2,640

1,620 ,640

1,550 ,640
2,200 ,420
1.820 ,670

1,820 ,780

2,510 ,710

2.520 ,600

2,560 ,680

2,580 ,150

1,230

863 916
118,400 122,100

TO SEPTEMBEf

JUN

1,280

1,800

1.810
1.820
2,000
2,010

1,980
2,230

2,020

1.830
2,110

1,760
1,880
1,700

1968

JUL AUG

,820 2,140

,700

,960

,900
,830
,800
,820

,810
,880

,790

,900
,810
,860

. 900
,830
,820

,910

923 1,680
106.400 114.800 11

. 390

,231)

. 040
,890
. 890
,900

,910
,900

,510

,510
,500
,510

,51C
,480
,510

,50u

,480
9,600

SEP

1,480

1,423

182

958

1.000
1,050
933
551
896

1,053
1,430

975

972
967
1,050

1,039
1,000
BBO

132
60,950

SAN JOAQUIN RIVER BASIN 471

11288000 TUOLUMNE RIVER ABOVE LA GRANGE DAM, NEAR LA GRANGE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

OCT NOV DEC JAN FEB MAR APR HAY JUN JUL AUG SEP

1
2
3
4
5

6
7
8
9
10

11
12
13

15

16
17
18
19
20

21
22
23
2*
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
KIN
AC-FT

CAL YR
HTR YR

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

17

19
20

22

24
25

26
27
28
29
30
31

KIN
AC-FT

CAL YR

1,330
1,310

1,230

599
1,210
1,170
1,290
1,390

1,210
830
691

1,020

1,030
1,000
951
745
500

808

831

580
548
912

920
890

30,951
969
1,190
500
59,610

1968 TOT
1969 TOT

2,850
2,870
2,880
2,900

2,720
1.430
1,320
1,310

914
878

798

1.520
1.630

1.530

1.320
1,300

1,280
1,310

1,600

993

1,060

1,190
1,030
961
613
601

1,110
1,280
1,360

706
487
800
829
870

954

876
808
527

564

25,971
866
1,640

51,510

AL 549.
AL 1,682.

DISCHA

1,600
1,600
1,530
1,510

1,700
1,520

1,580

1.400

801

1.450

1,430
1.18C

571 2,830

1,500 1.120

1.360 ,680
1,160 ,220
1,100 ,100
1,050 ,090
1,030 ,050

903 994
1,020 60S
1,270 1,150

1,220 1,660
1,460 1,650
1.430 1.710
1,460 4.220
1,740 7,150

,320 8,200

2,260 27,100
2,940 14,100

2.860 8.180

48,581 155.909

2.940 27.100

96,360 309,200

112 1EAN 1,500
052 MEAN 4,608

1,553 788

1,110 875

829 1,360

1.12C 1,570

1,990 7,920

1,170 3,640

99,120 83,160 SO, 000 256,500

1969 TOTAL 1,709,683 MEAN 4,684

8,710

8,560
8.450

8,380
8,350
8,280

8,230
8,160
8,090

7,900
6,770
5,960
7,070
7,060

8,050

8,070
8.020

208,630

8,710

413,800

MAX 3,
MAX 27,

3,550

2,760

153,700

MAX 27,

7,960

5,730
4.300

3.960
3,950
3,960

3,960
3,950
3,950

3,950
3,440
3,180
3.180
3,250

5,960

5.260
4,740

7,510

148,980

7,960

295,500

130 MIN
100 MIN

MAR

2,760

2,760

183,300

100 HIM

6.810

8.180
6,660

6,650
6,640
6,630

5,110
5,600
5,880
6,330
6,630

7,160

6,220
5,400

200,600

8,990

5,360

7,370
7,390

7,390
7,*10
7,400

10,800
11,400
11,500
11,400
11,500

11,600

11,700
11,900

12,100

291,310

12,100

397,900 577,800

132 AC-FT 1,089
444 AC-FT 3,336

APR

2,720

MAY

2,470

2,400

500 AC-FT 3,391
500 AC-FT 1,823

12,200

12,400

12,300
12,200

12.200
12.200
12,100

8,340
9,230
9.530
7,200
6,400

9,780

8,060
5,440

286,320

12,500

567.900

,000
. 000

JUN

5.050

,000
. 000

4,480

5,010
6,480

5,810
5,500
5,490

6,820
4,220
3,470
3,810
4,509

3,480

3,470
3.200

2,450

126,329

7,119

250,600

JUL

2,500

2,540

2,440

2,450
2,450

2.460
2,460
2,450

2,460
2,460
2,480
2,490
2,480

2,540

2,540
2,550

2,560

2,590

77,050

2,590

152,800

AUG

2,83C

2,850

2 630

2 570

2,720
2,740
2,750

2,760
2,750
2,760

2.760
2,760
2,770
2,770
2,770

2,780
2,780

2,790

2,890
2,830

2.820

82,333

2,840

163,300

SEP

1,840

1,733

1,370
1,180

1,310
1,310

1,310
1,313
1,180

2,850

SAN JOAQUIN RIVER BASIN

11289000 MODESTO CANAL NEAR LA GRANGE, CALIF.

on right bank

1970. Monthly discharge only for iods, published

GAGE. --W,

April 1932.

AVERAGE DISCHARGE.--67 years, 400 cfs (289,800 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 1,820 cfs July 1, 1935; no flow at times.

REMARKS.--Records excellent. Canal diverts from right bank of Tuolumne River at La Grange Dam for

272.4 ft abo

Mod
rep

COOPER;

REVISK

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN
MAX
MIN
AC-FT

>rt.

)NS (WATER

496
494
494
493
395

345
345
354
363
365

293
256
257
185
101

101
101
101
100
852

,280
,280
,270
,280
,280

1.280
821
4.3
1.7
1.6
1.5

484
1,280
1.5
29,730

g

YEARS). --WSP 1315-A: 1904

DISCHARGE, IN CUBIC FEET

1.'
1 .

I .

I .

1 .

1 .

1.'

l.C

1.0
. 90
. 90
. 90
. 90

. 93
. 90
. 80
. 70
. 63

. 60
. 60
. 60
. 60

. 60
. 60
. 60
0 .50
0 .60

. BO
. 83
. 80
0 .5
. 5

. 3
. 2
. 2
. 4
. 6

0
0

0
0
o
o
0

to
0
0
0
>0

1.19 .90 .82
1.5 1.6 2.7
. 80 .50 .10
71 55 51

- 9 (monthly figures only).

PER SECOND, WATER YEAR OCTOBER

. 10
. 20
. 10
. 13

. 30
. 10
. 10
. 10
. 10

. 10
. 13
. 50 20
. 10 264

. 20 437
. 20 671
. 33 787
. 39 798
. 20 791

. 20 675
. 10 672
. 10 747
. 10 784
. 10 842

. 10 908
. 10 905
. 1C 904

914

. 16 41

897
906
911

929
890
936
937

1965 TO

701
690
679

740
733
743
742

SEPTEMBER

JUN

823
839
833

819
808
813
702

1966

JUL

595
59
59

63
64
64
64

where in

AUG

684
680
674

675
682
680
679

SEP

404
409
434

443
413
411
420

903
900
875
876

899
902
881
848

847
833
833
837
853

856
847
722
692
694

i 869

. 13 .10 692

533
512
507
508

515
518
515
517

513
504
516

567

573
599
606
601
604

598

504

570
693
673
709

808
749
654
651

644
632
616

601

599

597
595
596

686

648
650
651
650

652
653
659
649

652
653
649

650

651

678
689
680

646

685
684
680
613

557
556
542
541
550

555
555
553

560

472

400
402
406

585

388
374
375
374

373
373
375
373
331

329
320
323

319

319

324
421
318

372

22,150

SAN JOAQUIN RIVER BASIN

11289000 MODESTO CANAL NEAR LA GRANGE, CALIF.--CONTINUED

DAY OCT

1 30
2 31
3 32
4 38
5 35

6 5
7 0
8 0
9 2
1C 6

11 8
12 8
13 *
1* 9
15 10

17 .9
IB .9
19 .2
20 .2

21 .2
22 .9
23 .8
24 .9
25 .0

26 .9
27 .8
28 .9
29 .6
30 .6
31 .4

MAX 451
HIN 1.6
AC-FT 10,120

DAY DOT

1 38
Z 59
3 49
4 63
5 48

6 57
7 61
8 01
9 34
10 31

11 39
12 21
13 09
14 47
IS 18

16 54
17 09
IB 70
19 77
23 36

21 85
22 72
23 12
24 26
25 30

26 33
27 09
28 05
29 22*
30 4.8
31 4.7

HIN 4.7
AC-FT 38,930

NOV DEC

3.8 355
3.B 3B8
3.8 390
3.B 390
3.6 929

3.8 1,540
3.8 1,610
3.8 1,590
3.8 945
3.6 5.0

4.0 .90
3.6 .80

3.6
3.8

3.6
3.4
3.3
3.3

3.4
54
223
183
212

197
198
2ZO
210

61.0
257
3.3
3,630

DISCH4

NOV

4.4
2.6
. 31
. 31
. 32

. 33

. 34
. 34
. 35

. 36
. 41
. 42
. 44
. 43

. 44
. 44
. 56
. 67
. 45

. 45
. 46
. 48
. 49

. 48
. 49
. 50

. 67

. 31
38

. 70
. 70

. 63
. 60
. 50
. 50

. 50
. 50
. 59
. 50
. 50

. 50
. 40
. 40
. 40

. 40

263
1,610

16.170

RGE, IN CUBIC

. 49
. 48
. 48
. 50
. 66

. 49

. 50
. 49
. 50

. 51
. 49
. 44
. 43
. 43

. 44
. 46
. 49
. 45
. 45

. 45
. 45
. 44
. 44

. 44
. 43
. 43

. 42

. 42

FEET

JAN

. 40

. 40
. 40

. 30
. 30
. 30
. 30
. 30

. 30
. 30

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. 30

. 30
. 30
. 30
. 40

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. 50
. 30
. 50
. 20

. 20
. 20
. 30
. 50

. 40

. 70

21

FEET

. 43
. 44
. 42
. 42
. 43

. 42

. 42
. 42
. 54

. 40
. 41
. 41
. 43
. 61

. 41
. 43
. 43
. 42
. 41

. 37
. 41
. 41
. 39

. 39
. 43
. 38

. 94

. 26

FEB MAR

. 30 115

. 30
. 30

. 30
. 30
. 30
. 30
. 30

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. 30

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. 30

. 30
. 30
. 30
. 30

. 30
. 30
. 30
. 30
. 50

. 30
. 30
. 30

. 50

17

PER SECOND

381
725
281
155
63

. 20

. 0
. 0
. 0

. 3
. 0
. 0
. 0
118

336
198
192
197
610

587
237
235
235

88
3.8
1.8

. 05

248
240

237
239
237
235
245

246
243

32
34

35
34
34
34
34

34
32
31
31
30

76
212
211
211

398

143
398

MIN .

, MATER

. 05
. 05

. 05

. 05
180
306

310
310
309
308
307

307
302
307
309
308

306
295
279
264
285

423
547
637

656

. 05

YEAR DCTOB

APR

381

508

498
491

484
490
500
425
375

373
371

394
394

392

384
388
313

274

274

399
526

10 AC-FT

MAY

374

524
600

727
805
815
828

842
846

989
1,040

,050

,360
,350

,330

,360

,380

B56
1,380

282,800

YEAR OCTOBER 1967 TO

4B8
515

558

580
586
588

576
590
618
602
646

690

7 5
8 2
8 0

8 8
8 8
8 5
8 8
8 8

904
906

896
902

488

908

900

852

856
855

681
610

575

551
521

545

550
557

546
545

506
503

503

354,600

JUN

842

855
858

864
920
930
,030

,150
,170

,180
,180

,180

,290
,290

. 290

,280

,124

JUL AUG

7B6

SEP

730

,140

,120
,240

,280
,310
,250
,360

,5BO
. 450

. 110
952

,020

. 110
996

860

891

795

,108

SEPTEMBER 1968

JUN JUL

664

698

706

612
624

616
612

617

629
621

636

632
633

612

679

527

721

732

727

738
742

734
736

709

706
705

691

739
704

705

707

683

803

793
795

798
797
796
798

802
BOZ
803
805
804

. 806

779
765

779

761

731

778

AUG

764

720

657

633
638

636
637

639

640
621

577

516
505

488

514

469

786
785
789
789

786
780
784
790
787

790
782
785
788
787

787

788
789
785

785

1,120

799

SEP

414
413

383
154
121
252
410

421
391

260
386

390
382
385
363
358

334

312
2B1

262

264

121

SAN JOAQUIN RIVER BASIN

11289000 MODESTO CANAL NEAR LA GRANGE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY OCT NOV DEC

1 293 2.7 .52
2 293 2.7 .63
3 321 2.7 .88
4 273 2.6 .90
5 264 2.8 1.0

6 265 2.8
7 260 2.7
8 256 2.7
9 259 2.6
10 260 2.1

11 250 542
12 256 1,030
13 160 1,050

15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
33
31

MEAN
MAX
MIN

DAY

1
2

7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN

4.0 1,910

3.9 691
3.6 474
3.2 784
3.2 813
2.4 854

2.9 831
3.0 807
3.4 580
3.1 431
3.0 193

2.8 8.6
2.5 1.5
2.7 1.1
3.1 .6
2.9 .6

113 375 1.38
321 1,110 1.7
2.4 .60 .52

DISCHARGE, IN C

OCT NOV DEC

>69 6.8 1.5
03 6.8 1.3
98 9.1 1.1
97 11 1.0
97 11 .87

97 9.4 .78
33 6.9 .60

42 7.0 .51
36 7.0 .51

26 9.6 .46
07 11 .37
41 11 .38
57 11 .36

7.0 11 .35
6.9 11 .25
6.8 11 .06
6.7 11 .06

6.7 11 .11
6.7 13 .06
6.9 10 .05
6.9 11 .06
6.9 11 .07

6.9 11 .06
6.9 11 .05
6.9 6.9 .05
6.8 2.1 .05
6.8 1.7 .05

JAN FEB

. 04
. 04
. 04
. 04
. 04

. 06
. 05
. 05
. 05
. 05

. 05
. 05
. 05

. 07

. 05
. 05
. 19
. 06
. 05

15 .20
1.4 .05

. 06 .49
4.4 .05

4.3 .07

. 05 .06

. 05

1.99 .074
15 .49
. 04 .04

EAN 388 MAX 1,220

JBIC FEET PER SECOND,

. 05 .05
. 04 .05
. 91 .05
1.1 .05
1.3 .05

1.2 .05
1.2 .05

1.3 .04
1.2 .04

1.1 .04
. 96 .04 ,
1.3 .05 ,
1.7 .05 ,

1.8 .04 ,

. 21 .04 ,

. 32 .04
. 18 .04
. 19 .04
. 16 .04
. 12 .04

. C6 .04
. 05 .04
. 05 .04
. 05
. C5

. 05
. 05
. 05
. 05
. 05

. 05
. 04
. 04
. 04
. 04

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. 04

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. 04
. 04
. 04
. 04
. 04

. 04
. 04

. 04
. 04

. 04

. 18
. 11
. 09

. 052
. 18
. 04

MIN
MIN

WATER

1.6
4.9

146
354

686
050
060
060

030

280

922
880
818
775
774

834
854
858
850
852

131
234
316
622
700

709
713
717
711
695

695
694

687

678
680
680
738
780

777
775

789
793

793

790
872
956

690
956
131

1,030
1,310
1.320
1,260
1.080

1.300
1.360
1.380
1,390
1,380

1,380
1.380

1,000

966
1,010
1,030
1,000
992

992
993

995
995

995

998
998
1,000

1,118
1,390
966

. 05 AC-FT 281,700
. 04 AC-FT 383,500

YEAR OCTOBER 1969 TO

852
9D7
950
950

951
951

978
994

999
. 010
,020
,010

,020

,020

78
43
32
31
32

933
895
868

MIN .04 AC-FT

869
872
873
870

,000 1
. 000 1
. 000
. 210
. 300 1

,220 1
,180 1
,180 1
. 100 1
,360 1

,060 1
,360 1

. 040 1

. 020 1
. 030 1
,040 1
,010 1
,030 1

,130 1
,160 1
. 180 1
,210 1
. 220 1

,200

,100
,100
,210

,110 1
,300 1
,000

SEPTEMBER

JUN

,020
. 190
,300
,420

888 ,280

916 ,260
912 ,060

911 951
910 986
911 1,000
909 950

928 846

905 1,260
933 1,370
995 1,440
967 1,180
960 937

968 971
959 1,010
951 1.020

372,300

. 280
,130
998
992
,300

,420
,200
,310
. 320
,570

,540
,530

,250

,190
,160
,170
,150
,110

,130
. 113
. 103
,130
,033

796

859
848
870

,153
,570
796

1970

JUL

984
978
850
780

809
810
810
825

838
840
835
818

798
798

782
772
773
773
776

776
778
781

762

838

925
922
917
887
882

871
876
877
878
878

877
879

879
873

868
868
869
872
856

846
847
850
852
858

860

1,130
1,130
1,130

910
1,130
B46

AUG

769
767
766
783

801
803
807
815

815
821
828
834
832

834
822
812
815

812
817
816
796
810

809
807
830

884

811

1,130
1,140
1,140
1,140
967

888
889
881
881
883

863
856

857
855

862
888
887
883
883

883
882
883
883
728

631
588
587
585
581

25,860
862
1,140
581

SEP

885
890
867
852

872
864
620
587

595
596
594
595
683

716
694
699
711
726

719
712
652
564
543

541
541
562

691

SAN JOAQUIN RIVER BASIN

11289500 TURLOCK CANAL NEAR LA GRANGE, CALIF.

LOCATION.--Lat 37°39'57", long 120°26'24", in NEWW%NW» sec.21, T. 3 S., R.14 E., Stani 2,400 ft downstream from intake at La Grange Dam and 1.2 miles east of La Grange.

PERIOD OF RECORD.--Octobe
WSP 1315-A.

Septe 1970. Monthly discharge only fo ods, published

ight bank

ap).
WSP 1930 for history of changes prior to Apr. 17, 1924.

AVERAGE DISCHARGE.--72 years, 599 cfs (434,000 acre-ft per year).

EXTREMES.--Period of record: M

at La Grange Da

in this report.

COOPERATION.--Forty-two discharge measurements furnished by city and county of San Francisco.

REVISIONS (WATER YEARS).--WSP 1315-A: 1899-1908 (monthly figures only). WSP 1445: 1917-20, 1922.

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AU6

1
2
3
4
5

6
7
8
9
10

11
12
13
1*
15

16
17
IB
19
20

21
22
23
2*
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
M1N
AC-FT

CAL YR
WTR YR

B41
830
830
829
691

630
630
801
764
568

397
122
48
48
47

45
44
43
42
40

39
39
39

40

40
40
41
41
42
42

8,733 1
282
841
39
17,320 2

1965 TOTAL
1966 TOTAL

41
40
39
40
39

38
38
40
40
40

40
40
39
38
38

38
37
36
35
36

36
36
35

33

33
32
31
31
31

,103
36.8
41
31
. 190

314,791.
252.547.

31
31
31
31
31

31
31
31
31
32

33
32
33
32
31

31
31
31
31
31

31
31
31

29

29
29
28
28
28

949
30.6
33
28
1,880

20 MEAN
30 MEAN

29 3.
35 3.
32 3.
31 3.
29 3.

29 3.
30 3.
30 2.
29 1.
30 1.

31 1.
31 1.
31 1.
30 1.
30 1.

0
0
. 4
1.0
374

547
546
546
547
992

1.140
1.140
1.130
1.110
869

29 1.2 772
29 1.1 576
29 .70 664
29 .70 954
29 1.1 945

29 1.1 1.160
29 1.1 1.070
30 .50 1.070

30 0 1.050

30 0 1.090
30 0 1.080
30 0 1.090
30 1.060
30 1.060
24 1.130

924 43.90 24.753.4
29.8 1.57 798
35 3.7 1.160
24 0 0
1,830 87 49,100

862 MAX 2,070 MIN
692 MAX 1.600 MIN

1.400
1,480
1.470
1.480
1.470

1.480
1,510
1,470
1,470
U460

1,510
1.480
1,530
1,550
1.540

1.500
1.510
1,530
1,560
1.530

1,550
1.530
1.530
1.500
1.490

1.490
1.430
1,390
1,450
1.440

44,730
1.491
1.560
1,390
88.720

9.5 AC-FT
0 AC-FT

1.430
1.470
1.430
1.160
1.120

1.070
961
907
1.000
974

1,050
1,110
1,140
1.020
1.010

1.220
1,320
1.470
1.510
1.520

1.160
966
1,390
1,400
1.360

1.310
1.220
948
837
847
1.100

36,430
1,175
1,520
837
72.260

624.400
500.900

1.140 1.150
1,070 1.070
1.120 90S
948 1,030
809 1,170

1.140 1.060
1.120 1,080
1,200 1,090
1,230 1,020
1.250 806

1.090 1.060
957 1,080
1.270 1.090
1,340 1.090
1,360 1.090

1.310 1.050
1.310 894
1.230
1.170
1.290

1,280
1,280
1,330
1,330
1.330

1,190
1,410
1,450
1,160
1,170

36,284 3
1,209
1,450

. 130
,160
,150

. 200
. 220
170
,050
. 190

. 200
,190
,140
,170
. 120
. 040

,865
. 092
. 220
809 806
71,970 67,170

1,480
1,480
1,450
1,440
1,410

1.370
1,280
1.450
1,420
1,380

1,310
1.330
1,270
1.160
1.440

1,570
1,600
1.570
1,390
1,350

1,180
1,360
1,370
1,390
1.360

1,310
1,050
759
1.030
BOO
656

40,415
1.304
1.600
656
80.160

839
1,150
1,020
620
865

853
635
63?
729
859

822
760
701
704
852

978
981
986
981
927

846
752
731
659
656

626
680
836
940
697

24,317
811
1.150
620
48,230

SAN JOAQUIN RIVER BASIN

11289500 TURLOCK CANAL NEAR LA GRANGE, CALIF.--CONTINUED

DISCHARGE! IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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24
25

26
27
28
29
30
31

TOTAL
MEAN

MAX MIN
AC-FT

729
311
951
926
991

850
809
616
332
494

179
215
339
316
157

36
290
135
213
211

167

29
248
391

412
440
382
205
232
220

11.664
383
991
29
23,530

737
578
591
536
377

325
623
573
546
484

265
151
220
504
554

464

539
959
756

618

629
743
502

736
596

306

16,019
534
959
151
31,770

415
643
317
606
479

45
46
41
37
35

34
34
34
34
34

34
35
35
35
34

34

34
34
34

34
34
34
34
34
33

3,360
109
643
33
6,700

32
32
33
32
32

32
32
32
33
33

33
33
33
33
33

33
32
32
32
32

32

33
33
33

33
32
31
32
33
34

1,006
32.5
34
31
2,000

34
35
34
34
34

34
34
34
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35

35
35
35
35
35

35
35
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36
36

36

37
37
36

36
36
36

984
35.1
37
34

1,950

37
37
37
298
487

492

484
329
106

105
104
106
108
111

128
1 38
134
136
173

249
263
261
285
287

2B8
351
511
511

1,060
1,220

9,359
302
1,220
37
16,560

951
952
962
979
963

982
970
969
968
967

979
700
518
506
502

503
503
517
514
514

513
513

513
510

508
510
515
513
510

20,551
665
983
502
40,760

511
509
510
511
511

511
511
932
1.260
1,250

1.250
1.240
1.230
1,240
1,260

1,280

1,750

1,750

1.770
1,780

1,770
1,760

1,750
1,760
1,770
1,790

40,806
1,316
1,790
509
60.940

1,780
1,780
1,780
1.780
1,790

1,790

1.760
1.370
1.150

1.170
1.280
1.350
1.330
1.450

1,520

1,510

1,710

1.710
1.710

1,720
1,720

1,720
1,790
1,840
1,840

48,700
1,623
1,840
1,150
96,600

1,840
1,830
1,830
1.830
1.630

1,920

1.950
1,880
1,890

1,820
1,920
1,910
1,880
2.120

2.180

2.120

2,180

2.220
2,190
2,210
2,190
1,950

1,700
1,730
1,530
1,530
1,460

59,480
1,919
2,220
1.460
118,000

1,470
1,470
1.690
1.470
1,470

1,460

1,470
1,470
1,480

1,480
1,490
1.490
1.460
1,490

1,500

1,500

1,500

1,510
1,530
1,540
1.550
1.570

1,570
1,600
1,640
1,640
1,640

47,200
1.523
1,690
1,460
93,620

1,650
1,650
1.650
1,660
1,670

1,530

1,640
1,650
1.670

1.680
1,700
1,690
1.710
1,720

1.740

1.750

1,780

1,780
1,810
1.810
1,840
1,850

1,650
677
612
972
1,230

48,111
1,604
1,850
612
95,430

WTR YR 1967 TOTAL 307,462.00 MEAN 842 MAX 2.220 MIN 29 AC-FT 609.900

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967

DAY

1
2
3
4
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a
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14
IS

16
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26
27
28
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30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

OCT NOV

1,190 .8
1,290
1,220
954
562

565
551
425
947
1,350

1,560
1.720
1.6SO
546
5.4

6.1
5.8
5.7
5.6
5.6

. 8
. 7
. 7
. 7

. 8
. 8
. 8
. 8
. 8

. 8
. 8
. 8
. 8
. 8

. 6
. 4

^ j
. 1

5.1 4.1
4.6 3.9
5.2 3.7
5.3 3.7
5.2 3.7

5.2 3.5
4.7 3.7
4.5 3.7
4.9 3.7
4.8 3.4
4.8

14.620.7 130.4
472 4.35
1.720 4.8
4.5 3.4
29,000 259

1967 TOTAL 291,
1968 TOTAL 243,

DEC

3.2
3.2
3.1
3.1
2.8

2.6
2.5
2.4
2.4
2.5

2.5
2.5
2.5
2.5
2.4

2.4
2.4
2.5
2.4
2.6

2.5
2.5
2.3
2.3

2,3

2.3
2.2
2.0
1.8
1.9
1.8

76.4
2.46
3.2
1.6
152

026.5 MEAN
149.1 MEAN

JAN

1.6
1.9
2.0
2.0
1.9

1.8
1.8
1.6
1.8
1.6

1.7
. 6
. 6
. 7
. 8

. 7
. 6
. 6
. 6
. 6

7.2
2.4
2.6
2.5
2.5

2.3
2.3
2.4
2.4
2.4
2.3

66.4
2.14
7.2
1.6
132

797
664

FE8

295
422
568
546
544

565
560
575
560
581

561
231
14
14
13

14
12
11
11
13

15
15
15
15
14

294
505
514
513

8.010
276

58111 15,690
MAX 2.220
MAX 1,790

MAR

688
843
568
14
6.3

6.3
6.3
6.3
5.9
5.6

5.9
5.6
5.6
5.3
5.3

5.4
5.2
5.2
259
406

404
484
603
596
604

610
743
883
758
604
612

9.959.2
321

5.2
19,750

MIN 1.8
MIN 1.6

APR

1,220
984
877
911
783

593
303
839
907
1,030

1,020
957
1.560
1.220
994

1,130
1,180
1,680
1,660
1,660

1,670
1.680
1.670
1,680
1,670

1,680
1,660
1,720
1,720
1,730

38,428
1,281

303
76,220

AC-FT
AC-FT

MAY

1,730
1,730
1,740
1,740
1,740

1,740
1,770
1,790
1,790
1,790

1.790
1.790
1.580
986
1.060

1,210
1,210
965
500
1,160

1,060
1,090
1,130
1,130
790

604
1,340
1,220
927
413

40,206
1,297

413
79,750

577,300
482,300

TO SEPTEMBER 1968

JUN

741
396
957
520
622

897
1,010
1,050
1,030
1,130

1,200
1,190
1,210
1,360
1,400

1,360
1,600
1,590
1,540
1,400

1.330
1.220
1.170
1.480
1,700

1,150
1,230
1,030
986
979

34,498
1,150

396
66,430

JUL

1.100
976
1.020
964
1,250

997
975
1,030
1,140
1,220

1,210
1,160
1,070
1,070
1,080

1,100
1,190
1,380
1,410
1,110

1,070
1,250
1,200
1,110
1,160

1,190
1,130
1,130
1,370
1,400
1,210

35,672
1,151

964
70,760

AUG

1,450
1,630
1,740
1,730
1,660

1,650
1,730
1,720
1,600
1,600

1,600
1,400
1,250
1.250
1,260

1,270
1,260
1,270
1,140
899

962
996
997

1,000 1,000
1,020
963
1,040
1,290
1,400
1,030

40,827
1.317

899
60.980

SEP

1,010
1,010
1,210
1,010
1,120

991
28
11
325
548

561
659
524
291
510

659
1,020
1,040
679
617

657
656
660
686
784

769
737
613
651
597

20,653
688
1,210
11
40,970

SAN JOAQUIN RIVER BASIN

11289500 TURLOCK CANAL NEAR LA GRANGE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

1
2
3
4
5

6
7
e
9
10

11
12
13
14
IS

16
17
18
19
20

21
22
23
24
25

26
27
26
29
30
31

TOTAL MEAN
MAX MIN
AC-FT

CAL YR
WTR YR

DAY

1.0*0
1.020
1,070
9S4
66S

334
951
911
1,030
1,130

959
574
S31
992
1,020

1,030
999
948
742
498

923

410
243
232

20
18
259
476
315
310

21,472
693
1,130
18

410
147
23
422
387

S69
446
392
24
S85

387
254
306
S34
66

15
13
16
16
16

16
16
14
13
761

867
407
23
20
21

7,188 3,
240
667
13
42,590 14,260 6,

1968 TOTAL
1969 TOTAL

OCT

260,129.60
300,071.05

DISCHARGE,

NOV

20
483
909
904
260

26
26
26
26
25

24
24
24
23
22

22
22
22
21
21

21
20
20
20
20

19
19
20
19
20
20

148
102
909
19
240

MEAN MEAN

20
19
18
16
18

16
17
17
17
18

14
16
16
16
17

16
15
14
14
13

39
6.8
75
14
12

13
7.3
4.6
3.7
3.4
1.7

513.7
16.6
75
1.7
1.020

711
822

IN CUBIC FEET

DEC

1.1
0
0
0
3.7

0
0
0
0
1.2

1.2
1.2
1.2
1.2
2.0

2.0
1.8
2.0
2.0
1.6

1.3

l.S
2.0
1.7

1.6
1.5
1.6

35.1 2
1.25
3.7
0
70

MAX 1.790
MAX 2.020

. 6
. 3
. 2
. 1
. 0

. 95
6.4
11
11
11

11
11
9.7
7.6
7.4

7.4
7.1
7.4
7.4
7.3

6.0

6.4
6.4
6.4

325
491
4B5

!:

499

,947.25
95.1
499
. 95
5,850

MIN i.
MIN 0

PER SECOND, MATER

795 25
1.140 999
1,360 1.540
1,360
1,170

738
725

756
755

757
757
759
760
754

742
,010
,270
,270
,280

. 410

,950
. 940
,710

832
31
26
26
26

26,523 5
951
1,950

. 530
,520

,540
,560

,660
,760

. 760
. 760
,760
,770
,770

,760
,760
,760
,760
,760

,760

,760
,760
,760

,760
,760
,760
,760
,760
,760

,67* 4
,635
,770
26 25

,740
,740
,740
,740
,740

,740
,740

,560
,410

,410
400
,400
,420
,430

,440
,450
,460
,440
,430

,430

,460
,440
,430

,430
,420
,410
,410
,390

,390
,310
,330
,530
,840

,630
,710

,830
,990

,940
,910
,910
. 670
. 010

,020
,740
,510
,600
,860

,760
,610
,850
,840
,860

,900
,840
,360
,470

,360 iTft

,420 53,240 4
,514 1,717
,740 2,020
,390 1,310

,360 1,250
,370 1,250
,400 1,250
,360 1,210
,430 1,480

,430 1,670
. 430 1.710
,440 1,730
,440 1,740
,440 1,750

,440 1,790
,450 1,760
,450 1,780
,450 1,780
. 460 1.760

,470 1.730
,480 1,620
,490 1,600
,500 1,560
,490 1,560

,540 1,560 ,540 1,560
,550 1,560
,550 1,560
,570 1,560

,570 792
,370 307
. 240 307
. 240 450
,240 764

,450 42,460
,434 1,415
,570 1,790
,240 307
56,580 100,500 90,090 105,600 88,170 84,220

6 AC-FT 516,000
AC-FT 595,200

YEAR OCTOBER 1969 TO SEPTEMBER 1970

TOTAL
MEAN
MAX

CAL YR 1969
WTR YR 1970

828
774
773
822
862

863
754
706
599
58S

370
244
122
29
27

18
17
16
16
15

IS
13
13
13
13

13
13
13
13
13
11

583
277

11
020

5.7
5.3
5.1
4.B
4.9

4.B
4.6
4.4
4.4
4.4

4.4
4.4
4.2
4.0
4.0

4.0
4.0
3.9
3.8
3.9

3.7
3.7
3.7
3.7
3.7

3.7
3.7
3.7
3.7
3.7

126.0
4.20
5.7
3.7
250

3.7
3.7
3.7
281
490

202
82
727
624
639

467
301
112
B7
431

562
415
280
345
23

22
935
1 ,440
1,430
1,430

,420
,350
,350

. 170
45tt

18.454.1
595
1.440
3.7
36.600

169
518
251
120
86

99
99
98
73
24

23
22
23
11
. 83

1.5
. 75
. 50
. 26
0

. 34
. 06
0
0
B.I

9.4 B.I
7.4

5.7
5.6

1.671.04
53.9
518
0

3,310

5.3
5.2
5.2
5.2
5.6

5.6
5.5
5.6
5.6
5.5

4.6
4.5
4.7
4.8
4.8

4.8
5.3
5.2
5.2
5.2

5.2
5.1
5.2
5.2
5.2

5.2
5.2
5.3

145.0
5.18
5.6
4.5
2B8

5.8
5.6
5.1
5.1
4.5

4.6
4.6
4.0
3.7
3.7

3.7
3.7
4.2
6.4
6.4

365
586
424
424
643

782
785

. 160
,170

,360
,600
,750

17,122.3
552

3.7
33,960

1,750
1,710
1,660
1,660
1,660

1,670
1,670
1,670
1,650
1,630

1,610
1.610
1.610
1.590
1.590

1.600
1,610
1,610
1,610
1,610

1,640
1,680
1.690
1.690
1,690

1,690
1,740
1,760

49,880 4
1,663

1,590

,760
,760
,760
,580
,210

,440
,520
,310
,160
. 130

,130
,130
,130
,120
,110

. 070
. 050
. 020
. 010
,330

,560
,370

,450
,350

,420
,430
,420

. 360 4
. 334

,600
,830
,640
,830
,790

,930
,930
,930
. 890
. 610

,290
. 210
,230
. 060
775

,170
,350
,410
,400
,480

,770
,940

,900
,940

,600
,800
,790

. 360

. 425 4
. 614

. 010 775

,710
510
,510
,480
. 450

. 60
. 70
, 70
, 70
40

, 40
. 50
, 50
,460
,500

. 500
,500
,500
,500
,410

,530
,540

,540
,540

,540
,550
,570

,600
. 600

,830 5
. 511

,410

,610
,620
,630
,620
,610

,620
,620
,620
,630
,650

,650
,660
,670
,680
,690

,700
. 720
. 750
,760
,780

,790
,800

. 830
,820

,830
,830
,820

,270
,800

,700
,700

,270
9B.940 82.040 96,050 92,890 104,500

1,600
1,790
1,570
1,030
643

666
1,150
1,360
1,220
1,290

1,300
985
899
673
609

555
390
636
551
561

555
511

690
685

6B4
683
665

474

26,536
885

390
52.630

SAN JOAQUIN RIVER

11290000 TUOLUMNE RIVER AT MODESTO, CALIF.

LOCATION.--Lat 37°37'38", long 120°59'11", in SE'iSW!* sec.33, T.3 S., R.9 E., Stanislaus County, on left bank bridge on Ninth Street in Modesto, 0.2 mile downstream from Dry Creek.

DRAINAGE AREA.--1,884 sq mi.

PERIOD OF RECORD.--1878-84, 1891-94, 1897 (gage heights only), January 1895 to December 1896, April 1940 to September 1970. Monthly discharge only for some periods, published in WSP 1315-A.

AVERAGE DISCHARGE.--31 years (1895-96, 1940-70), 1,476 cfs [1,069,000 acre-ft per year).

EXTREMES.--Maximums and minimums [discharge in cubic feet per second, gage height in feet) for the water years

Wtr yr
1966
1967
1968
1969
1970

P
85 c

REMARKS
into

Tuol
Wate

DAY

1
2

4
5

6
T
8
9
10

1
2
3
4
5

16
17
IB

21
22

25

26

28

30
31

Date
Dec. 31, 1965
Apr. 22, 1967
Feb. 23, 1968
Jan. 27, 1969
Jan. 22, 1970

eriod of record: Max
fs Oct. 25, 1961.

Modesto and Turlock
t 1,300 acres betweer

DISCHARGE,

OCT NOV

1.740 1,600 2

2,100 1,560 2

2,740 1,550 2

2,660 1,770 2
2,610 1,700 2

1.530 2.410 2

1,060 3,120 1

2,130 2.710 2

C&L YR 1965 TOT&L 730,417

Discharge Elevation Date
3,910 45.77 June
8,370 52.70 Sept
3,430 45.10 July
32,600 65.42 Nov.
8,620 52.65 Aug.

imum discharge observed, 57,000 cfs Dec. 9,

Canals (see stations 11289000, 11289500), th station above La Grange Dam and at Modesto.

Mi

21, Aug. 16,
. 18, 1967
30, 1968
25-27, 1968
18, 1970

1950 (elevatio

See REMARKS

IN CUBIC FEET PER SECOND, W&TER YEAR OCTOBER 1965 TO

,823 1,410 1,760 1 470 390

,920 1,820 1,670 825 260

,960 1,490 1,620 799 268
,870 1,560 1,610 837 286

,440 1,360 1.630 335 265

,220 1,480 341 24D

MEAN 2,001 MAX 10,300 MIN 285 &C-FT 1

263

238

234

251

224
233

226
2D9
224

225

237

330

231
237
240
229

449,000

nimum daily

1966

n, 69.19 ft)

ions for irr
for station

Di

igation
11288000

SEPTEMBER 1966

231
221

242

247

222

218
210
211

201
196
190

196

180

200

187
188
184

233
227

190

195

182

188

174
186
198

179
186
182

165

173

170

178
167
166
172
184
222

185

185
180

182

181
185

180
184

175

166
177
179

164
168
182

199

173
180

185

182
173
176
215
204
181

181

scharge
164
248
149
175
199

of
for

179
181
191
188
200

233
183
186
189
191

191

199
202
206

214
219
213
225
230

195
231
232
207

211
225
222
242
242

235

11290000 TUOLUMNE RIVER AT MODESTO, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

1
1
13
14
15

16
17

19
20

21
22

2*
25

27
28
29

31

MEAN

M[N

1
2

4

7
8

10

11
12

14
15

16
17

19
23

21
22

2*

27

29

31

MIN
AC-FT

282

280

27*

592

751

S18
839

839

577
559

555
538
529

351

250

395
368

355

490
438

714
750

812
750

928

1 880

1 340

2 350

48.440 11

NOV

788

B19

789

766

719
415

719

327

364

232

>,430
!,240

,160

,150
J.230

,670

,680
,680

, 500

,400

,600

i, 300 8

3,010 1,250 2,620

4,610 897 2,610

3,160 989 2,700

3,090 1,360 1,880

2,203 3,030

1,750 1,020 1,010
1,700 1,020 1,900

1,350 1,320 372

1,600 1,160 511
1,700 1,050 473

1,390 945 1,420
1,373 512 2,010

1,070 1,010 2,700

1,060 912 2.250

1,060 835 2,150

1,030 1,170

9,790 65,640 64.170 9

1,290 5,760 2.B70

1,200 6,810 2,730

1,340 6,050 3,170

2,400 5,330 3,030

2,810 4,410

MIN 232 AC-F7 1,751,000

,100 455 237
,900 578 230

,100 311 Z35

,000 323 227

,580 255 238

2,100 260 219
,780 255 227

928 255 225

971 274 221

572 253 218

452 206

452 244 206
J.500 17,240 14,000

JUN

4,840

4,030

5,330

2.160

6,140

6,620
6,700

203
190

190

200

213

208
216

191
201

187

187
188

189

176

182

176
11,620

JUL

7,100

5,930

670

488

1,300

526
393
381

336

100,482

194
178

186

187

219

196
202

200

193
162

173

163
188

170

157

159

154

219
149

11,100

AUG

334

312

285

307

270

271

276

271
271
270

265

8,771

182
183

171

172

178

173
186

184

183
183

203
200

198
205

191

212

205
204
205

220
166
11.640

SEP

290

296

291

339

294

271

290

284

281

284
625
715

9.382

239
203

196

207

184

186
183

198
203

207
200
188
190
191

188
189

198

231

209
211

5,902

213
182
11,710

SAN JOAQUIN RIVER BASIN

11290000 TUOLUMNE RIVER AT MODESTO, CALIF.--CONTINUED

I

3
4

6
7

9
0

1
2

4
5

6
7

9
0

1
2

4
5

6

8
9
0

AN
X
N
- FT

7
B

0

2
3

5

8

N

220

217
219

227

230

250

425

232
221

725

780
800

805
188
22,690

1.730
1,790
1,890

1,510
84B

682
566
511

1,300
1.410

1,480

1,980
2,000

2,280

511

920

B40 I

780 1

212 1
199 I

175 I

681 3
725 3

920 3
175
27,860 98

DISCHARGE,

1.980 1
2,000 I
1,970 1

2,070

2,190
2,130

1.890
2,000

1.500

1.330
1,030

1,500

929

75D It

,159 1,

,200 1,

,130 10,
,100 9,

. 450 26.
703
,520 350.

IN CUBIC

,280
. 690
,560

836 1,

811
822

845 6,

604 8,
700 B,

604

710

200

280

800
230

300
928
700

FEET

766
758
838

300

898
819

010

350
060

757

6,000 4,120 5,390 2,430 9,150 1

7,830 3,660 6.130 3,759 9,390 1

3,930 3.750 9,040 2,060
4,120 3,960 9,070 1,780

9,410 8,640 7,180 9,130 9,430 3 4.730 2,980 3.380 2.210 1,780 422,400 274,700 276,100 374,200 430,700 86

PER SECOND. MATER YEAR OCTOBER 1969 TO SEPTEMBER

3.860 2,610 419 381 238
3,590 3,200 388 344 292

2.750 3.430 326 575 261

2.710 3.140 310 902 991

2,770 1,570 354 889 285

2,720 1,220 331 347 1,800 2,720 1,220 336 315 1.840

^ 06 348 224 975

789
533

,290
,270

. 920

477
372

,492
,983
330
,230

1970

950
925
992

385

322

264
257

231

224

224
238

238

224
23B
231

231
231
218

324

,930

312
329

309
288

301

308
280

282

283

397
412

301
463
252
18,540

238
257
257

231

231

218
231

224

218
224
244

218
199

212

236
238
238

250

230
243
233

232

14,240

522
558

476
495

326

327
299

331

516

602

2,149
2,000

666
2,140
299
39,640

256
231
209

217

224

218
212

235
210
224
218
210

218
240

270

241
252
246

238

253
256
263

234

13,940

SAN JOAQUIN RIVER BASIN

11292000 MIDDLE FORK STANISLAUS RIVER AT KENNEDY MEADOWS, NEAR DARDANELLE, CALIF.

DRAINAGE AREA.--47.5 sq mi.

PERIOD OF RECORD.--Octobe
lished in WSP 1315-A.

1938 to September 1970. Records for water year 1946 incomplete, yearly estimate
Prior to October 1960, published as "at Kennedy Meadows."

GAGE.--Water-stage recorder. Datum of gage is 6,320.1 ft above mean sea level (river-profile survey).

AVERAGE DISCHARGE.--32 years, 135 cfs (97,810 acre-ft per year), unadjusted.

EXTREMES.--Maximums and minimums (discharge in feet per second, gage height in feet) for the water ye 1966-70 are contained in the following table

Maxi
Wtr yr Date
1966 May 21, 1966
1967 July 1, 1967
1968 Oct. 5, 1967
1969 June 2, 1969
1970 May 18, 1970

590
1,440
666
1,440
744

G.H.
4.80
6.39
4.99
6.40
5.17

Mi
Date
Sept.29, 30, 1966
Nov. 2, 5, 1966
Jan. 8, 9, 1968
Oct. 4-11, 1968
Jan. 5, 6, 1970

imu daily
charge

Period of record: Maximum discharge recorded, 1,700 cfs Nov. 20, 1950 (gage height, 6.66 ft); minimum daily recorded, 7.2 cfs Feb. 11, 1948.

701,

cted by Pacific Gas § Ele
a Federal Power Commissio

Co., under general supervision of the Geological Sur-

REVISIONS (WATER YEARS).--WSP 1315-A: 1939(M). WSP 1930: Drainage area.

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 196$ TO SEPTEMBER 1966

DAY

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MEAN
MAX
MEN
AC-FT

OCT

315
305
298
288
184

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38.6
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2,370

11 AC-FT

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117
114
119
121

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73
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6,020 24

130,400
76,550

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246
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JUN

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169
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10.030

JUL

96
89
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74
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124
151
156

186
183
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226
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125
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7,680

AUG

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66.1
77
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4,060

SEP

59
59
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136
242
238
234
236

250

266
264
258

254
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232
218
200
170

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168
266
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10.020

SAN JOAQUIN RIVER BASIN

11292000 MIDDLE FORK STANISLAUS RIVER AT KENNEDY MEADOWS, NEAR DARDANELLE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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MEAN
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MIN
AC-FT

WTR Yft

DAY

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MEAN
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9.7
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10.4
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9.7
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9.5
9.2
9.5
9.5
9.2

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81
98
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19.9
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9.2
1.190

1967 TOTAL 73.088.

DISCHARGE

OCT """

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330
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490
650

594
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456
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38

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31
31

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21
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21
20
20
20
19
19

142
650
19

1967 TOTAL

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19
19
19
19

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19
19
18

IB
18
IB
25
21

20
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20
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18
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21
20

19.6
25
18

76,650

41
42
40
33
38

109
76
53
42
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33.8
109
IB
2,080

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IB
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18.9
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L.160

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14.9
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MEAN 210 MAX

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2B
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2B
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24.8
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21
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MAX 1,250

PER SECOND,

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14
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22
33
78

54
50
63
57
53

51
51
5C
49

31.7
78
14

1,250 MIN

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26
27
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25
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27
22
21
27
36

137
102
85
73
64

58
56
53
50
46

43
42

45
41
41

44.5
137
21
2.740

MIN 9

WATER

47
45

46
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120

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412
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900
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634
515

336
910
35
,680

. 2 AC-FT 145,000

YEAR OCTOBER 1967

72
61

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56

53
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56
65
81

95
97
93

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148

77.8
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522
470

289
614
128

JUN

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295
285
364
430

403
484
518
720
715

737
72B
697
679
760

840
930
985
920
925

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945
1,030

955
1,020

1,160
1,230

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285
45,940 40

TO SEPTEMBER

JUN

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570

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433

262
200
180
197
236

292
312
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320
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193

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178
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JUL

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3B5

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348
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1968

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133

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3B
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291 64.6
590
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110
3B

13 AC-FT 152.000

AUG SEP

345 99
315 98
308 120
256 108
232 98

210 109
177 162
161 169
162 178
180 154

192 109
183 120
17B 153
172 161
188 165

202 164
228 185
272 310
295 345
208 345

164 352
148 358
138 355
195 350
448 345

325 340

170 335 132 328
114 322
106 315
103

210 225
448 358
103 9B

12,910 13,390

AUG SEP

54 134
47 132

70 424
93 462

92 452
91 436
90 424
89 397
89 430

88 430
8B 412
120 394

141 330
141 30
162 IB
200 18

172 17
162 17
154 16
151 15
148 15

141 15
140 15
138 15
13B 15
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121 217
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11292000 MIDDLE FORK STANISLAUS RIVER AT KENNEDY MEADOWS, NEAR DARDANELLE, CALIF.--CONTINUED

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TOTAL

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TOTAL
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MAX
MIN

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21
71

182
125
56

42

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182
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DISCHARGE

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DISCHARGE,

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CUBIC FEET

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18
57

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68
72
100

87
78
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81
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83

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103
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4,400

100 MAX

IN CUBIC FEET

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25.7
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103
64

38

133

71

53
51
44

38

1,348
43.5
133
15

PER SECOND,

FEB

83
80
78

73

70
64
68
68
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83
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3,580

614 MIN

PER SECOND,

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34
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MATER

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107
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MATER

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YEAR OCTOBER

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107
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106

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83
86

101

124

110

108
116

132

198
229
215

129

97
115
141
161

229 1
83
7,400 38

AC-FT 72,830
AC-FT 159,400

YEAR OCTOBER

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75

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86
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1968

MAY

175
159

159

221

357
365

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397

357

485
827

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626
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114
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538

475
415
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534

325

BO

TO SEPTEMBER

JUN

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1,110

696
503

424

538

739

713
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718

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374
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727
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TO SEPTEMBER

JUN

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288
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231

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1969

JUL

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418

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575

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433
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496

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675
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415

333
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308

481
709
261

1970

JUL

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256
267
298
360

338
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237
219

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202
213

193
175

161
141

139
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98

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186

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AUG

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10,210

AUG

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SEP

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30B
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SEP

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SAN JOAQUIN RIVER BASIN

11292500 CLARK FORK STANISLAUS RIVER NEAR DARDANELLE, CALIF.

DRAINAGE AREA.--67.5 sq mi.

PERIOD OF RECORD.--October 1950 to September 1970.

AVERAGE DISCHARGE.--20 years, 152
(101,000 acre-ft per year).

e-ft per ye yearly charge

EXTREMES.--Maxi (discharge in cubic feet per second, gage height in feet),

rge (*) and peak discharges above base (600 cfs), water years 1966-7C

Date Time
July 13, 1969 2000

Date
May
May

May
June

July

8,
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22,
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15,

1966
1966

1967
1967
1967

Time
2030
2030

2000
1900
1900

Disch. G.H.
615 5.25
*621 5.27

1,390 7.52
*1,780 8.22
1,160 7.05

Date
May
May

Apr.
June
June

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28,

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16,

1968
1968

1969
1969
1969

Time
2100
2100

2200
2300
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Disch.
654
*815

609

*1,740
1,110

G.H.
5.77
6.20

5.64
8.25
7.18

Disch.
872

May 17, 1970 2100
June 21, 1970 2130

Wtr yr Date
1966 Sept. 9-11, 1966
1967 Oct. 4-19, 24-31, 1966
1968 Jan. 11, 1968

urn daily discharge, wate

Discharge

years 1966-70

ge Wtr yr Date
19 1969 Oct. 3-9, 11, 1968
19 1970 Sept.29, 30, 1970

20, 1950 (gage height, 11.88 ft), from rating cur
extended above 1,300 cfs on basis of slope-area measurement of peak flow; minimum, 11 cfs Apr. 3, 1958.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGEt IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY OCT MOV DEC JAN FEB MAR APR MAY JUN JUL

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MEAN
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307

217

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257
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327

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280
348

475

495
485
500
475

435

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425

435
432

475

498

442
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422

412

360

275

432
500

217

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191

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22

24.0
34

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25
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21

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21

20

20.4
25

SAN JOAQUIN RIVER BASIN

11292500 CLARK FORK STANISLAUS RIVER NEAR DARDANELLE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

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16
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IB
19
2C

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23
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3"
31

MEAN
MAX
HIM

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17
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28
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MEAN

OCT

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19
19
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23
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19
19

19.2
21
19

44

51
4S

45
44
42
41

39

38

37

33

33
32

1H.6

NOV

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21
22
23
21
22

22
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22
21
24

51
31
25
26
52

31

28
32
33

IC3

33.0
111
2C

31

31
31

31
31
31
31
31

31
30
31

31

31

31
31

32.6

DEC

49
52
56
46

205
114
77

61

58
54
52
49
49

53
50
5C
51
51

51

51
51
4B

4B

45

59.3
205

34

35
41

43
48
48
49
50

50
38

3?

35

39.6

44
43
41
40

38
38
37

37

36
36
37
38
39

40
39
40
38
40

34

36
37
38

45

48

39.6
48

23

a
a

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8
8
8

17
19

33

36

30

J8.9

a

6
7

51

60

61
64
69
7
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9
I
4
1

61

63
64
63

63

58.4
69

32

34
34

34
34
34
37
35

34
34

41

111

111

67.3

72
67

70

72

72
74
107
127
111

282
248
175
149
139

137

139
129
126

127

112

115
282

101

104
104

94
90
89
83
78

77
74

67

133

87.0

100
98

89

93

89
87
89
93
89

84
84
87
84
80

80

77
75
74

72

85.8
105
70

133

126
130

US
121
130
151
182

210
210

180

311

181

87
98

229

191
179
183
219
311

448
567
630
645
755

944

1,090
1,060
1,030

1,020

920

578

510
1,090
74

355

358
355

310
308
328
320
288

285
281

270

352

308

557

350

JUN

395
463

746

788
736
690
732
828

892
,090
,090
,020
,090

,200

,100
,120
,200

,220

,270

882
,360
382

539

482
385

310
279
255
248
268

301
304

318

301

238

216

183
164

114

278

JUL

,360
,320
. 180

694

676
662
658
648
676

624
541
496
442
392

362

323
308
292

273

248

221

630
1.380
221

96

86
83

81
81
77
74
70

64
62

57

50

42

40

38
36

37

57.8
102

AUG

191
186
174

124

120
114
108
108
122

117
128
133
110
101

96

114
144
163

115

89

75

126
206
75

35

33
31

30
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28
28

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35
36

30
28

25

31.4
53

SEP

77
81
75

62

60
57
56
55
53

51
51
63
56
50

49

51
55
50

47

44

58.0
81
44

24

22
22

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21
21
21

21

20
20

20

21
21

21
21

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20
21

21.1
24

SAN JOAQUIN RIVER BASIN

11292500 CLARK FORK STANISLAUS RIVER NEAR DARDANELLE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY

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MAX
M1N

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16
17
IB

2C

21

23
24
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28
29
3J

MIN

OCT

21

20
20

20
20
20

21

20
28
43
40
30

30

31

26

25

24
24

22
22
25

2?

38

37
37
38

37
37

35

79

135
68

49

51

48

46

44

35

53
44

38
37
38

47

43
54
41
38
41

38

65

58

54

52
50

44
43
45

24

DISCHARGE.

41

4C
40
40

42
43

43

43

45
35

39

39

35

36

35

32

31

32
32

32
33
35

39

37
31
30
30
34

33

31

31

33

35

35
36
37

33

IN CUBIC

31

30
32
31

30
31

3?

33

3T
30

158

16B

83

100

79

64

3T

54
66

73
76
58

40

41
41
42
43
44

41

46

117

124

78
74

109
95
86

FEET

47
45

54

57

61

305
194

478

318

2?6

202

172

45

71
70

70
68

63
63
62
60
59

62

58

57

56

56
51

55
54

PER SECOND,

126

125

125

117

117
116

l?b

1C5

105

1J9

113

IC5

51
51

51
51

50
50
50
50
51

56

57

63

62

68

109
134
162

50

17 A

WATER

104

1C6

100

120

122
127

129

151

182

183

178

100

208
226

194
176

214 1,
263 1,
274 1,
261 1,
232

230 1,

299 1,

400 1,

488 It

509 1,

328 1.
372 1.
438 It

17C

C-FT 73,150

YEAR OCTOBER

191

215

242

194

185
175

153

140

158

140

408
446

574
682

030
040
100
100
998

020

190

060

090

300

390
300
320

408

1969

315

286

276

432

541
614

522

596

631

554

435

JUN

t430
,400

,400
,330

673
652
732
788
876

930

784

844

816

812

610
560
538

1,500
!>38

TO SEPTEMBER

590

544

386

284

298
332

464

435

380

336

432

JUL

557
534
522

503
479
476

476
467
544
503
444

388

346

322

313

294

211
201
196

579
169

1973

272

238

178

149
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127
113

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43.1

SEP

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28

832
29.4

488 SAN' JOAQUIN RIVER BASIN

11292600 DONNELL LAKE NEAR DARDANELLE, CALIF.

LOCATION.--Lat 38°19'46", long 119°57'37", in SE 1* sec.35, T.6 N., R.18 E., Tuolumne County, Stanislaus National

Niagara Creek

DRAINAGE AREA.--

PERIOD OF RECORD
Dardanelle.

Joaq

EXTREME
cont

Wtr 966' vr

967
968
969
970

P

REMARKS
gage

Rive
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wher

REVISIO

DAY

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MIN

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CAL YR
WTR YR

uin Irrig

Date

May 1 7 -
July 16,
May 2 8 ,
July 13,
June 19,

eriod of

heights

h 2,150 a
e in this

NS. --WSP

Cap

4
4
4

OCT

48,100
48,500

49,400
49,800

50,000
50,000

51,400

51,600
51,800
51,900

54,100
54,300

54,700

54,300

54,300
54,300

48,100

+6,600

1965 MAX
1966 MAX

230 sq mi

the folio

27, 1966
1967
1968
1969

27, July

record:

4,720. 0 (

cre-ft is
report.

1930: Dr

tricts)

wing ta

Maxi

5,6,19

minimum

below

,735 4,730
,740 5,830
,750 8,220

CONTENTS, IN

NOV DEC

54,100 46,600
53,700 46,400

53,000
52,600

52,200
51,700

50,400

50,000
49,600
49,100

49,200
49,100

48,000

47,300

46,700

46,700

- 7,600

64,300
64,200

45,900
45,600

45,400
45,100

44,100

43,900
43,600
43,300

42,400
42,100

40,200

39.500

38,900

38.600

- 8,100

MIN 4
MIN 12

ble:

Con e
6 ,
6 ,
6 ,
6 ,
70 6 ,

operating

minimum ope

4,760
4,770
4,780

ACRE-FEET.

JAN

38,100
37,700

38,200
38,400

38,600
38,900

39,600

39,600
40,000
40,200

41,400
41,000

39,700

38,400

37,600

37,100

anelle.

nt s
200
300
300
500
300

64,900 a

head) an

92800) .
rating h

10 ,800
13,400
16,200

AT 2400

FEB

36,900
36,500

35,600
35.200

34,700
34,200

32,900

32,400
32.000
31,500

28,700
26.200

25,900

25,800

25,000

25,000

- 1,500 -12,100

,860 t -18,300
,000 t -26,200

G.H.
,915.8
,916.0
,915.9
,916. 3
,915.9

cre-ft May

d 4,917 0

ead. See

Date
Mar.

May

Mar.
Mar.

8, 1963

ft (top

schemati

25, 26,
4, 1967
19, 1968
21, 1969
19, 1970

(gage h

of spill

g extrem
c diagra

4,790 19,100
4,80(1 22,100
4,820 28,400

, WATER YEAR OCTOBER 1965

MAR APR MAY

24,500 15,500 39,?00
24,000 16,600 40,600

23,000
22,600

22,200
21.600

19.800

19.100
18,400
18,000

14,800
14,200

12.000

12,000

12,500

13,500

12.000

- 10,600

18,700
20,000

21,300
22,600

26,100

26,700
27,200
27,400

31,200
31,500

33,500

34,500

36,500

38.200

15,500

+23,800

44,500
46.800

49,000
51,100

57,200

SB, 300
59,300
60,600

64,200
64,200

64,200

64,200

64,200

64,000

39. POO

+25,900

Co
1966

eight, 4,917.3 ft) ;
ft).

way gates) . Lake i

m of Stanislaus Riv

4,850 38,700
4,880 49,800
4,917.3 64,900

TO SEPTEMBER 1966

JUN JUL

63,800 60,100
63,500 59.800

63,100 59,000
62,600 56,600

62,700 58,100
62,800 57,700

63,700 56,300

63,600 55,600
63,800 55,400
63,700 54,900

62,700 53,600
62,400 53,600

62,000 53,200
61,600 53,000
61,600 52,600

61,400 52,200

60,900 51,200

60,500 50,100

60,500 49,600

- 3,600 -10,900

nd South

ntents
12,000
5,630
9,610
4,950
4,920

s for pow
e Fork St

et)

AUG

49,100
48.600

47.600
47.000

46,500
45,900

44,100

43,600
43,000
42,500

36,900
36,300

36,500
35,900
35,300

34,600

33,400

32,100

31,400

- 18,200

San

G.H.
,764.5
,739. 1
,755.5
,736.0
,735.9

since

er and

, of

SEP

30,700
30,000

29,000
26,000

27,500
27,100

26,500

26,200
26,100
25,900

26,700
26,600

25,700
25,400
25,000

24,400

23,000

21,500

21,500

- 9,900

SAN JOAQUIN RIVER BASIN

11292600 DONNELL LAKE NEAR DARDANELLE, CALIF.--CONTINUED

DAY

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31

MAX
MIN

(+) m

WTR

t
t

OCT

20,800
20.100
19,300

17,900

17,300
16,700
16,600
16,500
15,800

15,300
14,800
14,700
14,700
14,700

14,700

13,600
13,000
12,700

12.100
12.200
12,200
12,300
12,300

12,400
12,500
12,500
12.600
12,600
12,700

20,800
12,100

- 8,800

YR 1967 MAX

NOV DEC JAN

12,700
12,800
12,800

12,900

13,000
13,000
13,100
12,900
12,800

12.900
12.900
13,000
12.700
12,200

11,900

11,900
12,000
12,400

12,600
12,600
12,600
12,700
12,600

12.700
12.900
13.600
14.400
14.500

14,500
11,900

+1,800

64,300

GAGE HEIGHT, IN FEET
CHANGE IN CONTENTS,

14,600 10,100
15,000 10,400
15,800 9,770

16,800 8.700

20,200 8,220
20,900 8,490
20,800 8,720
20.600 8,390
21.200 8.340

21.700 8,120
21.200 7.920
20,400 7.700
19,600 7,950
18.800 8,220

17,900 8,040

16,200 7,600
15.400 7,460
14,500 7.190

13,700 7,580
12,800 7,820
11,900 7,600
12,200 7,460
12,600 7,190

12.900 7,090
12,300 7,140
11,300 7,550
10,300 8,290
9.560 8,440

21.700 10.400
9,560 7,090

- 4,680 -1,070

MIN 5,630 t +26

, AT END OF MONTH.
IN ACRE-FEET.

CONTENTS, IN ACRE-FEET.

DAY

1
2
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17
18
19
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21
22
23
24
25

26
27
28
29
30
31

MAX
MIN

(t)
(t)

WTR

OCT

47,800
47,300
46,900
47,000
47,400

47,800
48,900
49,900

48,500

47,700
46,800
45,900
46,000
46,200

45,200
44,300
43,400
42,400
41,400

41,500
41,600
41,700
41,800
41,900

42,000
42,100
42,200
42,300
42,400
42,500

NOV

42,600
42,700
42,800
42,900
42.600

41,400
41,100
40,300

38,800

38,900
39,000
38,300
37.600
36,800

36,100
35,400
35,500
35,700
35,000

34,300

33.500
32,800
32,900

33,000
32.300
31.800
30,900
30,300

49,900 42,900
41,400 30,300
4,860.6 4,825.6
- 5,900 -12,200

YR 1968 MAX 64,300

DEC JAN

29,500 16,400
29,600 15,600
29,800 14,800
29,100 14,000
28,300 13,200

27,500 13,400
26,800 13,500
25,900 12,700

26,200 11.300

25,400 10,600
24,600 10,300
23,800 10,400
22,900 10,600
22,200 10,500

22,400 10,600
22,500 10,300
21,700 9,900
21,000 9,610
20,200 9,790

19,400 9,970

18,700 9,840
18,800 9,920
19,000 9,900

18,200 9,870
17,500 10,100
16.800 10,200
16,00 10,300
16,20 10,000
16,30 10,000

29,80 16,400
16,00 9,610
4,780.3 4,757.1 4
- 14,000 -6,300 +

MIN 9,610 t +1,

FEB

8.820
8.800
8,750

9.560

9.540
9,720
9,790
9,840
9,950

10,500
11,000
11,100
11,?00
11,300

11.300

11.900
12.300
12,300

12,500
12.800
12.700
12.800
13,200

13,600
13,700
14,000

14,000
8,750

+5,250

780
900

AT 2400

FEB

10,100
10,100

10.200
10.400

10,200
10,300
10.400

10,600

10,800
10,900
11,000
11.200
11,500

11.500
11.900
12,300
12.700
14,300

15,600

17.600
18,700
19,700

20,300
21,200
21,800
22,400

22,400
10,100
,801.1
12,400

300
600

MAR

14,100
14,100
14,100

15,000

15,000
15.000
15,200
15,200
15.000

15,500
16,000
15,500
15,200
14,900

17.300

21,300
22.800
23,300

23,800
24,200
24,500
24,600
24,800

24,800
24,800
25,000
25,100
25,100

25,100
14,100

+11,000

APR

24.800
24,600
24,300

23,800

23,400
22.700
22.400
22.100
21,500

20,700
20,000
19,200
18,500
18,200

17,900

16,400
15,500
14,700

13,900
13,500
13.200
12,300
11.400

10.500
9.640
8,750
8,320
7,870

24,800
7,870

MAY

6,950
6,170
5.830

5,940

6,450
7,480
8,570
9,690
10.300

10,400
10,300
10,300
10.600
11.800

14,100

21,100
24,900
29,700

35,900
42,400
49,800
57,400
60,600

60,800
60,700
60,300
60,100
59,700

60.800
5,630

- 17,130 +15,330

, WATER YEAR OCTOBER

MAR

23,100
23,800

25,000
25,600

26,000
26,500
27,000

28,000

26.300
28,700
29,100
29,300
29,500

30,000
30,400
30,700
31,000
31,300

31,600

32.300
32,700
33,100

33,900
34,600
35,500
36,700
38,000

38,000
23,100
4,848.0
+15,600

APR

39,200
40,100

41,000
41,300

42,100
43,000
43,100

43,600

44,000
44,300
44,600
45,000
45,300

45,400
45,400
45,200
44,900
44,600

44,300

43,600
43,300

44,000
44,600
45,400
46,400

46,400
39,200
4,871.0 4
+8,400 +

1967 TO

MAY

47,400
48,400

50,800
51,700

52,400
52,900
53,700

55,200

55,900
56,500
57,000
57,700
58,100

58,600
59,200
60,000
61,300
63,000

64,200

64,100
64,200

64,200
64.300
64.100
63,900
64,100

64.300
47.400
,915.5 4
17,700

JUN

58, SOP
58,400
58,600

59,000

59,000
59,400
59,700
59,900
59,900

59,900
59,800
59,700
59,800
60.100

60,500

61,600
61.300
61.300

61.600
61,500
61,000
61,200
62,000

62,100
61,600
61,600
61,800
62.100

62,100
58,400

+2,900

SEPTEMBER

JUN

64,100
64,200

64,000
63.900

64,000
63,900
63,700

63,800

64.100
64,100
64.200
64,100
64,200

64,200
64,100
64,100
64,200
64,200

64,200

64,200
64,000

63,300
63,100
62,700
62,400

64,200
62,400
,911.4 4
- 1,700

JHL

62.100
61 ,900
61 ,500

60,800

61,200
61,700
62.100
62,400
62,600

62,600
62,900
63,200
63,800
64,300

64,100

64,100
64,100
64,100

64,000
64,200
64,200
64,200
64,200

64,100
64,100
64,100
64,100
64,100

64,300
60.800

+1,900

1968

JUL

62.200
62.200
62.100
62.500
62.100

62,500
62,900
62,900

62,400

62,400
62,300
62,600
62,900
62.700

62.500
62.200
61,800
61,400
61,600

61,800

60,900
60,600

60,200
60,300
59,900
59.400
58.900

62.900
58,900
,902.9
- 3,500

AUG

64,000
63.900
63,900

63,200

62,800
62.600
62,600
62,600
62.500

62,500
62.400
62.400
6?, 300
62.200

62,200

62.400
62.700
62.700

62.600
62.400
62.300
62.500
63,100

63,600
63,300
62,700
62.100
61.400

64,000
60.700

- 3,300

AUG

58.400
57.900
58,000
58,100
57,800

57,300
56,900
56,400

56,200

56,400
55,800
55,400
55,400
55,000

54,800
55.100
55,400
55,200
55,000

54,800

54,300
54,600

54,100
53,500
53,000
52,400
52,700

58,400
52,400
4,887.5
- 6,200

SEP

59,800
59,400
59,100

5S.OOO

57,100
56,300
55,600
55,500
55,500

54,700
53,800
53.000
52,100
51.400

51,900

52,000
51.500
51,000

50,500
50.200
51,000
51.600
51,400

50,800
50,200
49,600
49.000
48,400

59.800
48.400

- 12,300

SEP

53,000
53,300
52.800
52,800
52.800

52.800
53,700
54,500

54,500

54,500
54,400
54,300
55,000
55,800

56,600
57,000
56,300
55,200
54,300

54,400

53,500
53,100

51,500
50,800
50,800
50.800
50.000

57,000
50,000
4,880.6
- 2,700

t GAGE HEIGHT, IN FEET, AT END OF MONTH, t CHANGE OF CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11292600 DONNELL LAKE NEAR DARDANELLE, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

NOV DEC JAN FEB MAR APR HAY JUN JUL

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It
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16
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21
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26
27
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29
30
31

MAX
MIN

(t)
(t)

49,100
48.400
47,900
46,900
47,000

47,000
46.200
45,300
44,400
43,700

42,900
42.900
43,100
42,500
41,600

40.800
40,000
39,200
39,200
39,300

38,800
38,000
37,200
36,300
35,500

35,500
35,600
34,700
33,900
33,000
32,200

49,100
32,200
4,831.3
- 17,800

31,300
31,400
32,600
32,100
31,400

30,700
30,000
29,300
29,500
29,700

30.000
29,400
28,800
28,100
27,300

27,500
27,700
27,300
26,800
26,200

25,700
25,000
25,300
25,600
25.000

24,300
23,700
23,900
23,100
23,400

32.600
23,100

- 8,800

23,600
23,800
24,000
24,200
24,400

24,500
24.700
24,900
25,100

25,600
25,800
25,600
25.800
26,100

26,300
25,800
25,100
24,200
23,300

22,500
21,700
20,900
20,300
20,500

19,800
19,300
19,500
19,700
19,000
18,300

26,300
18,300

- 5,100

MIN 9,

18,500
17,900
17,500
17,900
18,300

17,800
17,300
16,800
16,200

16,100
16,400
16,100
15,900
15,600

15,300
14,900
15,400
17,700
19,500

21.300
21,800
22.000
22,100
24,400

26,300
26.500
27,300
27,800
27,600
27.200

27.800
14,900

+8,900

610 t +2

26,900
26,400
25,700
25,000
24,300

23,900
23,000
22,200
21,400

19,600
18.700
17,800
16,900
16,000

15,000
14,100
13,100
12,200
11.100

10,100
9,100
8,070
7,040
6,040

5,100
5,010
5,160
_ . --._

26,900
5,010

- 22,040

,000

5,380
5,810
5,810
5,830
5.830

5,850
5,740
6,100
6,480

6,080
5,900
5,900
5,560
5,180

5,120
5,030
5,050
5,100
5,010

4,950
5,430
5.940
5.560
5,270

5,250
5,380
5,580
5,850
6,570
7,680

7,680
4.950

+2,520

8,490
9,080
9,280
9,510
10,000

10,100
9,950
9,790
9,610

9,770
10,500
11,400
12,000
12,300

12,600
13,300
14,400
15,400
17,100

19,700
22,500
25.000
26,400
27,300

27,900
28,700
29,900
31,800
33,600

33,600
8.490

+25,520

36,000
38,200
39,900
41,400
43,600

46,800
50,800
55,700
58,300
58,100

58,100
58,100
58,200
58,100
58,000

58,200
58,400
58,400
58,200
58,200

58,300
SB, 400
58,700
58,700
58,600

58,700
58,900
59,000
59,000
59,000

59,100
36,000

+25,500

59,100
59,500
59,400
59,400
59,500

59,400
59,200
58,900
58,600
58,200

58,100
58,100
58,400
58,600
58,600

59,200
59,200
59,300
60,200
61,300

61,900
63,200
63,200
63,400
63,500

63,100
62,500
62,600
62,600
62,700

63,500
58,100

+3,600

62,800
64,200
64,000
63,900
63,900

63,900
63,900
64,200
64,100
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64,200
64,200
64,500
64,300
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64,100
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64,200

64,100
64,200
64,000
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64,000

63,900
63,900
63,900
63,900
63,900
63,700

64.500
62.800

+1,000

63.400
63,100
62,800
62,600
62,400

62,100
61,900
61,600
61,300
61,000

60,400
60,200
60,000
59,900
59,700

59,600
59,300
59,200
58,900
58,600

58,200
58,000
57,900
57,700
57,300

57,000
56,600
56,200
55,900
55,600
55.400

63,400
55.400

- 8,300

55.000
54,600
54,500
54,600
54,700

54,800
55,200
55,800
55,900
55,900

56,000
56,000
56,000
56,000
56,100

56,200
56,200
56,300
56,200
56,400

56,200
56.000
55,500
54,900
54,400

53,700
53,000
52,400
51,900
51,300

56,400
51,300

- 4,100

WTR YR 1969 MAX 64,500 MIN 4,950 t +1,300

t GAGE HEIGHT, IN FEET, AT END OF MONTH,
t CHANGE IN CONTENTS, IN ACRE-FEET.

CONTENTS, IN ACRE-FEET. AT 2400, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

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30
31

MAX
MIN
I + >

(t)

50,600
50.100
49.700
49,000
48,300

46,«00

45,500
44,800

44,000
43,600
42.700
41,900
41,300

41,500
41,100
40,600
39,900
39,200

38,600
37.800
37,100
36.300
35,600

35,000
34,200
33,400

31,800
31.000

50,600
31.000

- 20,300

30,400
30,000
29,300
28,600
28,200

26,800

25,000

24,300
23,500
22.800
22,000
21,300

20,700
20,000
19,300
18,500
17,700

16,900
17.000
17,200
16,500
15.900

15.300
15,400
14,800

15,100

30,400
14.800

- 15,900

14,400
13,700
13,000
12,300
11,600

11,800

9,720

9,020
8,270
8,420
8,540
7,850

7,040
6,340
5,630
5,120
7,120

8,970
9,0?0
8,800
8,640
10.300

10.200
10.700
11.100

10,100
9.560

14,400
5,120

- 5,540

9,900
9,360
9,610
9,870
9,230

7,970

7.500

7,870
8,240
8,620
9,230
9,720

14,000
16,400
17,700
18,900
20,200

27,500
32.400
34.800
35,900
36,100

36,100
36,000
35,700

34,800
34,200

36,100
7,040

+24,640

33,600
32,900
32,200
31,500
30.700

29,200

26,800

26,000
25,300
24,600
23,800
23,000

22,200
21,400
20,500
19.600
18,700

17.700
16.800
15,900
15,000
14.100

13,200
12,400
11,600

. . . . . .

33,600
11.600

- 22,600

10,900
10,100
9,230
8,370
7,680

6.400

5,880

5.520
5.140
4,990
5,030
4,970

5,120
4,990
5,160
4,920
5,100

5,600
5.580
5,650
5,740
5,900

5,880
5,760
5.780

5.970
6,220

10,900
4,920

- 5,380

6,130
5,900
5,900
7,020
8.290

8,870
9,840
10,800
11,800
12,900

13.900
15.100
16.300
17,000
17,400

17,800
18,100
18,600
19,600
19,900

20,000
20,000
20.100
20,200
20.600

21.700
21,900
22,100

22,500

22,500
5,900

+16,280

22.800
23,700
25.500
27.000
29,100

30,600
31.700
32.300
32,900
33,700

34,100
34.600
35.200
36.500
38.400

41,100
44,700
48,500
51,900
54,700

57,000
59,800
62.900
63,700
63,800

63.700
63,600
63,300

63,800

63,800
22.800

+41,000

63,600
63,700
63,700
63,700
63,700

63,400
63,700
63,900
64,000
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63.500
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64,000
64,200
64,200
64,300
64,200

64,200
64.200
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64.200
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64.200
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64,100

64,300
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+ 600

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63,500
63,100
62.900
62.600
62,500

62,200
62,000
61,700
61,400
61,100

60,900
60,700
60,300
60.000
59.700

59,400
59,000
58,500
58,100
57.600
57,100

64,300
57,100

- 7,000

56,800
56,400
55,900
55,800
55,400

55,000
54,700
54,400
54,200
53,500

53.000
52.800
52,600
52,400
52,300

52,100
51.800
51,600
51,400
51,000

50,800
50,200
49,600
49,100
48,500

48,000
47,400
46,800
46,200
45,600
45,000

56,800
45.000

- 12,100

44.600
44.000
43,500
42,900
42,300

41.800
41.200
40,600
40,000
39,400

38,800
38,900
39,200
38,600
37,800

37,000
36,300
35,500
34,700
33,300

33.100
32.200
31,500
30.700
29,900

29,000
28,200
27,900
28,000
28,100

44,600
27,900

- 16,900

WTR YR 1970 MAX 64,300 MIN 4,920 t -23,200

+ GAGE HEIGHT, IN FEET, AT END DF MONTH,
t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11292700 MIDDLE FORK STANISLAUS RIVER AT HELLS HALF ACRE BRIDGE, NEAR PINECREST, CALIF. (Formerly published as Middle Fork Stanislaus River at Hells Half Acre bridge)

DRAINAGE AREA.--287 sq mi.

PERIOD OF RECORD.--February 1956 to September 1970. Prior to October 1965, published as "at Hells Half ACT bridge."

GAGE.--Water-stage recorder. Datum of 3,418.31 ft above mean sea level (river-profile survey). Prior

AVERAGE DISCHARGE.--14 years, 260 cfs (188,400 acre-ft per year).

1966-

Wtr yr
1966
1967
1968
1969
1970

70 ai

Date
May
May
May
May
Jan.

21,
27,
29,
9,
21,

Maximum

1966
1967
1968
1969
1970

owing table:

Discharge
1,060
4,780
1,600
5,280
5 ,340

G,
6,
10,
7.
10,
10,

,H.
,65
. 38
. 38
. 92
. 84

Minimum daily
Date

July 1, 1966
Nov. 19, 1966
Dec. 14, 1967 11
Nov. 1, 1968 22
Nov. 19, Dec. 1, 1969 13

Period of record: Maximum discharge, 10,200 cfs Dec. 24, 1964 (gage height, 13.64 ft in gage well, 14.2 ft

gage height 12.20 ft; minimum, 3.3 cfs Nov. 9, 10, 1957.
Maximum stage since at least 1905, 23 ft Dec. 23, 1955, fr
26,600 cfs by slope-area measurement).

floodmarks at present site (di

< UCT NOV DEC

I 33 3 37
' 33 8 36
i 33 37
» 33 40
33 31

33 38

J3 36

31 36

) 33 34
» 34 33

34 133 29
34 108 2S

33 34 2fl

33 4b 23
33 4? 31
13 42 35
33 39 33

36 183 4:
33 16 26

JAN F6B MAR APR MAY

28 32 40 358 74

39 16 50 348 47

3') 34 71 320 41

37 33 42 348 52

36 33 80 292 13 37 33 84 278 06

39 33 58 298 88

37 36 41 288 684 J7 37 52 240 748

35 41 50 198 830

33 42 251 213 571

37 325 !8/, 333

28 32 40 184 84

JUN

40

35

31

33

37

33

27
25

22
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21
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19

IB
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14

JUL AUG SEP

12 7 16
16 8 15
17 15
16 15
16 15

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16 16
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16 18
16 IB
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16 17
16 16

IB 8 18
12 4 15

HIN 15 AC-FT 228,000

SAN JOAQUIN RIVER BASIN

11292700 MIDDLE FORK STANISLAUS RIVER AT HELLS HALF ACRE BRIDGE, NEAR PINECREST, CALIF.--CONTINUED

DISCHARGE, IM CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

PAY DC

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1"

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24
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27
2B
29

3j
31

MAX
11M

WTK YR 1967

1ft 48
16 13:

16 '07

13 1,233
19 43P
IB 244
17 184

17 125

18 104

35 9?
27 89

9.7 36
46 88

3s 32

17 69

12 57
B9 59
178 59
65 56
5ft

9.7 43

51
>!

49

45
45

44

46

45

44
48

112

72

114
128

27.

44

79

6?

6"

65

63

82

87

59
52

52
41

16

29

22

121

129
131

117

115
118

131

138

126

1,100
830

438
393

381

303

285

115

265 159
244 174

222 241

218 268

202 387

222 450

200 788

187 1,140

182 1,320

168 2,890

2,610

160 159

1,870
1,400

2,080

1,840

2,880

2,590

3,130

3,750

3,790
3,800

3,130

3,650

3,460

87,100

1,220

3,63!)
3,530

2,553

2,083

1,110

1,130

1,310

1,400

550

476
255

322

237

199
194
187

37,031

187

84
29

36

3*

3C

28

28

31
30

30

30
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30

30

3C

29
36
37

1.008

84
25

32
32

32

32
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30

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30

30

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33
30

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

1 3) 32 21 19 26 170 276 205 755 33 2 39 30 25 18 29 155 226 197 928 33

a 35 15 21 17 37 143 213 131 60 36 1 35 15 20 17 43 128 226 127 53 36
U 34 15 20 23 45 120 250 120 50 36

I 34 16 20 19 40 115 261 115 47 35 2 34 16 19 17 39 112 254 129 220 35 3 34 16 16 17 40 115 242 133 218 35

5 31 20 20 64 36 102 244 147 254 34

6 33 19 19 65 38 111 228 154 306 34 7 13 19 1R 41 01 111 197 150 313 34

J 33 22 18 28 54 99 172 130 78 33

1 32 20 18 28 30 106 164 379 53 33 ? 32 20 13 29 49 112 154 580 76 33 3 32 19 1R 30 92 111 158 250 100 32 4 32 19 2-1 30 51 120 165 184 40 32

6 32 19 24 30 99 134 188 446 36 32 7 32 19 24 28 94 139 195 770 35 31
3 32 20 23 28 85 164 197 1,020 35 31
9 32 20 22 27 74 210 2C7 1,250 34 31
C 32 24 2" 28 243 207 1,010 34 31

AN 33.7 19.9 20.3 '6.6 119 137 207 314 239 33.6

N 30 15 11 17 26 99 154 115 30 31

AL YR 1967 TOTAL 191,613 MEAN 525 MAX 4,510 MIN 11 AC-FT 380,100
TR YR 1963 TOTAL 37,158 MEAN 1C2 MAX 1,250 MIN 11 AC-FT 73,700

AUG

30
30

42
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43

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35

37.7

30

SEP

34
34

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34

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35

35
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35
35

34
34
3+
34
34

35.+

3*

SAN JOAQUIN RIVER BASIN

11292700 MIDDLE FORK STANISLAUS RIVER AT HELLS HALF ACRE BRIDGE, NEAR PINECREST, CALIF.--CONTINUED

DAY

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i:

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MAX
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DAY

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MAX
MIN

CAL YR
WTR YR

QCT

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42
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OCT

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48

86
63
49
45
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86
32

1969 TOTAL
1970 TOTAL

NOV

22

67

33
28
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27

J2
34

33

49
63

41

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172

DISCHARGE ,

36
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226,959
(15,410

DEC

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J»N FE" MAR

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51 ?57 121

68
66
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131

116

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491
471

568

14 116
D3 112
97 111

80 115

7C 14J

50 158

44 177
3fl 192

APR

452

405
393

448

575

805

760
570

MAY JUN

522 4,220

904
2,140

3,390

4,490

3,790

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4,490
4,650

351 575

29 41 131 1C3

IN CUBIC

in
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in 2
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352

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192 1

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104
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81

13

MEAN 622
MEAN 234

FEET PER SECOND, WATER

62 272 178
58 ?6C 175

55 231 177
55 229 183
80 223 175

122 215 161
11B 255 160
141 255 178

262 235 215

,210 223 213
,140 231 215

514 194 187
660 187 182

522
630
483

375
336

172 237
174 221
183 215

208
192

55 166 160

MAX 4,653 MIN 13
MAX 3,470 MIN 13

393
32,250

ftC-FT 76

YEAR OCTO

APR

18?
186
186
186

216
21D
216

228
221
217

186

178
167

180
167

189
167
152
154

144

SC-FT 450
4C-FT 169

JUL

785

ftUG

43

SEP

33

,200
,420

,200

,780

,600

,320

,440

,710
,500

542
800

770

650

476

518

483

815
48D

41
40
40

39

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4,273

522 710
193,300 127,500

,220

BER 1969 TO

MAY

1B9

288

265
248
255

244
228
238

306

339
348

285
250

,670
,500
,360
,280

,53D

189

,200
,400

SEPTEM

JUN

,390

,530

,100
,110
,450

665
387
318

226

84
197

755
922

630
1,060
756
350

1,530
B4

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46

16,988

39
33,700

3ER 197D

JUL

140

130

154
62
42

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AUG

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SAN JOAQUIN RIVER BASIN

11292800 BEARDSLEY LAKE NEAR STRAWBERRY, CALIF.

DRAINAGE AREA.--309 sq mi.

PERIOD OF RECORD

berry.

Joaquin Irrlg

EXTREMES. --Maxim

contained in the following

ts)

urns
ta

Maxi
Wtr yr
1966
1967
1968
1969
1970

P

Date

May 2 0 ,
July 28,
June 29,
May 22,
July 12,

erlod of

30,31,
1967
1968
1969
14-17,

record:
reservoir first fill

REMARKS
gage

Rive

. --Reserv

heights

r to Melo

REVISIONS. --WSP

Ca

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3,145.0

nes Res

diagra

1930:

pacity

3,
3,

June

1970

Maxi
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formed
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ervoir

5,1

mum

(contents
ble:

mum
Cont
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97
97
98
97

contents ,
,000 acre-ft

by
el

(s

rockfill,
invert) an

ee station

in acre-feet, gage height in feet) f

vels by

or the water years 1966-70

San

are

Minimum
ents
,800 3,
,800 3,
,800 3,
,300 3,
,900 3,

98,700 ac

G.H. Date

397.0 Jan. 27, 1966
397.0 Dec. 4, 1966
397.0 Feb. 18, 19, 19
397.7 Jan. 12, 1969
397.1 Jan. 4, 1970

re-ft June 27, 1957 (gage h
Jan. 27, 28, 1962 (gage height, 3,261

earth-cor
d 3,398.0

11299000)

Drainage area.

table,

261
290

CONTENTS,

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MAX
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CAL YR

OCT

86,600
85,600
84,600
83,700
82,600

81,400
80,500
79,300
78,400
77,200

77,100
77,100
77,200
77,200
77,100

77,100
77,100
77,100
77,000
77,000

77,000
77,000
76,900
76,900
76,900

77,100
77,200
77,400
77,100
76,300
75,700

86,600
75,700
3,364.8
- 11,800

1965 MAX

NOV

74,900
74,200
73,600
72.700
72,100

71,400
70,700
70.100
69,400
68,800

66.200

67,500
67,000
66,600
66,100

65,600
65,000
64,800
64,200
63,700

63,200
62,600
62,500
62,300
61,900

61,500
60.800
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3,338.3
- 16,400

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100
700

200
800
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200
BOO

600
800
2.7
500

44

ter years

900
100

ACRE-FEET

JAN

44,400
44,000
43,000
42,000
41,000

40,000
39,100
38,100
37,200
36,300

35,400
34,500
33.600
32.800
31.800

31,000
30,400
29,600
29,000
28,700

28,400
27,800
27,500
27,300
26,900

26,700
26,600
26,800
26.900
27,000
27,400

44,400
26,600
3,277.9
- 17,400

,800 t -

1966-70 (g

3,
3,

. AT 2400,

FEB

27,300
27,500
27,700
28,000
28,200

26,600
28,700
29,000
29,300
29,500

29,700
29,900
30,200
30,400
30,500

30,700
31,000
31,300
31,400
31,700

32,100
32,200
32,500
32.800
33,000

33,000
33,100
33,400
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33,400
27,300
3,290.6
+6,000

33,700

e dam completed in 1957. C
ft (top of spillway gates).
asses through powerplant an
Records, including extre

age height, in feet, and co

320 48,800
350 66,400

WATER YEAR OCTOBER 1965 TO

MAR APR MAY

33,700 55,000 83,300
34,000 56,200 84,000
34.300 57,500 84,600
34,600 58,600 85,300
34,900 59,800 85,900

35,100 61,000 86.600
35,400 62,100 87,100
35,700 63,300 87,700
36,200 64,400 88,300
36.700 65,700 88,900

37,500 66,800 89,600
38,200 67,600 89,900
39.000 68,900 90,400
39,900 69,800 90,700
40,600 70,800 91,100

41,300 71,900 91,500
42,000 72,900 92.800
42,700 73,900 94,400
43,500 74.600 96,200
44,000 75,600 97,800

44,600 76,300 97,700
45,400 77,100 97,500
46,100 77,700 97,700
46.900 78,500 97,700
47,700 79,300 97,700

48,600 80,000 97,700
49,600 80,800 97.600
50,600 81,500 97,700
51.600 62,100 97,700
52,800 82,700 97,600
53,900 97.ROO

53,900 82,700 97.800
33,700 55,000 83,300
3,329.0 3,375.3 3,397.0
+20,500 +28,800 +15,100

68

eight,
. 3 ft).

apacity
No de

mes, re

ntents,

3,370
3,398

Cont
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32
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3,398.2 ft);

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ad storage.

present tota

in acre-fee

79,200
98,500

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,600
,600
,600
,700
,100

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e-ft be
Reserv

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G.H.
3,276.2
3,312.3
3,276.1
3,289.0
3,327.7

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aus
nts .

SEPTEMBER 1966

JUN

97,700
97,700
97,700
97,700
97,800

97,700
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97,400
97,000
96,700

96,700
96,700
96,700
96,900
96,900

97,000
97,200
97,400
97,500
97,500

97,400
97,400
97,100
96,900
96,600

96,400
96,200
95,900
95,700
95,400

97,800
95,400
3,393.7
- 2,400

JUL

95,200
95,000
94,900
9 ,700
9 ,400

9 ,300
9 ,100
9 ,900
93.700
93,500

93.300
93,100
92,900
92,700
92,200

92,000
91,800
91,600
91,500
91,300

91,100
90,900
90,700
90,500
90,400

90,200
90,100
89,900
89,700
89.700
89,500

95,200
89,500
3,385.3 3
- 5,900

AUG

89,400
89,100
89,000
88,900
88,700

86,600
88,400
88,300
86,100
88,000

87,800
87,600
87,500
87,300
87,200

87,000
86,900
86,800
86,600
86,400

86,200
86,200
85,900
85,700
85,500

85,400
85,200
85,100
85,000
84,900
84,800

89,400
84,600
,378.4
- 4,700

SEP

84,500
84,400
84,200
84,100
84,000

83,800
83,700
83,500
83,100
82,900

62,800
62,400
62,200
81,900
61,500

81,200
80,200
79,300
79,000
78,700

76,600
78,400
78,200
78,100
77,900

77,800
77,600
77.400
77,200
77,100

84,500
77,100
3,366.8
- 7,700

t GAGE HEIGHT, IN FEET, AT END OF MONTH, t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11292800 BEARDSLEY LAKE NEAR STRAWBERRY, CALIF.--CONTINUED

CONTENTSt IN ACRE-FEET, AT 2*00, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR MAY JUN JUL

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MAX

MIN (t)
it)

WTR YR

76,900
76,900
77,500
78,000
76.400

78,900
79,400
79,400
79,200
79,800

80, ZOO
60,300
BO, <>00
80,000
79, ZOO

78.200
77,800
77,800
78,000
78,300

78,500
77,600
76,600
75,600
74,600

73,600
7Z.600

71(600
70.500
69,500
68,500

80,400
68,500
3,353.4
- 8,600

1967 MAX

67.400
66.400
65.800
64.600
63.700

6Z.700
61,600
60,600
59,800
58,900

57.800
56.600
55.500
54.700
54,300

53,900
53.300
52.900
5Z.700
51,700

51.000
50,500
49.700

".8,800
48.100

47.200
46.400
46.000
" 5.900
45.600

67. <>00
45,600
3,314.2
- 22,900

97,800
97,800

45,100
iiS.ZOO
45.000
44,600
45,800

".8,700
49,900
51,000
52.000
52,100

SZ.300
53, ZOO
5<>,<>00
55,700
56,900

57,900
58,300
58,600
59,200
59,700

60,200
60,700
61,100
60,400
59,600

58,800
56,700
59,100
59,600
59.600
59, ZOO

61,100
4<>,600
3,338.1
+13,600

MIN 26,
MIN 44,

58.500
57.800
57,900
57,900
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56,800
56,400

56, ZOO
56,100
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55,600
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55, tOO
54,500
54,800
54,900
55,100

55, ZOO
55, tOO
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55,800
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St. 500
3,334.6
- 2,100

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57(900
58(200
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57.400
57,500
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57. tOO
56.BOO
56.800

56.600
56.200
56,100
55.900
55.400

54,700
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54,000

58,300
5t,000
3,329.2
- 3,100

14,400
13,200

53,800
53,600
53,500
52,900
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51, tOO
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57,500
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59,200
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61,300
62,500
63,400

64,300
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66.300
67, tOO
68,200
68,500

68.500
51.000
3,353.5
+14,500

68.900
69.200
69,500
69,900
70, ZOO

70,600
71,300
71,500
71,700
72.500

73.200
73. BOO

7 ".,500
75.200
75.600

75,700
76,300
77,100
77,700
76.400

79,000
79,100
79, ZOO
79(600
80(300

80,900
81,600
82, ZOO
82, ZOO
82,300

82,300
68.900
3,374.7
+13,800

82.800
83. tOO
83.600
8t,000
83,900

83,800
83,900
85,000
86,700
88,400

89,700
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80, ZOO
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79, tOO
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80, tOO
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86,300
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91,800
93,000
93,700
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94,500
79,200
3,392.4
+14,600

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9t,900
95,700
96, tOO
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89,700
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89,500
3,386.4
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t GAGE HEIGHT, IN FEET, AT END OF MONTH. t CHANGE IN CONTENTS, IN ACRE-FEET.

CONTENTS, IN ACRE-FEET, AT 2tOO, MATER YEAR OCTOBER 1967 TO SEPTEMBER 1966

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90,500
90,600
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90,200

90,000
86,600
87,700
87,500
87,300

87,100
86,900
86,700
85,500
8t,200

et.ooo
83,800
63,600
83, tOO
83,?00

62,000
60,800
79,600
78,300
77,100

76,000
74,600
73,700
72,500
71,300
70,100

90,600
70,100
3,356.0
- 20,200

69,000
67,800
66,600
65,500
64,600

64,800
6t,200
63,900
63,500
63,200

60,900
60,800
60,700
60,800

60,600
60,700
59,700
58,800
58,700

56,600
58,500
57,800
57.600
56.600

55.500
55.300
55.200
55.100
55,100

69,000
55,100
3,331.2
- 15,000

55,100
St. 300
53,300
53.300
53,400

53.500
53.500
53.600
52.600
51.800

51.900
51,700
51,600
51,600

50,800
50,300
49,900
".9,900
".9,900

49,900
49,900
46,900
48,100
47,000

47,000
".6,900
46,900
46,900
45,900
45,000

55,100
45,000
3,313.0
- 10,000

".3,900
".4,000
44,300
44,200
44,100

43,100
".2.200
42,100
".2,100
42,600

41,800
tO, 800
39,700
39,700

38,900
38,400
38,000
37,700
36,700

35,800
35,200
34,500
33,600
33,400

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32,700
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31,600
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44,300
31,400
3,286.4
- 13,600

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31,100
30,800
30,300
29,800
29,600

29,200
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28,500
26.200
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30,300
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30,400
29,800
3,284.4
+400

31.200
31.500
31.800
32.400
33,200

33,200
33,300
34,100
34,800
36,200

39.100
tO, 300
41,700
43,200

44,400
45,700
46,800
48,000
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50,300
51,500
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60,700
31,200
3,340.6
+30,300

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77,200
78,700

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64,600
67.400
89,900
91,700

91,700
61,300
3,388.4
+31,000

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97.800
93,700
3,396.9
+6,000

97,400
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96,700
95,900
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95,100
94,200
93,800
93,600
93.300

92.300
91.300
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89,700

89,400
89,000
88,600
68,200
87,200

86.300
66.200
85.700
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84,600

et.ooo
83,100
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81,800
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81.200

97,400
81.200
3,373.1
- 16,500

80,900
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79.800
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77,200
76,300

75,200
74,800
74,400
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74,100
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72.100
71,800
71.600

71,300
71,100
70,700
69,800
68,900

66,500
68,300
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6R.200
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67,100

80,900
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3,351.1
- 14,100

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65,200
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66,100
55,100
3,331.1
- 12,000

11292800 BEWDSLEY LAKE NEAR STRAWBERRY, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 196R TO SEPTEMBER 1969

1 55,100
2 54,900
3 54,600
4 54,700
5 53,700

6 52,700
7 52,600
8 52,500
9 52,400
10 52,200

11 52,100
12 51,400
13 50.600
14 50,5>00
15 50,500

16 50.500
17 50,500
18 50,500
19 49,600
20 46,600

21 48,800
22 49,800
23 50,600
24 51,500
25 52,400

26 52,400
27 52,400
28 53,200
29 54,100
30 55,100
31 55,900

MAX 55,900
MIN 48,600
(t) 3,332.6
(t) +800

WTR YR 1969 MAX

56,700
56,900
57,400
58.200
58.500

58,700
58.700
58,700
57,800
56,800

56,100
56,200
56,200
56,300
56,500

55,600
54,900
55,000
55.200
55,400

55,500
55,500
54,700
53,900
54,000

54.100
54,000
53,300
53,300
52,500

58,700
52.500
3,326.6
- 3,400

98,300

+ GAGE HEIGHT, IN FEET
t CHANGE IN CONTENTS,

51,700
50.700
49,800
48,900
48,000

47,000
46.000
45,100
44.200
43.400

42.500
41.600
41.200
40.200
39,600

38.700
38,300
38,400
38,500
38,800

38,800
38,900
39,100
39,200
38,500

38,500
38,500
37,700
36,900
36,900
36,900

51.700
36,900
3,297.5
+15,600

MIN 26
MIN 32

35.900
36,000
35.700
34,800
33,900

34,000
34,000
34,100
34,400
34,400

33,500
32,700
33,000
34,000
34,300

34,300
34,500
34,000
36,700
40.600

46.100
48,400
49,800
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63,900
32,700
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74.800
75.400
76.000
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77,700
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78,200
64.500
3,366.7
+13,100

- 8,100
27,900

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+9,200

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89,700
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96,700
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JUN

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94,800
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94(700

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3,392.1
- 3,400

SEP

94,200
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93,800
93,500
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92.800
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91,300
91,000

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88,900
88,600
88,000
87,700
87,200

86,800
86,400
85,900
85,500
85,000

84,700
84,400
83,800
83,400
83,000

83,000
3,375.7
- 11,300

, AT END OF MONTH.
IN ACRE-FEET.

CONTENTS, IN

OAY OCT

1 83,000
2 82,900
3 82,500
4 82,100
5 81,600

6 81,200
7 80,900
8 80.500
9 80,000
10 79,600

11 79,200
12 78,400
13 78,200
14 77.900
IS 77,700

16 77,600
17 77,400
18 77,100
19 76,700
20 76,500

21 76,100
22 75,800
23 75,500
24 75,300
25 75,000

26 74,500
27 74,300
28 74,000
29 73,700
30 73,400
31 73,100

MAX 83,000
MIN 73,100
(t) 3,360.7
It) -9,900

CAL YR 1969 MAX
WTR YR 1970 MAX

NOV

72.800
72,300
72,100
71,700
71,200

70,900
70,700
70.400
70,100
69,500

69,200
68,900
68,700
68,400
68,000

67,700
67,500
67,100
66.900
66.700

66.500
65.400
64,200
63,800
63,400

63,000
61.900
61,400
60.200
59.100

72,800
59,100
3,338.0
- 14,000

98,300
97,900

DEC

58,800
58,600
58,500
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54,700
54,900

55,300
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54,000
54,200
54,300
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58,800
54,000
3,330.1
- 4,600

MIN 32
MIN 53

ACRE-FEET

JAN

54,000
54,100
53,600
53,100
53,300

53,600
54.000
54,300
54,800
54,400

54,000
53,600
53,300
53,600
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58,500
60,900
62.000
62,600
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, AT 2400

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YEAR OCTOBER 1969 TO

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- 6,600

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92,000
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- 3,400

t GAGE HEIGHT, IN FEET, AT END OF MONTH, t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11292900 MIDDLE FORK STANISLAUS RIVER BELOW BEARDSLEY DAM, CALIF.

LOCATION.--Lat

DRAINAGE AREA.--316 sq mi.

PERIOD OF RECORD.--December 1956 to Septembe

AVERAGE DISCHARGE.--13

EXTREMES.--Ma
1966-70 ar

ars (1957-70), 627 cfs (454,300 acre-ft per year).

s (discharge in cubi feet per second, gage height following table:

Wtr y
1966
1967
1968
1969
1970

Date
May 21, 1966
May 28, 1967
June 4, 1968
May 24, 1969
June 1, 1970

Period of record: Maxin
3.0 cfs Oct. 10, 11, 1958.

Date
Oct. 28
Oct. 21
Apr. 2
Nov. 3, 1968
Jan. 18, 1970

1965
1966
1968

fs May 24, 1969 (gage height, 11.07

REMARKS.--Re

15,600 ac 2-ft), Donnell Lake since April 1957 (see station 11292600), and by Beardsley Lake

- - WSP 1930: Drainage area.

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

OCT MOV DEC JAN FSB MAR APR MAY JUN JUL

1
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MEAN
MAX
MIN

678
678
678

584

58

58

58
58

58
58

58
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58
58

131

678
53

564 588 564 265 281

434 638 592 465 44j 468

440 616 588 462 465 468

SAN JOAQUIN RIVER BASIN

11292900 MIDDLE FORK STANISLAUS RIVER BELOW BEARDSLEY DAM, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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MEAN

IN

DAY

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M IN

131 548 110 430 238 462 656 706 2,830

130 552 183 312 427 4*8 660 720 3,150

532 *44 482 275 458 38B 675 3,230 3,980

5 3fc 454 J57 580 3,370

DISCHARGE, IN CUBIC FEET PER SFCOND, WATER YEAR OCTOBER 1967 TO SEPTEMBE

fed: fet.4 462 493 284 200 114 512 479

*05 feOC 458 322 278 198 2C2 512 811

6 a --- - 462 231 20u 479

,160 67* 576

,120 688 580
,260 688 580

,450 688 580

,800 556 58*

,750 560 588

,620 520 588

,580 465 588

1,190 *51 592

91* 444 596
1,330 451 532

948 458 600
91* 45* 600

876 451 600
832 458

R 1968

JUL AUG SEP

493 520 512
468 516 512
448 504 512

448 508 482
451 508 482

451 504 *79

479 49D 482
482 319 482

482 512 482
476 524 *82

482 520 479

458 500 479

479 512 *79

512 512

4*8 319 476

SAN JOAQUIN RIVER BASIN

11292900 MIDDLE FORK STANISLAUS RIVER BELOW BEARDSLEY DAM, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 196B TO SEPTEMBER 1969

OCT NOV DEC JAN FEB MAR APR MAY JUN JUL

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MEAN

MIN

476 45B 490 458 652 634

50 50} 638 6B3

688 1,530 5,250

,440 4,650 1,910

,320 2,913 2,420

5,220

876

. 560

,48D

,43D

,633

,340
,100

,130

,180

678

652

629
592

580

576

50B

486
476

468
468

468

46B

5B8
588

482

472

588
592

592
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6DD
600

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612
612

612
616
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616
620

623

634

647
652

DISCHARGE, IN CUBIC FEET PER SECOND, W4TEK YEAR OCTOBER 1969 TO SEPTEMBER 1973

OCT NOV DEC JAN FCR M«R APR MAY JUN JUL AUG

810 479

530
500
500

642 62>.< 465 388 98

458 L.14J

TUTAL

MEAN
MAX
MIN
AC-FT

WTR YR L97C TOTAL 258,347

497 50C

628 49C 481

496 479 468

,593 33,11C 28,6?0

7C8 MAX 2.7RJ AC-FT 512,400

11293000 MIDDLE FORK STANISLAUS RIVER AT SAND BAR FLAT, NEAR AVERY, CALIF.

8'28", in SE 1, sec.19, T.4 N., R.17 E., Tuolumne County, Stanislaus National

DRAINAGE AREA.--325 sq

AVERAGE DISCHARGE.--61 yea

EXTREMES.--Maximum dischar
63 cfs Oct. 28.

1905-57 [prior to regulation by Donnell and Beardsley Lakes): Maximum discharge, 26,000 cfs Dec. 23, 1955 Cgage height, 20.2 ft, from floodmarks), from rating curve extended above 6,000 cfs on basis of computation of peak flow over dam; minimum daily, 30 cfs Nov. 28, 1919, Aug. 24, 1924.
1957-66- Maximum discharge, 6,030 cfs May 23, 1958 tgage height, 11.60 ft); minimum daily, 12 cfs Oct. 11, 1958.

Water di
Gap powe

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BVISIONS. -

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verted by Philade

ort .

. - -Gage-height re

- WSP 1930; Drain

DISCHARGE,

7:6 590

7)2 674
732 67;

62? 6(2

68 66?

68 666
68 658

6B 658

68 608
67 7'J2

139 646
466 643

706 702
63 590

tion 11292600), and by Beardsley Lake since January 1957 Csee station 11292800) Iphia Canal (see station 11297000) from South Fork Stanislaus River through Spr

age area.

IN CUBIC FEET RtK SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

64J 584 33C 318 511 514 734 526 505
636 577 135 325 511 514 646 523 490

636 580 33E1 330 508 520 650 520 490

618 5?3 322 5C2 505 678 587 511 487

hi? 508 315 508 50? 666 615 496 517

601 508 318 511 496 686 608 490 526

622 520 320 520 505 ,350 538 484 520

598 350 511 553 ,050 534 484 508

ing

517
517
517
511

517
520

520
520

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526

511

YR 1966 TOTAL 192,096 MEAN 52B MAX 1,700 M1N 63 AC-FT 382,200

SAN JOAQUIN RIVER BASIN

11293500 NORTH FORK STANISLAUS RIVER BELOW SILVER CREEK, CALIF.

DRAINAGE AREA.--27.8 sq mi.

PERIOD OF RECORD.--October 1952 to Septembe

GAGE.--W

AVERAGE

EXTREMES

Date
Apr. 7,
Apr. 25,

Nov. 28,
Dec. 6,
Mar. 16,
May 21,
June 17,

Apr. 10,

Wtr yr
1966
1967
1968

DISCHARGE. --18 years, 76 ° -

. --Maximums and minimums

An

1966
1966

1966
1966
1967
1967
1967

1968

Date
Sept.
Oct.
Aug.

nual max

Time
2000
2330

1530
1200
1600
1900
2000

1800

imum discha

Disch. G
*374 6
360 6

304 6
432 6
568 7
*896 8
812 7

318 6

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. H.
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May
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Dec.

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Time
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2300
2030
2000
2400

1300

scha

Discharge
30, 1966
22, Nov.
17, 1968

1, 2, 1966

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s above ba

Disch.
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575
1,230
*1 ,280
715
640

755

rge, water

Wtr yr
1969
1970

sea le

d, gage

se (300

G.H.
6.22

6.93
6 .69
8.00
8.08
6.97
6.82

7.05

years

Date
Oct. 16
Dec. 5

vel lnver-p

height, in

cfs) , water

Date
Jan. 16,
Jan. 21,
Apr. 9,
May 5,
Hay 17,
June 9

June n',

1966-70

, 1968
- 8, 1969

rotil

feet)

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1970

s 1966-

Time
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0430
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Disch.
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890
620
615

Dis

G.H.
6.25
8.62
6.02
6.72
7.32
6.78
6.77

charge
8.2
1.9

Period of record: Maximum discharge,
from rating curve extended above 500 cfs Flood of Nov. 20, 1950, reached a sta charge, 2,790 cfs).

REMARKS.--Flow regulated by Lake Alpine and

2,780 cfs Dec. 24, 1964 (gage height, 11.16 ft, from floodmarks), ; minimum daily, 0.3 cfs Oct. 10, 1958.
ge of 11.17 ft, from Pacific Gas S Electric Co. recorder chart (di>

nd lltica Reservoirs (combined capacity, 9,600 s-ft). No

1966-69 furnished by Pacifi
ds for the water year 1970
y, in connection

REVISIONS.--WSP 1930: 1954(M), drainage area.

niSCHARr-.E, IN CUBIC FEET PER SECOND, WATER YFAR OCTOBER 1965 TO SEPTEMBER L966

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134
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180
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5.1
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4.5
4.3
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4.1
4.1
4.0
4.1
3.9

589 . 5
19.7
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3.9

SAN JOAQUIN RIVER BASIN

11293500 NORTH FORK STANISLAUS RIVER BELOW SILVER CREEK, CALIF.--CONTINUED

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CUBIC FEET

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PER SFCDND

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YEAR OCTOBER

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12J
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223
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264

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294
101

73

91

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310

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497
502

544

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180
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198
205
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137
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173
163

112

196
312
103

JUN

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383

348
420

473

43*
420
451
484

526
650
535

466

471
4*2
439

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166
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TO SEPTEME

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23.7
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6.1
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NOTE. NO GAGE-HEIGHT RECORD AUG. 29 TO SEPT. 30.

SAN JOAQUIN RIVER BASIN

11293500 NORTH FORK STANISLAUS RIVER BELOW SILVER CREEK, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

1 4
2 4
3 4
4 4
5 4

6 4
7 4
8 4
9 4
1J 4

11 4
12 5
13 8
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15 3

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17 3
18 8
19 8
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21 8
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NOTE. NO GAGE-HEIGHT RECO

PISCHAKGr,

AY OCT NOV

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4 4 la
5 3 IB

6 2 2.i
7 221
fl 1 24
9 1 26
1 - 1 C 2H

1 9 31
2 9 IL
3 5 25
4 219
5 1 16

6 624
7 615
0 9H
9 7 9.7
C' 5 9.6 2

1 4 y.l 2
2 3 9.2
3 ' 8.8

5 I U.2

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7 1 «."
H : 7.9
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TO SEPTE

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SEP

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SEP

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11294000 HIGHLAND CREEK BELOW SPICER MEADOWS RESERVOIR, CALIF.

LOCATION (REVISED) .--Lat 38°23'34", long 119°59'50", in SW'-s sec. 3, T.6 N., R.18 E., Tuolumne County, Stanislaus

mouth, and 7 miles

DRAINAGE AREA. --42 .4

PERIOD OF RECORD. --Oc

GAGE. --Water-stage re

AVERAGE DISCHARGE.--!

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June

July

Feb.

Wtr y
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25, 1966

6, 1966
16, 1967
8, 1967
22, 1967
17, 1967
15, 1967

20, 1968

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Oct.
Nov.
Jan .

Period

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Time
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2200

1100
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2130
2000
2130
1930

0700

17, 1965
18, 1966
11, 1968

east of Big Meadow,

tober 1952 to September

8 years,

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Disch. *665
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*2,200
745
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614

578

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1970.

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charge (*) and

G.H. Date
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5.25 Mav
Mav
6.93
7.52 Jan.
5.53 Jan.
7.45 Mar.

6.88 Apr.
5.21 May
Mav
5.12 June

Annual minimu

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Time
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0500
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2100
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ear).

per second, gage

above base (500

Disch. G.H.
602 5.18
618 5.29
510 5.02

686 5.39
702 5.43
502 4.93
965 5.97
775 5.59

*1,880 7.20
980 6.00

ge, water years

Wtr yr Date
1969 Oct. 1
1970 Dec. 11

31, 1963 (gage h

height, in feet) .

cfs) , water years 1966

Date
Dec. 21, 1969
Dec. 25, 1969
Jan. 16, 1970
Jan. 21, 1970
Mav 5, 1970
May 17, 1970
June 9, 1970
June 27, 1970

1966-70

, 11-14, 1968
, 12, 1969

eight, 11.88 ft)

Time
1630
1230
1430
2000
2130
2030
0300
0700

r

*vly i

67

Disch.
1,080
562
1,360
*2,750
714
1,230
740
522

Di

rating c

G.H.
6.16
5.08
6.60
8.04
5.46
6.42
5.52
4.98

scharge
1.8
1.2

urve

Flood of Nov. '20, 1950, reached a' stage of 11.50 ft, from Pacific Gas 5 Electric Co. recorder chart (dis-cfs).

REMARKS.--Flow regulated by Spicer Meadows Reservoir 500 ft upstr
diagram of Stanislaus River basin elsewhere in this report.

(capacity, 4,060 acre-ft). See schemati

REVISIONS (WATER YEARS).--WSP 1930: 1953.

DI5CHAKGF, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY ncT NOV OEC JAN FFfl MAR APR MAY JUN JUL

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19 2"

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MEAN
MAX
MINI

WTR Y«

21 2.
21 1.
21 2.
21 3.
21 3.

21 3.
20 3.
19 3.
19 3.
18 3.

18 3.
18 3.
17 3.
17 4.
17 4.

8.6 5.
. 90 5.
9.5 6.
18 b.
17 6.

17 6.
17 6.
16 6.
16 6.
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13 6.
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7.7 6.
3.3 7.
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22 22

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20 33

38
<.3

15 1

MAX 493 M1N

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482
479
476
'.4'.
426

332
295
261
280
3*2

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0 <t50
0 423
4 300

5 261
2 285
0 352
5 444

9 472
5 432
5 405

7 411
2

9 241

. 90 AC-FT
. 90 AC-FT

444
468
493
489

468
456
441
423
472

417
358
358
358
330

328
320
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310
269
249
231

219
207
183

139
120

120

109,500
63,320

93
8'

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3C
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515. 6

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3.2
1,020

NOTE. NO GAGE-HEIGHT RECORD JAN. 21 TO MAR. 24.

SAN JOAQUIN RIVER BASIN

11294000 HIGHLAND CREEK BELOW SPICER MEADOWS RESERVOIR, CALIF.--CONTINUED

2 29
3 3?

5 27

7 2~
8 2;
9 ??
1 2't

12
13

15

16
17

19

21 1
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23
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27
2«

293-;
31 1

ME1N 12

MIN ?

CAL YR 1966

2 4
3 4
4 5
5 5

7 5

9 5
K 5

11 4
12 *
13 4
14 4
15 4

16 9
17 12
18 12

23 11

21 6
!2 3
23 3
24 3
25 3

26 3
27 3
28 3

3." 3

NE»N 5.
MAX
HIM 3

WTR YR 1968

7.8 8? 35
4.6 232 35

3.4 191 36

3.4 303 31
3.3 156 3:
1." 119 35
2.9 1 C 3 3 :

. 9 2.7 82 32
. 9 2.6 76 34

. 1 2.9 69 48
. 1 2.8 67 48

. 9 2.6 69 4.

Z.i 61 52

. 0 2.8 52 44
. 6 2.8 5^ 53
. 9 2.8 47 45

. 5 3.1 46 76
. 1 57 44 106
. 6 127 42 126
33 m

. 5 9.4'J 112 48.3

. 9 2.5 3« 3j

2.9 1.6 .2
2.9 1.5 .1
2.9 1 . > .1
2 . a 1.5 . 0

2.8 1.4 .95

2.: 1.3 .95
1.9 1.3 .95

1.9 1.4 .90
1.9 1.4 .95
2.0 1.3 .95
2.0 1.2 .0
2.0 1.1 .2

0 2.0 1.1 .9
2.0 1.0 .6
2.0 1.0 .5

2.0 1.1 .5

2 2.0 1.1 .6
1 1.5 1.2 .6
1 1.2 1.2 .7
1 1.1 1.3 .7
1 1.0 1.5 .8

2 .94 1.6 .8
2 1.5 1.8 .7
2 1.8 1.9 .6

2 1.7 1.7 .6

)1 2.03 1.38 1.38
2 2.9 1.9 2.2
C .94 1." .90

TOTAL 31,495.99 MHAN 86.1

R5 90

68 68

75 77

81 1C6
52 102

91 81
98 72

B6 85

76 1,300
76 876

77 286

73 228
72 191
69 171

139

77.0 208

64 68

1.6 50
1.7 58
1.7 66
1.7 69

1.6 24

1.7 03
1.8 93

1.9 85
1.8 82
2.C 88
4.0 73
14 69

25 76
65 71
75 66

514 61

333 72
226 81
336 80
274 95
213 110

2J4 10'.
200 111
196 164

2 9 8

103 122
514 298
1.5 61

MAX 514 MIN

113

94

1C3
106

85
97

98

80
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66
66
62

86.5

61

204
166
180
208

187

270
342

387
366
342
357
372

321
246
204

196

191
179
198
234
274

345
369
390

462

278
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166

B8
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315

1R7
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232
260

SCO
357
399

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349
478
232

3 SEPTEM

324
372

678
755

810

735
706

820

915
1,170

970

855
860
905

875

840

781

324

298
286
264
214

137

119
123

130
128
118
110
110

106
102
89

71

61
57
52
44
40

36
32
39

36

116
298
32

740
686

458
417
366
324

330
29C

329

315
263

187

120
108
98

86

72

61

293

61

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29.0
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3C.4

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17.0
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54

48
47
44

42

9.5
7.0
4.6

47.0

4.6

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10.8
28
1.4

SAN JOAQUIN RIVER BASIN

11294000 HIGHLAND CREEK BELOW SPICER MEADOWS RESERVOIR, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FFET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY O

1 I
2 2
3 2
4 2
5 ?

6 2
7 2
8 2
9 2

i; 2

11 i
12 1
13 1
14 1
15 3C

16 13
17 5
18 6
19 5
2' 4

21 4
2? 5
23 5
24 5
25 5

26 5
27 5
28 5
29 3
3: 6
31 6

. 8 6.1 52 51

. 0 7. 45 62
. 0 5. 43 69

. 0 5. 41 80

. 0 6. 4 1; 64
. 0 6. 49 61

. 8 6. 48 84
. 8 t. 5C 86

6. 48 69

. 1 6. 37 391
. 8 7. 41 598

. 3 38 48 213
. 3 7? 6C 146
. 3 71 74 131
. 3 69 7? 330

. 3 55 68 517
. 2 56 64 238

. 4 46 82

"AX 30 72 74 598 MIN 1.8 5.7 33 51

NOTE. NO

CAY ')

r

11
12
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?7

31

TOTAL '
"E»h 29

GAGE-HEIGHT RECORD JAN. 29 TO MAR.

DISCHAKG6, IN CUBIC FFfcT PER

T NDV 1EC JAN '

2 66 6.^ 63
2 64 2.9 53
2 64 ?.4 48
2 62 1.8 46
2 61 1.6 42

2 (,; 1.6 41

7 57 1.5 63
~ 56 1.4 34

55 1.2 62

4 26 1.3 59

63 52 184 920

70 47 187 1,140
7D 46 200 1,120

7C 42 342 1,180

57 50 726 1,310
57 80 622 1,360

63 106 315 1,200

432 1,140

17.

ECOND, WATER YEAR OCTOBER 1969 TO

T'7 98 182 284
11 82 2C2 378
16 78 218 441

10 77 ?98 462

21 79 306 378

21 68 333 321

31 99 280 363

8 14 1.3 62 IK 153 ?10 634

? 14 ?.' 756 i;l 153 136 765

9 U 3.7 1<>3
} 14 3.') ?5_

') 14 ?9? 1,57]

5 14 134 55«
4 14 12S 417

77 133 6? 785
8? 114 76 654
76 111 54 538

76 128 40 530

7t 198 16 594
H2 ?4J 24 562

' 14 1 "i 21,, lir 224 62 530
6 14 7" 16_ 116 216 36 474

1 14 T. 13-)

6 32. < 57.4 257

"IN 12 U 1. 41

206 157 47J

"5 140 238 494

76 6H 116 ?T4

JUN

1,010

865

578
470

652
682

478
464

402

1,110

SEPTEME

466
450
444

396

286

216

176

188

226
244
240

228

196
182
158

189
390
208
153
120

288
602
120

JUL

274

226

216
222

200
183

127

114
110
113

83

58

52
44

165
318

ER 197B

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80

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U

36.8
103
5.2

AUG

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29

30
3C

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B.2
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6.9
6.9
5.2

4.4
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21.?
39
4.4

AUG

5.3
5.3
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5.1
5.1
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2.4
2.4
2.8
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2.9
2.9
2.9
3.4

3.9
3.9
4.1
4.C
3.R

4.06
7.7
2.4

(AL YK 1^69 TnraL -?1,37 .4 M C AN ? ? 3 PAX I,3(,' WIN 1.2 AC-FT 161, 4Pu
«TR YK 1=)7 U TOTAL 5 .i'-n.l MEAN no MAX 1.57C M I N 1.^ AC-FT 10J.300

SEP

4.3
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7.2

T.2
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7.0

9.1

4.68
9.1
2.9

SEP

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7.6
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7.4
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. 4
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7.6
7.6
7.6
7.6
7.6

7.4
7.3
4.3
2.2
2.2

6.94
7.6
2.2
413

SAN JOAQUIN RIVER BASIN

11294300 NORTH FORK STANISLAUS RIVER BELOW GANNS DAM SITE, NEAR BIG MEADOW, CALIF.

DRAINAGE AREA.--Ill sq mi.

PERIOD OF RECORD.--October 1960 to September 1967 (discontinued).

GAGE.--Water-stage recorder. Datum of gage is 5,405 ft above mean sea level (from river-profile s

AVERAGE DISCHARGE.--7 years, 312 cfs (226,000 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (1,400 cfs, revised), water year

Date Time Disch. G.H. Date Time Disch. G.H. Date Time
Apr. 1, 1966 2130 *1,770 7.67 Dec. 6, 1966 1300 4,790 10.37 May 8, 1967 2130
Apr. 25, 1966 2400 1,440 7.24 Mar. 16, 1967 1100 *6,080 11.12 May 21, 1967 2030
June 17, 1967 2100

1966-67

Disch.
1,990
5,160
3,740

G.H.
7.94
10.60
9.63

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

31

TOTAL
MEAN
MAX
MIN
AC-FT

WTR YR 1966

OCT

50
46
46
46
48

48
48
47
47
46

4g
54
53
51
52

48
16
11
41
46

45
45
44

44

44
49
48
48
17
11

1.331
42.9
54
11

165 TOTAL
166 TOTAL

11
18
18
11
12

12
16
14
12
11

11
13
17
76
67

95
282
814
224
134

95
81
107

86

84
80
78
77
74

2,726 !
90.9
814
11

137.281
80,318

73
75
84

88ei
79
78
95
99
97

97
100
95
94
90

85
82
78
76
74

71
70
68

67

68
69
70
70
71
75

BO. 2
100
67

MEAN
MEAN

80
85
93
111
128

116
105
96
87
83

78
73
79
61
64

79
75
74
73
71

70
70
69

68

6fl
65
65
71
81
74

81.3
128
65

376 MAX
220 MAX

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67
70

72
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66
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62
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72

76
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95

88

88
85
84

. . . . . .

95
58

2.460
1.350

86
81
BO
80
79

90
113
157
170
340

332
322
520
480

353
294
308
348
327

330
361
435

635

722
818
940
1,020
1.080
1.200

1.200
79

MIN 11
MIN 11

1,320
1,240
1,170
1,210
1,290

1,330
1,350
1.320
1,270
1,210

930
798
714
754

1.120
1.250
1.160
774
635

624
666
722

1.130

1.210

980
940
955

1,350
624

AC-FT 272
AC-FT 159

990
1.010
1,070
1.090
1.070

1.010
970
925
900
1,000

860
698
660
660

568
551
523
523
527

520
477
402
358
330

308

256
?33
199
168

1.090
168

. 300
. 300

JUN

148
129
114
105
100

97
104
102
108
98

93
86
79
76
71

67
62
56
51
48

43
41
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35
32

31

46
35
33

14B
31

JUL

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AUG

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39
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39
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39

1,217

42
39

SEP

39
39
38
38
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37
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42
45
44

42
39
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20
31

31
31
32
3?
31

31
30
30
?9
29

?9

33
33
32

1.023

45
20

SAN JOAQUIN RIVER BASIN

11294300 NORTH FORK STANISLAUS RIVER BELOW GANNS DAM SITE, NEAR BIG MEADOW, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG

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27
28
29
30
31

TOTAL
MEAN

MAX MIN
AC-FT

CAL YR
WTR YR

31
30
30
33
33

23
23
23
23
22

22
22
21
21
20

20
19
20
16
IB

18
23
23
21
18

11
7.6
7.5
8.6
10
15

632.7 2.
20.4
33
7.5
1.250

1966 TOTAL
1967 TOTAL

16
16
11
9.6
8.4

10
13
12
10
9.2

8.8
8.6
8.4
6.6
10

81
49
23
20
223

79
50
43
43
41

30
31
468
556
298

194.6
73.2
556
8.4
4,350

179,

246
509
572
276
476

2,460
956
436
322
283

258
237
223
204
200

205
200
197
197
200

178
163
158
150
149

135
118
118
120
112
97

10,155
328
2,460
97
20,140

932.3 MEAN

6
4
4
3
8

84
86
90
84
81

84
88
95
112
122

129
118
114
100
102

112
128
144
157
161

160
303
246
482
420
320

4.597
148
482
81

9,120

493

232
205
191
182
199

197
216
219
232
256

245
250
272
258
216

196
191
209
214
188

184
188
194
189
177

163
168
188

5,819
208
272
163
11,540

MAX 3,930

223
226
243
202
176

176
199
230
260
252

216
248
325
317
252

3,930
2,450
1.220
770
628

582
610
610
506
454

*17
388
666
565
*23

18,149
585
3,930
176
36,000

MIN 7.5

3*3
300
280
276
256

246
260
250
270
280

256
?33
260
280
260

246
243
241
241
223

217
207
199
197
188

189
214
189
172
170

7,186
240
343
170

14,250

AC-FT

189
248
122
369
345

458
750
1,140
1,440
905

590
486
551
794
1,380

2.070
2,470
2.470
2.410
2.870

3,500
3,620
3.480
3.360
3.100

2,900
2, RIO
2,630
2,290
1,910
1,460

53,317
1.720
3.620
189
105,800

356,900

965
758
890
1,570
1.850

1,540
1,930
2,100
2,250
2,220

2,120
2.0*0
1,900
2,050
2,260

2,430
3.0*0
2,570
2,370
2,310

2,420
2,260
2,040
2,010
2,130

2,030
1,880
1.820
1,840
1,780

59,373
1,979
3,040
758
117,800

,620
,470
,330
,130
. 020

875
806
694
607
530

486
467
432
420
408

448
353
303
260
216

170
154
148
137
125

109
99
92
90

79

15,162
489

1,620
79
30,070

73
67
62
57
52

48
44
42
39
39

38
37
36
35
37

40
43
54
46
42

41
41
44
48
58

52
48
47
*7

5*

1,459
47.1
73
35
2,890

56
63
63
62
62

6*
6*
6*
6*
63

6*
66
6*
6*
62

60
70
64
62
62

62
63
64
66
63

60
64
62
61
60

1,888
62.9
70
56
3,740

SAN JOAQUIN RIVER BASIN

11294500 NORTH FORK STANISLAUS RIVER NEAR AVERY, CALIF.

DRAINAGE AREA.--163 sq mi.

PERIOD OF RECORD.--July 1914 to September 1925, November 1928 to September 1970. Yearly discharge only for son years, published in WSP 1315-A.

GAGE.--W;

AVERAGE DISCHARGE. --53 years,

EXTREMES.

Date
Apr. 1,

Dec. 6,
Mar. 16,
May 8,
May 22,
June 17,

Feb. 20,

. --Max

Annu

1966

1966
1967
1967
1967
1967

1968

imums a,

al maxi,

Time
2300

1315
1615
2330
2200
2230

0745

id minim

num disc

Disch.
*2,000

7,250
*7,850
2,360
6,650
4,360

*2,220

419 c

urns (d

harge

G.H.
6. 05

9.26
9.50
6.40
9.02
7.84

6.24

of gage

fs (303,

ischarge

(*) and

Date
Jan .
Jan .
Apr.
May
May
May
May
June

600 acre-ft per

in cubic

peak disch

21, 1969
26, 1969
21, 1969
2, 1969
11, 1969
17, 1969
22, 1969
14, 1969

feet p

arges

Time
0915
0515
2300
0030
2145
2200
2215
2245

year).

er second,

above base

Disch.
6,160
*6,600
3,250
2,630
5,540
5,560
5,500
2,330

gage he

(2,000

G.H.
8.79
8.99
7.11
6.59
8.49
8.50
8.47
6.31

ight i

cfs),

Date
Dec.
Dec.

Jan.
May
May

rer-profi

in feet).

water ye

21, 1969
25, 1969
16, 1970
21, 1970
5, 1970
18, 1970

ars 1966

Time
1600
1230
1200
1900
2300
0115

y). Prior

- 70

Disch. i
5,700
3,060
7.070

*12,700 1
2,220
2,860

Annual minimum daily discha water years 1966-70

Wtr yr Date
1966 Nov. 2, 3, 6, 7, 1965
1967 Oct. 30, 1966
1968 Nov. 4, 12, 13, 1967

Wtr y
1969
1970

G.H.
8.57
6.97
9.19
1.07
6.24
6. 81

Discharge
ct. 18, 1968
ic. 7, 1969

Period of record: Maximum discharge, 36,000 cfs Jan. 31, 1963
from rating curve extended above 14,000 cfs on basis of slope-area mum daily, 5.5 cfs Dec. 6, 7, 1929.

age height, 15.00 ft, from floodma: easurement at gage height 13.8 ft;

ks),

REMARKS. --Flow r

(combined cap
above station

COOPERATION. --Ga
Gas 5 Electri
1968-70 colle

REVISIONS (WATER

Jgulated a
icity, 13,
See sch

ge-height

:ted by Pa
a Federal

YEARS). --

t low and medium
600 acre-ft) . A
ematic diagram oi

record and 24 dis

WSP 1215:

DISCHARGE, IN CUBIC

DAY OCT

1 68
2 67
3 64

4 62 5 63

6 65
7 65
8 64
9 64
10 64

11 65
12 66
13 69

14 71 15 83

16 73
17 64
18 36
19 28
20 61

21 66
22 66
23 66
24 66
25 66

26 65

28 71
29 71

30 66 31 37

TOTAL 1,970
MEAN 63.5
MAX 83
MIN 28
AC-FT 3,910

NOV

26
22
22
28
28

22
22
31
25
24

24
25
60
201
144

244
791
1,020
348
210

147
128
235
380
212

167
144
136
137
131

5,134
171

1,020
22
10,180

CAL YR 1965 TOTAL 205,974
WTR YR 1966 TOTAL 103,660

DEC

122
119
126
1*2
142

131
125
125
1*5
1*7

1**
152
K>8
137
116

112
107
108
104
98

93
95
87
87
95

109
102
102
119
139
134

3,712 3
120
152
87
7,360 7

MEAN 564
MEAN 284

stages by Lake Al
maximum of 10 cfs
Stanislaus River

1938(M). WSP 1515

FEET

JAN

126
111
106
107
111

126
136
139
137
132

126
122
120
128
136

142
129
122
123
119

107
115
111
109
106

102

98
102
122
125

,697
119
142
98

,330

MAX
MAX

PER SECOND,

FEB

116
107
107
106
118

158
139
126
122
115

106
113
106
109
109

112
116
126
129
128

125
136
158
171
153

145

145 1
1
1
1

3,546 17
127
171 1
106

7,030 35

3,020 MIN
1,560 MIN

}ine and
diverted
basin el

ts for th

Spicer Mea
during su
sewhere in

e water. ye
project; r

: 1915 (M) , 1932 (M) , 193

WATER

MAR

150
150
139
131

145
180

278
457

549
462
666
715
630

553
458
448
514
490

483
508
567
740
876

920

,170
,260
,290
,410

,768
573
,410
131
,240

22
22

YEAR OCTOBER 1965

APR

1,540
1,560
1,410
1,400

1.550

1,480
1,560

1,260
1,090
964
998

1,330
1,440
1,410
1,050
876

835
881
908
,060
,270

,380

,170
1.130
1,110

37,742
1.258
1,560
635
74,860

AC-FT 40

MAY

1.140
1,120
1,190
1,200

1.150

1,060
1,120

1,030
876
795
790

650
630
595
592
592

595
560
490
430
399

369
352
318
288
256
216

22,693
738
1,200
216
45,410

9,500

dows , Union,
mmers from B
this report

ars 1966-67

6(M) , 1938,

TO SEPTEMBER

JUN

192
167
155
152

141

156
150

136
128
115
108

96
91
84
78
72

68
64
63
58
55

53
53
62
59
57

3,155 1
105
192
53

6,260 2

and Utica Rese
eaver Creek int

furnished by Pa

1940 (M)

1966

JUL

50
50
48
45

43

44
44

42
42
42
41

40
40
44
44
44

45
47
47
45
45

44
44
45
48
48
52

,384
44.6
52
*0
,750

AUG

51
52
51
49
48

48

47
47

47
47
46
46

45
45
44
45
45

45
45
45
45
45

45
45
45
44
44
45

1,435
46.3
52
*4
2,850

cific

SEP

45
45
45
44
44

45

51
51

49
47
44
36

38
38
39
36
39

38
36
36
36
36

36
36
38
38
38

1.224
40.8
51
3?
?,430

AC-FT 205,600

SAN JOAQUIN RIVER BASIN

11294500 NORTH FORK STANISLAUS RIVER NEAR AVERY, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
4
5

6
7
B
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
KTR YR

DAY

1
2
3
It
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
2*
25

26
27
28
29
30
31

TOTAL
MEAN
MAX

MIN AC-FT

CAL YK
WTR YR

38
38
38
39
42

41
30
30
29
29

30
30
30
28
27

27
26
26
25
25

21
24
30
31
29

25
20
12
10
9.4
11

850.4
27.4
42
9.4
1,690

1966 TOTAL
1967 TOTAL

OCT

80
84
131
94
70

53
83
82
81
82

83
85
85
84
83

83
85
91
91
90

89
70
34
26
24

23
23
22
22
22
21

2.076
67.0
131
21
4,120

17
22
22
18
14

20 3,
30 1,
26
22
18

16
15
15
14
16

107
95
50
34
287

171
94
75
57
54

53
51
462
874
430

3,179 16,
106
874 3,
14

6,310 31,

112,932.4
243,276.4

DISCHARGE,

NOV

21
21
21
20
21

21
21
21
21
21

21
20
20
28
33

29
24
63
88
82

73
68
65
64
63

62
57
63
83
91

1,306 1

329
873
961
456
954

670
420
753
543
491

440
387
363
330
312

315
305
299
298
302

278
251
240
221
211

201
172
176
179
173
156

059
518
670
156
850

MEAN
MEAN

154
149
149
150
152

128
140
137
130
128

131
136
141
160
171

1S1
169
160
152
164

322
270
224
232
219

215
354
427
851
904
785

7,785
251
904
128
15,440

544
450
421
39*
418

409
428
432
435
476

467
465
497
490
406

374
352
366
380
335

326
325
329
32S
321

293
298
306

11,062
395
544
293
21,940

309 MAX 3,670
667 MAX 4,770

IN CUBIC FEET

DEC

86
81
85
85

99
102
73
59
61

58
57
39
38
37

40
34
34
34
33

32
31
33
38
47

60
77
74
64
54
48

,838
43.5 59.3

20
2,590 3

1967 TOTAL 22H.408
1968 TOTAL 96.368

31
. 650

JAN

44
40
37
39

33
31
30
29
39

36
32
34
35
171

215
122
88
76
71

75
81
86
85
85

81
75
66
62
84
118

2,137
68.9

29
4,240

MEAN 626 MAX
MEAN 263 MAX

351
351
387
342
299

292
309
340
3S2
397

356
345
317
315
32S

4,630
3,750
,890
,300
,110

,020
,050
,080
952
859

793
719
1,060

791
706

27,819
897
4,630
292
55,180

MIN 9.4
MIN 9.4

PER SECOND. WATER

FE8

88
68
82
97

91
95
97
118
119

108
105
120
126
112

119
319
468
371
1.700

1,290
988
1.120
1.050
797

739
683
670
610

12,445
429

68
24,680

4,770
1,700

MAR

610
506
506
524

458
406
422
379
338

312
302
307
292
266

292
278
271
258
253

285
319
309
343
403

385
382
539
875
1,070
1,050

13,487
435

253
26,750

MIN 20
MIN 20

631 376
573 462
532 570
545 689
517 646

507 758
513 1,150
510 1,570
540 1,940
558 1,560

520 1,080
480 926
515 956
558 1,180
525 1,780

473 2,490
486 3,050
491 3,100
470 3,000
446 3,570

433 4,500
414 4,770
403 4,550
407 4,370
392 3,920

391 3,580
433 3,450
399 3,200
364 2,750
361 2,390
1,920

14,387 70,253
480 2(266
631 4,770
361 376
28,540 139,300

AC-FT 224,000
AC-FT 482,500

YEAR OCTOBER 1967

APR MAY

1,150 ,260
828 ,250
640 ,180
644 ,210

631 982
674 886
782 897
925 908
1,120 823

1,240 797
1,160 870
1,100 828
1,100 787
1,160 854

1,070 875
833 870
648 823
627 892
657 976

631 1,030
570 S33
598 627
720 513
823 499

1,000 578
1,080 644
1,070 729
1,200 744
1,270 644
535

26,728 26,504
691 855

570 499
53,010 52,570

AC-FT 453,000
AC-FT 191,100

1,390
1,140
1,170
1,860
2,330

1,900
2,230
2,410
2,560
2,550

2,470
2,380
2,210
2,310
2,570

2,730
3,500
3,080
2,670
2.S80

2,680
2,560
2,330
2,230
2,350

2,280
2,100
2,010
2,000
1,920

68,500
2,283
3,500
1,140
135,900

,780
,590
,480
,290
,150

1,050
973
859
773
661

589
573
525
515
470

584
451
396
355
309

260
235
226
213
197

180
163
154
147
141
133

18,422
594
1,780
133
36.540

124
116
108
101
95

89
83
80
76
73

70
68
67
64
64

63
69
73
79
71

66
65
64
72
72

90
75
71
68
68
71

2,415
77.9
124
63
4,790

75
79
84
84
83

82
84
83
84
84

83
87
88
88
88

87
86
104
90
85

83
83
84
86
91

79
77
87

- _

2,545
84.8
104
75
5,050

TO SEPTEMBER 1968

JUN

499
492
495
444

304
273
247
230
220

224
226
215
198
191

184
177
163
152
140

123
110
101
93
8?

76
71
65
68
65

6,313
210

65

12,520

JUL

62
61
63
66
65

64
64
63
61
64

66
65
57
46
46

45
44
44
43
42

41
40
39
33
33

?8
27
26
26
26
30

1,480
47,7

26
2,940

AUG

29
27
25
25
24

23
25
25
25
24

25
25
28
29
28

28
27
27
43
64

41
34
33
31
35

35
35
40
40
38
37

975
31.5

23
1,930

SEP

37
37
36
37
39

38
37
36
35
35

32
35
36
38
38

37
36
36
36
35

35
36
35
34
34

35
35
36
36
37

1,079
36.0
39
32
2,140

SAN JOAQUIN RIVER BASIN

11294SOO NORTH FORK STANISLAUS RIVER NEAR AVERY, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

NOV DEC JAN FEB MAR APR MAY JUN JUU

1
2
3
4
s

6
7
a
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
2B
29
30
31

TOTAL MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

36
36
36
36
37

37
42
40
40
43

36
42
64
88
57

56
42
28
49
47

46
57
66
66
66

66
66
66
72
93
76

1,634 4
52,7

932e
3,240 B

1966 TOTAL
1969 TOTAL

69
aa
T34
230
128

94
79
82
aa
89

85
175
161
10B
107

97
92
172
255
129

103
90
120
140
140

126
107
102
95
94

,179
139
734
69
,290

100,790
279,414

102
93
91
90
89

aa
85
as
as
98

184
133
117
116
171

152
124
123
123
107

104
10B
108
164
230

174
145
147
140
127
126

3,829
124
230
65
7,590

MEAN
MEAN

124
126
131
169
196

216
22S
224
192
164

174
186
474
543
416

294
241
319
2,370
4,530

4,310
1,600
1,020
970
3.360

3,760
1,570
1.170
936
818

31,510
1,016
4,530
124
62,500

275 MAX
766 MAX

631
566
528
510
510

502
451
422
403
388

400
441
382
385
474

451
391
394
371
351

338
324
327
332
354

335
312
314

11,587
414
631
312
22,980

1,700
4,530

31T
294
294
280
273

280
269
262
260
258

249
249
245
241
251

283
307
340
385
403

38B
368
435
481
528

644
82B
1.010
1.180
1.410
1.660

14,672
473
1,660
241
29,100

MIN 23
MIN 28

1,780
1,680
1,280
1,220
1,640

1,270
1,040
986
1,000
1,010

1,260
1.660

1.550
1.230

1.210
1,450
1,730
1,690
2,020

2,440
2,570
2,390
1,670
1,340

1.260
1,340
1,720
2,100
2,260

47,498
1,583
2,570
98 8
94,210

AC-FT 199
AC-FT 554

2,330
2,200
1,860
1,710
2,160

2,900
3,260
3,100
4,040
3,720

4.250
3,610

3,700
3,230

3,340
3,680
3,960
3,450
3,110

3.180
3.840
4,050
3,870
3,540

3,690
3.760
3.170
3.090
3,130
3,220

102,260 4E
3,299
4,250 :
1,710
202.800 9<

. 900
. 200

3,110
2,950
2,940
2.670
2,530

2,390
2,180
,010
,630
. 440

. 250
,190
,460
. 690
,980

,760
,540
,720
,640
,400

. 300
,190
. 200
. 040
,010

854
792
715

606

,831
,628
,110
606
,860

627
627
602
532
495

461
419
388
371
379

357
338
314
338
302

269
234
216
201
191

179
169
177
164
143

126
112
104
94
90
83

9,102
294
627
83
18,050

73
72
76
72
68

74
71
72
72
73

72
71
70
70
70

70
70
69
68
69

63
63
65
67
64

64
67
69
70
68
68

2.150
69.4
76
63
4,260

67
69
70
75
7S

74
83
81
76
74

73
72
69
71
70

70
71
70
70
71

71
70
70
70
73

73
72
71
71
TO

2,162
72.1
83
67
4,290

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
IB
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
HTR YR

70
74
73
72
73

72
72
71
71
74

76
76
76
76
123

292
166
120
101
94

90
88
B7
65
73

76
82
81
85
as
90

91.7
292
70
5,640 4

1969 TOTAL
1970 TOTAL

91
90
89
88
102

164
122
112
112
112

114
116
11T
87
69

74
82
61
53
49

49
47
44
3
2

1
1
0
38
37

77.5
164
37
. 610

285.014
184,094

36
35
24
19
18

16
15
16
18
17

19
20
20
21
22

21
20
18
97
1,380

1,860
1.010
532
661
1.660

S3B
495
346
299
278
241

325
1.860
15
19,980

MEAN
MEAN

228
198
180
172
156

153
156
155
314
683

374
348
394
908
570

4,590
2.580
1.470
1,180
1,500

B.590
6,290
2,450
2,350
1.420

1.140
1.300
959
813
768
674

1,389
8,590
153
65.420

781 MAX
504 MAX

631
566
558
554
554

521
528
547
535
510

499
715
711
606
574

535
610
488
464
428

416
400
394
419
413

441
478
521
. _«--

522
715
394
28.990

4,530
8,590

623
554
468
438
425

419
464
488
448
435

397
382
458
614
697

64B
706
594
510
481

513
590
711
838
930

903
823
753
844
777
631

599
930
382
36,820

MIN 15
MIN 15

554
635
717
763
903

,050
,060
,020
,050
,200

,140
,070
,020
865
715

657
582
566
657
578

521
478
448

468 582
782
627
513
48B
551

742

1,200
4(>8
44,150

AC-FT 565
AC-FT 365

706
994
1,330
1,560
1,720

1,690
1.320
1.270
1,210
1.470

1.140
1.030
1.140
1.570
1,850

2.140
2.290
2,170
1,910
1,560

1,440
1.590
l.ftOO
1,510
1,470

1.470
1.370
1.170
1.090
1,050

1,449
2,290
706
89,080

. 300
. 200

1,050
1,040
976
953
823

807
711
777

1,660
1,000

706
586
499
539
4B5

422
419
422
431
428

403
385
335
307
266

262
1,140
594
385
285

637
1,660
262
37,880

234
205
186
169
155

142
127
112
102
105

101
94
88
91
89

B6
87
65
S3
60

77
83
85
87
69

68
87
86
87
87
85

106
234
77
6,670

79
78
78
80
85

85
84
84
83
82

80
78
70
62
51

44
42
42
41
40

40
40
39
38
38

38
39
39
39
38
38

57.9
65
38
3,560

38
3«
41
42
4?

4?
4?
41
40
40

39
38
3B
38
38

38
4?
4n
39
36

44
39
19
a
8

7
8
8
n
4

39.6
44
37
2,360

512 SAN JOAQUIN RIVER BASIN

11295400 STANISLAUS RIVER NEAR HATHAWAY PINES, CALIF.

LOCATION.--Lat 38°08'29", long 120°22'19", in NtfVStfV sec.6, T.3 N., R.15 E., Calaveras County, on right bank 1,000 ft upstream from Stanislaus powerhouse and 3.6 miles south of Hathaway Pines.

DRAINAGE AREA.--629 sq mi.

PERIOD OF RECORD.--July 1967 to September 1970.

GAGE.--Kat tage recorder. Datum of gage is 1,030.00 ft ab
Co.).

EXTREMES.--Maximums and minimums (discharge in cubi
tember 1970 are contained in the following table

feet per

tftr yr
1967
1968
1969
1970

Maximum
River only Combined
Date Disch. G.H. Date Disch.

Feb. 20, 1968 3,460 11.93 Feb. 28, 1968 3,810 Jan. 21, 1969 14,800 17.15 Jan. 21, 1969 15,400 Jan. 21, 1970 17,300 a!7.98 Jan. 21, 1970 17,900

e mean sea level (levels by Pacific Gas f, Electric

scond, gage height in feet) for July 1967 to Sep-

Minimum daily
River only Combined
Date Disch. Date Disch.
Aug. 24, 1967 38 Aug. 24, 1967 586
Aug. 17, 1968 19 Feb. 16, 1968 350
Oct. 12, 1968 31 Oct. 22, 1968 134
Sept. 4, 1970 28 Sept. 3, 1970 583

Maximum gage height, 18.6 ft, from outside floodmarks.

REMARKS. --R
domestic
upstream
schemati
and tunn
the Geol

COOPERATION

DAY JUL
1
2
3
4
5
6
7
8

TOTAL.
MEAN.......

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL 9,
MEAN
MAX
MIN

water
from s
c diagr

ogical

supply.
tation in
am of Sta

Survey.

. --Records of di

AUG
425
280
321
312

292

160

SEP
93
144
152
158
162
158
158
160

Stanislau
SE>4 sec.
nislaus R

version t

DISCHARGE

DAY
9
10
11
12
13
14
15
16

s tunnel diverts fro
24, T. 4 N.
iver basin
er-quality

o Stanisla

, IN CUBIC

JUL AUG
157
157
154
152
152
152
134
78

DISCHARGE, IN CUBIC FEET PER

OCT

174
174
245
262
242

212
184
184
190
196

198
198
200
202
205

476
680
670
675
567

665
660
522
190
202

200
200
188
180
180
176

497
306
680
174

NOV

172
170
180
176
164

166
168
170
172
176

172
157
155
87
63

61
53
52
96
96

63
55
52
46
53

62
81
76
53
68

3,315
111
180
46

DEC

66
59
56
55
211

115
111
88
62
56

55
52
42
32
48

51
48
53
55
54

54
56
55
59
61

63
74
78
88
72
70

2,099
67.7
211
32

JAN

62
62
61
52
55

55
51
50
50
57

65
56
57
61
246

333
178
124
94
78 2

75 2
77 1
89 1
92 1
88 1

82
87
77
76
76
82

2,748 17
88.6
333 2
50

, R. 16 E. ,
elsewhere

us powerpl

FEET PER

SEP
158
60
60
64
66
64
64
66

m left ba
to Stani
in this

ant furni

nk o
slau
repo

shed

SECOND, JULY

DAY
17
18
19
20
21
22
23
24

JUL

f Middle Fork Stanislaus River
s powerplant 1,000 ft
rt. Records of combin

by Pacific Gas t, Elec

TO SEPTEMBER 1967

AUG SEP DAY
80 166 25
53 188 26
50 196 27
57 180 28

45 170 30

38 178

SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER

FEB

134
107
101
103
108

110
111
118
136
170

141
133
144
154
136

130
551
784
554
,400

020
490
490
460
080

962
878
844
754
1.
1 ,

,303 16,
597
,400 1,
101
. 320 32,

MAR

736 1,
616 1,
594
603
640

558
500
524
484 ,
432 ,

384 ,
369 ,
384 ,
375 ,
357 ,

351 1,
418
397
345
342

342
390
375
404
465

500
488 1,
603 1,
941 1,
250 1,
260

427 30,
530 1,
260 1,
342

APR

410
040
784
760
871

742
742
871
070
320

510
380
300
270
380

280
969
766
710
685

665
630
660
766
832

990
130
110
280
360

283
009
510
630

MAY JUN

1,370 442
1,350 425
1.260 439
1,340 1,610
1,280 1,160

1,080 941
864 608
832 432
838 408
754 404

715 369
760 482
784 626
710 544
814 446

838 567
820 621
754 594
814 414
927 351

1,020 324
808 220
630 160
508 166
446 152

500 118
554 95
635 90
655 69
585 62
488

25,733 13,339
830 445
1,370 1,610
446 62

below st
ed disch
ished in

trie Co.

JUL

453

523

1968

JUL

49
43
36
28
30

31
33
33
33
31

28
32
35
31
31

35
35
28
29
37

36
29
24
28
33

34
31
27
21
24
26

980
31.6
49
21

13.7 m
ation.
arge of

AUG
40
47
60
48

43

4,240
137
425
38
8,410

AUG

30
36
41
29
24

31
35
35
36
36

34
37
30
27
24

22
19
28
36
61

56
38
24
29
28

28
28
29
31
32
33

1,007
32.5
61
19

is for
les
See
river
of

SEP
215
141
170
174

176

4,967
166
215
93
9,850

SEP

33
33
33
35
46

40
35
35
33
33

32
31
30
31
32

32
32
31
31
31

31
31
33
33
33

33
33
36
35
34

1.001
33.4
46
30

WTR YR 1968 TOTAL 123.732 MEAN 338 MAX 2t<>00 MIN 19 AC-FT 245.400

SAN JOAQUIN RIVER BASIN

11295400 STANISLAUS RIVER NEAR HATHAWAY PINES, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET

DAY

1
2
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S

6
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e
9
10

11
12
13
14
IS

16
17
18
19
20

21
23
33
24
25

26
27
26
39
30
31

TOTAL
MEAN
MAX

AC-FT

OCT

34
35
34
34
47

49
51
52
51
50

41
31

96
61

43
41
39
34
33

34
34
80
120
118

118
117
117
118
146
176

2,076
67,0
176
31
4,120

NOV

155
115
1,050
426
158

96
70
53
57
60

55
114

92
147

152
131
147

386 203
158
138
139
176
176

157
136
133
117
99

5,239
175
1,050
53
10,390

DEC

121
124
128
120 «
115

115
114
115
113
120

270
198

136
216

270
153
136
131
98

84
98
107
207

375

315
205
166
147

5,336
172
540

10,580

JAN

139
136
133
158
202

210
258

225
188

176
230

1,600
893

S73
435
SOB
5,930
8,850

11,100
4,470
2,410
2,090

8,350

2,940
2,010
1,740
1,600

70,213
2,265
11,100
133
139,300

PER SECOND, WATER

FEB

1,490
1,330

1,300
1,2*0

1,330
1.190

1,000
948

955
1,100

920
1,450

1,420
1,180
1,240
1,150
1,060

1,010
941
1,010

1,450

1,070
_ . -_«

33,482
1,196
1.670
930
66,410

MAR

1,070
1,000

906
838

844
766

736
736

710
690

630
665

710
773
864

934

983
927
1,040

1,410

1,880
2,200
3,630
3,010

34,309
1,104
3,010
630
67,650

YEAR OCTOBER 1968

APR

3,100
2,860

2,140
3,150

3,680
2,560

2,500

2,930
3,590
3,780
3,530
2,900

2,790
3,100
3,630

4,110

4,840
5,320
5,030

2,770
2.820
3,270
4,140
4,340

99,530
3,318
5,320

197,400

MAY

4,340
4,180

3,?80
3,830

5,030
5.620

8.700

9.260
8,980
8,700
7.710
6,070

6,340
8,370
8,530

7,670

7,650
8,150
9,410

9,000
8,900
8,480
8.180
8.350
8,400

236,200
7,297
9,550

448,700

TO SEPTEMBER 1969

JUN

8,640
8,290

7,780
7,300

7.240
6,540

3,910

3,080
2.790
3.080
3.740
4,630

4,060
3,740
3,460

3,000

3,120
2,730
3,090

3.560
2.320
2,130
1,850
1.650

129,320
4,311
8,640

256,500

JUL

1,410
962
1,730
1,650
1,640

1,440
1,350

1.470

1,460
1.360
1,320
1,820
1,570

1,200
930
913

941

832
850
1,000

554
397
357
331
242
248

33,107
1,068
1,830

65,670

4UG

245
22?
230
21?
176

155
149

144

144
98
80
68
72

54
52
53
53
53

54
50
47
47
48

64
144
149
150
84
78

3,465
112
245

6,870

SEP

51
47
96
149
154

154
158
173
172
168

170
170
168
174
174

174
174
176
176
176

!78
180
186
188
192

198
205
208
210
212

5,013
167
212

9,940

CAL YR 1968 TOTAL 121,472 MEAN 332 MAX 2.400 MIN 19 AC-FT 240,900 mTR YR 1969 TOTAL 647,189 MEAN 1,773 MAX 11.100 MIN 31 AC-FT 1,384,000

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

NOV DEC JAN FE8 MAR APR MAY JUN JUL

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2
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20

21
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23
34
25

36
27
38
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

180
51
180
190
192

184
1*7
47
47
47

46
46
46
46
194

540
411
292
255
2*2

220
215
213
210
208

205
205
202
200
196
186

6,342 6
305
540
51
12,580 13

1969 TOTAL
1970 TOTAL

194
198
198
198
213

408
324
270
245
242

240
250
262
282
208

308
212
245
340
232

238
190
184
184
180

194
176
176
170
168

,718
234
408
168
,330

664.197
347.631

170
113
93
84
81

68
59
61
78
80

80
70
64
63
65

56
48
52
69
1,930

2.640
1,700
730
1,320
2,890

1,530
766
528
460
411
351

16,599
535
2,890
48

32,920

MEAN
MEAN

315
352
220
208
186

182
208
180
399
1,240

630
558
680
2,480
1,470

9,600
6,610
4,650
2,320
2,770

12,400
9,330
5,560
6,400
4,030

3,100
3,650
2,780
2,200
2,150
1,890

88,438
a. 853
12,400
180
175,400

1,820
953

1,760
1,580
1,540
1.500
1,460

1,390
1,350

1,350
1.330

1,250
1,540
1,720
1,590
1,470

1,420

1,580
1.410
1,320

1,260
1,210
1,200
1,300
1,190

1,170
1,180
1,300
. . . . . .
. . . . . .

39,380
1,403
1,770
1,170
77,910

MAX 11,100
MAX 12,400

1,760
,630
,400
,340
,350

,250
,160

,020
1.020

970
935
988
1,100
1,190

1,200

1,170
1.040
99*

935
988
1,130
1,290
1,380

1,360
1,360
1,280
1,350
1,320
1,090

37,270
1,202
1.760
935
73,930

MIN 47
MIN 28

953
953
,040
,040
,170

,390
. 440

,310
,510

,440
,360
,360
1,300
1,050

1,010

910
1,030
964

905
845
835
840
870

1,080
988
870
785
905

32,326
1,078
1,510
785
64,130

AC-FT
AC-FT

1,040
1.230
1.620
1,950
2,130

2,190
1,690

1,330
1,790

1,500
1,370
1.360
1,840
2,200

2,520

2,670
2,340
1,910

1,700
1,860
1,900
1,790
1,730

1,630
1,760
2,290
2,240

58,210
1,878

a, 740
1,040
115,500

1,317,000
689,500

3,150
3.450
3,280
1,820
2,330

2,340
2,070
1,950
3,630
2,610

1,660
1,250
1,010
1,040
1,010

820
715
1,180
1,340
1,620

1,460
1,640
1,260
1,370
1,230

2.360
1.700
1.010
665

52.020
1.734
3,630
665
103,200

670
506
526
534
562

590
490
407
376
338

350
308
362
232
168

184
182
164
156
98

85
76
75
75
74

73
73
72
72
71

6,033
259
670
71

15,930

71
64
61
55
47

44
44
44
44
44

44
43
43
42
40

39
38
37
35
37

37
36
36
35
43

36
36
36
36
36

1,326
42.6
71
35
2,630

33
30
39
?8
34

35
33
41
43
44

44
40
35
32
33

34
36
36
36
36

36
36
36
36
36

36
35
35
34

1,069
35.6
44
28
3,120

4 SAN JOAQUIN RIVER BASIN

11295400 STANISLAUS RIVER NEAR HATHAWAY PINES, CALIF.--CONTINUED

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF STANISLAUS RIVER AND STANISLAUS POHERPLANT AT STANISLAUS, NEAR HATHAWAY PINES, CALIF., JULY TO SEPTEMBER 1967

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

998
1,060
1,070
1,040

971
826
866
857
84*

838
826
706
70*
70*

700
697
696
696
677

622
624
597
597
603

593
590
588
586
587

594
606
593
591
588
589

21.156
682
971
586
41.960

637
689
696
702
706

702
702
704
702
704

703
707
709
708
708

709
710
732
740
724

723
714
716
722
755

699
724
726
727
725

21,325
711
755
637

42,300

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, NEAR HATHAWAY PINES, CALIF.

OF STANISLAUS RIVER AND STANISLAUS POWERPLANT AT STANISLAUS,
, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

1
2
3
*

5

6
7
8
9
10

11
12
13
1*
15

16
17
18
19
20

21
22
23
24
as

26
27
as
29
30
31

TOTAL
MEAN

MAX
MIN
AC-FT

722
722
793
808
787

757
727
729
733
7*1

743
7*1
743
745
746

67?
666
671
783
1,040

1,240
1.2*0
1.090

730?*a
7*0
738
725
717
717
711

2*. 479
790
1,2*0
671
48,550

707
70S
715
710
698

700
702
704
706
710

70*
689
687
617
592

579
590
593
63*
633

598
589
586
578
585

592
611
605
573
597

19,289
643
715
573
38,260

589
57*
573
572
7*1

636
635
609
583
580

578
566
556
5*7
566

568
566

573
572

571
590
589
594
596

600
611
613
622
599
597

18,339
b92
7*1
5*7
36,380

596
592
428
564
582

582
578
577
577
435

515
596
597
599
783

866
712

626
610

605
609
626
604
378

377
383
370
385
389

17,217
555
868
370
34,150

450
418
418
*21
427

416
417
423
443
394

362
352
367
377
356

350
798

788
2,700

2,320
1,780
1,770
1.730

1.220
1.140
1.100
1.010

25,117
866
2,700
350
49,820

989 1.610
864 1.170
839
854
886

805
748
774
734
679

629
617
634
625
611

,040
,020
,130

,000
,000
,150
,360
,630

,820
,690
,610
,590
,690

604 1,590
672 1,240

600 1,020
598 978

600 940
646 903
629 934
660 1,040

757 .270
744 .410
860 .3BO
1.200 .560
1,510 .720
1,510

24, 254 36.695
782 1,290
1,510 1.B20
598 903
48,110 76,750

1,920
1,900
1,800
1,880
1.S20

1,620
1,400
1.360
1.360
1,270

1.230
1.270
1.300
1.230
1.330

1.350
1.330

1,320
1,4*0

1,540
1,320
1,140
1,030

1.040
1,100
1,120
1,200
1,120
1,020

42,003
1,355
1,920
983
83,310

982
963
980
2,160
1,700

1,480
1,150
972
9*6
944

907
1,020
1,160
1,060
983

1,100
1,160
1,130
952
889

862
758
69B
704

656
633
628
607
600

29.496
983
2.160
600
58,510

587
580
547
533
526

527
529
530
530
530

531
577
561
577
576

578
576
569
569
577

573
563
573
574

577
572
554
539
553
571

17,356
560
587
526
34,430

578
561
584
569
565

571
575
575
576
57*

572
575
567
564
386

552
568
574
581
602

596
561
551
569

573
573
570
574
572
573

17,574
567
602
386
34,860

571
571
571
572
583

578
572
572
568
570

567
568
567
566
569

567
569
568
568
566

566
566
568
563
563

563
565
566
570
569

17,06*
569
583
563
33.850

KTH YR 1968 TOTAL 290,883 MAX 2,700 MIN 350 AC-FT 577,000

SAN JOAQUIN RIVER BASIN

11295400 STANISLAUS RIVER NEAR HATHAWAY PINES, CALIF.--CONTINUED

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF STANISLAUS RIVER AND STANISLAUS POWERPLANT AT STANISLAUS, NEAR HATHAWAY PINES, CALIF., WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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23
24
25

26
27
26
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

569
570
566
569
584

587
566
569
588
587

575
563
567
617
578

562

571
569
567

303
134
224
270
269

268
267
266
269
297
326

14,425
465
617
134
28.610

302
258
1.200
541
522

530
596
604
603
605

596
655
661
629
662

687

661
920
736

692
670
671
706
706

671
613
602
569
571

19.186
640
1<200
256
38,060

598
641
643
634
630

630
631
629
630
638

796
718
678
659
740

794

657
654
618

602
619
626
736
1,090

916
772
749
732
700

21,521
694
1,090
596
42,690

671
666
663
692
740

751
799
800
763
725

713
757
1.600
2,140
1.350

1.100

1.050
6.470
9,400

11,700
5,000
2,920
2,640
7,850

6,800
4,710
3,460
2,550
2.280
2.140

66,663
2,603
11.700
663
172.300

2.030
1.860
1.760
1.740
1.780

1.B70
1.730
1.610
1.540

1.490
1.640
1.460
1.460
1.990

1.960
1.720
1.780
1,690
1.620

1.540
1.4BO
1.550
2.150
2.210

. 610
. 540
. 510
. 440
,370

. 380
. 300
. 280
,270

,240
. 220
. 160
. 160
. 200

. 240
. 310
. 400
,470
,470

. SZO
. 460
. 560
. 680
. 760

1.990 1,940
1.780 2.120
1.610 2.420
2.740
3.160
3.550

48.560 50.790
1,734 1,638
2,?10 3,550
1,460 1.160
96.320 100.700

3.640
3.400
2.860
2.680
3,690

3.220
3.100
3.080
3.020

3.460
4.130
4.320
4.070
3.440

3.330
3.640
4.170
4.180
4.650

5,360
5.760
5.570
4.280
3.560

3.310
3.360
3.810
4.660
4,860

115,730
3.656
5,760
2,680
229.600

4.880
4.720
4,110
3.820
4,370

5.570
6.160
6.480
7.340

9.600
9.520
9.240
6.250
6,610

6,880
8.910
9.070
8,630
8.210

a, 190
6.690
9.950
10.100
9.660

9.540
9,440
9,020
8,720
6.890
6.940

242.950
7,837
10.100
3.R20
481,900

9,160
8.830
8.940
8,320
7.640

7.780
7.080
6.660
5.330

3.620
3,330
3,620
4,260
5.170

4.600
4.260
4.000
4,180
3.540

3,660
3.270
3.630
3.520
3,190

3,100
2,660
2.660
2.380
2.180

145,500
4,650
9,160
2.180
286.600

1.940
1.500
2.270
2.190
2.180

1.980
1.890
1.700
1.910
2.020

2.010
1.900
1.660
2.360
2.110

1.740
1.460
1.450
1.430
1,500

1,360
1.400
1.550
1.600
1.100

1.110
954
913
873
791

49.667
1.609
2.360
791
96.910

793
768
776
760
724

701
695
692
690
690

690
644
626
614
616

600

599
596
598

599
595
592
592
593

609
669
694
695
629
621

20,384
656
793
592
40.430

596
590
641
694
699

699
703
717
715
711

713
713
711
719
717

719
717
721
719
721

723
725
731
731
737

743
750
751
753
755

21,334
711
755
590
42,320

CAL YR 1968 TOTAL 283.908 MEAN 776 MAX 2.700 MIN 134 AC-FT 563.100
WTR YR 1969 TOTAL 837.130 MEAN 2.294 MAX 11.700 MIN 134 AC-FT 1.660,000

COMBINED DISCHARGE, IN CUBIC FEET PER SECOND, OF STANISLAUS RIVER AND STANISLAUS POWERPLANT AT STANISLAUS, NEAR HATHAWAY PINES, CALIF., WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

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31

TOTAL
MEAN
MAX

AC-FT

723
594
736
742
741

733
695
693
693
692

691
691
689

737

1,060
954
835
798
785

763
756
755
753
751

748
748
745

739
729

23.223
749
1.080

46.060

737
741
741
741
755

953
867
813
788
785

763
793

825
751

751
755
788
783
775

771
733
727
725

737
719
719

711

23.008
767
953

45.640

713
656
635
627
624

611
602
604
621
623

623
613

608

599
591
595
610
2,480

3,180

1,260
1,770

2,080
1.310
1.070

954
894

33.446
1.079
3,440

66,340

796
692
649
633
612

604
623
597
725
1,700

1.070
1.000

1.990

10.200
7.180
5.150
2,810
3,340

13,000

6,120
6,960

3,660
4,210
3,340

2,710

104,101
3,358
13.000

206.500

2.320
2.130
2.090
2.050
2.010

1.940
1.900
1.690
1.900
1.880

l.flOO
2.090

2,020

1,970
2.330
2.130
1.960
1.870

1.810

1.750
1,750

1.720
1.730
1,750

. . . . . .

54.700
1.954
2.330

108.500

2.320
2.180
1,990
1.900
1.600

1.800
1,710
1,660
1.570
1,570

1.520
1,490

1,750
1,820
1,720
1,590
1,550

1.490

1,660
1,650

1.920
1.920
1.640

1.880
1.650

54.490
1.758
2.320

108.100

1.510
1,510
1,600
1,600
1.730

1,950
2,000
1,920
1,870
2,070

2,000
1.920
1.920

1,570
1.4RO
1,470
1,580
1.520

1,460

1,390
1.400
1.430

1.550
1.430

1.460

49.090
1.636
2.070

97.370

l.AOO
1.760
2.160
2.510
2.690

2,750
2.250
2,060
1.900
2.360

2.070
1.940
1.920

3.080
3,300
3,230
2.900
2,470

2,260

2,460
2,350
2.290

2,180
2,220

2.SOO
3,200

75,440
2,434
3,300
1,600
149,600

3,710
4,010
3,840
2,160
2,900

2,910
2.640
2,520
4.200
3,170

2,220
1.810
1.570

1.380
1,270
1.740
1,900
2,160

2,040

1,640
1,930
1,790

2,920
2,260

1.220

66,640
2,288
4,200
1,220
136,100

,230
,060
,080
,090
. 120

. 150
. 050
966
933
895

907
865
919

741
739
721
715
655

642
633
634
634
633

632
632
631
629

25.321
817
1.230
628
50.220

628
621
618
612
604

601
601
601
601
601

601
599
599

595
594
591
591
593

593
593
593
591
600

593
593
593
593
592

18,579
599
628
591
36.850

589
564
563
564
590

569
592
600
602
603

601
597
59?

590

590
59?
592
592
59?

59?
59?
59?
59?
59?

59?
589

588

17,75?
592
603

35,210

CAL YR 1969 TOTAL 861,675 MEAN 2,361 MAX 11,700 WIN 590
WTR YR 1970 TOTAL 547,790 MEAN 1,501 MAX 13.000 MIN 583 AC-FT 1.087.000

SAN JOAQUIN RIVER BASIN

11296500 SOUTH FORK STANISLAUS RIVER AT STRAWBERRY, CALIF.

DRAINAGE AREA.--44.8 sq mi.

her 1911 to January 1917 nonrecording gage at site 1 mile downstream at different datum.

AVERAGE DISCHARGE.--37 years (1911-16, 1938-70), 128 cfs (92,740 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in feet per second, gage height in feet) for the water 1966-70 are contained in the following tabl

Ma daily Wtr
1966
1967
1968
1969
1970

yr

P

Date

May
June
May

May

eriod

RE MARKS. --Be

10,
30,
20,
2,
17,

of

ninl

jinn

1966
1967
1968
1969
1970

record

ing in

Discharge
677
1,430
655
1,500
1,060

Maximum discharge, 3,900

3 cfs Nov. 22, 23, 1946.

G.H.
4.48
5.92
4.38
6.05
5.26

cfs Nov. 21,
d-opening mea

Da
Oc
No
Ce
De
Oc

e

. 24-
. 19,
. 22-
9 ,
. 7-

1950 (gage he

28, 19
1966
28, 19
1968

65

67, Jan. 7-13, 1968

14, 1969

ight, 9.25 ft) , from ratin
w at bridge 0. 3 mile

Discharge
10
5.0
21
4.7
17

diagram of Stanislaus River basin elsewhe

1966-67 furnished by Pacific
rds for the water years 1968-70

REVISIONS (WATER YEARS).--WSP 1215: 1945(M). WSP 1515: 1916, 1943(M). WSP 1930: Drainage are;

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

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31

TOTAL
MEAN
MAX
MIN
AC-FT

OCT

68
68
69
69

69
68
68
68
68

34
14
14
15
15

15
16
16
16
15

15
15
11
10
10

10
10
10
38
65
65

1,113
35.9
69
10
2,210

NOV

64
64

65

65
65
66
74
70

71
8B
100
78
73

71
77
84
78
72

71
71
71
66
62

2,114
70.5
100
62
4,190

DEC

61
61
61
62
62

61
61
61
55
53

53
53
53
53
52

52
52
52
52
54

55
55
55
54
54

54
54
54
55
54
54

1,722
55.5
62
52
3,420

JAN

55
55
54
54
54

54
54
54

54

54
53
53
53
53

53
53
53
53
54

53
53
53
53
53

53
53
52
52
53
52

1,654
53.4
55
52
3,280

FEB

53
53
53
53
54

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54

54
54
54
54
54

55
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56
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56

56
56
56

. . . . . .

1,522
54.4
56
53
3,020

MAR

56
55
55
55
56

56
57
57

64

65
68

55
53

50
52
55
56
55

55
59
67
74
73

72
76
89
100
112
127

2,047
66.0
127
50
4,060

APR

139
138
141
158
161

159
159
158

111

91
82

84
101

124
141
126
90
78

76
81
92
118
146

250
377
410
406
406

4,821
161
410
76
9,560

MAY

396
417
479
479

532
475
476

582

444
409

392
371

384
405
426
449
437

431
414
358
329
324

306
288
260
222
166
131

12,195
393
582
131
24,190

JUN

115
96
94
92

91
101
95
100
89

78
70

67
55

52
48
46
42
39

38
38
36
36
38

38
39
39
39
40

1,913
63.8
115
36
3,790

JUL

40
39
39
40

40
39
39
39
40

39
39
39
39
39

3B
3B
38
38
38

38
38
37
37
36

37
37
37
37
37
36

1,187
38.3
40
36
2,350

AU6

36
36
36
36

36
36
36
36
36

36
36
36
36
50

63
65
65
65
66

66
66
65
65
65

66
66
66
65
66
66

1,600
51.6
66
36
3,170

SEP

66
66
65
65
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66
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65
65
65
65
65

1,968
65.6
66
65
3,900

CAL YR 1965 TOTAL 59,631 MEAN 163 MAX 846 MlN 10 AC-FT 118,300 MTR YR 1966 TOTAL 33,856 MEAN 92.8 MAX 582 MIN 10 AC-FT 67,150

SAN JOAQUIN RIVER BASIN

11296500 SOUTH FORK STANISLAUS RIVER AT STRAWBERRY, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR

DAY

1
2
3
4
5

6
7
6
9
10

11
12
13
14
15

16
17
16
19
20

21
22
23
24
25

26
27
26
29
30
31

TOTAL
MEAN
MAX
MIN

CAL YR
HTR YR

64
64
64
65
49

40
40
40
39
39

39
39
39
39
31

25
25
19
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36
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36
36
35

1.160 1.
37.4
65
16
2.300

1966 TOTAL

OCT

66
66
67
66
67

66
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67
67
67

67
67
67
66
66

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64
66
66
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66
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66
66
64
64

2,052
66.2
68
64

1967 TOTAL
1966 TOTAL

27
19
26
34
37

37
35
29
32
22

26
32
32
32
32

65
54
18
5.0
24

45
56
55
53
52

65

79
106
62

273.0
42.4
106
5.0
2,520

33,270.0

DISCHARGE

NOV

62
60
60
62
62

62
62
62
62
62

62
60
62
62
S3

36
36
35
35
34

33
33
33
33
33

33
33
33
33
41

47.6
62
33

67,902
29,754

58

66
62
69

177
85
40
42
53

55
56
56
54
54

57
57
56
56
57

56
59
62
61
61

60

60
61
59
59

1,930
62.3
177
40
3,630

59

>. 59
60
61

60
60
t.0
60
60

61
61
60
62
63

61
60
60

60

62
60
60
60
59

60
64
64
75
74
71

1.914
61,7
75
59
3,600

MEAN 91.2

, IN

DEC

50
49
49
49
50

49
49
49
49

43
36
36
36
36

35
35
35
35
35

27
21
21
21
21

21
21
21
22
22
22

35.3
50
21

MEAN
MEAN

CUBIC FEET

JAN

23
23
23
23
24

23
21
21
21

21
21
21
22
26

26
24
24
23
22

22
22
23
23
24

23
22
27
32
33
33

23.6
33
21

68

65
61
57

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62

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57
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58
. . . . . .

1,669
60.3
68
57

3,350

MAX 582

MAX 1,150 nn* ...

59

62
60
56

58
58
61
63
64

61
60
61
61
61

183
248
179

113

107
110
106
100
95

91

76
59
54
51

2,703
67,2
246
51
5,360

MIN 5.
UThl C

PER SECOND. MATER

FEB

32
33
33
33
28

24
25
25
26

25
25
25
25
26

26
26
29
29
56

56
63
66
68
64

60
57
56
54

38.8
68
24

1B6 MAX 1,150
81,3 MAX 508

MAR

53
50
51
54
54

52
50
50
47

52
54
53
52
54

57
58
57
56
57

56
59
56
59
63

60
60
64
67
67

56.0
67
47

MIN 21
MIN 21

49

49
54
53

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51
51
51
52

50
51
52
53
52

50
50
47

46

47
46
46
45
44

45

43
47
50

1,467
46.9
54
43
2.910

0 AC-FT

52

56
58
57

85
127
147
118

96
89
92
111
163

226
282
305

857

1,030
1,130
1,120
1,080
1,010

938

856
703

507

13,564
438
1,130
52
26,900

65,990

YEAR OCTOBER 1967

APR

66
49
50
57
60

54
58
70
85

117
114
103
106
115

95
75
66
66
63

59
59
71
62
101

127
141
153
169
163

90.2
169
49

AC-FT 134
AC-FT 59

MAY

165
173
223
363
366

330
286
336
371

344
317
246
217
230

273
317
353
409
504

S08
347
244
175
214

359
453
497
477
406
359

330
506
165

. 700
. 020

358 1
274 1
22?
262
393

463
647
691
697

746
719
678
714
822

901
1.040
1.100

1.010

1.060
1.040
990
1,010
1,100

1.060
1,050
1.010
1,060
1,150

23,652 14
788
1.150 1
222
46,910 28

TO SEPTEMBER

JUN

344
362
353
314
251

161
130
100
115
1*1

152
148
132
118
115

112
105
87
77
63

53
47
42
36
33

30
27
30
33
34

,090
,100
989
917
828

743
663
583
529

531
562
572
558
494

391
370
347

259

230
164
164
179
170

142
134
124
112
108

. 239
459
,100
87
,240

1968

JUL

35
35
36
35
35

35
36
36
36
35

35
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34
35
35

38
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34
34

35
35
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35
35

34
29
26
26
26
26

125 33.7
362
27

38
26

76 66 70 67
60 66
62 68
60 67

64 69
65 69
65 69
66 6B

67 6B
67 68
67 66
67 69
66 66

65 68
67 67
67 69

66 69

67 68
67 67
67 *7
67 67
73 67

70 67

68 67
66 67

57

2,067 2,032
66.7 67.7
76 69
60 66
4,100 4,030

AUG SEP

27 27
27 27
27 27
27 78
27 llo

27 108
27 108
27 108
27 100
27 108

27 108
27 112
26 112
29 112
32 112

32 110
32 110
31 110
31 106
30 108

30 108
31 107
30 107
30 107
29 105

28 107
27 108
27 107
27 110
27 108
27

882 2,977
26.5 99.2
32 112
27 27

SAN JOAQUIN RIVER BASIN

11296500 SOUTH FORK STANISLAUS RIVER AT STRAWBERRY, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

NOV DEC JAN FEB MAR APR MAY JUN JUL

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24
25

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27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
83
24
85

86
27
88
89
30
31

MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

108
107
107
107
100

105
110
108
108
107

107
107
115
110
108

108
108
107
105
105

103
101
100
103
103

103
101
101
103
96
90

3,851 3,
105
115
90
6,450

1968 TOTAL

OCT

63
63
63
63
63

33
17
17
17
17

17
17
17
17

90
58
59
60
60

62
62
60
60
60

60
60
62
62
60
60

48.9
90
17

3,010

1969 TOTAL
1970 TOTAL

89
95
167
110
103

132
152
177
206
208

199
210
201
189
181

179
173
181
183
165

125
52
50
44
42

21
6.8
5.7
6.0
6.0

658.5
122
210
5.7
7,260

32,283.9

DISCHARGE

NOV

62
68
63
66
66

68

66
66
66

66
66
67
67

7
6
4
4
4

64
64
66
66
64

64
64
63
63
64

65.1
68

3.870

76,035.4
46,148.0

5.7
5.7
5.3
5.0
5.3

5.0
5.0
5.0
4.7
6.0

6.0
5.7
5.7
5.7
6.8

6.4
6.0
6.4
6.0
6.0

6.8
6.4
6.8
10
8. 8

7.9
7.1
7.5
7.1
6.8
6.8

195.4
6.30
10
4.7

MEAN

6 8
6 8
7 1
7 9
8 4

8.4
35
47
44
37

33
37
52
51
46

45
51
62
91
183

149
92
78
70
99

116
70
52

40
41

1.650.4 1
53.2
149
6.8
3,270 8

88.2 MAX

36
39
38
38
38

41
36
42
46
46

46
46
45
45
45

45
44
44
44
43

47
51
51
51
52

51
50
50

,250
44.6
52
36
,480

508
1 . 9OA

50
50
50
50
49

50
50
79
116
114

113
113
113
111
110

111
110
110
113
79

55
55
57
63
73

94
132
161
177
195
254

3,057
98.6
254
49

MIN 4

, IN CUBIC FEET PER SECOND, WATER

DEC

66
66
64
64
64

64

64
63
63

63
63
68
68

60
60
59
63
134

163
114
93
78
103

S8
71
68
70
67

74.2
163

4,560

MEAN
MEAN

JAN

64
62
60
60
60

62

62
68
66

63
63
63
68

232
137
82
64
74

443
414
204
143
105

81
75
60
54
52

104
443

6,380 3

208 MAX 1
132 MAX

FEB

50
51
50
50
47

51

56
54
53

53
59
57
54

59
57
57
56
56

54
53
54
56
56

57
58
59

54.6
59

,030

,290
848

MAR

57
59
57
56
56

56

58
56
56

54
54
58
63

64
67
64
62
60

62
66
74
84
96

100
96
95
98
92

68.5
100

4,210

MIN 6.
MIN 17

181
108
84
77
96

78
67
64
64
64

81
107
114
103
87

87
108
130
135
173

210
228
212
152
123

114 lie
146
1 83
201

217
206
161
144
189

293
704
671
992
909

904
919
997
,010
926

933
,030
,100
,030
933

952
,070
,160
,180
,150

,200
,260
,160
,140
,150

3.695 27,102
123
828
64

874
. 260
144

. 7 AC-FT 64,040
. 7 AC-FT 153,500

YEAR OCTOBER 1969

APR

79
85
89
95
108

120

118
127
137

161
201
165
163

134
117
100
103
98

92
87
81
81
100

123
114
93
67
98

MAY

155
199
239
330
380

389

298
298
366

296
242
304
494

759
839
750
651
573

566
659
671
647
635

704
667
573
558
573

113 497
201 839

6,750 30.570

1,250
1,260
1.290
1.160
1,080

1,070
982
826
659
467

360
405
536
691
781

712
570
696
772
588

604
635
671
596
592

518
487
443
417
450

21,588 8
780
1.890
380

TO SEPTEMBER

JUN

635
585
558
600
547

511

533
848
447

325
286
189
163
173

181
232
283
353
347

330
301
258
226
193

235
725
244
157
123

11.085 1
370
848
123
21.990 3

497
511
490
440
414

395
371
380
383
359

347
330
322
342
293

246
193
206
204
193

175
161
175
143
110

64
70
63
64
60
57

,078
261
511
57
,020

1970

JUL

107
93
92
78
70

63

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62
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63
56
53
51
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49
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46
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47

. 851
59.7
107
46
,670

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1,933
62.4
64
59
3,830

AUG

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47
37
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27
28
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28

1,174
37.9
47
27
2.330

64
64
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63
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64

1,914
63.8
66
63
3,600

SEP

27
27
27
44
49

49

82
101
101

101
101
101
101
101

101
101
101
103
103

103
101
103
103
101

101
101
100
100
100

86.1
103
27
5,120

8 AC-FT 150. «00
AC-FT 95.490

SAN JOAQUIN RIVER BASIN

11297000 PHILADELPHIA CANAL NEAR STRAWBERRY, CALIF.

PERIOD OF RECORD.--October 1939 to September 1970.

GAGE.--Wat

AVERAGE DISCHARGE.--31 years, 43.0 cfs (31,150 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 64 cfs in 1941, 1961-63, 1965; no flow at times in sor

basin elsewhere in this report.

COOPERATION.--Gage-height record and 13 discharge measurements for the water years 1966-67 furnished by Pacifi

with a Federal Power Commission project.

DISCHARGE. IN CUBIC FEET PER SECOND. HATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

1

OCT

61
61
61
61
61

61
61
61

JAN

55
55
55
55
55

1.*
2.1
2.1

JUL

31

2.0
1.6

Jl

TOTAL
MEAN
MAX
M1N

CAL YR
WTR YR

^n

837.0 i
21. 0
61
3.0

1965 TOTAL
1966 TOTAL

L.751
SB. 4
61
54

19.476.
16.964.

3D

1.743
56.2
58
55

40 MEAN
10 MEAN

3D

1.717
55.4
56
55

53.4
46.5

1.565
55.9
56
55

MAX 64
MAX 62

57.4
60
56
3,530

MIN .10
MIN 0

59.9
62
55
3.S60

AC-FT
AC-FT

3B ----

59.5 20.7
62 51
58 0
3.A6>0 1.230

38.630
33.650

JU

950
30.6
31

29 i.eeo

JO

1.266
40.8
57
30
2.510

1.096
36.5
46
36
P.170

SAN JOAQUIN RIVER BASIN

11297000 PHILADELPHIA CANAL NEAR STRAWBERRY, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR MAY JUN JUL

15

16
17
18
19
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24
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28
29
30
31

MEAN
MAX
MIN
AC-FT

CAL YR

DAY

1
2
3
4
S

6
7
6
9
10

11
12
13
14
15

16
17
IS
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL MEAN
MAX
MIN

CAL YR
WTR YR

19

11
11
6.1
1.2
1.2

1.2
3.0
4.9
4.9
3.2

. 80
. 80
. 80
. 80
. 70
2.1

17.1
ft6
. 70
1.050

20

ftl
39
20
6.3
16

43
54
53
53
53

54
56
48
53
S3

24.7
56
. 90
I.ft70

1966 TOTAL 15.557

OCT

61
61
61
61
61

62
61
61
61
61

61
61
61
61
60

61
60
61
61
61

61
60
61
61
61

61
61
61
61
61
61

1.889
60.9
62
60

S3 57

5ft 56
54 b6
53 56
53 56
S3 57

53 57
5ft 55
55 55
55 55
55 55

55 55
55 56
55 56
55 57

55 57
55 57

53.3 55.7
55 57
44 55
3.280 3.430

. 60 MEAN 42.6

DISCHARGE. IN CUBIC FEET

NOV

60
60
60
60
60

60
60
60
60
60

60
60
60
60
S3

33
35
33
31
31

31
31
31
31
31

31
31
31
31
31

1.366
ftS.S
60
31

1967 TOTAL 18r610
1968 TOTAL 14,445

DEC JAN

31 11
31 11
31 12
31 5.3
31 .28

31 .21
31 .21
31 .68
31 2.8
31 15

28 21
23 21
26 19
35 18
30 18

30 IB
30 18
30 18
30 IB
30 17

24 16
11 16
11 16
11 16
11 16

11 16
11 16
11 22
11 31
11 31
11 30

736 470.48
23.7 15.2
35 31
11 .21

. 20 MEAN 51.0
. 98 MEAN 39.5

56

56
56
56
56
55

55
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55
55
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55
55
55

55.6
57
55
3.090

MAX 62

52

56
SO
51
51
52

S3
53
S3
54
54

54
54
S3
52
52
53

55.0
59
50
3.380

MIN 0
UTU n

52

52
52
52
51
51

51
51
51
51
51

51
51
50
51
51

51.6
S3
50
3,070

AC-FT 30,
Ar.rr »*»-

61

59
59
56
57
60

59
IB
0
0
0

0
0
0
0
0
0

38.7
61
0
2,380

860
ann

PER SECOND, WATER YEAR OCTOBER 1967

FEB

31
31
31
31
26

20
19
20
21
21

21
21
21
21
21

21
22
22
22
32

47
50
52
S3
53

52
52
52
52

938
32.3
53
19

MAX 62
MAX 63

MAR

53
52
53
55
56

55
53
52
52
50

53
55
55
54
55

55
55
55
55
55

55
55
55
58
60

60
60
60
60
61

1.722
55.5
61
50

MIN 0
MIN .21

APR

60
56
54
56
59

58
59
62
62
62

62
60
60
60
61

59
59
59
61
43

31
30
31
31
31

31
31
31
48
58

1.527
50.9
62
30

AC-FT
AC-FT

MAY

57
59
61
59
58

58
56
57
SB
59

59
59
59
59
60

60
60
60
59
60

63
59
SB
58
60

62
61
61
60
60
59

1.638
59.3
63
56
3,650

36,910
28,650

59

60 -
60
51
56
56

56
61
62
62
60

60
61
59
62
59

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45.7 59.4
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TO SEPTEMBER

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1,528
50.9
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3,030 1

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1968

JUL

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2B.6
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1,851
59.7
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3,670

AUG

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9.5

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14.5
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1.822
60.7
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3,610

SEP

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36.6
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2,180

SAN JOAQUIN RIVER BASIN

11297000 PHILADELPHIA CANAL NEAR STRAWBERRY, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 196fl TO SEPTEMBER 1969

NOV DEC JAN FEB MAR APR MAr JUN JUL

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TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

DAY

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TOTAL
MEAN

MAX MIN
AC-FT

CAL YR
WTR YR

40

3125
as
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as

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as
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as
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as
as
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35.1 "> =

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a. 160 a, 890

1968 TOTAL 13.06Z.
1969 TOTAL

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a. 460

1969 TOTAL
1970 TOTAL

17.492.

1.1 1.5
1.3 1.5
1.2 1.3
3.0 » 4.5
6.7 3.9

1.3 4.9
. 99 7.1
1.3 9. a
2.0 7.9
2.0 16

1.9 23
2.3 30
1.7 46
1.7 48
1.7 47

1.7 46
1.9 48
2.2 55
3.0 60
3.0 59

3.0 53
3.0 52
3.0 54
2. 8 54
1.0 51

1.1 47

1.9 48

l!s 47

1.5 47

63.99 1,066.8

6.7 60
. 99 1.3
127 2,120

17 MEAN 35.7
99 MEAN 47.9

DISCHARGE, IN CUBIC FEET

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1.691
56.4
61
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3,350

19,333
18.821

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54 55 55 55

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4B.9 54.4
56 58
25 49

3,010 3,340

77 MEAN 53.0
97 MEAN 51.6

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1.327 1

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MAX 63 MIN
MAX 63 MIN

PER SECOND,

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55.3
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3,070 3

MAX 63 MIN
MAX 63 MIN

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WATER

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AC-FT
AC-FT

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34,700

YEAR OCTOBER 1969

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57.6
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3,430

AC-FT
AC-FT

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1.786
57.6
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3,540

38,350
37.330

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TO SEPTEMBER 1970

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52.2
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34.9
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9.5
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46.4
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7.4
2.760

SAN JOAQUIN RIVER BASIN

11297500 TUOLUMNE CANAL NEAR LONG BARN, CALIF.

PERIOD OF RECORD.--October 1937 to September 1970.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 4,110.0 ft above mean sea level (river-profile survey). Prior to June 1938, at site 200 ft downstream at different datum.

AVERAGE DISCHARGE.--33 years, 25.6 cfs (18,550 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 56 cfs May 30, 1963; no flow at times in some years.

COOPERATION.--Gage-height record and 16 discharge measurements for the water years 1966-67 furnished by Pacific

by

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

OCT NOV DEC JAN FEB MAR APR MAY JUN JUL

CAL YR 1965 TOTAL 11.332
NTR YR 1966 TOTAL 11.403

986
31.8
38

MEAN 31.0
MEAN 31.2

665
23.8

MAX 52
MAX 52

MIN IS
MIN 10

1.077
35.9

AC-FT 22.*80
AC-FT 23)620

26
. 380

1.173
37.8

38
38
38
38

1.166
37.6
38
37
2.310

898
29.9

22
1.780

SAN JOAQUIN RIVER BASIN

11297500 TUOLUMNE CANAL NEAR LONG BARN, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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TOTAL
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MAX
MIN
AC-FT

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WTR YR

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TOTAL
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MAX

MIN
AC-FT

CAL YR
»TR YR

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642
20.7
22
15
1.270

1966 TOTAL
1967 TOTAL

OCT

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28
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15.1
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12
897 1

10,992
11.038

DISCHARGE.

NOV

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8.1

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8.1
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590 452.2
19.0
30
11
1.170

1967 TOTAL
1968 TOTAL

15.1
25
0

10.934.1
9,748.2

DEC

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624
20.1
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MEAN 30.1

JAN

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26

996
32.1
36
24
,980

MAX
MEAN 30.2 MAX

IN CUBIC FEET

DEC

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IS
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17
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572
18.5
25
14
,130 1

MEAN 30
MEAN 26

JAN

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IS
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IS
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IS
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16
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518
16.7
25
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FEB

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951
34.0
36
27
1.890

52 MIN
54 MIN

PER SECOND

FEB

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16.6
25
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33
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964
31.1
38
16
1.910

10 AC-FT
12 AC-FT

APR

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820
27.3
35
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21,800
21.890

MAY

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. WATER YEAR OCTOBER 1967

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. 6 MAX 5? MIN 0 AC-FT

APR

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ft60
22.0
26
20
,310

21,690
19.340

MAY

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1,279
41.3
52
37

JUN

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1,114
37.1
54
26
2.210

TO SEPTE

JUN

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3P
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37.?
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JUL AUG SEP

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42.4 38
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1 41
4 30

2,610 2.340 1,970

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JUL AUG SEP

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36 <>4 30
34 44 30

35 45 33

34 44 33

34 44 3?
34 < 5 33
34 45 33

34 44 34
37 4
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39 <
41 4

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4 35
4 14
1 34

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43 :
42 :

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9 34
7 34
42 36 35

4? 33 35
42 3
42 3
42 3

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42 30 34

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44 30 34
44 30 --- -

1,220 1,182 l.OOS
39.4 38.
44 4

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5 35
33 30 30

SAN JOAQUIN RIVER BASIN

11297500 TUOLUMNE CANAL NEAR LONG BARN, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968~TO SEPTEMBER 1969

DAY

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2B
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TOTAL

MEAN
MAX

MIN
AC-FT

CAL YR
WTR YR

DAY

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TOTAL
MEAN
MAX

MIN AC-FT
C»L YR
WTR YR

OCT

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35
3ft
34

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35
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2ft

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ftl
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813 733
26.2 24. ft
35 ftl
14 11
1,610 11450 1

1968 TOTAL 10,677
1969 TOTAL 13,087

DISCHARGE,

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2 25
2 12
2 8.8
2 2ft

2 27
2 18
2 26
2 26
2 20

2 15
2 15
2 15
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2 15

27 15
27 15
27 15
27 15
13 15

10 15
10 15
9.2 15
14 15
25 15

25 15
13 15
9.2 15
9.9 15
9. ft 15
13 ......

673.7 511.8
21.7 17.1
27 27
9.2 B.B
1,340 1,020

1969 TOTAL 12,227.5
1970 TOTAL 12,219.5

DEC

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MEAN 29
MEAN 35

IN CUB

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13
13
12
12

498
16.1
25
12
988

MEAN
MEAN

30
30
30
30
30

30
30
30
30
32

37
37
34
31
31

35
37
36
29
25

25
2ft
2ft
25
26

25
29
35

30.5
38
2ft
1,880 2

. 2 MAX 52
. 9 MAX 52

1C FEET PER

JAN

12
12
12
12
12

12
12
12
13
13

13
13
22
26
25

18
12
12
21
30

34
33
33
31

33
33
33

34

679
21.9
3ft
12

33.5 MAX
33.5 MAX

33
28
30
38
38

38
38
3B
37
38

39
39
34

31

25
33
38
38
38

38
38
38
38
38

38
38
38

36.0
39
25
,000 2

MIN 11
MIN 11

SECOND.

FEB

3ft
3ft
3ft
35
35

34
35
33
3ft
36

38
40
4ft
36
32

32
37
31
35
3ft

3ft
30
33
35

38
ftO
ftl

. . . .

987 1
35.3
ft4
30

52 MIN
5ft MIN

38
38
38
37
37

37
37
37
39
38

39
37
4ft

ft6

38
38
39
37

40
37
37
37
37

37
37
37
37
37

37
36
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36
37

36
36
36
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36

36
36
36

36

36

36
36
36
36
36

36
36
37
37
37

37
37
38
39
40

39
45
ftft
ftft
ftft

44

ftft

44

51

51
51
52
51
52

45
4ft
44
41
43

38.5 36.2 ftft.ft
46 37 52
37 35 37
,370 2,150 2,730

AC-FT 21,180
AC-FT 25,960

WATER YEAR OCTOBER 1969

MAR APR MAY

30 ftl
3ft ft2

36
35
35
35
37

37
37
38
39
39

38
41
45
42
ftl

ftl
ftO
41
44

46
ftl
ftl
ftl
ftl

,212
39.1
46
30

8.8
8.8

43
ft2
ft3
ft3
ftft

ftO
ftl
ft3
ft3
ftft

ftft
43
ft3
ft3

ft3
ft7
50
53
52

53
5ft
51
45
41

1.342 1
ftft. 7
54
40

AC-FT 2ft, 250
AC-FT 2ft,2ftO

53
49

40
40
40
ftO
ftl

ftl
ftl
ftl
35
ftl

ft2
43
42
41

43
4ft
43
43
43

ftft
43
43
43
43

,319
ft2.5
53
35

JUN

ftft
44
44
44
44

43
39
43
43
45

44

48

48

41

43
44
44
42
45

45
45
46
46
47

1,318 1
43.9
46
39
2,610 2

TO SEPTEMBER

JUN

41

45
46
46
ftft
39

ftl
ft3
ftft
44
43

43
49
44
40

43
ftft
ftft
ft3
ftft

ftft
44
42
43
ftft

JUL

ft2
ftl
ftS
45
45

45
46
46
45
45

46

44

ftft

45

45
45
45
45
44

40
38
38
38
36
38

,344
43.4
ft7
36
,670

1970

JUL

43

38
35
35
36
36

35
35
35
35
35

35
35
35
35

35
37
38
38
38

37
39
ftl
ftl
ft4

1,293 1,161
43.1 38.1
49 46
39 35
2,560 2,340

AU6 SEP

38 40
38 40
39 40
38 40
38 40

38 40
38 ftO
38 40
38 40
38 38

ftl 38

ftl 36

40 36

40 34

41 34
41 33
40 32
40 32
40 29

40 27
40 27
40 26
ftO 27
40 27

1,227 1,045
39.6 3ft. 8
ft2 40
38 26
5.430 2,070

AUG SEP

46 43

4ft 43

ftft ftl
ftft ftl
ftft ftl
ftft ftl
43 ftl

43 ftl
42 ftl
43 ftl
43 ftl
43 ftl

ft3 ftl
ft2 39
«3 39
ft3 39

ft3 39
42 38
42 37
ft3 37
43 37

42 37
43 37
43 3ft
43 33
42 33

1,340 1,183
ft3.2 39.4
46 43
42 33
2,660 2,350

SAN JOAQUIN RIVER BASIN

11298000 SOUTH FORK STANISLAUS RIVER NEAR LONG BARN, CALIF.

LOCATION.--Lat 38"!
Forest, on left
Sonora.

DRAINAGE AREA.--66.9 sq

Nati

bank 600 ft downstrea west of Long Barn, and 15 miles northeast of

1937 to .September Monthly discharge only for periods, published

AVERAGE DISCHARGE.--33 years, 87.9 cfs [63,680 acre-ft per ye

Wtr y
1966
1967
1968
1969
1970

Oct. 18, Nov. 12-14, 1966, Feb. 20, 1967.

>. --Maxim!

Dntained in th<! following table:

Maximum
Date
May 10,
May 2 3 ,
May 30,
Jan. 21,
June 9 ,

1966
1967
1968
1969
1970

Discharge
1,080
1,470
546
1,580
1,320

G.H.
5.40
b.08
4.21
6.14
5.75

Date
Apr. 24,
(a)
Nov. 24,
July 29,
Aug. 4,

Minimum daily

1966

1967
Sept. 13, 16-30, 1969
5, 1970

iter vears

Discharge
. 90
1.7
1.1
1.9
1.5

urn discharge, 4,900 cfs Nov. 21, 1950 (gage height, 9.3 ft], from ratin
extended above 1,100 cfs on basis of computation of peak flow o

REMARKS.--No gage-height ord Dec. 15, 1966, to Jan. 26, 1967 Flow regulated by Lyons Reservoir 600 ft
(capacity, 5,400 acre-ft] and by Pinecrest Lake (capacity, 18,30
tion 11297500) divert t Lyons Dam; for oth

COOPERATION.--Gage-height
5 Electric Co., in connection with a Federal Power Commission project; records for the water years 19b8-7 with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 1215: 1938(M). WSP 1930: Drainage area.

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL

1 2. 2 z.
3 2,
4 2.
S 2.

6 1.
7 1.
8 1.
9 1.
10 1.

11 1.
12 1.
13 1.
14 2.
15 2.

16 1.
17 2.
IB 2.
19 2.
20 2.

21 2.
22 2.
23 2.
tit 2.
25 2.

26 2.
27 2.
28 2.
29 2.
30 2.
31 2.

TOTAL 63 t MEAN 2.0
MAX 2.

MIN i.

2.1
2.1
2.1
2.1
2.1

2.1
2.1
2.1
2.1
2.1

2.1
2.1
2.1
2.1
2.1

2.1
2.1
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2.1
2.1

2.1
2.1
2.1
2.1
2.1

2.1
2.1
2.1
2.1
2.1

63.0
2.10
2.1
2.1
AC-FT 126 125

CAL YR 1965 TOTAL 40,190.
*TR YR 1966 TOTAL 11,379.

2.1
2.6
2.6
1.7
1.7

2.8
2.6
2.1
2.6
2.1

2.1
1.9
2.3
2.6
2.3

2.1
2.3
2.3
2.3
2.1

1.9
1.9
2.1
2.1
2.3

2.3
2.3
2.3
2.1
1.9
1.7

68.1
2.20
2.8
1.7
135

20 MEAN
20 MEAN

I ,
I t
1 ,
1 ,
2.

2<
1 .
1 1
I.

j .

2.
2,
2,
2.
1 .

j ^
1 1
1 .
2.
2.

2.
2.
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1 1

2.
2.
2.
1 1
I B

60.
1.9
2.
1 ,
12

2.1
2.1
2.3
2.1
1.9

2.1
2.1
2.3
2.3
2.1

2.1
2.1
2.1
2.1
2.1

2.1
2.1
2.1
2.1
2.1

2.1
2.3
2.3
2.3
2.3

2.3
2.3

2.3 _*____

60.6
2.16
2.3
1.9
120

110 MAX 820
31.2 MAX 492

2.3
2.1
2.1
2.3
2.1

2.1
2.1
2.1
2.1
2.1

2.1
1.9
1.9
1.9
2.1

2.1
2.1
2.1
2.1
1.9

2.1
2.1
2.1
2.1
2.1

2.1
2.1
2.3
2.1
1.9
2.1

64.7
2.09
2.3
1.9
128

MIN 1.

MIN .

2.1 310
2.1 295
2.1 350
2.1 66
2.1 05

1.9 32
2.1 74
2.1 20
2.3 42
2.1 92

j B
j t
1 t
1 t
1.

!.
I .

j .
1 1
2.

2.
2,
1 ,
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1.

56
38
29
8*
56

288
290
318
352
338

330
300
285
0 168
212

(.7 193
287 184
275 133
298 137
295 63
33

1,250.70 8,973
41.7 289
298 492
. 90 33
2,<>BO 17,800

7 AC-FT 79,720
90 AC-FT 22,570

32 2.1
SO 2.1
47 2.1
43 2.1
42 2.1

43 2.1
45 2.1
SO 2.1
SO 2.1
45 2.1

3B 2.1
25 2.1
24 1.9
19 1.9
2.B 2.1

2.6 2.3
2.3 2.1
2.1 2.1
2.1 2.1
2.1 2.1

2.1 2.1
1.9 2.1
2.3 2.1
2.3 2.1
2.1 2.1

2.1 2.1
1.9 2.1
1.9 2.1
1.9 2.1
1.9 2.1

1 1
B 1
. 3
. 3
4 1

. 9
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B 1
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,9
,9
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,9

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. 7
. 7
. 9

. 1
. 9
. 9
. 9
. 1
2.1

587.4 64.9 61.1
19.6 2.09 1.97
50 2.3 2.3
1.9 1.9 1.7
1,170 129 121

1.9
1.9
1.9
1.9
1.9

1.9
1.9
2.1
2.1
2.1

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2.1
2.3
2.3

2.1
2.1
2.1
2.1
1.9

1.7
1.7
2.1
2.3
2.1

61.2
2.04
2.3
1.7
121

SAN JOAQUIN RIVER BASIN

11298000 SOUTH FORK STANISLAUS RIVER NEAR LONG BARN, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. MATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

1
2
3
4
5

6
7
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10

11
12
13
1*
15

16
17
IB
19
20

21
22
23
24
25

26
27
26
29
30
31

TOTAL
MEAN
MAX
WIN
AC-FT

CAL YR
KTR YR

DAY

i
2
3
4
5

6
7
e
9
10

11
12
13
14
IS

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN MAX
MIN
AC-FT

CAL YR
WTR YW

OCT

2.1
2.1
2.1
2.1
2.1

2.1
2.1
2.1
2.1
2.1

2.1
2.1
2.1
2.1
1.9

1.9
1.9
1.7
1.9
2.1

2.1
2.1
2.1
2.1
2.1

2.1
2.1
2.1
2.1
2.1
2.1

63.9
2.06
2.1
1.7
127

1966 TOTAL
1967 TOTAL

OCT

2.1
2.1
2.1
2.1
2.1

2.1
2.1
2.1
2.1
2.1

2.1
2.3
2.3
2.3
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2.13
2.3
2.1
131

1967 TOTAL
1968 TOTAL

NOV

2.1
2.1
2.1
2.1
2.1

2.1
2.1
1.9
1.9
1.9

1.9
1.7
1.7
1.7
1.9

2.6
2.1
1.9
1.9
2.3

2.3
2.3
2.1
2.1
2.1

2.1
1.9
2.1
2.1
2.1

DEC

2.1
2.8
2.3
2.1
2.8

2.8
2.6
2.3
2.1
2.1

2.1
1.9
1.9
2.1
11

7.0
2.1
2.1
7.0
7.0

7.0
7.0
7.0
2.1
2.1

2.1
7.0
7.0
7.0
7.0

61.3 125.6
2.04
2.6
1.7
122

11.435.30
56.769.20

DISCHARGE

NOV

2.1
2.1
2.1
2.1
2.1

2.1
2.1
2.1
2.1
2.1

2.1
2.1
2.1
2.1
2.1

2.1
2.1
2.1
2.1
2.1

1.9
1.4
1.3
1.1
1.3

1.3
1.3
2.1
1.7
1.3

1.89
2.1
1.1
112

56,705.4
8.652.U

4.05
11
1.9
249

MEAN
MEAN

JAN

2.1
2.1
2.1
2.1
2.1

2.1
2.
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2.
2.

2.
2.
2.
2.
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2.2
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2.2

2.2
2.2
2.2
2.2
2.2

2.3
2.3
2.4
2.8
95
198

356.3
11.5
198
2.1
707

31.3
156

, IN CUBIC FEET

DEC

1.9
2.3
2.1
2.1
2.1

2.1
2.3
1.9
1.9
1.9

2.1
2.1
2.1
2.6
2.1

2.1
1.9
1.9
1.9
2.1

2.1
2.1
2.1
1.9
1.7

2.3
2.3
2.1
2.1
2.1
2.1

2.08
2.6
1.7
128

MtAN

MEAN

JAN

1.9
1.7
2.1
2.1
2.1

1.7
1.9
2.1
2.3
2.6

2.1
2.1
1.9
1.9
2.3

2.1
2.1
2.1
2.1
2.1

2.1
1.9
2.1
2.1
2.1

2.1
2.1
2.1
2.1
2.1
2.1

2.07
2.6
1.7
127

155
23.6

FEB

126
86
61
49
35

29
26
24
21
16

12
13
14
17
14

10
7.4
5.6
3.3
1.7

2.0
2.1
2.1
2.1
2.1

1.9
2.1
2.1

587.5 3,
21.0
126
1.7

1,170

MAX 492
MAX 1,250

PER SECOND

FEB

2.1
2.1
1.9
1.9
2.1

2.1
2.3
2.3
2.3
2.1

2.1
2.1
2.1
2.1
2.1

2.1
2.3
2.1
2.1
2.1

2.1
1.9
1.9
2.1
2.1

2.1
1.9
1.7
1.7

2.07
2.3
1.7
119

MAX 1,250
MAX 467

MAR

2.1
2.1
2.3
2.2
2.1

2.1
2.1
2.1
2.0
1.9

2.1
2.5
2.2
2.1
6.1

341
592
384
269
209

180
170
168
149
127

111
94
108

65
59

147.0
102
592
1.9
6,240

MIN

MIN i

. WATER

MAR

1.9
2.1
2.1
2.1
2.1

2.1
2.1
2.3
1.9
1.9

2.1
3.0
3.0
2.1
2.1

2.1
2.1
2.1
2.1
2.1

2.1
2.1
2.1
2.1
2.1

2.1
2.1
2.1
2.1
2.1
2.1

2.15
3.0
1.9
132

MIN 1.
MIN 1,

APR MAY

46 44
39 57
33 80
44 110
44 132

49 139
69 181
56 249
60 333
61 410

70 298
59 228
67 195
75 185
74 217

62 290
65 347
84 376
63 531
53 680

53 1,080
48 1.220
43 1,250
44 1.190
43 1,140

47 1,050
60 1,000
50 985
40 766
42 692
555

1,663 16,210
55.4 523
84 1,250
33 44
3,300 32,150

. 90 AC-FT 22,660
. 7 AC-FT 112,600

JUN

406
292
230
237
352

345
370
552
607
598

662
650
605
613
724

858
963
1,130
1,010
952

1,090
1,070
1,010
974
1,080

1,100
1,060
1,030
1,040
1,150

22,760
759
1,150
230
45,140

JUL

1.130
1,070
1,050
909
837

733
707
616
536
356

222
363
461
470
446

301
246
253
207
153

134
107
52
76
73

54
36
27
21
12
6.8

11,664.8
376
1,130
6.8
23.140

AUG

2.6
2.3
2.0
2.0
2.1

2.1
2.1
2.1
2.1
2.1

1.8
2.1
2.3
2.3
2.3

2.3
2.1
2.0
1.9
2.0

2.3
2.3
2.2
2.0
2.2

2.2
2.2
2.1
2.1
2.1
2.1

66.4
2.14
2.6
1.8
132

SEP

2.1
2.0
2.1
2.1
2.1

2.1
2.1
2.0
2.0
2.1

2.1
2.1
2.0
1.9
2.1

2.2
2.3
2.3
2.3
2.2

2.1
2.1
2.2
2.3
2.1

2.2
2.1
2.0
2.0
2.1

63.4
2.11
2.3
1.9
126

YEAR OCTOBER 1967 TO SEPTEMBER 1968

APR MAY

2.1 2.3
2.1 2.3
2.1 30
2.1 257
2.1 277

2.1 163
2.1 198
2.1 172
2.1 268
2.1 229

2.1 240
2.1 207
2.1 183
2.1 111
2.1 111

2.1 166
2.3 192
2.1 213
2.1 291
2.1 344

2.1 467
2.1 296
2.1 127
2.1 63
2.1 76

2.1 211
1.9 326
1.9 384
1.9 379
1.9 362
215

2.08 212
2.3 467
1.9 2.3
124 13,060

1 AC-FT 112,500
1 AC-FT 17,160

JUN

221
236
246
209
154

58
27
13
12
23

40
45
37
21
17

11
7.2
3.9
2.6
1.9

1.9
2.1
2.1
2.3
2.3

2.1
2.1
2.1
2.1
2.1

47.0
246
1.9
2,800

JUL

1.9
2.3
2.1
1.9
2.1

2.3
2.6
2.6
2.3
2.1

2.1
1.9
2.1
2.1
1.9

1.9
2.1
2.1
2.1
8.2

7.2
2.3
1.9
2.1
2.1

2.1
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2.48
8.2
1.9
153

AUG

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2.26
2.6
2.1
140

SEP

2.6
2.6
2.6
2.6
2.6

2.6
2.6
2.3
2.3
2.3

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2.3
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2.3

2.3
2.3
2.3
2.3
2.3

71.1
2.37
2.6
2.3
141

SAN JOAQUIN RIVER BASIN

11298000 SOUTH FORK STANISLAUS RIVER NEAR LONG BARN, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY

1
2
3
4
5

6
7
a
9
10

11
12
13
14
15

16
17
IS
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

OCT NOV DEC

2.4 2.6 2.6
2.4 2.
2.4 79
2.4 48
2.4 37

2.4 33
2.4 62
2.4 68
2.4 107
2.4 94

2.4 93
2.4 146
2.4 137
2.4 119
2.4 120

2.4 BO
2.4 71
2.4 81
2.4 103
2.1 91

2.1 66
2.1 19
2.1 2.
2.1 2.

9 2.6
2.6
2.4
2.4

2.4
2.4
2.4
2.6
2.6

2.4
2.6
2.6
2.4
2.6

2.4
2.4
2.4
2.4
2.4

2.4 1
2.4
b 2.4
6 2. S
2.1 2.6 37

2.1 2.4 34
2.1 2. 1 9.S
9.4 2.1 5.0
2.6 2.4 2.8
2.1 2.6 2.6
2.1 2.4

78.6 1>678.8 153.2 6
2.54 56.
9.4 14
2.1 2.

0 4.94
b 37
1 2.4
156 3.330 304

1968 TOTAL 10.375.6 MEAN
1969 TOTAL 70.915.5 MEAN

JAN

2.
2.
2.
2.
2.

2.
2.
2.
2.
3.

10
5.9
113
177
69

38
23
35
511
623

,220
611
296
229
729

885
415
262
161
120
81

. 639.1
214
1.220
2.4
13,170

28.3
194

DISCHARGE, IN CUBIC FEET

DAY

1
2
3
<t
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR

OCT NOV DEC

2.1 1.
2.1 1.
2.1 2.
2.1 2.
2.1 2.

2.1 2.
2.1 2.
2.1 2.
2.1 2.
Z.I 2.

2.1 2.
2.1 2.
2.1 2.
2.1 2.
2.4 2.

2.6 2.
2.4 2.
2.1 2.
2.1 2.
1.9 2.

2.4 2.
2.1 2.
2.1 2.
2.4 2.
2.1 2.

2.1 2.
2.1 2.
2.1 2.
2.1 2.
2.1 2.
2.1

66.6 63.
2.15 2.1
2.6 2.
1.9 1.
132 12

7 2.1
7 1.9
1 1.9
4 1.9
4 2.1

4 2.4
1 2.4
1 2.1
1 1.9
1 1.9

1 1.9
1 1.9
1 1.9
1 1.9
1 2.1

1 2.1
1 2.1
1 2.1
2.4
2.6

2.6
2.4
2.1
2.4
2.6

2.4
2.1
2.1
2.1
2.1
2.1

66.6 4
2.15
2.6
1.9
132

1969 TOTAL 69,201.2 MEAN

JAN

2.1
2.1
2.1
2.1
2.1

2.1
2.1
2.1
2.4
2.4

2.1
2.1
2.1
2.8
2.4

454
652
308
173
13S

656
775
364
362
222

156
170
117
81
66
45

. 772.1
154
775
2.1
9,470

190

FEB

63
55
50
35
34

34
22
18
15
15

18
43
39
41
81

78
54
48
39
31

26
23
25
28
22

19
13
12

9S1 3
35.0
81
12
1,950

MAX 467
MAX 1,340

PER SECOND

FEB

30
27
21
12
6.6

4.4
3.3
3.3
3.9
3.3

2.6
2.9
3.1
19
19

19
62
47
32
25

21
16
16
12
8.7

7.6
6.6
5.9
. . . . . .
. . . . . .

440.2

62
2.6
873

MAX 1,340

MAR

13
9.4
9.8
6.9
6.6

S.O
7.3
7.3
45
62

57
60
53
53
58

65
80
96
107
109

77
72
86
103
12S

156
209
27S
315
354
412

103.3
100
412
6.6
6,160

MIN 1.
MIN 1.

, WATER

MAR

65
81
62
56
48

44
40
40
37
37

30
24
20
20
21

19
16
12
6.9
5.6

5.3
5.3
4.1
2.1
2.1

12
19
17
17
15
9.4

792.8

81
2.1
1.570

MIN 1.
MIN 1.

APR

412
280
249
199
352

303
231
197
173
158

172
205
215
195
156

58
161
226
165
190

226
258
273
207
146

116
104
116
151
175

6,069
202
412
58
12,040

7 AC-FT
9 AC-FT

MAY

188
190
143
110
113

193
529
841
1,020
956

910
920
1,000
1,050
962

925
1,020
1.130
1.090
946

941
1,050
1,200
1,210
1.180

1,190
1,320
1,240
1,170
1,200
1,200

27,137
675
1.320
110
53,830

20,580
140,700

YEAR OCTOBER 1969

APR

4.7
3.6
3.3
3.9
6.9

19
28
26
26
40

48
96
94
73
66

60
43
30
24
21

16
12
7.3
3.3
2.4

2.4
13
18
4.4
3.1

798.3

96
2.4
1.580

7 AC-FT
s 4C-FT

MAY

15
71
111
205
260

332
241
229
186
271

?39
175
166
329
508

681
765
770
615
511

454
539
607
575
542

607
472
372
357
475
514

12,194

770
15
24.190

137.300
55.850

JUN

1,290
1,290
1,340
900
1,080

1,140
1,050
885
571
385

339
262
337
595
756

66B
583
520
770
643

452
490
673
526
475

457
410
354
271
287

19,799
660
1,340
262
39,270

JUL AU6 SEP

412 2.
407 2.
404 2.
367 2.
320 2.

284 2.
256 2.
256 2.
280 2.
269 2.

220 2.
229 2.
218 2.
251 2.
224 2.

143 2.
68 2.
80 2.
98 2.
86 2.

72 2.
55 2.
63 2.
47 2.
25 2.

6.2 2.
2.6 2.

2.1 2. 1.9 2.
2.4 2.
2.1 2.

5,151.3 65.
166 2.1
412 2.
1.9 2.

1 2.1
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1.9
1.9

60.1

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2.4
1.9
10.220 129 119

TO SEPTEMBER 1970

JUN

599
526
472
490
502

454
429
327
826
536

349
166
107
103
42

3.6
12
239
224
222

239
224
201
110
98

103
611
437
98
2.4

8,752.0

826
2.4
17.360

JUL AU5 SEP

2.6 3.
2.8 3.
2.8 2.
2.8 1.
2.8 1.

2.4 1.
2.6 2.
2.4 2.
2.1 2.

6 2.1
6 2.
1 2.
5 2.
5 2.

9 2.
1 2.
1 2.
1 2.
2.4 2.6 2.1

2.4 2.6 2.1
2.4 2.
2.4 2.
2.4 2.

f> 2.1
6 2.1
6 2.1
2.4 2.6 2.1

2.4 2.6 2.1
2.4 2.
2.4 2.
2.4 1.
2.1 2.

1.9 2.
2.1 2.
2.1 2.
2.1 2.
2.1 2.

2.1 2.
2.1 2.
2.1 2.
2.1 2.
2.8 2.

b 2.1
1 2.1
J 2.1
1 2.1

2.1
2.1
2.4
2.4
2.4

2.4
2.4
2.4
2.4
2.4
3.6 2.1 ----- -

74.5 70.5 65.4
2.40 2.27 2.18
3.6 3.6 2.4
1.9 l.J 2.1
148 140 130

11299000 MELONES LAKE NEAR SONORA, CALIF,
rly published as Melones Reservoir at Melones Dam)

DRAINAGE AREA.--904 sq ml.

PERIOD OF RECORD.--1926 (yearend contents only, published in WSP 1315-A), June 1927 to September 1970. Prior to October 1965, published as Melones Reservoir at Melones Dam.

to Feb. 28, 1961,

EXTREMES. - -Ma

the following table

COOPERATION. --Re
Gas 5 Electri

slevation furnished by Oakdale Irrigation District. Capacity table furnished by Pacifi

REVISIONS.--WSP 1930: Dr

Cap

610 2,630
615 3,500
620 4,480

645
650
655

12,900
15,400
18,300

690
700
710

47,600
59,100
72,200

CONTENTS, IN ACRE-FEET, AT 2*00, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
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1*
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16
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IB
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24
25

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28
29
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31

MAX

WIN (t 1 (t)

22,300
22,500
21,300
20,600
20,300

19,800
19,100
16,900
19,000
18,900

18,000
14,600
12,300
11,600
10, BOO

10,000
9.110
6,120
6,020
S.910

4,830
4,230
3,760
3,660
3,680

3,680
3,510
3,290
3,420
4,340
5,730

22.500
3,290
625.3
- 17,070

7,130
9,110
10,700
12,100
12,400

12,50(1
12,600
12,600
12,600
12,800

12,900
13.000
13,100
13.200
14,600

15,200
16,500
21,000
23.700
24,600

25,400
25,900
26,300
32,400
33,400

33,500
33,900
34,000
34.200
34,600

34,600
7.130

+29,070

35,100
35,600
36,000
36,400
36,600

36.900
37,200
37,600
37,900
36,200

36,500
39,000
39,000
39,700
39,600

40,000
39,600
36,300
37,200
35,800

34,400
33,300
32,200
30,600

29,100
27,500
25,600
27,300
29,100
30,300

40,000
25,600

- 4,500

30,300
29,900
29,100
26,300
27,500

26,700
26,100
25,500
24,700
23,900

23,000
22,000
21,000
20,100
19,100

18,000
17,200
16,300
15,200
14,300

13,700
13,100
12,700
12,200

11,400
11,200
10,700
10,100
10,600

30,300
10,100

- 19,600

10,600
10,500
10,400
10,400
11,000

14,600
16,300
16,200
15,400
14,400

14,000
13,100
12,500
12,000
11.600

11, BOO
11,800
11,800
11,600
11,700

11<BOO
11,600
11,800
11,900

12,400
12,500
12,600
. . . . . .

16,300
10,400

+1,900

12,700
12,600
12,900
13,700
15,100

16,600
17,200
16,700
16,600
17,000

16,300
16,900
20,000
22,200
24,400

26,300
27,900
29,600
31,200
32,800

34,500
35,700
36,400
36,900

36,300
39,300
40,600
42,200
43,900

45.600
12,700

+33,200

48.200
50,600
52,400
54,400
56,600

56,700
60,700
62,600
64,400
66,600

68,300
69,300
70,100
71,100
71,600

72,600
74,100
75,600
76,700
76,600

76,700
76,600
76,700
76,800

76,400
79,600
60,900
62,100
63,000

63,000
46,200

+37,200

64,400
65,300
66,500
87,700
66, BOO

90,200
91,500
92,500
93,100
94,500

95,200
96,?00
96,500
96,600
97,200

97,300
97,300
97,300
97,700
97,800

99,400
101,200
102,600
103,500

104,700
105,600
106,000
106,200
106,200

106,200
64,400

+22,300

104,000
103,000
101,400
100,200
96,700

97,300
95,600
94,300
92,600
91,400

69,700
86,000
66,600
65,100
63,900

82,100
60,600
76.900
77.100
75,500

73,800
72,100
70,100
66,600

65,700
64,000
62.600
61,000
59,400

104,000
59,400

- 45,900

56,000
56,300
55,000
53,400
51,600

49,600
46,400
47,300
46,200
45,200

44,100
43,000
42,600
40,700
39,600

38,500
37,200
36,000
35,000
33,700

32,700
31,400
30,200
29,000

26,400
25,000
23,600
22,200
20,800
19,600

56,000
19,600
657.0
- 39,800

16,200
16,900
15,600
14,200
12, BOO

12,000
11,600
11,700
11,600
11,400

11,300
11,100
10,600
10,900
11,000

11,200
11,100
11,100
10,900
10,900

10,600
10,600
10,700
10,600

10,600
10,600
10,600
10,500
10,500
10,600

16,200
10,500
639.8
- 9,000

10,700
10,700
10,700
10,800
10,600

10,600
10,900
11,000
11,400
11,400

11,300
11,100
11,100
10,900
10,900

10,700
10,600
10,600
10,600
10,900

10,400
9,660
6,690
6,790

6,640
8,530
6,250
7,950
7,260

11,400
7,260
630.6
- 3,340

WTR YR 1966 MAX 106,200 MIN 3,290 t -15,540

* ELEVATION, IN FEET, AT END OF MONTH.
t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN' RIVER BASIN

CONTENTS. IN ACRE-FEET. AT 2400. HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
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3
4
5

6
7

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9
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11
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14
IS

16
17
IB
19
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23
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26
27
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29
30
31

MAX
MIN

(t)
(t)

CAL

+

t

6,740
6.530
6.0BO
4,990
4,230

3.910
3.880
3,880
4,090
4,720

5,180
5,550
5,990
6,440
7,290

8,460
9,680
11,000
11,900
12,300

12,700
12,600
12,400
12,400
12,200

11,900
11,600
11,200
11,000
10,600
10.600

12.700
3.880

+3,340

YR 1966 MAX

10,800
10,800
10,900
10,600
10,600

10,700
10,900
11.100
11.600
11.800

12,200
12.500
12,900
13.100
13.300

13.800
15.000
16.500
17.300
18.800

21.000
23,200
25.000
26.400
27.500

28,800
29,200
31,300
35,300
37,500

37,500
10,600

+26,900

106,200

ELEVATION, IN FEET,
CHANGE IN CONTENTS,

38, BOO 65,100
42,000 65,800
45,400 66,400
45,600 67,100
49,800 67,600

65,000 68,200
70,100 68,900
71,100 69,300
70,500 69,700

68,700 70.900

66.000 71.800
65.000 72.200
65.000 72.600

64,700 73,100
64,100 73,500
63,100 73,800
62,000 73,900
61,300 74,200

61,300 78,000
61,000 83,500
60,600 63,300
61,000 84,200
61.200 85,100

61,200 84,700
61,500 84,400
62,000 84,200
62,800 87,700
63,700 91,800
64,400 94,600

71,100 94.600
38.800 65,100

+26,900 +30,200

MIN 3,880 t +

AT END OF MONTH.
IN ACRE-FEET.

CONTENTS. IN ACRE-FEET

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22

24
25

26
27
28
29
30
31

MAX

MIN

(+)
(t)

CAL

OCT

14,200
13,300
12.600
12,000
11,500

10,900
10.900
11,100
11,400
11.700

11.900
12.200
12,000
11,400
11.100

10,600
8,750
7,420
6,250
6,710

8,390
10,500

14,100
15,700

17,500
19,000
20,600
22.200
22.900
22,900

22,900
6,250

+7,400

YR 1967 MAX

NOV

22.800
22,900
22,900
22,800
22,700

22,700
22,700
22,700
22,600
22,600

22,600
22,500
22,500
22,300
22,100

21,800
21,600
21,200
21,200
21,200

21,100
20.900

20,500
20,400

20.200
20.100
20.000
20.000
20.000

22.900
20.000

- 2,900

115,000

DEC JAN

19,900 16.500
19.900 16,300
19,800 16,200
19,600 15,600
19,800 15,400

19,900 15,300
20,200 15,200
20,200 15,100
20,200 15,100
20.000 15,100

19,900 14,900
19,700 15,200
19,400 15,500
19,300 16,000
18,900 16,800

18,600 16,000
16,400 16,900
18,300 19,600
18,300 20,100
18,000 20,800

17,900 21,200
17,700 21,700

17,300 22,600
17,100 23,200

17,000 23,300
17,000 23,400
16,900 23,500
16.900 23.600
16.800 24,400
16,700 25,200

20,200 25,200
16,700 14,900

- 3,300 +8,500

MIN 6,250 t -
MIN 6,250 t

93.600
93.000
92.700
92,000
91 ,400

91,000
90,400
90,100
89,600

88,800

88,000
87,900
87,200

86,800
85,700
84,800
83,900
83,300

82,600
81,500

81,800
82,600

83,000
83,000
82,000
. . . . . .
. . . . . .

93,600
81.400

- 12,600

34,100
+8,240

, AT 2400,

FEB

25,700
26,000
26,400
26,700
26,900

27,100
27,500
27,900
28,000
28,400

26,600
26,700
29,000
29,100
29,600

30,400
32,800
35,900
37,700
44,100

50,500
54,800
58,400
62,200
64,900

67,400
69,700
71,900
74.100
. . . . . .

74,100
25,700

+48,900

47,700
- 4,700

80.900
80.100
79,000
78,100
77,000

75,800
74.800
75,100
76,200

79,600

84,200
84,500
84,500

98,500
100,400
98,500
96,700
94,800

94,100
93,800

93,600
93,300

93,000
92,800
93,300
93.300
93,000
93.000

100.400
74,800

+11,000

93,000
92,800
92,800
92,800
93,000

94,100
95,300
94,500
93.600

94.100

93.300
91,400
88,500

85,300
82,300
80,200
82,600
80,900

80,600
79,300

76,200
74,100

71,600
69,300
66.400
63,600
60,500

95,300
60,500

- 32,500

58,?00
55,200
52,600
50.400
48,500

46,900
45,800
46,400
48,600

51,200

49.100
49.600
51,400

55.100
60.000
66.700
73,800
82.100

92.300
97.000

98,400
97,500

99.400
99.900
99.900
99.000
98.400
97.500

99,900
45, BOO

+37,000

WATER YEAR OCTOBER 1967 TO

MAR

76,100
78,400
80,400
82,300
84,700

86,500
88,300
90,700
92,800
94,600

96,300
98,000
99,700
101,600
103,000

104,900
107,300
109,100
109,700
110,000

110.800
110.900
111,300
111,500
111,900

112,000
112.200
111,700
110,900
110,900
110,900

112,200
76,100

+36,800

APR

110,800
110,600
109.500
108.600
108.000

106.900
105.800
105,300
105,500
105,500

106,000
106,600
107.100
108,000
108.900

109.700
109,100
108.000
107.300
106,000

104,700
103,500
102,100
101.100
100.700

99.900
99.600
99.400
99.200
99,400

110,800
99,200

- 11,500

MAY

99,700
100,200
100,700
101,600
102,600

103,100
103.100
103,300
103,300
103,100

103,500
104,000
104.900
105.600
106.700

107,600
108,600
109,500
110,600
111,300

111.900
112.000
111,700
110,800
109.700

108.700
106,600
109,100
110,000
110.800
110.400

112.000
99,700

+11,000

96,000
95,000
94,500
95,200
96,200

95,500
95,700
96,200
96,300

96,500

96,300
96,200
96.500

98,000
99,700
100,100
101,600
102,800

103.300
103,600

103.300
103.300

103.300
103,100
103,000
103,000
103,000

103,600
94,500

+5,500

103,000
102.600
104,700
106,600
105,100

106,000
105,600
105,800
106,700

109,800

113,700
114,300
114,500

115,000
114,300
114,100
113,900
113.500

113,500
113.200

112,600
112,200

112,100
111,500
110.800
110.000
109.100

115.000
102.600

+5,400

107,300
106,000
104.600
103,800
103,500

103,100
102.100
100.600
99,000

95.300

91,800
89,900
88,200

86.500
84,500
S2.900
80,800
78,700

76.800
74,800

70,800
68,700

66,700
64,700
62,800
61 ,000
58,900
57.100

107,300
57,100

- 51,300

55,400
53,700
52,100
50,500
49,100

47.500
45,900
44,200
42,900

39.800

36,900
35,400
34.200

32,700
31,200
30,000
29,100
27,300

26,000
24,700
23,400
22,100
21,000

20,600
19,300
18,000
16,800
15,500

55,400
15,500

- 41,600

SEPTEMBER 1968

JUN

110,000
109,700
109,100
110,400
110,900

110,900
110,400
109,300
107,800
106,600

105,100
104,000
104,000
104,000
103,800

103,800
103,800
103,800
103,800
103.300

102.600
101.900
101,100
100,400
100,100

98,900
96,000
96,800
95,700
94,600

110,900
94,600

- 15,800

JUL

93,600
92,200
91,000
89,700
88,500

87,200
86.200
85.000
83.600
82.400

81,200
79,900
78,700
77.700
77,000

75,700
74,100
72,200
70,500
69,000

67,900
65,700
64.100
62.500
60.800

59.100
57,200
55,800
54.300
52.700
51.100

93,600
51,100

- 43,500

AUG

49,500
48,000
46,300
44,800
43,200

41,700
40,200
38,500
36.900
35,500

33,700
32,000
30,400
28,600
26,800

24,900
23,200
21,500
20,100
18,500

16,900
15,200
13,700
13,000
12,600

12,400
12,100
11,900
10,700
11,300
11,100

49.500
10,700

- 40,000

SEP

10,700
10,700
10,800
10,800
10,900

11.000
11.000
10,900
10,900
10,800

10,700
10,700
10.800
10,900
11,000

11.000
10,900
10,800
10,800
10,800

10.800
10.800
10.800
10.800
10,900

10.800
10.800
10.800
10,800
10,800

11,000
10,700
640.3
- 300

SAN JOAQUIN RIVER BASIN

11299000 MELONES LAKE NEAR SONORA, CALIF.--CONTINUED

CONTENTSi IN ACRE-FEET, AT 3*00,

NOV DEC JAN FEB

WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

MAR APR MAY JUN JUL

1
2
3
it
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MAX

MIN (t) (J)
CAL
WTR

+

J

10,800
10,800
10,800
10,800
10,800

10.800
10,900
11,000
11,000
11.000

10,900
10,900
11,000
11,200
11,100

10,900
10,700
10,400
10,200
10,100

9,720
8,640
7,980
6,530
4,870

4,790
5,320
5.880
6,440
7,070
7.7*0

11.200
4,790
632.1
- 3,060

YR 1968 MAX
YR 1969 MAX

8.220
8,640
11,000
13,100
14,100

14,200
14,100
14,100
14,200
14,400

14,500
14,900
15,400
15,900
17,000

18,500
20,100
21,800
23,900
25,800

27.300
28,900
30,300
31,700
33,200

34,400
35,800
37,000
38,200
39,400

39,400
8,220

+31,660

112,200
114,100

ELEVATION, IN FEET,
CHANGE IN CONTENTS,

40.600 74,500
42,100 74.200
42,800 74,200
43,600 74,400
44,300 74,600

45,000 74,900
45,800 75,200
46,600 75,400
47,400 75,200
48,900 73,800

50,600 72,300
52,300 70,900
53,600 75,800
55,200 81,400
57,100 82,600

59,100 82,400
59,600 82,000
60,100 82,000
60,600 97,800
61,000 105,500

61,200 109,700
61,700 101,600
62,000 97,700
62,700 96,800
66.300 105.800

68.900 105,500
70,400 100,700
72,100 98,200
73,300 96,700
74,500 93,600
74,800 90,200

74,800 109,700
40,600 70,900

86,300
82,300
78,100
74,100
69,800

68,500
65,800
63,100
59,900
56,400

53,000
50,600
47,600
44,800
46,000

46,800
45,700
45,300
44,400
43,000

41,100
38,800
37,800
43,200
46,100

46,800
45,300
44,100

86.300
37,800

+35,400 +15,400 -46,100

MIN 4,790 J +5E
MIN 4,790 t

AT END OF MONTH.
IN ACRE-FEET.

CONTENTS, IN ACRE-FEET.

DAY

1
2
3
4
5

6
7
B
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MAX
MIN
I* I
It)

CAL
WTR

OCT

11.100
10.900
9,870
8.220
6,710

5.400
5.990

6,110
5.130

4,590
4,320
5,470
7.740
10,200

13,000
15,600
17,700
19.600
21,400

23,000
24,900
26,500
28,300
30,000

31,700
33,300
35,000
36.700
37,600
39,200

39,200
4,320
681.7
+27,700

YR 1969 MAX
YR 1970 MAX

NOV

39,300
39,400
40,600
42,200
43,300

44,300
44,600

42,400
41,100

40,000
39,700
39,800
39,900
39,900

40,000
40.200
40.300
40,300
40,300

40,300
40,500
40.500
40,500
40,400

39,800
38.300
36.900
35.400
34.200

44,600
34,200
676.2
- 5,000

114,100
114,500

DEC JAN

32,700 55,000
31,100 55,100
29,400 55,000
28,700 54,900
28,300 54,800

28,100 54,500
27,800 54,400

28,100 54.300
28,300 57,500

28,700 58,800
28,900 59,900
29,100 61,200
29,300 72,300
29,600 75,700

29,800 101,600
30,100 99,400
30,300 96,300
30,700 95,000
34,700 95,200

41,100 105,600
44,900 100,100
44,800 97.000
46.200 97.500
51. BOO 96.000

53,900 95.500
54,200 96,500
53.600 95.500
53.600 95,000
54,400 94,700
54,600 94,300

54,600 105.600
27,700 54,300
696.2 724.6
+20,400 +39,700

MIN 4,320 t -20
MIN 4,320 t +1

,100
+700

AT 2400,

FEB

94,000
93,800
93,600
93,500
93,500

93,300
93,100
93,100
93,100
93.100

93,000
93,500
93,800
93,600
93,600

94,000
94,500
94,100
93,800
93,500

93,300
93,100
93.000
93.000
93.000

92,800
92,800
93,000

94,500
92,800
723.8
- 1,300

,200
,400

43,600
41,700
39,800
37,400
34,500

31,600
28,400
25,200
22,300
19,700

17,600
17,200
15,900
15,600
15,000

14,800
14,900
15,200
15,600
16,200

16,300
15,400
14,900
14,800
15,000

15.400
15.600
16,000
17,000
18,800
21,200

43,600
14.800

- 22,900

24,100
25,700
26,200
25,900
29,200

32,000
33,300
34,100
34,500
34,700

35,300
37,500
40,000
41,800
42,800

42,900
43,400
45,500
47,400
49,800

54,200
59,800
65,400
68,300
68,900

68,600
68,200
68,500
70,800
73,200

73,200
24,100

+52,000

76,100
78,600
79,900
80,200
80,600

84,700
89,000
95,500
97,000
97,800

98,200
97,800
97,800
97,200
96,500

97,000
97,800
98,000
97,700
97,500

97,500
97,800
98,700
98,400
98,200

99,700
100,900
102,100
102,300
102,600
102,600

102,600
76,100

+29,400

MATER YEAR OCTOBER 1969 TO

MAR

95,700
94,800
94,100
94,000
93,800

93,500
93,300
93,300
93,000
92,800

92,800
92,500
92,500
92,500
92,700

92,800
92,800
92,800
92,800
92,300

92,200
92,200
92,300
92,500
92,800

93,100
93,500
93,600
93,800
93.800
93.800

95,700
92.200
724.3
+ 800

APR

94,700
95,700
96,000
96,500
96,700

97,700
98,500
99,200
99,900
100,900

101,800
102,800
103,800
104,600
104,900

105,100
105.100
105,100
104,900
104,700

104,700
104,600
104.000
103,600
103,100

103.100
103,100
103,000
102,400
102,300

105,100
94,700
729.3
+8,500

MAY

102,300
102,600
103,800
105.800
108.600

111.500
113,000
113,700
113,700
114,100

114.100
114,100
113,900
114,300
113,900

113.900
114,100
114,300
113,900
113,200

113,000
114.300
114,300
114,100
113,900

113,900
113,900
113.400
113,200
113.200
113.700

114.300
102.300
735.6
+11,400

102,800
102,800
105,100
105,100
104,700

104,700
104,000
103,300
103,500
104,000

103,000
101,800
101,400
102,800
104,700

104,900
104,400
103,800
103,800
103,100

102,600
101,900
102,100
102,100
103,100

106,200
109,700
112,400
113,900
114,100

114,100
101,400

+11,500

114,100
113,700
113,900
114,100
113,900

113,400
113,200
113,400
113,700
113,900

113,700
113,700
113,700
113,200
113,900

113,500
112,800
112,800
112,600
112,600

112,200
112,100
111,900
112,100
111,300

110,400
109,300
107,600
106,200
104,600
103,000

114,100
103,000

- 11,100

101,200
99,600
98,200
96,500
94,600

92,800
91,200
89,300
87,600
85,900

84,200
82,400
80,600
78,700
76,800

74,800
72,800
70,500
69,000
66,800

65,000
63,100
61,200
59,400
57,400

55,600
53,900
52,300
50,900
49,600
47,800

101,200
47,800

- 55,200

46,000
44,000
42,300
40,700
39,200

37,900
36,500
35,100
33,600
32,400

30,800
29,500
27,900
26,800
25,400

24,200
22,900
21,800
20,500
19,200

18,000
16,800
15,600
14,800
14,500

13,900
13,300
12,700
12,000
11,500

46,000
11,500

- 36,300

SEPTEMBER mo

JUN

114,100
114,300
114.300
112.400
111.900

112,800
113,900
113,900
114,500
113,500

113,000
112.800
112,800
112,800
112,800

112,100
111,300
111,500
112,600
113,700

113,900
114,100
113,900
113,900
113,500

113,200
114,500
114,300
113,500
112,600

114,500

735.0
- 1,100

JUL

111,700
110,600
109,500
108,600
107,500

106,600
105,500
104,200
102,800
101,400

99,900
98,400
97,000
95,300
94,000

92,500
90,900
89,400
87,900
86,000

84,700
82,900
81,200
79,500
77,800

6,100
4,400
2,800
0,900
9,000
7.100

111,700

706.3
- 45,500

AUG

65,300
63,300
61,500
59,500
58,000

56,300
54,300
52,400
50,500
48,700

47,000
45,100
42,900
41,500
39,700

38,100
36,100
34,300
32,600
30,800

29,100
27,200
25,400
23,800
22.100

20,400
18,700
17,600
17,300
17,000
16,700

65,300

652.2
- 50,400

SEP

16,300
16,000
15, TOO
15,400
15,000

14,700
14,400
14,100
13,900
13,500

13,300
13,000
12,700
12,300
12,000

11.800
11.400
11.800
13.100
14,400

14,900
14,900
14,900
14,700
14,400

14,100
13,800
13,600
13,200
12.900

16.300
11.400
645.0
- 3,800

t ELEVATION, IN FEET, AT END OF MONTH, t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11299500 STANISLAUS RIVER BELOW MELONES POWERHOUSE, NEAR SONORA, CALIF.

DRAINAGE AREA.--90S sq mi.

PERIOD OF RECORD.--January 1931 to September 1967 (discontinued). Prior to October 1960, published as "below Melones powerhouse."

GAGE.--Water-stage recorder. Datum of gage is 500.65 ft above mean sea level (levels by Corps of Engineers).

AVERAGE DISCHARGE.--36 years, 1,498 cfs (1,085,000 acre-ft per year), unadjusted.

id minimums (discharge in cubic feet per second, gage height in feet) for the water year;

Wtr yr Date
1966 Oct. 20, 1965
1967 May 24, 1967

Maximum
Discharge G.H.
1,710 a6.82
b!2,900 clS.OO

Mi
Date
Oct. 31, 1965
Oct. 17, 1966

daiiy
Discharge
1.5
. 40

a Maximum gage height for year, 10.66 ft Aug. 5, 1966, backwater from Tulloch Reservoir.
b Maximum daily.

Period of record: Maximum discharge, 62,800 cfs Dec. 23, 1955 (gage height, 29.0 ft, from floodmarks),
from rating curve extended above 14,000 cfs on basis of computed flow over Melones Dam; minimum daily,
0.40 cfs Jan. 19, 20, 1943, Oct. 17, 1966.

REMARKS.--Records fair. Flow regulated by Melones Reservoir 1 mile upstream (see station 11299000), Pinecrest, Beardsley, and Donnell Lakes, and by Lyons and Relief Reservoirs (combined capacity, 312,300 acre-ft). Sev-eral diversions above station. Backwater from Tulloch Reservoir affects record at times since storage began Nov. 25, 1957. See schematic diagram of Stanislaus River basin elsewhere in this report. Water-quality rec-ords for the water year 1968 are published in reports of the Geological Survey.

COOPERATION.--Gage-height record and 12 discharge measurements furnished by Pacifi
nection with a Federal Power Commission project.

REVISIONS (WATER YEARS).--WSP 843: 1936(M). WSP 1515: 1956. WSP 1930: Drainage area.

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY OCT NOV DEC JAN FES MAR APR MAY JUN JUL

5 Electric Co., in con-

1 976 44
2 976 5.9
3 970 8. 5
4 988 152
5 982 554

6 1,020 6B2
7 1,040 682
8 840 682
9 710 682
10 710 682

11 1,100 682
12 1,320 682
13 1,860 682
14 782 682
IS 586 686

16 570 690
17 566 690
18 558 730
19 236 720
20 919 715

21 538 715

24 234 874
25 175 1,410

26 206 1,260

28 219 958
29 139 885

30 7.3 740 31 1.5

MEAN 630 678
MAX 1,320 1.410
MIN 1.5 2.5

AC-FT 38,760 40,340 6'

CAU YR 1965 TOTAL 780.477.1

WTR YR 1966 TOTAL 371, 198. (

830
770
770
770
770

770
770
770
785
780

780
775
780
780
845

373
673
1,510
1,490
,490

,480

,460
,460

. 440

,430
,430
,430

,161 36
,070 1
,510 1
373
>,770 71

> MEAN 2
MEAN 1

,410 835 670 1, 20
,390 820 670 1, 20
,370 780 670 1, 30
,360 705 372 1, 30
,350 662 9.7 1, 70

,340 700 9.7 1, 50
,340 715 362 1, 50
,340 ,030 840 1, 50
,330 ,150 952 1, 60
,320 ,080 946 1, 70

. 320 .200 946 1,470

,300 988 964 1,480
,290 895 825 1,330
,280 760 502 1,500

,250 678 506 1,510
,240 678 510 1.S10

,260 674 518 1,510
,160 674 518 1.580

,070 674 522 1.580

970 670 ,200 1,530
964 670 .360 1,530

890 674 .360 1,530

835 674 .340 1,540
830 ,330 1,550
835 ,390 1,550
8«,0 .400

,166 792 815 1,484
,410 1,200 1,400 1,550

,670 44,000 50,100 88,290 9

. 138 MAX 11.000 MIN 1.5 AC-FT ,017 MAX 1,610 MIN 1.5 AC-FT

1,550
1,550
,550
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,5 (,5'
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1,54ft, 00
736,30

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,460
,490

,540
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. 540
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,540
,540
,420
,430
,410

,410
,410
,410
. 310
,310

,510
,600

,830 7«

,310 220 528
1,310 200 586
,330 170 526
,330 170 526
,330 ISO 526

,370 910 526
,270 600 526
,150 600 479
,120 600 443
,180 600 540

,120 600 595

,170 600 595
,170 550 595

,170 495 590
,170 550 580

,170 580 522
. 080 575 52?

,080 570 590
,180 570 825
. 110 570 775
,200 570 605
,210 570 640

,260 570 545
,260 570 565
,2?0 570 640
<220 570 640
,280 540 796
,880 528

,204 678 583
,370 1,220 825

,040 41,680 34,680

NOTE. NO GAGE-HEIGHT RECORD DEC. 1 TO JAN. 4. BACKWATER FROM TULLOCH RESERVOIR JUNE 16 TO AUG. 13.

SAN JOAQUIN RIVER BASIN

11299500 STANISLAUS RIVER BELOW MELONES POWERHOUSE, NEAR SONORA, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND. HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG

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31

TOTAL 9
MEAN
MAX
M1N
AC-FT

HTR YR

78S 475
610 495
555 518

504 526

233 526
183 508
54 387
1.5 387

64 4*3
1.7 443
. 60 443

1.3 504

. 60 555
. 40 287
. 70 2.C
17 2.
1.7 2.

1.8 2.
265 3.
570 3.
570 2.
615 2.

675 2.
670 2.
665 2.
665 2.
665 2.

349
89b
1,440

1,470

1,520
1,520
1.S30
1,530

1,520
1,520
1,510

790

1,180
1,510
1.510
1,230

1,050
1.050
930
795
800

800
800
590
415
419

. 786.70 8.061.4 33,986 26

785 55
. 40 2.
19,410 15,99

1967 TOTAL 924

> 1.530 2
349

) 67.410 51

992.50 MEAN
647.10 MEAN

423
423
423

415

419
419
419
415

411
415
403

399

419
415
415
415

427

,620
,620
,630

,630
,610
,620
. 630
. 640

. 027

,690
399
. 620

959
2,533

3,000
2,400
1,980

1,670

1,650
1,650
1,650

1.650
1.650
1.650

1,650

1,670
1,670
1,670
1,530

1,470

1,210
875
880

880
1,200

45,105

3,000
875
89,470

MAX 1
MAX 12

1,660
1,660
1,660

1,650

1,550
1.110
516

516
516
1,230

1.640

10,100

5,040
4,370

3.340

2,910
2,840

2,360
2,170

2,610
2,360

77,554

10,100
516
153.800

,610 MIN
,900 MIN

2.420
2,270
2.120

2,340

4,580
3,820
2.970

2.930

4,080

4,060

4.040
4,020

4,000

4,000
3,980

3,940
3.920

3,830
3,800

103.500

4.580
2,090
205,300

. 40
. 40

3,470
3.750
3,760

3,710

3,640
3,640
3,650

4,200

4,?40

4,400

4,600
4,690

4,840
9,?90
12,000
12,900

10,500
12,700

11,600
10,100

197,760

12.900
3,470
392,300

AC-FT
AC-FT 1,

7,350
5,570
4,420

6,520

6,580
7,460

8,460

8,150

8.170

7,220
7,850

8,600
8,950
8.920
8,670

8,730
8,650

8,380
8,370

232,340

9,000
4,420
460,800

694,200
834,000

B.380
B.090
6.320

7,290

4,410
4,310
3.730

1.900

2.630
2.820

3.040

2.840

2,220

1,960
1,850
1,600
1,620
1,620

1,680
1,680

1.640
1,640

98.000 4

,640
,640
,630
,330
,120

,110
. 370
. 590

,590

,540
,530

,640

,620
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8.3BO .640
1.600 1,110
194,400 95,310

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1,500

1,500

1,490
1,490

1,480
1,470
1,450
1,440
1,430

887
1.410
1,410
1,410
1,410

44,477
1.483
1,590
887
88,220

NOTE. BACKWATER FROM TULLOCH RESERVOIR OR ROAD CONSTRUCTION MAR. 7 TO SEPT. 30.

SAN JOAQUIN RIVER BASIN

11299995 TULLOCH RESERVOIR NEAR KNIGHTS FERRY, CALIF.

DRAINAGE AREA.--980 sq mi.

PERIOD OF RECORD.--November 1957 to September 1970.

GAGE.--Wate

gation D

EXTREMES. --
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Wtr yr
1966
1967
1968
1969
1970

Dat
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Jul
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Perio
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REMARKS
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REVISIONS. -

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MAX
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700
6.6
600

MAX
MAX

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following table:

Maximum
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5, 1966 66,
1967 67,
17, May 14,15,1968 66,
1969 67,
1970 67,

record: Maximum contents
3, 1960 (elevation, 404.0

oir is formed by a gravit

(see station 11301000) a
slaus River basin elsewhe

1930: Drainage area.

430 11,100
445 16,400

CONTENTS. IN ACRE-FEET,

. ge is at m

nts Ele
600
200
800
100
500

, 69 ,500 a
ft).

hrough pow

460
475

AT 2400,

NOV DEC JAN FEB

51.000 55,200 44,200 40,600 50,300 54,600 44,100
49,500 52,600 43,800
48,900 SO, TOO 43,500
49,200 4B.800 43,300

49,800 48,200 42,900
50.400 48,000 42,500
51,000 47,800 42,100
51,200 47,600 41,800
50,800 47,500 41,300

50,500 47,300 40,900
50,100 4T.200 40,400
49,900 47,100 39,900
49,900 46,900 39,500

50.000 46,200 38,400
49,900 44,900 37,900
50,600 44,600 37,100
50,500 44,200 36,400
50,300 43,800 35,700

50,200 43,400 34,800
50,100 43,000 34,100
50,800 42,600 35,400
51,800 42,300 38,300
53,500 42,100 40,400

54,600 41,800 42,300
55,000 41,400 44,100
55,300 41,400 45,100
55,300 42,700 43,500

44,200 42,000

55,300 55,200 45,100
48,900 41,400 34,100
500.0 488.8 486.2
+3,600 -11,100 -2,200

69,300 MIN 38,400 t
66,600 MIN 23,300 t

39,200
37,600
35,900
35,000

34, TOO
33,400
33.100
32,500
31,800

31,300
30, TOO
29,600
29,500
29, TOO

29.600
29.000

28,100
28,000

2T.900
2T,800
27,600
27,400
27.900

28.400
29.700
31,200

40,600
27,400
472.3
- 10,800

- 19,800
- 32,900

feet, elev

vation
509.7
510. 2
509.9
510.1
510.4

cre-ft Jan

water sur

"report?1 "

23,600
33,100

WATER YEAR

MAR

32,500
33,700
34,800
35,400
35,100

35,000
35,400
37,000
38, BOO
40,600

42,300
44,200
45,900
47,400
48,100

48,800
49,200

48,700
48,000

46,800
46,100
45,800
45,400
45,100

44,800
44,400
44,100
43,600

43,100

49,200
32,500
487.5
+11,900

ation in f

Date
Sept. 29
Oct. 21
Sept. 30
Apr. 1
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. 7, 1965

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eet) for

, 1966
, 1966
, 1968
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511.0 ft

the water years

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18

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f radial g

Canal (see station 11300500). See

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1966-70 are con-

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levation
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443.2
449. 0

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56,840

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OCTOBER 1965 TO SEPTEMBER 1966

APR

42,800
42,600
42,400
42,100
41,800

41,500
41,300
41,100
40,900
40,900

41,100
42,000
43,000
43,400
43, TOO

43,600
43,400

43,000
42,900

42,900
43,100
43,300
43,400
43,400

43,400
43,400
43,300
43,100

43, TOO
40,900
487.4
- 100

MAY

43,000
42,900
42,800
43,700
42,600

42,600
42,600
42,600
42,600
42,700

42,900
43,100
43,300
43,400
43,500

43,700
43,900

44,400
45,000

45,600
46,200
46,700
47,300
47,900

48,400
48,900
49,500
50,100
50,700
51,200

51,200
42,600
496.1
+8,200

JUN

51,700
52,300
52,800
53,200
53,600

54,100
54,600
55,000
55,300
55,800

56,300
56,700
56,900
57,400
57,700

58,400
59,100
59,800
60,400
61,100

61,700
62,300
63,000
63,400
63,500

63,800
64,000
64,200
64,500
64,600

64,600
51,700
508.1
+13,400

JUL

64,900
65,000
65,200
65,500
65,700

66,100
66,200
66,200
66,200
66,100

66,100
66,000
65,800
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65.600

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65,500
65,500
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66,200
66,300

66,300
64,900
509.5
+1,700

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66,600
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66,200
65,000
63,900
62,800
61.600

60,600
59,300
58,200
56,900
55,600

54,200
53,100
51,900
50,800
49,700

48,600
47,500
46,400
45,200
44,100

43,000
41,900
40,700
40.000

39,300
38,700

66,600
38,700
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- 27,600

SEP

38,000
37,400
36,700
36,000
35,400

34,700
34,000
33,200
3?, 400
31,700

31,200
30,700
30,100
29,600
29,000

28,500
27,900
27,300
26,600
26,000

25,700
25,600
25,600
25,100
24,900

24,400
23,900
23,600
23,300
23,400

38,000
23,300
459.8
- 15,300

SAN JOAQUIN RIVER BASIN

11299995 TULLOCH RESERVOIR NEAR KNIGHTS FERRY, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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MAX
MIN

(t>

CAL
WTR

t
t

23,800 29,400
23,800 29,500
23,800 29,600
23,600 29,400
23,700 29,200

23,900 29,000
24,200 28,700
24,400 28,300
24,500 28,400
24,300 28,600

24,400 28,700
24,300 28,800
24,200 28,800
24,100 28,900
24,100 28,800

23,900 28,400
23,800 27,900
23,700 28,000
23.500 28.100
23,300 28,100

23,200 27,900
23,500 28,100
24,500 28,000
25,100 28,100
26,500 28,300

27,500 28,800
28,200 28,800
28,200 29,200
28,500 29,500
29,000 29,400
29,400 -

29,400 29,600
23,200 27,900

+6,000 0

YR 1966 MAX 66,600
YR 1967 MAX 67,100

ELEVATION, IN FEET,
CHANGE IN CONTENTS,

29,700
32,100
34,500
37,100
39,300

40,200
38,600
38,200
38,000
37,900

37,900
38.800

40,300
41,300
41,300

41,300
42,100
43,600
45,100
46,000

46,500
46,900
47,400
48,000
48,600

49,200
49,800
49,900
49,700
49,500
49,300

49,900
29,700

+19,900

MIN 23,
MIN 23,

AT END OF

49,300
49,900
49,700
49,400
49,200

49,000
48,800
48,600
48,400
48,600

49,400
49,900
50,600
51,400
51,700

52.600
53.400
53.800
54,700
55,400

56,600
56,000
56,600
57,600
58,200

55,300
49,700
46,100
45,500
44,300
44,000

58,200
44,000

- 5,300

200 t
200 t

MONTH.

44,300
44,200
44,400
44,700
44,900

45,000
45,000
45,100
45.100
45.100

45.100
45,100
45,100
45,100
45,100

44,700
44,600
44,600
44,600
44,200

43,800
43,800
42.900
41,700
41,400

41,000
41,300
43,400
. _*-..
. . . . . .

45,100
41,000

- 600

+5,100
+28,000

45,800
48,200
50,400
52,800
55,000

57,300
60,000
62,000
62,400
62,800

64,000
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62,000
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61.300
65.200
64,000
60,100
56,700

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55,300
54,900

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56.500
57.800
58.000

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45,800

+14,600

56,800
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55,700
56,600
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49,800

48,900
47.300
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46,000

46.400
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46,500
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56,800
45,300

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47,800

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54,900
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40,400

+3,400

44,400
41,300
40,700
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41,800
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42,500
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43,200
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58,200
62,700
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67,100
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50,700
50.700
50.800
50,900

50.100
50.400
50.600
50,900
51,400

54,800
50,100

- 3,600

IN ACRE-FEET.

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

NOV DEC JAN FES MAR APR MAY JUN JUL

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MAX
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CAL YR
WTR YR

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53,100
53,600
53.800

54,000
53,700
53.200
52.700
51,900

51,200
50.500
50,200
50,100
49,600

49,400
50,100
50,400
50,300
48,900

47,700
47,300
46,900
46,200
45,600

45,000
44,400
43,800
43,200
43,200
44,100

54,000
43,200
488.6
- 7,300

1967 MAX
1968 MAX

45,000
45,900
46,800
47,800
48,600

49,500
50,400
51,300
52,300
53,000

53,900
54,800
55,700
56,500
57,200

57,600
57,300
56.900
56,600
56,300

56,000
55,600
55,200
54,900
54,600

54,100
53,800
53,500
53,100
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57,600
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497.6
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48, BOO
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43,500
42,700
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62,900
62,900

62,700
62.600
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61,100
59,600

58,200
56,700
55,200
53,800
52,400
50,800

64,900
50,800
495.7
- 14,200

49,300
47,700
46,000
44,600
43,700

42,900
42.100
41,300
40,600
39,800

39,000
38.200
37,100
36.300
35,400

34,800
34,400
33,900
33,600
33,100

32,700
32.300
31,900
31,500
31,300

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31,200
31,000
30,900
30,800

49,300
30,800
471.7
- 20,000

800 t -20,600

+ ELEVATION, IN FEET, AT END OF MONTH. t CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11299995 TULLOCH RESERVOIR NEAR KNIGHTS FERRY, CALIF.--CONTINUED

CONTENTS. IN ACRE-FEET, AT 2400. MATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY

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MAX

MIN
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m

WTR

OCT

30.600
30.600
30.400
30.400
30.200

30.200
30,000
29,800
29,700
29,400

28,800
26,300
28.400
29,600
31,000

32,300
33,700
35.100
36,400
37,300

38,600
39,600
40.000
41,300
42,600

43,100
43,100
42,700
42,700
42.700
42,700

43,100
28,300

+11,900

NOV

42,300
42,400
42,400
42.400

42(900

44(000
45(300
46,500
47,900
48,900

50(400
51.500
53.000
54.200
55,100

55.200
54,600
54.700
54.400
54.600

54.600
54,000
54,000
53.700
53.800

53.800
53.300
53.300
53.000
53,000

55,200
42,300

+10,300

YR 1969 MAX 67,100

ELEVATION, IN FEET,
(CHANGE IN CONTENTS,

DEC JAN

53,000 56.600
52.900 56.500
53.300 56.200
53.800 56.000
54,000 55,600

54,700 55,300
54,800 55,000
55.300 54.800
55,000 54,600
55,500 54,700

55,400 55,200
55,400 55,100
55,800 58,000
55,700 57,400
55.300 55.600

55.500 53,900
55,400 52,600
55,800 52,000
55,800 54,300
55,800 64,100

55.70U 65,700
55,700 66,100
55.600 64,900
55,700 60,800
56,400 62,900

57.000 65,100
56,700 64,100
56,600 62,200
56,300 56.600
56,000 50,700
56,000 44,400

57,000 66,100
52,900 44,400

+3,000 -11,600

MIN 28,300 (
MIN 15,700 (+

AT END OF MONTH.
IN ACRE-FEET.

CONTENTS, IN ACRE-FEET

DAY

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MAX
MIN

m

OCT

53,000
51,900
51,300
51,400
51,300

50,800
49,800
48,800
47,700
46,200

44.300
42,500
40,000
36,700
35,100

34,200
33.300
32,300
31.300
30,300

29,200
28,200
27,200
26,100
25,000

23,900
22,700
21,600
20,400
19,200
18,100

53,000
18,100
449.0

NOV

18,400
19,100
19,600
19,300
19.700

21.300
23.100
26.000
28.900
31.900

34.500
36.400
37.500
3S.900
40.100

41,300
42,500
43,700
44,900
46.200

46.700
47.000
47,300
47,600
47.800

48.600
50,300
51.900
53.700
55.400

55,400
18,400
500.1

DEC JAN

57,200 57,300
58,800 55,100
60,400 55,100
61,100 55,200
61,400 55,200

61,600 56,300
61,800 57,300
61,800 57,200
61,700 57,000
61,700 57,300

61,400 57,400
61.000 57.400
60,800 57,500
60,400 61,400
60,100 61,800

59,900 64,600
59,500 66,200
59,300 64.100
59,300 58.600
59,200 54,000

59,500 63,200
60,600 64,500
62,400 63,300
63,200 62,400
63,500 58,300

63,800 51.500
63.500 46,800
63.000 44,000
62,600 41,900
61.400 41,400
59,300 42,400

63,800 66,200
57,200 41,400
503.6 486.7

MIN 15,700 t

FEB

40,900
41,000
41,300
42,700
45,600

49,500
52,100
53,500
54,400
55,000

53,500
51,000
48,800
46,900
46,600

45,600
44,500
44,200
43(800
42(600

42,000
41,700
42.600
44,000
42.900

42.500
41.700
41.700

55.000
40.900

- 2,700

+8,200
22,900

. AT 2400,

FEB

43,000
43,600
42,600
41.100
40.000

39.300
38.800
38.700
38.600
38.600

38,500
38.600
39.700
42.100
44.000

45.500
48.700
51.000
52.300
52.800

53.100
53.100
53.000
52.800
52, BOO

53,100
53,300
53,500
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. . . . . .

53,500
38,500
498.3

1-3,300

MAR

41.600
41,100
40,300
40,300
40,300

40,200
40.200
40dOO

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40(000

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39,300
38,600
37,300
34,500

31,600
29,000
26,300
23,900
21,900

20,600
19,900
19,000
18,900
19,100

19,000
19,400
IS, 800
17.700
16,900
16,300

41,600
16.300

- 25,400

APR

15.700
15.700
15.700
15.700
16.400

17.200
17.500
17.800
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17.600
17.500
17,500

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17,300
17,100
16.900
16.700

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16.900
17.100
17.400

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18,200
18,400
18,800

18,800
15,700

+2,500

MAY

19,100
19.400
19.800
20.200

20(500

20(900
21(300
21(700
28.800
39,700

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49,200
51,900
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50,400

46.100
45,600
46, ROD
47,600
47,100

46,500
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48,500
52,400
55,400

56,300
58,000
58,400
58,000
58(500
59dOO

59,100
19,100

+40,300

MATER YEAR OCTOBER 1969 TO

MAR

56.000
56.600
55.700
55,800
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55,100
55,000
54,800
54,700
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54,600
54.700
54.900
55.200
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57,700
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57,900
58,000
59,200
61,000
63.000

64,200
64,700
65,200
65,800
66,100
66,100

66.100
54.600
509.3

APR

66,500
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509.2

MAY

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63,500
63,400
64,100
65,000

66,700
63,400
508.4

JUN

60,700
61.500
60.300
59.500
58.300

57.700
57.400
57.400

54(400
51,300

5U400
53.000
55.500
59,400
64.500

67.100
66.200
66.200
66.200

66(000

65(600
65.400
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66.100
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67.100
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+7,700

JUL

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66,200
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- 2,800

AUG

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SEPTEMBER 1970

JUN

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LOCATION.--Lat 37°51'16", long 120°38'14", in Rancheria del Rio Estanislao Grant, Tuolumne Co 0.8 mile downstre

PERIOD OF RECORD. --!>
WSP 1315-A.

G<\GE. --Water-stage i
Oakdale Irrigatic
Mar. 12, 1915, tc

AVERAGE DISCHARGE. -

am from headgate at Go

n District) . Prior to

56 years, 417 cfs (302

Mar. 12, 1915, nor

'age is 334.18 ft a
irecording gage 100

except 1951, 1969.

REMARKS. --Records excellent. Canal diverts from right bank of Stanislau

in this report.

DISCHARGE, IN CUBIC FEET

DAY OCT NOV DEC JAN

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3 12 2
4 13 2
5 12 2

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13 92 2<
14 48 1<

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IS 212 10 .9 2.8

16 231
17 233
18 233
19 226
20 233

21 236

22 149
23 5.0
24 11
25 11

26 12
27 13
28 12
29 12
30 20

. 8 .7 2.8
. 5 .5 2.8
. 8 .5 2.8
. 1 .5 2.8
. 8 .5 7.2

. 8 .5 18
. 8 .8 18
. 0 23 16
. 0 23 4.2
. 6 23 0

. 10 23 0
23 0
23 0
24 .60
23 12

TOTAL 8,968.0 434.30 236.40 248.60
MEAN 289
MAX 712
MIN 5.0
AC-FT 17,790

4.5 7.63 8.02
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861 469 493

CAL YR 1965 TOTAL 197.105.80 MEAN 540 WTR YR 1966 TOTAL 177,558.30 MEAN 486

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TO SEPTEMBER

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448
451
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360

17,194
573
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360
34,100

SAN JOAQUIN RIVER BASIN

11300500 SOUTH SAN JOAQUIN CANAL NEAR KNIGHTS FERRY, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

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8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL MEAN
MAX MIN
AC-FT

CAL YR
WTR YR

OCT

292
291
292
282
266

261
133
60
60
39

12
30
28
29
29

29
24
20
17
19

20
20
21
25
31

29
335
523
474
423
419

4,533 6.
146
523
12

NOV

409
399
399
409
383

376
386
357
378
415

437
440
440
437
437

275
3.9
3.4
2.8
2.8

2.1
1.7
1.7
1.4
3.8

11
20
14
14
11

470.6 1,
216
440
1.4
8,990 12,830

1966 TOTAL
1967 TOTAL

180,031
185,462

DEC JAN

7.9 5.5
131 6.4
354 1.4
357 .80
169 ' .80

4.2 5.8
3.1 10
2.8 10
1.7 4.8
1.0 .90

. 90 0
. 90 0
. 90 3.0
. 90 4.3
. 90 9.1

. 90 S.9
14 .20
12 .10
6.0 .10
3.3 .20

1.4 6.2
1.4 6.3
1.4 0
2.9 .40
5.0 .10

5.0 0
5.0 0
5.0 0
5.0 .20
3.3 .30

108.70 82.80
35.8 2.67
357 10
. 90 0
2,200 164

. 90 MEAN 493
. 10 MEAN 508

DISCHARGE. IN CUBIC FEET

DAY

1
2
3
it
5

6
7
8
9
10

11
12
13
1*
15

16
17
18
19
20

21
22
23
2*
25

26
27
28
29
30
31

TOTAL MEAN
MAX

MIN
AC-FT

CAL VR
WTR YR

OCT

660
S97
525
516
518

518
517
516
553
618

611
611
612
661
691

689
688
684
684
636

246
14
27
32
32

22
16
34
34
34

NOV

34
34
35
35
35

35
35
35
36
35

36
36
36
36
14

. 10
. 10
. 30
. 10
. 10

. 10
. 10
. 10
. 10
. 10

. 10
. 10
. 10
. 20
. 10

12,630 508.80
407
691
14

25,050

1967 TOTAL
1968 TOTAL

17.0
36
. 10
1,010

186,602
179,349

DEC JAN

0 .60
0 .60
0 .60
0 .60
. 18 .70

0 .70
0 .70
0 .70
0 .70
0 .90

. 14 .80
. 06 .70
0 .50
0 .50
0 .50

0 .50
0 293
. 25 524
. 05 524
0 524

0 525
0 245
0 4.5
0 6.0
0 13

0 14
0 16
0 14
28 14
60 15
25 7.1

113.68 2,748.90
3.67 86.7
60 525
0 .SO
225 5,*50

. 28 MEAN 511
. 98 MEAN 490

FEB

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

36
248
3 3
3 3
3 3

3 2

1(4
2.4
2.4
2.4

1.6
0
28

1,795.8 2,
64.1
343
0
3,560

MAX 1,150
MAX 1,310

PER SECOND

FEB

1.5
. 80
. 70
. 70
. 60

. 60
. 60
. 60
. 60
. 60

. 60
5.7
8.3
7.9
6,5

. 90
1.0
1.0
. 90
1.2

1.0
. 90

1.6
. 90

. 90
. 80
. 20
. 20

48.70
1.68
8.3
. 20
97

M«X 1,310
MAX 1,220

MAR

33
6.0
4.3
0
0

0
. 30
1.0
106
180

28
46
19
3.6
3.6

5.0
6.7
6,7
3.6
2.1

1.4
. 90
. 90
1.5
3.6

8.6
198
400
434
577
565

645.80
85.3
577
0
5,250

MIN 0
MIN 0

, WATER

MAR

. 30
. 40
. 40
. 30
. 50

. 40
. 60
. 70
. 60
. 60

. 60
. 60
. 50
. 60
. 60

. 70
. 60
. 50
. 50
. 40

. 50
1.4

2.8
39

65
299
368
0
0
0

788.90
25.4
368
0
1,560

MIN 0
MIN 0

APR

527
527
524
511
507

340
83
83
58
76

32
5.0
2.8
17
26

25
24
9.6
. 80
. BO

1.2
. 80
. 80
. 80
. 60

. 10
. 10
17
19
28

3,447.40
115
527
. 10
6,840

AC-FT
AC-FT

MAY

26
26
26
. 144
581

691
734
824
866
861

63
79
37
47
70

804
840
871
1,060
1,190

1.220
1.220
1.230
1.230
1.240

1,260
1,260

1,280

1.2RO

27,410
884
1,280
26
54,370

357,100
367,900

YEAR OCTOBER 1967

APR

70
402
694
805
960

1,000
1,030
1,030
1,040
1,050

1,080
1,090
1,080
1,110
1,120

1,130
1,120
1,110
1.120
1.130

1,130
1.150

1.220
1,220

1.220
1.210
1,210
1,200
1.180

31,101
1,037
1.220
70
61,690

AC-FT
AC-FT

MAY

1,160
1,090
,080
,080
,080

,080
,070
995
958
911

895
897
792
710
710

707
755
769
769
962

1.150
1.150

,040
,020

,020
. 020
. 020
,020
,030
. 030

30,110
971
1,160
707
59,720

370,100
355.700

JUN

1,270
1,240
1,210
1,230
1,140

1,090
1,090
1,060
1,040
1,040

1,050
1.040
1,030
1,060
1,100

1,160
1,210
1,220
1,200
1,200

1,200
1,200
1,200
1,210
1,230

1,230
1,230

1,240
1,240

34,900
1,163
1,270
1,030
69,220

JUL

1,240
1,240
1,160
1,240
1,270

1,270
1,150
1,240
1,290
1,280

1,280
1,280
1,300
1.300
1,300

1,310
1,290
1,300
1,290
1,300

1,300
1,300
1,300
1,300
1,300

1,300
1,300

1,300
1,290
726

39,046
1,260
1,310
726
77,450

AUG

387
390
395
399
403

726
. 020
,220
,250
,240

,150
. 210
. 220
,220
,230

1,230
1,220
1,230
1,230
1,230

1,230
1,230
1,230
1,220
1,230

1,230
1,230
1,230
1,240
1.230

SEP

. 190
,190
,140
797
. 220

. 190
. 190
,190
,190
,200

,180
,160
,150
,150
,110

,080
,080
,080
,020
994

947
926
920
917
854

821
817
817
754
658

33.090 30,93?
1,067 1
1,250 1
387
65,630 61

. 031
,220
658
. 350

TO SEPTEMBER 1968

JUN

1,030
1,030
1,060
1,110
1,110

1,110
1,110
1,110
1,110
1,110

1,110
904
825
826
823

823
770
725
728
728

729
729

731
734

735
735
735
734
731

26,474
882
1,110
725
52,510

JUL

732
732
732
732
734

734
734
735
734
735

738
738
739
742
742

850
934
935
963
993

995
995

997
997

997
997
995
995
995
995

26,661
860
997
732
52,880

AUG

995
997
997
997
997

995
994
994
993
993

993
994
994
994
994

995
994
991
993
994

995
994

991
994

994
997
993
988
988

SEP

991
993
995
760
676

672
675
676
678
680

685
6S9
692
693
692

606
491
490
486
489

487
483
480
399
283

284
284
284
284
283

30,805 17,360
994
997
988

579
995
283
61,100 34,430

SAN JOAQUIN RIVER BASIN

11300500 SOUTH SAN JOAQUIN CANAL NEAR KNIGHTS FERRY, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY

1
2
3
4
5

6
7
a
9
10

11
12
13
14
15

16
17
18
19
20

21
22
?3
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

OCT

284
283
282
280
279

280
301
309
309
386

535
52B
369
7.0
8.2

a. a
6.7
7.1
3.4
3.8

8. 8
12
16
14
10

16
11
9.2
13
5.3
5.3

4.590.6
148
535
3.4
9,110

1968 TOTAL
1969 TOTAL

NOV

18
13
4.6
4.6
4.8

4.9
. 40
. 40
. 40
. 60

. 50
. 90
. 60
1.4
2.4

l.B
2.0
2.2
2.2
1.5

. 30
. 20
. 30
. 40
. 60

. 80
1.2
1.4
4.0
4.4

80.80 7
2.69
18
. 20
160

178.150
197.771

DEC

3.4
3.4
3.6
3.0
3.4

3.0
3.2
3.
2.
1.

2.
1.
1.8
1.8
l.B

79
431
438
469
491

490
490
490
494
501

503
500
498

497
473

. 381.8
238
503
1.6
14.640

. 70
. 10

DISCHARGE. IN

DAY

1

OCT

288

NOV

2.8

JAN

476
486
486
484
484

484
235
. 70
. 60
. 70

. 70
. 70
1.6
1.6
. 40

. 20
. 10
. 20
2.0
1.4

2.8
. 70
. 30
. 40
2.2

2.4
. 70
. 70
. 60
. 60
. 40

3.157.70
102
486
. 10
6.260

MEAN 487
MEAN 542

CUBIC FEET

DEC JAN

3.2 .80

FEB

. 30
. 20
. 10
. 10
. 20

. 60
. 30
. 30
. 20
. 10

. 30
. 50
. 40
. 40
. 70

. 40
. 40
1.0
. 90
. 80

. 70
. 60
2.6
2.7
1.2

1.0
. 90
. 90

IB. 80
. 67
2.7
. 10
37

MAX 1,220
MAX 1.230

MAR

. 60
. 50
. 50
. 50
. 50

. 40
. 30
. 20
. 10
. 20

. 10
. 20
. 10
. 10
. 10

. 10
. 10
. 10
. 10
. 10

. 20
. 10
. 10
. 10
. 10

. 10
. 10
. 10
14
43
278

340.80
11.0
278
. 10
676

MIN 0
MIN

APR

384
496
620
622
342

1.0
2.0
3.8
3.B
4.0

152
574
615
666
706

725
731
813
868
864

892
904
906
907
910

913
914
1.010
1.090
1.120

18,758.6
625
1,120
1.0
37.210

AC-FT
. 10 AC-FT

MAY

1.140
1.120
1.110
1.110
1.120

1.120
1.120
1.120
1.110
1.110

1.130
1.150
1.150
1.140
1.120

1,110
1,090
1,090
1,090
1.090

1.090
1.080
1,080
1.080
1.090

1.090
1,090
1.100
1.110
1.100
1.080

34,330
1,107
1.150
1.080
68,090

353,400
392.300

PER SECOND, WATER YEAR OCTOBER 1969

FE8

3.2

MAR

. 40

APR

. 1

MAY

1,190

JUN

815
1.110
1.100
1.100
1.120

1.150
1,150
1.150
1.160
1.140

1.140
1.140
1.130

1,1*0
1.140

1.170
1,200
1.200
1.210
1,210

1.210
1,210
1.220
1.220
1.220

1.210
1,220
1,220
1.220
1.230

34,855
1.162
1.230
BIS
69.130

TO SEPTEM

JUN

1.060

JUL

1.220
1.210
1.210
1.210
1.210

1.210
1,210
1.210
1*210
1.210

1,210
1.220
1.210
1.200
1.200

1.200
1.200
1.200
1.200
1.200

1.110
1.220
1.220
1.220
1.220

1.220
1.210
1.200
1.210
1.210
1.210

37.400
1.206
1.220
1.110
74.180

BER 1970

JUL

1.130

AUG

1.210
1.210
1.210
1.210
1.210

1.210
1.210
1.210
1.210
1.200

1.200
1.200
1.200
1.200
1.190

1,190
1.190
1,200
1,190
1.190

1.190
1.190
1.200
1.200
1.200

1,200
1,200
1,200
1.180
1,160
1.150

37,110
1.197
1.210
1.150
73.610

AUG

1.090

SEP

,160
. 160
. ISO
,120
,070

. 070
,010
948
886
683

690
697
699
704
710

708
SBO
501
498
497

498
410
284
287
285

288
288
288
289
289

19,747
658
1,160
284
39,170

SEP

288 939 289
300
326
319

294
294
294
584
753

692
654
652
652
282

5.9
5.0
4.8
4.4
3.8

S.f.
6.5
3.0
3.0
3.2

3.2
3.2
?.8
2.8
2.8
2.B

6.73b.8
217
753
2.8
13,360

1969 TOTAL
1970 TOTAL

2.8
2.8
2.6
2.6
2.8

2.6
1.6
1.8
1.8
2.0

2.0
2.0
2.0
2.2
2.4

2.4
1.2
. 10
. 07
0

0
0
0
3.6
3.6

3.6
3.6
3.6
3.4
3.4

62.57
2.09
3.6
0
124

192,901
204,654

3.2
7.6
18
20
24

26
26
26
25
25

25
25
25
25
25

26
11
0
. 75
1.4

1.6
1.4
1.6
2.0
2.6

2.4
2.6
2.6
1.4
. 80

384.75
12.4
26
0
763

. 02 MEAN
. 32 MEAN

. 80
. 50
. 50
. 40
. 20

1.8
3.0
3.6
3.4
3.6

3.2
3.2
3.2
4.6
4.4

5.0
4.2
2.4
2.2
2.2

U2
. 02
. 10
0

0
0
0
1.4
3.4
3.2

64.52
2.08
5.0
0
128

528
561

3.2
3.2
3.4
3.2
3.2

3.2
3.2
3.2
3.0
3.0

2.0
0
0
0
0

. 01
. 05
0
0
0

0
0
0
0
0

0
0
. 01

. _---_

33.87 5
1.21
3.4
0

MAX 1,230
Max 1,240

. 40
. 03
0
. 18
. 10

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
143
38
56
370

792
952
931
932
998
578

,790.71
187
998
0

MIN o
MIN 0

.1
512
1.060
1.080
1.080

1.090
1.110
1.120
1.140
1.150

1.170
1.180
1.190
1.190
1,190

1.190
1.200
1.200
1.200
1.200

1.200
1.210
1,230
1,230

1,230
1,210
1.100
1,110
1,140

33.112.1
1,104
1,230
. 10

AC-FT

1,190
1,190
1,200
1.190
1.180

1.160
1.180
1,180
1,180
1,180

1,180
1,190
1.190
1,190
1,190

1,180
1,190
1,190
1.200
1.210

1.220
1,220
1.210
1.210

1.180
1.150
1.090
945
8R2

35,950
1.160
1.P20
»82

382.600

1.060
1.210
1.240
1.240
1.240

1.240
1.230
1.240
1.230
1.230

1.220
1.230
1,230
1,230
1,230

1,210
1,120
1.100
1.100
1.110

1.120
1,120
1,180
1.230

1.180
1.120
1.130
1.130
1.130

35,410
1,180
1.240
1.060

1.130
1.110
1.120
1.130
1.130

1.150
1.160
1.160
1.100
1.090

1.080
1.080
1.080
1,080
1.080

1.090
1.080
1.080
1.090
1.090

1.090
1.090
1.090
1.090

1.090
1.090
1.090
1.090
1.090

34,100
1.100
1.160
1.080

1.090
1.090
1.100
1.100
1,100

1.100
1.100
1.100
1.100
1.100

1.100
1,100
1.100
1,100
1.100

1.100
1.100
1.100
1.100
1.100

1.100
1,100
1,100
1,100
1.090

1.090
1.090
1,090
1.090
1.090

33.906
1.094

1,100
986

939
939
937
729
658

658
661
662
664
666

666
665
665
66A
668

603
601
617
617
617

556
518
518
517
514

515
517
517
517
515

19,104
637
939
514

SAN JOAQUIN RIVER BASIN

11301000 OAKDALE CANAL NEAR KNIGHTS FERRY, CALIF.

LOCATION (REVISED).--Lat 37°

PERIOD OF RECORD.--May 1914 to Septemt
estimates published in WSP 1315-A.

AVERAGE DISCHARGE.--56 years, 156 cfs (113,000 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 556 cfs July 8-11, 1967; no flow at ti ch ye

REMARKS. --Records excellent. Canal diverts water from left bank of Stanislaus River at Goodwin Dam 0.3 mile

DAY

1
Z
3
ft
5

6
7
8
9
10

11
12
13
1ft
15

16
17
16
19
20

31
22
33
2ft
25

36
27
28
29
30
31

TOTAL
MEAN
MAX

MIN
AC-FT

CAL YR

OCT

ft2ft

ftZ3 ftas
ft22
ft22

<>22
ftZft
ft23
ft23
ft33

ft2ft
ft2ft
ft2ft
351
170

30ft
30ft
322
233
33ft

335
138
. 70
. 70
. 70

. 70
. 70
. 70
. 70
. 70
. 70

7.ft97.30
3ft3
ft3ft
. 70

1ft, 870

1965 TOTAL

eport .

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1965

NOV DEC JAN FEB MAR APR HAY

. 70
. 70
. 70
. SO
1.1

1.1
1.3
1.3
1.3
1.7

1.5
1.1
1.0
. 80
. 30

.ftO
. ftO
. 80
. 30
,30

. 30
. 30
. 80
. 70
. 50

. ftO
. 40
. 30
. 30
. 30

31.ftO
. 71
1.7
. 20
ft3

93,060

. 30 2.7
1.8 2.5
3.
3.
3.

2<
2.
2.
2,
2.

2<
2.
2.
2,
2.

2<

2,
2.
2
2,

2m
2,
2.
2.
2 W

2
2^
2-
I*

a

80.
2^

2.5

2.5 i.e
. 50
. 50
. 50
. 50
. 50

. 50
1.2
2.7
1.8
1.5

1.5
1.5
1.5
1.5
1.5

. 80
. 50
. 30
0
0

0
0
0
2.0
1.6
. 30

0 35.20
6 1.1ft
3.3 3.7
. 30 0
159 70

. 60 MEAN 255 MAX
. 10 MEAN 237 MAX

. 20
. 30
. 30
. 10
. 30

. 50
. 30
. 30
. 10
. 10

. 10
. 10
. 10
. 10
. 10

. 10
. 10
. 10
. 10
. 10

. 10
0
0
. 10
. 10

. 10
. 10
. 10

3.70
. 13
. 50
0
7.3

55ft
512

. 10
0
0
0
0

0
0
0
0
. 10

. 10
. 10
. 10
0
0

0
0
50
125
263

ftoe
ft80
50ft
511
512

510
510
510
490
ft86
ft87

5.8ft6.50
189
513
0
11,600

MIN 0
MIN 0

ftes
ft87
ftSft
ft84
ftB3

ftgft
ft68
ft62
ft61
410

380
106
108
108
289

ft32
ft57
ft57
ft63
ft68

ft68
ft69
ft69
ft69
ft96

508
506
506
505
50ft

12.881
429
508
108
25,550

AC-FT 18ft
AC-FT 16ft

502
503
50ft
503
503

505
503
503
503
ftSO

4 2
ft 2
ft 2
ft 2
ft 2

ft 2
ft 3
4 3
ftll
ftll

ft20
ft20
ft22
ft22
ft22

ft22
ft21
ft21
ft22
ft23
ft2?

13,975
ftSl
505
411
27,730

,600
,300

TO SEPTEMBER 1966

JUN JUL

ft23
ft24
ft2ft
ft25
ft23

ft22
ft22
ft07
ft06
ft05

406
ft07
ft07
ft08
370

350
351
351
350
350

352
353
353
353
35?

35?
35?
353
353
353

11,457
38?
ft25
350
22,720

353
353
353
35ft
35ft

35ft
35ft
35ft
353
353

352
352
35ft
355
355

355
355
355
355
358

359
360
360
360
361

361
361
360
360
361
361

11.045
356
361
352
21,910

AUG

361
360
360
361
361

360
360
360
360
360

360
360
360
360
360

361
360
360
361
362

360
361
361
362
362

362
362
361
308
278
278

10,962
35ft
362
278
21,740

SEP

37B
37B
379
381
283

263
283
263
283
283

385
386
286
287
287

287
286
286
287
287

294
297
296
297
298

36?
377
377
377
38?

9.035
301
38?
?78
17,9?0

11301000 OAKDALE CANAL NEAR KNIGHTS FERRY, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET HER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
4
5

6
7
a
9
10

ll
12
13
1*
15

16
17
18
19
20

21
22
23
2*
25

26
27
28
29
30
31

TOTAL 2
MEAN
MAX

MIN
AC-FT

CAL YH
WTH YH

385
381
377
384
277

43
19
11
10
10

11
9.9
9.5
11
11

11
11
11
11
11

7.4
. 90
. 80
1.0
1.2

1.5
2.3
2.5
2. 8
2.3
2.0

. 029.10
65.5
385
. 80
4.020

1966 TOTAL
1967 TOTAL

. 6
,3
. 3
. 5
. 0

. 0
. 2
. 0
. 10
. 10

u
0
0
0
0

. 10
0
0
0
. 10

0
. 10
0
0
0

0
0
0
0
0

10.40
. 35
1.6
0
21

77.285.
77.656.

. 10
. 20
.?0
. 20
. 60

2.0
. 50
. 30
. 20
. 20

. 20
. 10
. 10
. 10
. 10

. 10
. 10
. 10
. 10
. 10

. 10
. 10

n
0
0

0
0
0
0
0
0

5.80
. 19
2.0
0
12

70 MEAN
00 MEAN

0
0
0
0
0

0
0
0
0
0

o
0
0
9.4
7.5

0
0
0
0
0

1.2
1.0
. 20
. 60
. 40

. 20
. 20
. 20
. 40
. 60
. 40

22.30
. 7?
9.4
0

212
213

. 20
. 30
. 10
. 10
. 10

. 10
. 10
. 10
. 10
. 10

. 10
. 10
0
0
0

0
0
0
0
0

0
0
0
1.2
7.1

3.6
0
0

13.40
. 48
7.1
0

MAX 512
MAX 556

0
0
0
0
0

0
0
0
0
0

. 10
. 10
. 20
. 20
. 10

. 40
. 20
. 20
. 10
. 10

. 10
. 10
. 10
. 10
. 10

. 10
. 10
. 10
23
112
37

174.50
5.63
112
0

MIN 0
MIN 0

12
12
12
12
12

12
14
13
13
13

5.7
. 80
. 30
2.9
3.2

3.5
1.7
. 70
. 40

. 60

. 40
. 30

. 20

. 20
. 10
. 10

147.50 12
4.92
14
. 10

AC-FT 153.300 AC-FT 154.000

0
0
n
0
99

241
256
407

422
429
448
457
460

477
493
502
520

534

545
545

546

545
545

,510
404
546
0

S44
S4?
S31
S27
33B

240
239
264

SIB
524
526
527
527

53!
547
545
545

546

547
546

546

546
546

15,033
501
547
239

545
547
549
554
555

555
553
556

556
555
555
555
555

555
554
555
554

555

554
554

554

555
555
552

17,171
554
556
545

554
554
554
555
554

551
554
552

545
554
553
552
554

536
554
550
543

542

543
545
544

545

545
545
497

16,946
547
555
497

49?
491
4 0
4 9
4 7

4 3
4 4
4 4
495
498

496
493
493
484
434

426
426
426
425

423

420
417
409

406

406
409

13,593
453
499
405

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
4
5

6
7
8
9
10

11
12
13
14
IS

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

407
389
322
328
375

382
386
386
38S
380

379
394
405
416
425

423
430
474
481
484

177
1.0
. 94
. 84
. 74

. 66
. 58
. SB
. 58
. 58

. 58
. 58
. 66
. 66
. 66

2.7
5.9
6.7
6.7
9.1

16
16
16
16
18

24
24
24
24
6.3

. 58
. 45
. 40
. 40
. 40

. 40
. 40
. 45
. 51
. 51

8, 235. OB 223.04
266
484
. 58
16,330

1967 TOTAL
1968 TOTAL

7.43
24
. 40
442

84.136
81,209

. 51
. 5
. 0
. 5
. 5

. 5
. 5
. 5
. 5
. 5

. 0

0
0
0

0
0
. 03
0
6.6

9.
6.
4.
4.
4.

4.
4.
4.
4.
4.

68.03
2.19
9.9
0
135

. 85 MEAN
. 92 MEAN

4.
4.
4.
4.
4.

4.
4.
2,
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
. 18
. 15

35.23
1.14
4,7
0
70

231
222

0
0
0
0
0

0
6.0
12
12
12

12
12
12
11
11

4.6
. 15
. 10
. 06
. 45

. 35
. 20
. 10
. 10
. 06

. 03
. 03
. 03
. 03
. . . . . .

106.29
3.67
12
0
211

MAX 556
MAX 539

0
0
0
0
0

0
. 03
. 48
. 20
. 15

. 20
. 20
. 25
. 25
. 20

. 46
. 35
. 25
. 20
. 15

. 10
. 10
. 10
. 10
. 10

51
197
264
361
396
397

1,669.87
53.9
397
0
3,310

MIN 0
MIN 0

228
. 15
. 08
0
20

172
191
361
425
447

500
348
. 10
. 03
. 02

71
467
519
527
527

527
528
528
521
515

513
513
508
459
459

9,874.38 14
329
528
0
19,590 28

AC-FT 166,900
AC-FT 161,100

457
462
466
467
470

475
477
477
472
469

463
406
391
391

390
428
433
432
494

538
539
523
457
445

447
448
447
447
445

,166
457
539
390
,100

440
440

472
472

47?
471
47?
472
472

397
379
383
384

384
384
385
386
386

386
386
386
389
391

391
391
391
394
396

12,481
416
472
379
24,760

396
396

396
396

397
397
396
396
397

398
39B
398
398

397
396
395
396
398

398
399
399
399
399

399
399
399
399
399
399

12,322
397
399
395
24,440

399
400

400
399

399
398
398
399
399

400
400
400
400

400
400
400
401
402

402
402
402
401
402

402
403
402
401
401
400

12,412
400
403
398
24,620

401
401

402
304

289
296
296
296
297

297
298
297
296
297

298
305
315
313
315

316
314
313
317
322

324
324
324
323
323

9,617
321
402
289
19,080

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL MEAN MAX MIN

AC-FT

CAL YR
WTR YR

324
324
322
32?
322

322
324
323
322
324

326
321
211
7.5
7.0

6.0
6.0
5.5

4.2

6.0
5.0
5.S
6.0
5.5

5.5
4.6
3.0
3.8
3.0

2.6
2.3
2.3
1.3
0

4.1
3.1
1.1
1.2
1.1

1.1
1.1
1.2
1.1
1.2

. 98
. 98
1.2
1.2
1.1

. 68
. 68
. 88
. 68
. 68

. 50
2.0
5.0
4.2
4.2

4,177.0 49.96
135
326
2.1

1968 TOTAL
1969 TOTAL

1.67
5.0
0
99

76,972.
91,811.

3.4 .06
2.6 .03
3.4, 0
2.3 0
2.6 0

2.6 0
2.6 0
3.0 0
2.6 0
2.3 0

3.0 0
2.3 0
2.3 .95
2.6 .50
2.3 .18

2.6 .12
2.3 .10
1.9 .10
1.7 1.6
1.7 1.8

1.7 2.9
1.7 ,32
1.7 .18
1.9 .28
2.1 l.S

1.7 1.7

. 18 ,32
. 15 .22
. 12 .15
. 10 .10

61.53 13.19
1.98 .43
3.4 2.9
. 06 0
122 26

26 MEAN 210

50 MEAN 252

. 08
. 06
. 06
. 06
. 08

. 32
. 18
. 12
. 10
. 10

. 15
. 26
. 18
. 18
. 51

. 32
. 22
. 68
. 44
. 26

. 18
. 12
3.1
2.0
. 50

. 44
. 26
. 32
. . . . . .
. . . . . .

11.28
. 40
3.1
. 06
22

MAX 540

. 32
. 22
. 15
. 12
. 10

. 10
. 10
. 10
. 10
. 10

. 08
. 12
. 10
. 08
. 06

. 08
. 08
. 03
. 01
. 04

. 12
. 10
. 08
. 08
. 08

. 08
. 06
. 03
. 03
31
131

164.77
5.32
131
. 01
327

MIN 0
MIN 0

290
327

291
112

. 15
. 03
. 50
. 06
. 03

24
94
139
253
387

409
418
435
435
435

438
453
464
465
465

466
470
473
472
473

8,971.77
299
473
. 03
17,800

AC-FT 152,
AC-FT 182,

474
474
475
475
486

506
512
513

522 531

531
530
529
521
520

519
522
52?
522
521

521
521
521
520
522

522
522
522
522
521
520

15,939
514
531
474
31,620

700
100

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969

DAY

1
2
3
4
S

6
7
8
9
10

11
12
13
14
IS

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
HTR YR

OCT

409
409
409
409
409

408
408
408
409
410

410
409
409
409
173

. 38
. 26
. 22
,22
. 22

. 22
. 22
. 22
. 22
. 22

. 22
. 22
. 22
. 22
. 22

NOV

7.0
7.0
6.5
6.5
6.5

6.0
6.0
2.0
. 50
. 50

. 50
. 50
. 10
. 06
. 03

. 06
8.8
IS
16
16

16
16
16
16
16

16
16
16
16
16
. 22 . - -

5,901.72 265.55
190
410
. 22
11,710

1969 TOTAL
1970 TOTAL

8.85
16
. 03
527

93.720
9S.682

DEC JAN

16 .18
6.3 .18
. 38 .18
. 38 .22
. 38 .22

. 38 .22
. 32 .22
. 32 .26
. 26 .32
. 26 .32

. 26 .32
. 26 .32
. 26 .32
. 26 2.2
. 26 . 44

. 26 .98
. 26 .26
. 26 .18
. 26 .12
. 26 .15

. 38 .78
. 26 .26
. 26 .15
. 22 .18

. 22 .12
. 22 .15
. 16 .15
. 18 .10
. 18 .08
. 18 .08

30.24 9.81
. 96 .32
16 2.2
. 18 .06
60 19

. 52 MEAN 257
. 80 MEAN 262

FEB

. 06
. 03
. 03
. 02
0

0
0
0
0
0

0
0
. 03
. 03
. 03

. 03
. 10
. 10
. 08
. 08

10
8.5
2.9
. 08
. 03

. 01
0
. 02
. . . . . .

22.16
. 79
10
0
44

MAX 540
MAX 532

MAR

. 53
. 26
. 15
. 26
. 32

. IS
. 12
. 12
. 10
. 12

. 12
. 08
. 08
. 08
. 08

. 08
. 06
. 06
. 06
. 06

. 04
6.3
75
222

393
432
433
432
477

2,964.32
95.6
489
. 04
5,880

MIN 0
MIN 0

APR

488
486
465
309

492
491
496
500
501

501
SOI
467
430
430

454
462
479
497
495

494
495
496

496
480
412
421
431

14,152
472
501
309
28,070

AC-FT 185
AC-FT 189

MAY

436
452
459
502

509
511
515
516
515

514
516
516
SIS
520

523
528
531
531
531

531
532
532
531

531
531
531
531
531
532

15,991
516
532
436
31.720

,900
,800

521
522
523
523
52?

522
522
522
52?
522

522
52?
52?
522
524

534
534
534
534
535

535
535
535
535
S3S

535
S3S
535

535

15.853
528
535
521
31,440

TO SEPTEM

JUN

531
531
531
530

531
530
531
530
S3n

531
530
530
530
530

48?
483
482
513

531
531
531
532

530
532
530
531
531

15,719
524
S3?
46?
31,180

535
533
533
534
533

533
533
533
533
533

534
533
533
534
534

536
538
538
537
538

538
539
538
539
539

539
538
538

539

16,610
536
539
533
32,950

BER 1970

JUL

530
531
532
532

532
531
531
472
452

459
460
461
461

461
462
460
459

462
463
464

464
464
465
465
465
465

14,882
460
532
452
29,520

538
538
537
538
538

539
539
540
539
538

537
539
539
539
540

539
538
538
539
538

537
537
538
538
538

538
538
538

529
518

16,649
537
540
518
33,020

AUG

465
465
465
466

465
466
465
465
466

466
466
466
466
467

467
468
468
468

469
469
469
470

470
470
470
470
470
378

14,396
464
470
378
28,550

507
504
504
504
504

504
479
450
450
450

45"
450
450
450

45(1

sn
36
18
07
07

408
409
409
409
407

409
409
409

409

13,311
444

507
407
26,400

SEP

353
360
363
366
368

368
370
370
370
371

370
369
368
369

384
392
392
392

391
391
391
390

391
391
391
391
390

11,349
378
392
353
22,510

SAN JOAQUIN RIVER BASIN

11302000 STANISLAUS RIVER BELOW GOODWIN DAM, NEAR KNIGHTS FERRY, CALIF.

LOCATION (REVISED).--Lat 37 0 51'06", long 120°38'13", in Rancheria Del Rio Estanislao Grant, Cal ght bank 250 ft upst Owl Creek, 0.9 mile downstream from Goodwin Dam, and 2.9

DRAINAGE AREA.--986 sq

PERIOD OF RECORD.--February 1957 to Sep
Knights Ferry 1903-14 and as Stanislaus River near Knights Ferry 1915-32, if adjusted for diversion Stanislaus and San Joaquin Water Co.'s canal and Oakdale and South San Joaquin canal

GAGE.--Water-stage recorder. Datum of gage is 252.83 ft above me

AVERAGE DISCHARGE.--13 years, 777 cfs (562,900 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per sec height in feet) fo

Maxi Mi
Wtr yr Date
1966 Dec. 3, 1965
1967 May 24, 1967
1968 Apr. 1, 1968
1969 Jan. 21, 1969
1970 Jan. 22, 1970

Discharge
1,710
9,430
1,730
28,600
18,000

G.H.
10.84
16.35
10.81
24.85
20.53

Date

ily

Sept. 1-5, 15-17, 24, 25, 1966
Oct. 6, 1966
Sept.26-30, 1968
Oct. 1-6, 8, 9, 1968
Sept.27-30, 1970

Discharge
1.5
. 80
1.7
1.7
1.6

c. 24, 1964 (gage height, 28.85 ft, in gage well,
xtended above 14,000 cfs; minimum daily, 0.30 cfs

Period of record: Maximum discharge, 40,200 cfs
31.2 ft outside, from floodmarks), from rating curv
Sept. 13, 14, Oct. 1, 1960.
Flood of Dec. 23, 1955, reached a stage of 37.7 ft, from floodmarks (discharge, 62,900 cfs, by computati of flow over Goodwin Dam).

3, to Jan. 1, 1970. Flow

Geological Survey.

REVISIONS.--WSP 1930: Drainage area.

OISCHARGtt IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL

1
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14
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16
17
IB
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL

MEAN MAX
MIN
AC-FT

CAL YR
WTR YR

2.1
2.1
2.1
2.1
2.1

2.1
2.1
2.0
2.0
2.0

2.0
2.0
2.0
1.9
75

110
160
400
380
370

380
310
440
340
340

350
370
360
350
350
350

5.463. 6 20
176

1.9

10,640 40

1965 TOTAL
1966 TOTAL

350
353 1
353 1
356 1
364 1

370 1
370
367
511
631

954
658
831
776
451

680 1
620 1
636 1
820 1
620 1

620 1
S31 1
836 1
831 1
836 1

842 1
842 1
842 1
842 1
842 1
1

,435 40
681 1

350
,530 BO

508,861.1
137,345.9

636 1
,010 1
,700 1
,690 1
,670 1

,090 1
642 1
842 1
842 1
642 1

642 1
642 1
642 1
609 1
642 1

,010 1
,630 1
,630 1
,620 1
,620 1

,620 1
,610 1
,600
,590
. 600

. 560
,580
,590
. 600 1
,610 1
. 610 1

,641 40
. 311 1

809
. 610 60

MEAN 1
MEAN

,620
,620
,620
. 620
,630

,630
,630
,620
. 620
,620

,620
,620
,620
,610
,600

,600
,590
,580
,570
,570

. 550
,420
264
105
49

44
38
39
,630
. 630
,610

,589
,309

38
,510

. 394
376

1,590
1,560
1,570
1,560
1,560

1,560
1,540
1.300
1,520
1,520

1.510
1.500
1.500
994
664

668
917
994
749
749

412
2.7
13
26
24

18
67
63

_ ._. -_

26,190.7
935

2.7
51,950

MAX 13
MAX 1

61
74
94
121
129

131
129
129
121
109

113
125
127
129
127

129
129
119
113
119

99
99
86
68
60

60
60
47
36
36
35

3,014
97.2
131
35
5,980

,400 MIN
,700 MIN

35
35
35
25
18

16
18
18
18
17

IS
13
13
13
14

16
17
15
9.
9.

9.
6.
6.
8.
8.

9.
9.
9.
9.
6,

461.
15.
y
8..
91!

1.9 <
1.5 <

8.9
ft. 9
8.9
8.9
8.9

8.9
8.6
6.6
8.6
7.7

7.0
6.8
6.8
6.5
6.5

6.3
6.3
6.1
5.2
4.8

4.6
4.8
4.6
4.8
4.6

4.6
4.8
4.6
4.8
4.8
4.8

201.6 11
6.50 3
8.9
4.6
400

C-FT 1,009,000
C-FT 272.400

. 6
.?
. 2
. 2
. 2

. 2
. 1
. 1
, 1
1

tl
. 1
. 1
. 9
. 6

. 4
. 4
. 4
. 4
. 3

. 4
. 4
. 4
. 4
. 4

. 4
. 4
. 4
. 4
. 4

. 7
76
6
. 3
?24

3.4
3.6
3.6
3.6
3.6

3.4
3.4
3.1
3.0
3.0

3.0
3.0
3.0
3.0
2.6

2.8
2.8
3.0
3.0
3.0

3.0
3.0
3.0
3.0
3.0

2.8
2.8
2.8
3.0
3.0
3.0

95.5
3,08
3.6
2.8
189

3.0 1.5
2.8 1.5
2.6 1.5
2.8 1.5
2.8 1.5

2.8 1.7
2.8 1.7
2.6 1.7
2.8 1.7
3.0 1.7

3.0 1.7
3.0 1.7
3.0 1.7
3.0 1.7
2.8 1.5

2.8 1.5
2.8 1.5
2.8 1.7
2.8 1.7
2.8 1.7

3.0 1.7
3.0 1.7
2.8 1.7
2.8 1.5
3.0 1.5

3.0 2.5
2.8 3.1
2.8 3.1
2.1 3.3
1.7 3.3
1.7

85.9 55.8

2.77 1.86 3.0 3.3
1.7 1.5
170 111

SAN JOAQUIN RIVER BASIN

11302000 STANISLAUS RIVER BELOW GOODWIN DAM, NEAR KNIGHTS FERRY, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

1
2
3
<t
5

6
7
8
9
10

11
1Z
13
1*
15

16
17
IB
19
20

21
22
23
2<>
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
HIN
AC-FT

CAL YR
KTR YR

3.*
3.6
3.6

3.3 2.4
. 80
4.1
9.2
9.2
8.<>

6.5
7.4
7.4
7.<t
7.*

7.4
11
IS
49
65

60
60
60
66

76
72
66
61
55
55

940.50
30.3
78
. 80
1,870

1966 TOTAL
1967 TOTAL

55
55
55
55
55

55 2.
55 2,
54 1,
55 1,
57 1,

58 1,
59 1,
59
59
59

60
63
64
61
63

59
72
105
115
109

105
113
107
129
172

2,242 28.
7*. 7

172 2,
5<>

4,450 55.

102<180.80
611,000.50

190
198
202
205
848

460
570
880
730
670

650
170
840
8*7
854

854
840
8*7
854
868

868
868 3
728 1
526 1
520 1

520 3
515 4
515 3

520 2
520 2

192 33
909 1
570 4
190
920 67

MEAN MEAN

416
136
510
510
515

515
515
515
526
312

123
101
97
88
89

94
82
83
88
82

609
. 200
,440
,740

,040
,560
,550

,980
,980

,826
,091
,560
82
,090

280
1,674

2.920
2,370
1,900

1,650

1,650
1,650
1,650
1,650
1,650

1,650
1,650
1,650
1,650
1,650

1,620
1,420
1,330
1.330
1,330

1,330
1,530
1,640
1,440

1,050
987
568

43,615
1.558
2,920
568
86,510

MAX 2.
MAX 8,

434
456
448

475

480
275
99
82
71

80
1,020
1.710
1.710
1,700

4,290
7,760
7,670
7,050
6,000

3,850
3,000
2,700
2,700

2,310
1.910
1.490

1.000
1.570

66,640
2,150
7,760
71
132,200

570 MIN
660 HIN

2,340
2,290
1,840

1,410

2,200
4,630
4,600
4,410
4,080

3,970
3,840
3,600
3,490
3,760

3,860
3,900
4,200
4,320
4,310

4,340
4,420
4,350
4,350

4,220
4,140
4,100

3,870

110,590
3,686
4,630
1,410
219,400

. 80
. 80

3,780
3,630
3,630

3.510

2,900
2,560
2,250
2,810
2.570

2,690
2,740
2.730
2.710
2,700

2,690
2,670
2,830
2,700
2,670

2,730
5,170
8,220
8,660

7.760
7.810
7,760

7,850
7,880

137,770
4.444
8.660
2.250
273.300

AC-FT 202
AC-FT 1,212

7,340
4,950
2,730

3,860

4,920
4.590
5,050
5,480
5,770

6,090
5,150
4,340
4,500
3,480

2,790
3,050
4,970
5,640
5,330

5,360
5.820
6,470
6.460

6,470
6,340
5.830

5.640

153,010
5,100
7,340
2,560
303,500

,700
,000

5,500
5,390
4,940

3.520

2,440
1,170
495
510
355

270
48
180
327
480

1,080
1,260
500
363
236

116
40
44
38
35

35
35
35
35
35
27

32,939
1,063
5,500
27
65,330

20
20
20
20
24

22
23
24
24
24

23
24
24
24
24

23
24
24
24
23

22
22
22
22
22

22
22
22
21
21
20

696
22.5
24
20
1,380

20
20
20
17
20

20
20
20
20
20

20
20
20
20
18

18
18
18
17
17

17
16
16
16
16

15
15
15
16
IS

540
18.0
20
15
1,070

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
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23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

15
15
14
13
14

14
14
14
15
15

16
17
IB
18
19

19
19
41
130
206

215
21B
230
262
259

266
270
256
252
245
245

3.364 16
109
270
13
6,670 32

1967 TOTAL
1968 TOTAL

256
252
252
259
259

233
233
259
256
245

252
256
256
256
333

3B5
B6B
854
861
868

B82
875
875
B6B
B68

B68
868
868
854
BS4

,373 23
546
882
233
. 480 47

623.23B.O
79.791.4

854
854
854
854
854

854
833
819
819
819

628
116
231
812
819

B19
B19
B26
819
812

BOS
805
805
80S
805

B05
805
BOS
784
752

,875
770
BS4
116
,360

MEAN
MEAN

812
812
812
812
812

812
812
812
B12
819

812
562
395
395
400

404
391
327
323
319

312
319
391
379
308

145
129
125
125
125
123

14,936
482
819
123
29,630

1,703
21B

131
129
135
121
142

127
138
129
133
133

133
131
127
119
123

129
131
131
131
138

13b
131
13B
133
135

135
133
123
129 1
1
1

3,803 10
131
142 1
119
7.540 20

MAX B.660
MAX 1,370

101
74
70
65
72

66
61
68
63
59

65
63
59
68
65

70
65
60
61
231

680
644
716
734
722

650
335
678
. 310
,2BO
,270

. 525
340
. 310
59
,880

MIN
MIN

1,370
1.280
910
798
656

460
408
194
90
54

71
24
8.6
8.4
8.1

B.4
12
12
12
12

12
10
7.9
7.9
7.7

7.4
7.2
7.2
5.9
5.7

6,475.4
216
1.370
5.7
12,840

13 AC-FT
1.7 AC-FT

5.5
5.4
5.4
5.4
5.4

5.0
5.0
5.0
4.8
4.4

4.2
3.9
3.6
3.3
3.0

3.0
3.1
3.1
3.1
3.6

5.2
5.4
5.2
4.1
3.B

3.6
3.6
3.4
3.4
3.4
3.1

129.4
4.17
5.5
3.0
257

1,236.
15B,

3.1
3.1
3.1
3.4
3.6

3.6
3.6
3.4
3.4
3.4

3.4
2.8
2.1
2.1
2.1

2.0
2.0
2.0
2.0
2.0

2.0
2.0
2.0
2.0
2.0

2.0

2.0 l.B l.B l.fl
75.6
2.5?
3.6
1.8
150

000
300

1.8
2.0
2.0
2.0
2.0

2.0
2.0
2.0
2.1
2.1

2.1
2.2
2.2
2.2
2.4

2.4
2.B
2.B
3.0
3.0

3.0
3.0
3.0
3.0
3.0

3.0
3.0
3.0
3.0
3.0
3.0

78. 1
2.52
3.0
l.B
155

3.0
3.0
3.0
3.0
3.0

3.0
3.1
3.1
3.1
3.1

3.1
3.1
3.1
3.1
3.1

3.1
3.1
3.1
3.3
3.3

3.1
3.1
3.1
3.1
3.1

3.1
3.0
3.0
3.0
3.0
3.0

95.4
3.08
3.3
3.0
1B9

3.0
3.0
3.0
3.0
2.4

2.0
2.0
2.0
2.0
2.0

2.0
2.0
2.0
2.0
2.0

2.0
1.8
2.0
2.0
l.B

1.8
l.B
l.B
l.B
l.B

1.7
1.7
1.7
1.7
1.7

61.5
?.05
3.0
1.7
122

DISCHARGE, IN CUBIC FEET PER SECONDt WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY

i
2
3
4
5

6
7
B
9
10

11
12
13
14
15

16
17
IB
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
M1N
AC-FT

DAY

l
2
3
it
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
M1N
AC-FT

CAL YR
WTR YR

OCT

1.7
U7
U7
1.7
1.7

U7
l.B
1.7
1.7
1.8

2.0
2.2
2.4
5.7
8.4

6,8
11
44
51
50

55
48
44
46
48

47
47
43
50
53

72R.7 2
23.5
55
1.7
1,450 4

NOV

54

63

80
76
86

80
86
77
86

83
90
90
86

77

90
83
90

82
72
88
78
86

,318

90
47
,600

DISCHARG

OCT NOV

617 530
617 530
612 420
634 99
628 100

620 100
620 101
610 101
550 1 0 1
380 142

434 188
473 188
480 188
372 188
378 188

530 182
530 173
530 162
530 162
530 162

530 525
530 670
530 670
530 670
530 670

530 670
530 670
530 670
530 670

530

16,505 10
532
634
372
32,740 20

1969 TOTAL
1970 TOTAL

,560
352

99
,950

829,195
364,211

DEC

107

78

78
70

74
80
71

80
71
70
76

76

76
76
78

83
82
82
80
80

2,412

107
70
4,780

436

431

982
1,110

2,060
3.040

2,300
2,140
3,800
7.400

23,500

7,230
6,590

16,500
11,300

7,810

156,239

23,500
409
309,900

E. IN CUBIC FEET

DEC JAN

670 1,760
670 686
670 847
670 868
675 868

675 428
675 280
675 903
675 910
675 854

680
680
680
680

680
680
680
680
680

680
680
680
,440
,850

,850
,850
,850
. 850

,760

29,815
962

875
875
1.160
1,820

4,440
12,100
8,150
6,980
6,340

9,180
16.200
9,090
7.830
7,850

7.850
7,400
6,220
4,920

2,640

134,819
4,349

670 280
59,140 267,400

. 2 MEAN 2,272
. 2 MEAN 998

4,290

2,990

3,120
3.190

4,900
4,770

4.500
4,670
4,590
4,600

4,150

4,100
4,880

4,850
4,770

120,650

2,860
239,300

4,350

3.930

3.640
3.500

2,370
2,590

3,240
3,150
3,070
2,980

2,930

2,840
2,410

2,440
2,440

3,570

101,210

2,230
200,800

PER SECOND, NATER

FEB MAR

2,570 2,340
2,350 3,940
2,960 3,580
3,110 2.930
2,820 3,090

2,580 2,670
2,400 2,450
2,250 2,450
2,140 2,230
2,120 2,090

2,070
2,040
1.630
1,640

1,660
1,680
1,950
2,130
2,150

2,150
2,150
2,150
2,150
2,010

1,870
1,870
1.870

60,560
2,163

1,630
120,100

MAX 23
MAX 16

1.860
1.720
1.720
1,720

1,730
1,740
1,730
1,730
1.710

1,690
1,550
1,090
704
311

104
279
367
335

852

53,181
1,716

104
105,500

,500 MIN
,200 MIN

2,470 2.300

2.950 2,340

3,560 2,390
3,570 2,550

2,970 7,490
2,800 7,900

2.570 8.280
2,450 8,260
2,390 8,260
2,380 8,170

2,330 8,060

2,290 8,310
2,310 8,210

2,350 8,210
2,370 8,120

2,240 8,370

81,620 193,230

2,240 2,240
161,900 383,300

1.7 AC-FT 82
1.7 AC-FT 1.543

YEAR OCTOBER 1969

APR MAY

633 .3
106 .4
32 .4
13 .8
13 .8

12 18
7.7 58
5.5 573
5.4 568
5.4 568

5.0 740
5.0 650
4.4 628
4.2 1.200

4.4 2,180
4.6 2,150
4.6 2,140
5.0 2,140
5.0 1,860

5.0 1,060
5.0 88
4.8 883
5.0 .790
5.0 ,640

5.0 .280
4.8 ,310
3.6 .490
3.1 ,600

925.2 31,102.7
30.8 1.003

3.1 3.3
1,840 61,690

3.9 AC-FT 1,645
1.6 AC-FT 722

JUN

8.120
8,210
7,950

6,150
5.740

912
515

3.650
3.140
2.950
2.940

2,630

2.190
1,860
1,140

460
59
35
39

103,867
3,462

35
206,000

,590
. 000

TO SEPTE

JUN

1,880
2.250
2,570
2.550
2,480

1,170
641
579
1,970
3,000

486
82
35
3.4

3.0
2.8
2.4
2.4
2.4

459
596
704
336
362

163
218
1,690
701
114

26,472.4
882

2.4
52,510

,000
,400

JUL

398
194
1,170
808

422

378
206
206

290

440
545

25
20
9.2
8.9

7.9
8.6
8.6
8.6
8.6

8.6
8.4
8.4
8.4
8.4

8.318.0
268
1,170
7.9
16,500

MBER 1970

JUL

64
2.8
2.4
2.4
2.4

2.6
2.6
2.6
2.3
2.0

2.0
2.0
2.2
2.2
2.2

2.3
2.3
2.3
2.2
2.7

2.2
2.2
2.2
2.2
2.2

2.2
2.2
2.2
2.2
2.2
2.3

132.3
4.27
64
2.0
262

AUG

8.4
8.1
8.1
8.1
8.1

8.1
8.1
8.1
8.1
8.1

8.1
8.1
8.1
8.1
8.1

8.1
8.1
8.1
8.1
8.1

8.1
8.1
8.4
8.4
8.6

8.6
8.6
8.6
8.4
8.1

254.1
8.20
8.6
7.9
504

AUG

2.3
2.2
2.2
2.
2.

2.
2.
2.
2.
2.

2.4
2.4
2.4
2.6
2.6

2.8
2.8
2.8
2.8
2.8

3.0
3.0
3.0
3.0
3.0

3.4
3.4
3.4
3.4
3.4
2.6

84.2
2.72
3.4
2.2
167

SEP

. 7
. 4
. 4
. 4
. 2

. 2
. 0
. 9
. 9
. 4

. 0
. 0
. 0
. 0
. 0

. 0
. 8
. 2
. 9
. 9

. 9
. 9
19
798
903

1.130
1.120
1.100
942
617

6,927.1
231
1,130
3.9
13.740

SEP

2.0
2.0
2.2
2.0
1.8

1.8
1.8
1.8
1.7
1.7

1.7
1.7
1.7
1.7
1.7

2.0
2.0
2.0
2.0
2.0

2.0
1.8
1.8
1.7
1.7

1.7
1.6
1.6
1.6
1.6

54.4
1.81
2.2
1.6
108

SAN JOAQUIN RIVER BASIN

11303000 STANISLAUS RIVER AT RIPON, CALIF.

LOCATION.--Lat
15 ft downs
mouth.

DRAINAGE AREA.--1,075 sq ml.

1940 to Nov. 17, 1953, at

AVERAGE DISCHARGE.--30 years, 1,062 cfs (769,400 acr

contained in the following table:

. -ft per year).

feet per second, ga height in feet) fo

Wtr yr Date
1966
1967
1968
1969
1970

May
Apr.

30, 1965
25, 1967
2, 1968
22. 1969
23. 1970

G.H.
46.17
56.19
43.69
60.43
58.44

Date

Aug. 18, 1966
Oct. 2, 1966
July 19, 1968
Oct. 11, 1968
Aug. 15, 20, 1970

July 21, 1961.

62,500 cfs Dec. 24, 1955 (gage height, 63.25 ft);

REMARKS.--Recc

11302000). Joaqu and Oakdale Canals (s 11300500, 11301000) divert at Goodw

diagr

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

NOV DEC JAN FEB MAR APR MAY JUN JUL

100
123
129

102
100
101

102
105
109
114
107

109
101

1
2
3
4
5

6
7

e
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN

MIN

CAL YR
WTR YR

341
346
365
380
331

332
354
360
322
341

335
303
320 1
260
350

357
356
373
371 1
488

498
508
514
472 1
514 1

464 1
464
470
485
483

12,338 24
398
514 1

260

1965 TOTAL
1966 TOTAL

475
472
475
477
477

474

482
477
532

833
979
,000
982
956

721
798
994
,120
998

953
942
998
,140
. 080

. 010
997
964
950
944

. 180
806

472

574,253
190,430

936
952
1,080
1,640
1,730

1,740

1,010
978
962

958
965
960
950
932

922
1,060
1,590
1,670
1.680

1.700
1.700
1,700
1,700
1,700

1,740
1.730
1.730
1.820
2,100
2,100

43,775
1,412

922
86,830

MEAN
MEAN

1,970
1,840
1,790
1,800
1,780

1,820

1,780
1,770
1,760

1,750
1.750
1.740
1.740
1,730

1.720
1,720
1.710
1.700
1.690

1.680
1.670
1,500
682
472

362
308
274
253
1,160
1,860

45,581
1,470

253
90,410

1.573
522

1.780
1.700
1.690
1.680
1.670

1,860

1,730
1,500
1,640

1,640
1,630
1,620
1,610
1,180

924
859
1,030
1,100
882

861
683
382
292
256

243
229
217
. . . *»

. . . . . .

32,858
1,174

217

65,170

MAX 11,800
MAX 2,100

232
223
220
230
235

245

243
243
240

235
226
232
232
308

308
282
289
285
335

369
327
292
295
277

232
231
262
256
228
210

8,067
260

210
16,000

MIN 174

215
207
197
193
188

199
184
181
218
240

249
239
219
185
180

175
179
213
196
189

177
172
177
189
191

172
158
166
151
145

5,744
191

145
11.390

AC-FT

146
155
158
157
157

165
156
160
167
184

173
176
163
172
168

160
165
162
154
154

160
157
177
182
178

161
149
145
155
154
145

5,015
162
184
145
9,950

1,139,000

141
142
138
150
177

170
155
153
157
155

158
156
151
152
147

130
114
100
121
115

104
102
124
113
111

111
106
97
96
97

3,943
131
177
96
7,820

129
81
. 110

117
100

2,791
90.0
117

100
103
103

99
130
107

121
112
117
110
105

3,060
102
130

SAN JOAQUIN RIVER BASIN

11303000 STANISLAUS RIVER AT RIPON, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
IS

16
17
IB
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

M«X
MIN

CAL YR

OCT

116
107
114
125
1*8

165
138
135
114
132

215
184
124
114
113

120
124
115
109
110

112
129
138

40

2
7
9
0
9

4,165
134
215
107
8,260

1966 TOTAL
1967 TOTAL

OCT

535
548
568
595
542

543
529
561
590
453

362
393
382

384
439
486
544

632
657
S47
461
455

457
48ft

4b3
414
402

362

1967 TOTAL

NOV

144
143
142
141
141

147
152 2
153 2
153 2
146 1

146 1
147 1
147 1
148 1
150

154
158
155
152
155

159
159
159

174

181
183
184
188
187

4.715 30
157
188 2
141
9.350 60

149,403
682,942

DISCHARGE.

NOV

384
383
379
384
393

390
383
373
374
380

386
384
386

73d
832
870

892
907
913
915
916

918
922

. . . . .

373

703. 50b

DEC

196
224
252
299
304

648
. 220
,620
. 030
,840

. 770
. 740
. 460
. 030
971

948
933
917
912
920

925
927
928

696

660
646
632
625
622

JAN

615
594
375
469
563

590
590
590
590
590

522
324
276
249
233

221
215
210
201
198

212
823
2,880

2.180

2,000
2,950
4,360
3,810
3.020

. 386 35,590
980 1.148
. 620 4.360
198 198
,270 70.590

MEAN 409
MEAN 1.871

IN CUBIC FEET

DEC JAN

937 856
931 881
929 879
929 884
941 885

942 886
940 883
934 88?
905 885
899 893

799
515
387

8R2
893
8SB

882
881
883
883

878
880

B40

387

MEAN

892
773
S84

537
480
464

451
441
442

362
311

355

295

1.927

FEB

3,210
3.000

2,100
1,850

1,810
1.770
1.760
1.760
1.750

1,750
1,740
1,740
1,750
1.740

1,740
1,720

1.430
1,410

1.400

1,580

1.570

1,210
1.170
1.130

49,330
1.762
3,210
1.130
97.850

MAX 2,620
MAX 7,730

PER SECON

FEB

401
321
289
284
273

273
268
269
?62
260

258
258
255

274
285
260

339
341
296

?56
255

242

MAX 7,730

MAR

853

622
618

614
612
518
372
312

248
223
806
1,620
1.720

. 770
. 670

,000
,670

. 130

,590

,050

. 920
. 660
2.250
1.850
1,560

69.094
2,229
7.000
223
137,000

MIN 74

MIN 107

D. WATER

MAR

251
243
222
208
202

199
199
223
325
262

216
203
202
204

421
319
286

276
629
756

915
853
696
741

1,290

199

MIN 198

APR

1.630

2.060
1,740

1,670
2,640
4.270
4.520
4,420

4,370
4,370
4,020
3.750
3,630

3,820
3,920

4,650
4,590

4,470

4,660

4,550

4,450
4,360
4.280
4,180
4,110

113,620
3,787
4,730
1,670
225,400

AC-FT
AC-FT

YEAR OCTC

APR

1,350
1,450
1,380
1,080
995

889
732
684
605
435

371
316
292
261

206
199
210

221
217
207

190

188
171
189
216

171

AC-FT

MAY

4,030

3.820
3,840

3,720
3.240
2,870
2,610
3.180

3,030
3,080
3,090
3,100
3,060

3,030
2,980

3,030
2,940

2,890

4,500

7,730

7,390
7,300
7,370
7,340
7,400

134,690
4.345
7,730
2,610
267,200

296,300
1,355,000

BER 1967

MAY

175
178
188
173
168

168
152
149
145
149

144
151
153
181
165

141
146
142
138

140
153
159
177
147

146
146
126
123

128

188
123

1.39S.OOO

JUN

7,620

4,120
3,550

4,510
5,230
5,170
5,400
5,720

6,000
6,230
5,690
4,980
4,960

4.300
3,580

5,090
5,660

5,580

5,850
6,360
6,490

6,460
6,430
6,400
6,070
5,810

165,940
5,531
7,620
3,550
329,100

TO SEPTEM

JUN

126
135
130
120
125

158
128
155
151
133

129
124
147
140
127

156
1*1
128
131
110

106
110
148
138
119

128
130
104
97

15P
97

JUL

5.810

5,330
4,290

4,120
3,200
2,020
1,460
1,340

1,140
961
765
733
812

933
1,410

938
830

692

550
485
441

423
377
357
332
359
385

54.055
1,744
5,810
332
107,200

BER 1968

JUL

108
119
104
102
108

103
109
112
96
99

95
90
113
112
110

92
90
90
87
94

105
102
91
104
94

97
106
116
109
106
107

119
87

AUG

337

331
313
307

319
342
3*2
33*
347

385
375
346
356
320

316
323

270
303

342

300
305
270

244
302
284
263
254
280

9.763
315
385
244
19,360

AUG

98
100
97
116
143

1*6
126
110
100
98

100
95
106
95
107

97
10*
111
115
117

110
138
132
126
122

125
126
122
118
114
118

146
95

SEP

316
299
30*
315
298

298
302
311
269
333

368
37*
391
338
373

*17
404
411
385
388

428

*67
476
480

454
440
468
494
515

11,594
386
515
269
23.000

SEP

130
135
122
128
143

136
118
107
102
97

103
112
108
96
98

109
111
121
123
133

126
155
151
152
137

140
133
146
150
131

3.753
125
155
96

SAN JOAQUIN RIVER BASIN

11303000 STANISLAUS RIVER AT RIPON, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
16
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YH

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN
MAX
MIN
AC-FT

CAL YR
NTR YR

146
192
200
178
184

195
213
169
181
169

145
147
201
285
334

303
268
216
184
161

163
163
165
168
160

158
158
157
157
158
161

5,841
188
334
145

164
164
177
268
254

212
168
166
188
164

185
187
194
192
202

254
242
209
196
199

196
192
186
160
183

185
166
183
180
183

5,699 6
197
268
164

11,590 11,700 13

1966 TOTAL
1969 TOTAL

OCT

1,030
992

995
1,030

1,050
1,010
1.020

987

975
1,010
1,020

1,000

901
844
809
770
744

738
729
724
722
724

730
737
754
759
779

882
1,050
722
54,550 2

1969 TOTAL
1970 TOTAL

93,560
860,517

DISCHARGE,

NOV

774
774
736
463
404

404
412
380

335

327

366

358

352
347
337
334
329

3?6
401
642
696
704 1

738 1
740 1
738 1
731 1
1

499
774 1
326
9,680 57

913,354
450,804

181 217
162 266
180 417
166 469
202 483

190 466

182 600
178 918
182 1.040

181 1.400
181 1.360
188 1.550
192 2.290

230 2,790
279 2,560

214 2,440
201 4,280

193 8,230
191 22.600
189 13,200
193 6,870
203 8,170

256 11.900
416 16.500
352 11.400
263 9.020
253 8.360

229 6,260

,724 156,241
217 5,040
416 22,600
178 217
,340 309,900

MEAN 256
MEAN 2,358

IN CU8IC FEET

DEC JAN

725 1,920
678 1,900

710 1,050
706 1,070

703 1,060
691 806
686 449

640 1,040

541 1,030

694 1.030

690 1.900

694 2.330
672 3,920
695 10,500
701 8,620
723 7,410

720 6,950

745 13,800
714 9,280
,060 6,160

,870 6,070
,880 7,720
,900 6,780
. 920 5.750
,920 4,780

935 4,519
. 920 13.800
541 449
,500 277,900

MEAN 2,502
MEAN 1,235

8.260
7,190
5.530
5,120
4,370

3,560
3,540
3.300
3.390
3.430

3,600
4,330
5.010
4.850

4.900
4,760

5,160
5,040

4,830
4,520
4,230
4,760
5,430

5,470
5,290
5,090
. . . . . .

134,450
4,802
8,260
3,300
266,700

MAX 1,450
MAX 22,600

5.160
5,240
5,070
4.890
4.470

4.340
4.250
4.120
3.990
3.680

3,840
3,590
3,270
2,600

3,520
3,530

3,400
3,320

3,280
3.220
3.140
3,090
2.720

2,560
2,660
2,740
3,450
3.900
3.860

113,800
3.671
5,240
2,560

3,550
3,200
2*980
2,860
2.890

3.560
4.020
3.970
3.940
3.960

4.060
4,020
3,640
3,490

3,080
2,960

2,840
2,760

2,800
2,710
2,630
2,610
2.620

2,660
2.650
2.620
2.520
2.450

94,310
3,144
4,060
2.450
225,700 187,100

MIN 87
MIN 145

AC-FT
AC-FT

2,410
2,440
2,920
2,560
2,570

2,530

2,510
2,550
2,660

3.160
5,270
6,430
7,120

7,810
7,910

6,000
7,910

7,840
7,820
8,020
8,010
7,880

7,870
7,870
7,840
7,690
7,990

7,770
7,750 1
7,660
7,590
7,580 1

7,410 1

6.520 1
5,920
5,610

4,960
3,450
2,550
1,910
1,580

1,470 1
2.520

3.240
3.090

3.090
2.680
2,750
2.460
2,160

1,700
1,190
859
798
769

181,200 117,756 20
5,845
8,020
2.410

3,925
7,770 1
769
359.400 233,600 41

185,600
1,707.000

PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER

FEB

3,560
3,250

3,430
3.570

3,320
3,060
2,900

2,640

2,600

2,550

2,170

2,130
2,120
2,140
2,310
2,460

2,480

2.480
2.480
2.470

2,230
2.200

______

. . . . . .

2.650
3.580
2,120
147,200

MAX 22,600
MA» 13,800

MAR

2.220
2.910
4.000
3,900
3,530

3,560
3,110
2.640

2,620

2,490

2,260

2,100

2.080
2,080
2.120
2.100
2.100

2.080

1.920
1.560
1.170

700
657
703
66?
654

2,143
4,000
654
131,800

MIN 217
MIN 145

APR

1.010
1,000
532
403
318

319
315
272

257

272

278
296
298

312
299
265
245
255

246

230
252
269

275
238
227
244
244

331
1.010
227
19,710

AC-FT
AC-FT

MAY

214
214
226
214
174

218
207
492

663

744
760
847
780
731

1.210
2,110
2,140
2,090
2,100

1.880
1,320
548
956
1,850

1.760
1,500
1.490
1,670
1.970
1.680

1.078
2.140
174
66.260

1.812,000
H94.200

JUN

,690
,050
,150
,450
,460

,950
,650
. 210
,130
,940

,780
. 950
. 210
818
664

529
606
487
387
346

348
448
686
778
571

531
509
462
1,540
1.140

1.18?
2.780
346
70,350 12

760
. 170
998
759
,370

. 310

. 100
850
694

648
646
826
845
854

. 160
750
503
443
406

375
335
316
295
332

333
368
367
313
300
264

. 732
669
. 370
264
,120

1970

JUL

551
432
322
279
250

230
217
178
172
166

158
151
181
162
177

179
175
187
170
156

162
151
154
173
154

157
164
153
167
152

202
551
151
,390

245
277
324
305
304

299
282
269
242
253

294
299
291
246
251

248
254
261
269
250

249
243
252
306
314

288
295
263
283
343
319

6,618
278
343
242
17,090

AUG

179
174
192
179
176

204
215
219
200
198

157

166
157
145

180
194
201
172
145

176
195
236
230
204

216
223
198
226
243

192
243
145

11,780

294
280
294
268
301

313
351
417
404
347

329
315
297
342
341

343
325
296
366
387

378
396
341
348
683

1.040
1.180
1,290
1,360
1,300

14,946
498
1 ,360
280
29,650

SEP

221
210
224
236
242

257
229
197
199
222

235
255
249

260

275
279
271
228
285

301
335
293
279
245

285
354
307
309
223

259
354
197
15,420

SAN JOAQUIN RIVER BASIN

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CALIF.

DRAINAGE AREA.- -13,536 sq mi (revised).

PERIOD OF RECORD.--July 1922 to September 1970 (1922-23 and 1925-29, low-water records only).

GAGE . - -

Sept

r within 100 ft of
. 30, 1959, at dat

AVERAGE DISCHARGE. --42 ye

EXTREMES. --Maximums and m
1966-70 are contained

Wtr yr
1966
1967
1968
1969
1970

Date
Dec. 7, 1965
Apr. 30, 1967
Feb. 24, 1968
Jan. 27, 1969
Jan. 23, 1970

Period of record:

REMARKS. --Records good.

Water-quality records

REVISIONS [WATER YEARS) . -

er. Datum
Durham Fer
urn 5.06 ft

ars (1924,

in the foil

Maximum dis

-WSP 831:

of gage is at mean sea level,
ry bridge. Prior to Apr. 1,
above

1929-7

ow.ng

Di

charge

rrigat

1936.

mean sea

0), 4,582

table:

scharge
9,730
26,100
4,250
52,600
25,900

recorded

KSP 931:

level. 0

cfs (3,3

Elevati
21.
29.
15.
34.
28.

, 79,000

1940.

ct. 1

20,00

on
23
28
26
55
52

cfs D

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR

DAY

1
2
3
it
5

6
7
e
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10

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12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

OCT NOV

2.800 3.010
2,910 2,850

3,030 2,650
2,970 2,640

3,100 2,600
3,150 2,520
3,150 2,430
3,030 2.510

3,030 2,660
3,130 2,860
3,290 3,000
3,420 3,120
3,610 3,130

3,850 3,070
3,780 3.150
3.550 3.490
3,460 3,620
3,340 3,710

3,160 4,020
2,570 4,310
2,270 4.450
2,150 4,770
2,060 5.190

2,010 5,510
2,060 5.630
1,990 5,700
2,480 5,670
2,960 5,730
3,040

91,270 109,310
2,94ft 3,644
3,850 5,730
1,990 2.430
181,000 216,800

1965 TOTAL 2.005
1966 TOTAL 855

DEC

6.500
7,370

8,670
9,270

9,690
9.410
8,720
7,220

6,180
5,810
5,610
5,430
5,390

5,330
5,270
5,490
5,630
5,520

5,500
5,590
5,620
5,540
4,860

4,180
3,820
3,820
4,160
4.390

JAN

7,330
8,500

9,590
8.810

6,530
5,950
5,600
5,350

5,210
5,430
5,560
5,480
5,370

4,910
4,650
4,530
4,500
4,420

4,350
4,230
4,080
3.590
3.130

3.020
3,020
2,980
2,940
3,160

193,230 163,310
6,233
9,690

5,268
9,590
3,820 2,940
383,300 323,900

600 MEAN 5,495
224 MEAN 2,343

FE6

5,050
5,010

4,780
4,640

5,330
5,640
4,950
4,700

4,690
4,660
4,530
4,420
4,180

3,840
3,660
3,540
3,770
3,580

3,410
3,330
3,160
2,920
2,860

2,840
2,800
2,710
. »»_

114,560
4,091
5,640
2,710
227,200

MAX 22,
MAX 9,

MAR

2.720
2,850

3,020
3,010

2.670
2.500
2,460
2,490

2,450
2,090
1,960
1,890
1.830

1.810
1.710
1.630
1.690
1,480

1,380
1,240
1,220
1,220
1.170

1,140
1.140
1.200
1.200
1.120
1.080

59,360
1,915
3,020
1.080
117,700

1,
1.
1.
1.

1.

,
,
,
,

1,

29.

1,

700 MIN 955
690 MIN 323

July 19
1931, at
, 1959, t

0 acre-ft

Da e
Ju y 2
Oc .

Ju y 2
Oc .
JU y 2

22 to September 1946 at various sites different datum. Apr. 1, 1931, to
o Nov. 30

per year

9, 1966
1, 1966
0, 1968
2, 1968
2, 1970

ec. 9, 1950 (eleva
s Aug. 10 ' " A1

OCTOBER

APR

130
080
020
010
955

888
868
970
220 1,

380 1,
440 1,
360 1,
200 1,
150 1,

040 1,
90S 1,
888
892
848

804
820
852
892
888

820
784
776
820
808

448 26,
982
440 1,
776

410 53,viv j j.

, 1967, at site 120 ft

).

Minimum c ally
Disch

1

arge
323
780
453
,010
902

tion, 32.81 ft, present

1965 TO SEPTEMBER 1966

MAY

826
852
794
785
780

826
862
902
020

140
120
060
050
060

060
000
950
888
834

798
834
852
808
744

664
690
610
695
731

756 17.
863
140
610
ATrt -it _

AC-FT 3,978.000
AC-FT 1.696,000

JUN JUL AUG

605
597
636
614
700

776
780
731
736

641
628
601
581

93 650
29 628
69 573

09 477
49 425

09 401

57 405
09 425
33 437
53 409

93 358
81 389
85 409
69 449
437 501 505

373 517 481
373
393
465

517 425
>45 385
>01 381
549 429 377

477 362 449
413

48]
529

S73 565

)34 589
)77 501
525 453 529

517 369 553
565
585

58]

351 632
926 659
J23 708
469 326 682
489 641

09ft 13,631 15,497 21
570
780 '

. 40 500
>49 708
373 323 358

SEP

597
593
585
672
718

682
686
636
654
659

718
740
7*4
695
695

731
713
726
776
780

790
808
830
803
780

803
803
776
780
785

,758
725
830
585

SAN JOAQUIN RIVER BASIN

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMHER 1967

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

780
785
857
906

955 1
995 1
955 1

1,000 1

945 1
1,060 1
1,150 1
1,180 1
1,220 1

1,260 1
1,300 1
1.260 1
1,220 1
1,260 1

1,280 1

1,320 1
1,320 1

1,100 1
1,100 1
1,120 1
1,140 1
1.120 1

34,138 39
1,101 1
1,320 1
780 1
67,710 79

1966 TOTAL
1967 TOTAL

,040
,200
,340

,350
,420
,440

,450

,450
,430
,440

,390

. 500
. 490

. 200

. 220
,430

. 240
. 200
,190
,110
,220

. 890
. 330
. 500
. 040
. 120

671
2,803

1,510 2,710
1,620 2,490
1,680 2,400

1,820 2
3,150 3
5,660 2

7,510 2

8,470 2
8,170 2
6,960 2

5.170 2

4,760 1
4,630 1

4,440 1

4,400 3
4,400 *

4,200 5
4,160 4

3,670 6
3,430 5

135,640 99
4,375 3
8,470 6
1,450 1
269,000 197

,082 MEAN 1
,498 MEAN 7

,590
. 600
,560

,390

,340
,200

,050

,900
,910

,980

,920
,590

,650
. 950

. 230
,960

,450
. 208
. 760
. 900
. 300

,839
,681

7,880
8,260
8.270

7.600
7.370
7,410

7,740

7,480
6,830

5.880

5,740
5,530

5,110

4,990
5.180

4,630
4,260

178,170
6,363
8,270
4,100
353.400

MAX 9,
MAX 25,

3,750
3,590
3,420

2,790
2,480
2,510

2,240

3,420
2,520

4,130

8,630
12.100

15,900

16,300

13,600
10,500

7,380
6,660

5,450
4.990

202,630
6,536
16,300
2,240
401,900

590 WIN
900 M1N

7,930
8,830
8,920

6,740
7.490
10.300

13.700

14,000
13,800

14,000

12,100
11,500

14,100

15,400
15,800
17,000
18,400

23,700
25,000
25.200
25.800
25.900

24,?00
23,600
23,200

22,300
21,800
21,200

20.200

21.500
21,700
19,800
18,500

18.500
18,500
18,000
17.400

16.900
16.300
16.600
17.800

21.000
21.000
20.700
21.000
21.300

434,840 631,300
14,490 20,360
25,900 24,900
5,910 16,300
862,500 1.252M

323 AC-FT 1,331
780 AC-FT 5.561

23.100
23,200
22.000

20.100
21.500
21,700

20,200

21,400
22,200
22,000
19,800

16,200
16.100
16.800
17,800

18,600

18,300
18,000
18,400

19,200
20,200
20,900
21,200
20,800

600.000
20.000
23,200
16,100
1.190M

,000
,000

20,800 2,250
21,100 2,340
21,000 2,310

19,400 2,100
18,900 2,130
17,900 2,180

15,800 2.100

13.600 2.080
11,900 2,110
10,300 2.090
8.270 1.980

7,030 ,890
7,540 ,850
7,190 ,830
6,520 ,870

5,520 ,930

3,750 ,860
3,470 ,890

3,500 ,860
2,970 ,850
2,620 .930
2,440 ,950
2,460 ,910

10,450 2,021
21,100 2,360
2.440 1.830
642,500 124,200

1,910
1,980
2,060
2,100
?,010

1,910
1,880
1,870
1,800
1,890

1,990
1,890
1,870
1.830

1,910
1,990
2,040
2,100
2,040

1,970

2,160
2,230

2,220
?,190
2,140
2,290
2,470

2,029
2,470
1,800
120,700

M EXPRESSED IN THOUSANDS.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
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23

25

26
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29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
KTR YR

2,460 3,

2,500 3,
2,530 3,
2,570 3,

2,600 3,
2,660 3,
2,700 3,
2,720 3,

2,260 3.

2,190 3.
2,180 3.

2,380 3,
2,350 3,
2,360 3.
2.420 3,
2,570 3,

2,760 3,
2,990 3,
3,070 3,

3,030 3,

3,320 3,
3,590 3,
3.660 3,
3,420 3.
3.300 3.

84,490 104,
2,725 3,
3,660 3,
2,180 3,
167,600 206.

1967 TOTAL 2
1968 TOTAL

740

500
430
350

270
190
320
360

500

460
350

470
420
350
450
470

490
700
620

350

510
420
430
730
780

190
473
780
190
700

. 895
720

3.930 3,

3,860 3,
3.710 3,
3,620 3.

3.790 3,
3,820 3,
3,890 3,
3,890 3,

3,710 3,

3.740 3.
3,640 3,

3,930 2,
3.880 2,
3.770 2,
3.720 2.
3,720 2,

3,570 2,
3.570 2,
3,580 i.

3,330 2,

3.260 2,
3,230 2,
3.250 2.
3,230 2,

3.210 S, 3,160 2,

112,680 91,
3,635 2,
3,970 3.
3,160 2,
223.500 180.

. 190 MEAN 7.
,263 MEAN 1,

120

170
280
400

500
540
330
300

570

400
190

910

820
800
740

700
560
320

530

540
500
400
300
290
510

150
940
570
290
800

932
968

2.560

2,420
2,200
2,140

2,100
2,170
2,110
2,150

2,540

2,290
2.210

2.130

1.950
1,910
1,900

2.110
2,880
3,360
4,100
4,120

3,980
3,830
3,590
3.470
. . . . . .

75,880
2,617
4,120
1.900
150,500

MAX 25.
MAX 4.

3,420

2,910
2,620
2,840

3,020
3,020
3,190
3,250

2,980

3,000
3,040

3,090

3,360
3,310
3,680

3,750
3,770
3,620
3.350
3,160

3,000
2.920
2.690
2,260
2,370
2.620

95,890
3,093
3,770
2,260
190,200

900 MIN
120 MIN

2.620

3,060
2.750
2,570

2,440
2,130
,900
,680

,240
. 120
,100
,100
,160

1,000

930
844
830

862
945
940
945
980

925
880
955
980
902

43,064
1,435
3,060
830
85,420

1,800
453

798
780
816
826
920

975
930
911
870

893
970
1,040
1,140
1,120

1,040

960
950
995

902
875
844

884

844
875
794
700
654
581

27,623
891

1,140
581
54,790

AC-FT 5,743
AC-FT 1,429

549
601
650
593
589

646
654
632
704

690
623
593
628
610

581

589
577
493

553
529
585
641
549

489
501
533
485
489

17,746
592
749
485
35.200

,000
,000

517

477
485
485

485
469
469
465
469

469

489
525
585

569

501
457
453

469
561
553
513
481

497
521
533
573
529
505

15,591
503
585
453
30,920

549
577
581
646
708

682
646
618
589
610

677
677
641
636
618

623
610
754
812
834

893
985
1,020
950
950

1,040
1,040
980
1,030
960
880

23,816
768
1,040
549
47,240

898

857
834
803

857
893
965
980

85?
916
935
945
1.000

1,030
960
935
884
875

893
925
975
980
980

010
070
020
030
050

28,143
938
1,070
803
55,820

SAN JOAQUIN RIVER BASIN

11303500 SAN JOAQUIN RIVER NEAR VERNALIS, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

NOV DEC JAN FEB MAR APR MAY JUN JUL AUG

1
2
3
4
5

6
7
8
9
10

11
12
13
1ft
IS

16
17
IS
19
20

21
22
23
2ft
25

26
27
28

30
31

TOTAL 4
MEAN

. OftO 1
. 010 1
. 060 2
. 110 2
. 180 2

,260 2
,240 1
,190 1
,130 1
,120 1

,120 1
,040 1
,270 1
,630 1
. 970 1

. 000 1
. 820 1
,630 1
,490 1
,330 1

. 180 1
. 120 1
,150 1
,210 1
,290 1

,560 1
,660 1
. 720 1

. 800 1
,810

,910 48
. 384 1
MAX 2,000 2
MIN 1.010 1
AC-FT 85,110 95

CAL YR 1968 TOTAL
WTR YR 1969 TOTAL

,840
. 900
,020
,100
,100

. 020
. 980
. 940
,870
,830

,780
,620
. 390

,330
,410

,440
,600
,500
,470
,440

,400
,380
,350
. 310
. 280

,290
,290
,290

. 650

,130
. 604
. 100
,280
,470

588
5,079

1.700
1.690
1,700
1.740
1,750

1,800
2,070
2,240
2,190
2,140

2,080
2.080
2.040
2,140
2,320

2,120
2.070
2,420
2.610
2.580

2,590
2,730
2,740
2,750
2,840

2,760
3,060
4,180

4,490
4,440

78,520
2,533
4,490
1,690
155,700

4,320
4,200
4,160
3,690
3,230

2,880
2,780
2,990
2,950
3,000

3,200
3,320
3.340
3.5SO
6,180

7,700
7,560
7,650
7,770
9,350

14,000
23,100
29,600
27,200
26,300

29.100
41,700
39,000

35,000
32,600

428,250
13,810
41.700
2.780
S49.400

,463 MEAN 1,608
,110 MEAN 13,920

31,000
29,900
28,700
27,000
26,900

26,900
27.000
27,300
28,100
30,000

31.500
31.900
32.400
32,900
32, BOO

32,800
32,900
32,900
32.900
34,200

35,200
35,300
34,200
33.600
34.800

38. BOO
44,000
45,600

. . . . . .

911,500
32.550
45,600
26.900
1.808M

MAX 4
MAX 47

47.600
46,200
44,200
41,800
39,300

36.400
34,000
32,200
31,000
30,400

30,000
29,900
29,800
29,200
26,400

28,100
27,900
27,300
26,700
26,300

26,000
26,000
26.400
26.800
27,100

27,200
27,100
26,500
26,000
25. BOO
25.500

957,100
30,670
47,600
25,500
1.898M

. 490 MIN
. 600 MIN

25,500
25,300
24,700
24,100
23,400

23.200
24.300
25,400
26,600
27,400

27,000
26,000
25,100
24.400
23.700

22.600
21,500
20.600
20.200
19.900

19,900
19,700
19,100
18,400
17.900

17,700
17,700
17,700
17,400
17,100

663,500
22.120
27,400
17,100
1.316M

453

1,010

16,900 33,500
16,900 33,500
16,800 33,600
16,100 33,600
15,900 33,600

16,400 33,600
16,700 33,600
16,900 33,800
17,200 34,100
17.400 34,500

17,200 35,000
17,800 34,900
19,600 34,000
21,300 32,600
23,000 31,200

25,100 29,700
27,200 27,300
29,000 26,200
30,300 26,200
30,900 25,600

31,200 24,100
31,300 22.900
31.500 21.700
31,900 20,800
32,200 20,500

32,400 20,600
32,400 20,000
32,500 17,900
32,700 15,200
33,000 12.600
33,300

763,000 836,600
24,610 27,890
33,300 35,000
15.900 12.800
1.513M 1.659M

AC-FT 1,167,000
AC-FT 10,070,000

11,200
10,100
9,450
8,500
6,260

8.660
6,540
6,110
7,650
6,860

6,910
6,930
6,430
6,080
5,620

5,700
6.640
5.910
4,350
3,750

3,790
3,830
3,630
3,140
2,940

2.820
2,950
3,020
2,930
2,670
2,520

179,890
5,603
11,200
2,520
356.600

2,370
2,410
2,460
2,450
2,340

2,250
2,220
2,210
2,210
2,230

2,260
2,170
2,140
2,090
2,040

1,990
2.110
2,260
2,320
2,320

2,320
2,330
2,320
2,420
2,580

2.500
2,440
2,470
2,500
2,620
2,670

72,060
2,325
2,670
1,990
142,900

2,700
2,700
2,680
2,710
2,790

2.860
2,980
3,250
3,300
3,260

3,250
3,210
3,120
3,150
3,160

3,070
3,090
3,090
3,000
3,200

3.260
3,300
3,270
3,200
3,240

3,480
3,590
4,190
4,660
4,850

97,650
3,255
4.650
2,660
193,700

M EXPRESSED IN THOUSANDS.

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

NOW DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
4
5

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21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

4,670
4,420
4,360
ft. 460
ft, 560

4.620
4,590
4,490
4,110
3,770

3,620
3,470
3,400
3,340
3,730

4,230
4,360
ft, 270
4,420
4,440

4,420
4,640
4,760
4,890
5,060

5,220

5,290
5,100
4,980

138,320
4,462
b.320
3,3ftO
274,400

4,920
4.890
4,880
4,730
4.670

ft, 830
5,030
5,040
4,970
4,880

4,660
4.890
4,850
4,910
5,150

5,100
4,850
4,400
4,300
4,280

4,250
4,210
4,230
4,060
3,820

ft, 110

4,430
4,380

138,830
4,628
5.150
3,820
275.400

4,360
4,430
4,650
4,560
4,390

4,200
4,080
4,020
4,010
4.010

3,930
3,910
3,930
3,770
3,640

3,590
3,590
3,560
3,E>60
3,580

3,480
3,430
3,310
3,380
3.550

4.100

4,690
4,710
4,770

124,360
4,012
4,770
3,310
246,700

4,840
4,910
4,660
4,100
3,950

3,950
4,210
3,990
4,030
4,100

4,040
3,880
3,660
4.080
4,630

6,720
6,220
12,200
17,400
18,200

18,400
18,700
24,000
24,000
21,200

20,200

18,900
17,900
16,200

344,590
11.120
24,000
3,880
683,500

13,300
11,400
10,300
,680
,870

,870
,570
,300
,150
,180

,360
,360
9,230
9,260
8,840

8,560
8,390
8,340
8,530
8,890

9,020
9,000
8,750
8,370
8,100

8,010

::::::

257,350
9,191
13,300
7.730
510,500

7,130
7,360
9,040
9,800
10.200

11,300
11,700
11,700
11,900
11,600

11.200
10,400
9,120
8,200
7,550

7,000
6.510
5,600
5.310
5,050

5,070
4,860
4.770
4,650
4,450

4,050

3,300
3,270
3,130

222,570
7,180
11,900
3,130
441,500

2,800
2,250
1,960
1,860
1,720

1,650
1,670
1,680
1,590
1,550

1,500
1,540
1,680
1,760
1,690

1.680
1.650
1.630
1.600
1.590

1.450
1,380
1,330
1.370
1,470

1,590

1.590
1.610

50,180
1,673
2,800
1,330
99.530

1.660
1,590
1,620
1,630
1,490

1,530
1,680
1.630
l.MO
2,110

2,350
2,420
2,490
2,510
2,470

2,520
3.110
3.540
3.600
3.640

3,490
3,060
2,320
2.010
2.500

2,690

2,430

2,650

74,190
2,393
3,640
1.490
147,200

2,500
2,780
3,150
3.780
3.880

3,700
3.070
2.420
2.080
2.390

3.510
3,770
3,200
3,470
3.580

2.630
1.960
1.620
1.380
1.220

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. 650
. 600
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,250

. 240
. 270
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,330
,150

,120
,090
. 110
. 120
. 130

1.230 1,020
1.500 902
2.140 920
2,990 950
2,700 974

2,810 1,080

3,040 1,000

926

81,110 41,236
2,704 1,330
3,880 2,920
1,220 902
160,900 81,790

968
1.030
1.110
1.050
950

1.030
1,010
980
1,040
1.070

962
906
920
950
926

986
1,080
1,060
962
968

956
1,010
1,040
1,210
1,230

1,140

1,130
1,170

1,250

32,376
1,044
1,250
908
64,220

CAL YR 1969 TOTAL 5,311, 060 MEAN 14,550 MAX 47,600 MIN 1,990 AC-FT 10,530,000

SEP

1,220
1.090
1.070
1.090
1.210

1,320
1,380
1,220
1,080
1,030

1,060
1,260
1,340
1,380
1,370

1,260
1,260
1,300
1,420
1,510

1,590
1,510
1,440
1,410
1,360

1,410
1,520
1,550
1,460
1,420

39,580
1,319
1,590
1.030
7B.510

SAN JOAQUIN RIVER BASIN

11304000 CORRAL HOLLOW CREEK NEAR TRACY, CALIF.

DRAINAGE AREA.--61.6 sq mi.

PERIOD OF RECORD.--October 1958 to September 1966. Annual maximum, water year 1967 (discontinued).

GAGE.--Crest-stage gage. Altitude of gage is 330 ft (from topographic map). Prior to Oct. !, 1966, water-stage

AVERAGE DISCHARGE.--8 years, 0.33 cfs (239 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in feet).

Annual maximum discharge (*) and peak discharges above base (40 cfs), water years 1966-67

Date Time Disch. G.H. Date Time Disch. G.H. Nov. 16, 1965 1900 *1.2 1.33 Feb. 4, 1967 - 152 3.03

No flow for long periods.
Period of record: Maximum discharge, 152 cfs Feb. 4, 1967 (gage height, 3.03 ft); no flow for long periods in each year.

Small diversions by pumping from stream above station.

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP

.10 .10

a .10

9 .10 10 .10

11 .10 12 .10

13 .10
14 .10
15 .10

16 .10
17 .10
18 .10
19 .10
20 .10

21 .10
22 .10
23 .20
24 .10
25 .10

29 .20
30 .20
31 .20

TOTAL 3.50
MEAN .11
MAX .20
M1N 0
AC-FT 6.9

.20
.20
.20
.20
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. 20
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.20
.30
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. 50
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6.40
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13

IL 201.60
IL 33.70

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6.50
.21
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13

MEAN
MEAN

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6.40
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13

.55 MAX
.092 MAX

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5.60
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11

31
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4.70
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.20
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9.3

MIN 0 AC-FT
MIN 0 AC-FT

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<tOO
67

11306000 SOUTH FORK CALAVERAS RIVER NEAR SAN ANDREAS, CALIF.

LOCATION.--Lat 38°08'40"
0.1 mile downstream f:

DRAINAGE AREA.--118 sq mi.

PERIOD OF RECORD.--April 1950 to September 1970.

sec.4, T.3 N., R.12 E., Calave
3.7 miles south of San Andreas

County,

GAGE. --

AVERAGE _ ....,...__,

Water-stage recorder.

DISCHARGE. --20 vears .

(40,600 acre-ft per year).

82.5 c

Annual maximum discharge (

Date
Dec. 29
Feb. 6

Dec. 2
Dec. b
Jan. 22
Jan. 30
Mar. 16
Mar. 31

Apr. 7
Apr. 10
Apr. 18

Wtr yr
1966
1967
1968

Time Disch.
, 1965 2340 *2,260
, 1966 0130 1,070

, 1966 2215 1,900
, 1966 1230 3,560
, 1967 0100 *8,900
, 1967 1415 1,900
, 1967 0945 2,920
, 1967 2245 1,030
, 1967 0115 2,500
, 1967 2245 1,170
, 1967 0315 3,150

Date

Long periods
do.
do .

Period of record: Maxi

G.H.
5.47
4.24

5.27
6.70
9.02
5.25
6.17
4.19
5.82
4.39
6.36

Annua

num dis

fs (59,

scharge

*) and

Date
Apr.

Jan.
Feb.

Dec.
Jan.
Jan.
Jan.
Feb.
Feb.
Feb.

charge,
of s lo

770 acre-ft

Deak discha

21, 1967

30, 1968
17, 1968

25, 1968
13, 1969
21, 1969
26, 1969
6, 1969
15, 1969
24, 1969

Discharge
0
0
0

17,600 cfs
pe-area mea

ear) ; median

eet pei =e<_unu, go

rges above base (1

Time
1345

2100
1500

1530
1630
0745
0515
1230
1815
1530

scharg

Dec.

Disch. G.
2,030 5.

*1,460 4.
1,280 4.

1,150 4.
4,960 7.
*9,930 9.
6,880 8.
2,170 5.
2,150 5.
2,290 5.

Wtr yr Date
1969 Long
1970 Sept

ge height

,000 cfs) ,

H. Date
37 Mar.
Apr.
75
53 Dec.
Dec.
38 Jan.
43 Jan.
48 Jan.
45 Mar.
87 Mar.
85
99

rs 1966-70

periods
. 2, 1970

23, 1955 (gage height,

Prior to Feb. 13,

1,
5,

21,
25,
14,
16,
21,
1,
4,

et).

r years 1966

1969
1969

1969
1969
1970
1970
1970
1970
1970

10.29 ft)

Time
0600
1615

1845
1130
1400

1200
1600
1900

from

1952, non-

56 cfs

- 70

Disch. G.H.
1,340 4.90
1,050 4.49

1,040 4.47
1,080 4.54
9,400 9.33
*9,820 9.45
5,280 7.79
3,920 7.11
1,260 4.82

Discharge
0
. 21

rating curve

REVISIONS. --WSP 1395: 1951(M).

DAY

1
2
3
4
5

6
7
8
9
10

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12
13
14
15

16
17
18
19
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21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

DISCHARGE,

OCT NOV

3.5 3.3
3.2 3.3
3.1 3.4
3.0 3.4
3.0 3.4

3.0 3.4
2.9 3.5
2.9 3.5
2.8 3.6
2.8 3.7

3.1 3.9
3.0 4.8
3.0 9.5
3.2 37
5.1 34

6.9 31
5.0 47
4.2 318
4.0 111
3.9 54

3.7 35
3.5 29
3.5 148
3.3 292
3.3 167

3.2 103
3.1 68
3.1 54
3.3 47
3.2 41
3.2

108.0 1,668.7 3.
3.48 55.6
6.9 318
2.8 3.3
214 3,310 6,

1965 TOTAL 40,481.60
1966 TOTAL 13.373.40

IN CUBIC FEE-T

DEC

36
32
29
30
27

23
26
22
21
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33
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23
22

21
19
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18

18
18
17
17
221

111
69
113
778
941
506

297
106
941
17
540

MEAN
MEAN

JAN

235
135
103
87
109

105
97
89
81
73

66
60
53
48
44

41
41
38
35
33

32
30
29
29
28

26
26
30
93
160
230

2.286
73.7
235
26
4,530

111
36.6

PER SECOND

FEB

198
159
112
94
111

712
301
181
131
107

89
79
72
66
62

57
54
53
52
51

49
48
48
54
58

67
58
53

. . . .

3,176
113
712
48

6,300

MAX 4,520
MAX 941

HATER YEAR OCTOBER 1965 TO

MAR

SI
49
46
3
3

5
5
6
8
3

75
65
67
65
62

59
55
53
53
51

48
47
46
45
44

43
39
42
41
40
39

1.568
50.6
75
39
3,110

MIN
MIN

APR

37
36
34
32
30

31
27
25
25
44

49
47
39
32
29

25
24
25
27
24

23
22
20
19
18

18
17
17
15
14

825
27.5
49
14

1,640

2.6 AC-FT
0 AC-FT

MAY

15
19
19
16
15

16
18
16
14
16

17
15
13
12
11

11
9.7
8.9
8.3
7.6

6.9
7.4
7.4
7.1
6.5

5.9
4.7
5.0
5.3
5.4

344.9
11.1
19
4.7
684

80,300
26,530

SEPTEMBER

JUN

5.6
5.5
5.4
5.2
4.9

4.6
5.2
5.6
5.3
4.8

4.1
3.0
2.8
2.8
2.4

2.2
1.9
1.6
1.4
1.3

1.3
1.2
1.6
1.4
1.2

1.2
1.2
1.1
1.1
1.0

87.9
2.93
5.6
1.0
174

0
0
0

0
0
0
0
0
0

11

1966

JUL

. 90
. 80
. 90
. 70
. 60

. 60
. 60
. 50
. 60
. 60

. 60
. 60
. 60
. 60
. 50

. 50
. 40
. 40
. 30
. 20

. 20
. 20

. 90
. 38
. 90
0
24

AUG SEP

0
0
o

0 1 0

SAN JOAQUIN RIVER BASIN

11306000 SOUTH FORK CALAVERAS RIVER NEAR SAN ANDREAS, CALIF.--CONTINUED

DISCHARGE! IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
4
5

6
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9
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11
12
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14
15

16
17
18
19

ao

ai
aa
23
34
as

a6a?
as a9
30
31

TOTAL MEAN
MAX
MIN
AC-FT

CAL YR
UTR YR

DAY

1
2
3
4
5

6
7

a
9
10

11
12
13
14
15

16
17
18
19

ao

ai
aa

asa*

as

a627

28
29
30
31

TOTAL MEAN MAX MIN

AC-FT

CAL YR
HTR YR

0
0
0
0
0

0
0
0
0
0

0 1
4.9
6.6
3.7
2.9

2.7
2.S
2.6
2.7
3.1

21
24
10
6.8
21

44
76
36
19
14

10
7.9
9.8
24
26

381.2 5
12.7
76 1
0
756 11

1966 TOTAL 14,332.90
1967 TOTAL 53, 73*. 00

OCT

3.8
5.4
18
13
7.6

6.9
6.2
5.S
5.2
5.0

S.O
4.8
4.8
4.6
4.5

4.3
4.2
4.2
4.2
4.2

4.3
4.3
4.4
4.4
4.4

4.4
4.4
4.4
4.4
4.4
4.3

169.5
5.47
18
3.8
336

1967 TOTAL
1968 TOTAL

DISCHARGE.

NOV

4.2
4.0
3.6

4.1 4. a
4. a
4. a
4.2
4.3
4.3

4.4
4.4
4.4
5.4
6.1

6.3
5.4
9.0
13
16

9.6
6.9
6.4
6.3
6.3

6.5
6.8
6.6
7.6
13

191.9
6.40 2
16
3.8
381 1,

48.682.20
10.336.16

29 22
542 21
514 20
150 19
866 20

. 760 20
504 19
218 18
130 16
125 17

92 16
73 18
61 17
53 18
46 16

44 15
41 15
38 14
35 15
34 18

33 1.610
31 2.260
29 343
27 792
27 803

30 331
27 299
24 253
23 927
23 1.080
21 1.020

. 652 10.076
182 325
. 760 2.260
21 14
. 210 19.990

MEAN 39.3
MEAN 147

IN CUBIC FEET

DEC JAN

16 14
15 14
12 13
12 14
42 13

42 12
37 12
37 13
24 13
21 31

16 58
IS 38
16 28
16 24
14 56

14 63
12 SO
20 39
35 32
26 30

19 26
16 24
15 24
16 23
IS 21

16 20
16 23
16 23
IS 19
16 200
16 3S1

620 1.321
!0.0 42.6
42 351
12 12
. 230 2.620

MEAN 133
MEAN 28.2

560
390
300
240
190

165
145
132
121
111

104
99
97
93
85

79
73
70
67
61

59
54
53
51
77

67
56
52

3.6S1
130
S60
51
7.240

MAX 1.760
MAX 2.260

PER SECOND,

FEB

124
79
72
56
48

44
42
41
43
53

45
41
57
73
S3

54
553
306
147
597

592
301
185
137
107

88
75
66
58

4.137
143
597
41
8.210

MAX 2.260
MAX 597

49
46
47
46
45

43
42
42
41
40

97
356
500
388
240

1,890
1.200
570
388
308

261
228
219
204
172

158
144
151
160
158

8,775
283
1.890
40
17.410

MIN MIN

, WATER

MAR

52
48
44
41
38

36
38
371
160
95

73
61
136
99
77

136
220
134
100
84

74
67
61
57
55

S3
49
46
45
43
41

2,634
85.0
371
36
5,220

MIN
MIN

SOO
316
261
264
360

666
1.520
615
404
412

786
520
380
324
340

308
308
1,660
900
580

1,030
702
555
655
485

392
360
336

2S8

16.501
550
1,660
258
32,730

0 AC-FT

231
220
214
214
221

215
215
229
251
408

328
273
247
230
224

228
228
220
204
190

175
161
146
134
121

110
104
100

68

6,114
197
408
88
12,130

28,430

107
101

9]
84
94

98
85
77
72
68

65
62
61
59
53

50
50
49
48
46

45
43
42
40
38

36
35
34

31

1,796
59.9
107
31
3.560

30
26
27
2S
24

23
22
19
20
19

19
18
17
16
16

16
15
15
14
14

13
13
12
11
11

11
10
10

9.3

515.8
16.6
30
8.8
1.020

8.4
8.4
8.6
7.9
7.3

6.7
6.6
5.8
6.2
6.5

6.2
6.0
5.3
5.0
4.8

4.5
4.1
3.8
3.4
3.0

2.9
2.8
3.0
2.9
3.1

3.0
3.6
3.6

3.2
2.9

152.9
4.93
6.6
2.8
303

3.?
?.«
3.0
3.3
3.5

3.S
3.9
3.5
4.0
3.9

4.0
4.0
4.1
4.1
4.0

3.4
3.4
4.2
5.8
5.3

4.4
4.S
4.4
4.3
4.0

4.5
4.6
4.0

3.6

119.1
3.97
5.R
2.8
236

0 AC-FT 106,600

YEAR OCTOBER 1967

APR

56
67
49
43
40

38
35
33
32
30

29
28
27
25
24

23
22
21
20
19

17
17
18
17
17

17
15
15
14
13

821
27.4
67
13
1,630

2.8 AC-FT
0 AC-FT

MAY

13
11
9.0
11
11

11
11
11
10
9.9

9.7
10
12
22
19

15
13
12

11in

10
10
9.6
9.9
9.3

8.6
7.9
7.4
6.0
6.0
5.5

331.8 in. 7
22
5.5
658

96.560
20.510

TO SEPTEMBER 1968

JUN

5.2
S.I
5.1
5.0
4.9

5.3
S.8
5.6
5.1
4.8

4.S
4.2
4.0
3.7
3.4

3.2
3.1
2.9
2.7
2.5

2.4
2.3
2.3
1.7
1.7

1.5
l.S
1.3
1.2
1.1

103.3
3.44
5.8
1.1
205

JUL

. 90
. 78
. 74
. 71
. 70

. 76
. 72
. 69
. 69
. 64

. 53
. 35
. 21
. 14
. 07

. 03
0
0
0
0

0
0
0
0
0

0
0
0
0
0
0

8.66
. 28
. 90
0
17

AUG

0
0
0
0
0

SEP

0
0
0
0
0

SAN JOAQUIN RIVER BASIN

11306000 SOUTH FORK CALAVERAS RIVER NEAR SAN ANDREAS, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. HATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY

12
3
4
5

6
7
a
9
10

11
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13
14
15

16
17
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19
SO

21
22
S3
24
25

26
21
26
29
30
31

TOTAL
MEAN

MIN
AC-FT

CAL YR
KTR YR

OCT

0
0
0
0
0

0
0
0
0
0

0
0
0
0
3.0

4.1

3.8
3.6
3.2
3.1

3.1
3.1
3.0
3.1
3.2

3.2
4.1
5.2
4.6
4.8

6.0

64.2
2.07
6.0
0

NOV

7.3
7.8
38
31
11

7.0
5.1
4.3
3.9
3.7

3.5
9.7
13
7.1
19

22
12
13
10
10

8.1
7.9
7.5
7.6
B. 8

9.0
7.8
7.1
7.1
7.3

316.6
10.6
38
3.5
127 u^ u

1968 TOTAL 12.733
1969 TOTAL 71,979

DEC JAN

9.3 66
15 55
12 48
10 46
8.8 44

7.8 44
7.5 42
7.2 40
7.0 38
12 35

55 35
39 46
24 2,010
61 1,090
159 342

257 193
77 140
47 318
43 2,530
37 3,760

26 6,290
21 1,970
22 821
59 678
666 2,640

530 3,000
231 1,260

201 1,050 155 704
108 543

81 421

2,995.6 30,299
96.6 977
666 6,290
7.0 35
5,940 60,100

. 16 MEAN 34.8
. 90 MEAN 197

DISCHARGE. IN CUBIC FEET

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
1*
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX

MIN

CAL YR
MTR YR

OCT

2.7

2.8
2.9
2.8

3.1
3.1
3.3
3.9
3.9

3.7
3.3
3.5
3.6
9.7

57
42
18
12
14

9.4
8.2
7.8
7.8
7.5

7.5
7.5
7.4
7.3
7.1
7.0

282.6
9.12
57
2.7

1969 TOTAL
1970 TOTAL

NOV

6.8
6.7
11
16
21

106
67
30
20
17

20
20
21
16
13

13
1*
13
14
14

14
13
13
12
12

11
11
11
16
14

586.5
19.6
106
6.7

72,122
36,618

DEC JAN

11 43

12 33
13 29
12 26

12 26
12 25
13 25
17 54
17 508

16 244
15 177
14 181
12 2.500
12 800

12 2,600
11 1,200
10 600
17 370
139 359

411 2,470
244 1,030
96 566
310 863
567 594

235 413
128 555
92 401
72 308

58 257 49 220

2,650 17,514
85.5 565
567 2,600
10 25

60 MEAN 198 M
31 MEAN 100 M

FEB

368
328
284
255
378

1,190
629
414
323
271

270
527
360
326
1,250

945
S76
929
800
602

470
376
785
1,570
1,070

795
565
764

17,420
622

255
34,550

MAX 666
MAX 6,290

PER SECOND

FEB

195

160
149
138

128
120
113
106
103

102
118
199
281
181

160
569
317
236
201

177
158
146
137
126

119
113
116

4,843
173
569
102

AX 6,290
AX 2,600

MAR

1,000
639
527
42*
349

312
280
249
242
289

229
242
243
214
201

194
194
195
197
218

387
256
238
233
233

236
242
250
257
267

9,306
300

194

MIN o
MIN 0

APR

254
246
268
226
537

735
455
360
304
271

?58
254
245
232
216

205
199
198
192
186

185
185
201
202
181

167
158
152
145
142

7,559
252

142

AC-FT
AC-FT

MAY

139
134
129
128
121

117
113
110
107
103

99
94
93
88
83

79
75
72
69
66

64
62
59
56
53

51
46
48
45
43
41

2,587
83.5

41

25,260
142,800

WATER YEAR OCTOBER 1969

MAR

1,550

342
552
495

320
253
309
243
228

203
181
169
158
150

143
138
127
120
114

109
104
97
91
89

85
81
74
71
69
66

7,508
242
1,550
66

MIN 2.6
MIN .21

APR

63

59
55
53

51
50
46
39
42

46

45
53
90
69

64
62
66
70
71

64
73
63
56
53

53
60
58
53
50

1,738
57.9
90
39

AC-FT
AC-FT

MAY

47
44
40
39
36

33
34
33
34
32

29
29
28
27
26

25
24
23
22
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22
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20
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18
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17
16

H31
26.8
47
16

143,100
72,630

JUN

37
37
36
34
36

32
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33
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29
47
32
2T
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21
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19
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860
28. T

19

JUL

18
17
16
16
IS

15
IS
15
14
14

13
13
12
12
11

11
10
9.9
9.5
9.2

8.6
8.3
7.1
6.6
6.3

5.3
8.4
5.9
6.5
5.8
5.5

339.9
11.0
18
5.3

AUC

5.1
4.8
4.4
4.1
4.0

3.9
4.1
4.0
3.7
4.0

4.4
4.5

3,9
3.5
3.5

3.5
3.2
3.2
3.2
2.9

2.8
2.6
2.6
2.8
2.9

2.9
3.1
3.1
3.0
3.0
2.8

109.5
3.53
5.1
2.6
217

SEP

3.0
3.1
4.9
5.6
8.1

6.6
4.3
5.T
5.6
4.2

3.6
3.3
3.0
3.1
5.0

5.0
5.0
5.4
4.5
3.6

3.6
3.5
3.2
3.1
3.0

2.9
2.9
2.9
2.7
2.T

123.1
4.10
8.1
2.7
244

TO SEPTEMBER 1970

JUN

16
IS
14
14
13

13
13
14
34
30

22
20
21
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18
25
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14
13

12
11
10
9.9
9.6

10
13
12
11
11

478.5
16.0
34
9.6

JUL

9.8
8.4
7.4
6.6
6.2

6.1
5.9
5.7
5.4
5.1

4.6
4.9
4.5
4.0
4.0

3.1
2.9
2.6
2.9
3.0

2.6
2.9
2.9
3.0
2.5

1.9
2.2
2.3
2.2
1.9
1.9

129.4
4.17
9.8
1.9
257

AUG

. 9
. 6
. 6
. 5
,4

. 4
. 5
,4
. 4
. 4

1.4
1.1
1.2
1.0
. 93

. 97
. 92
. 94
. 91
. 77

. 69
. 63
. 72
. 89
. 89

. 78
. 81
. 82
. 82
. 62
. 48

33.39
1.08
1.9
. 48
66

SEP

. 31
. 21
. 28
. 50
. 64

. 83
1.0
1.0
. 90
. 90

. 70
. 65
. 60
. 45
. 55

. 80
. 80
. 80
. 90
. 90

1.0
1.2
1.2
1.2
1.1

1.0
1.0
. 90
. 80
. 80

23.92
. 80
1.2
. 21
47

SAN JOAQUIN RIVER BASIN

LOCATION.--Lat 38°09'50", long 120°39'30", 1.0 mile upstream from mouth and 2.6 mi

11306500 CALAVERITAS CREEK NEAR SAN ANDREAS, CALIF.

f San Andreas.

SW% se
southe

ight bank

DRAINAGE AREA.--53.0 sq mi.

PERIOD OF RECORD.--April 1950 to September 1966 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 865 ft (from topographi
cording gage at present site and datum.

AVERAGE DISCHARGE.--16 years, 30.3 cfs (21,940 acre-ft per year); median of yearly mean discharg (13,000 acre-ft per year).

or to Feb. 12, 1952, nonr

18 cfs

EXTREMES.--Ma
Sept. 25.

discharge during water year 1966, 290 cfs Dec. 29 (gage height, 2.95 ft); no flow July 22

cord: Maximum discharge, 4,410 cfs Apr. 2, 1958 (gage height, 6.65 ft); no flow at times i most years.

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

REVISIONS (WATER YEARS).--WSP 1395: 1951(M). WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN

1
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31

TOTAL 4
MEAN 1
MAX
MIN

. 1
. 1
. 1
. 2
. 2

. 3
. 3
. 2
. 2
. 3

. 3
. 2
. 2
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. 6 5
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. 8 2
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. 6 9

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. 1
. 4

. 1
. 1

. 6 55
. 7 26
. 6 18
. 8 14
. 7 12
. 7

. 7 568.1
47 16.9
. 9 99
. 1 1.6

CAL YR 1965 TOTAL 14,10t

11 142
10 80
9.1 47
B.4 34
7.7 37

7,
6.
6.
6.
5.

5^
6.
8.
9.
B.

7>
7.
6.
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33
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18
16

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14
14
13
12

11
11
10
10
15 10

30 9.2
23 B.7
23 B.6
168 9.8
214 59
167 54

613. 9 910.3
26.3 29.4
214 142
5.5 6.6

. 70 MEAN 38.7

45
40
34
29
31

164
170
105
67
47

36
30
26
24
22

21
19
18
17
15

15
15
14
16
18

21
20
20

1.099
39.3
170
14

MAX 1,750

19
17
16
15
14

13
13
13
12
16

18
16
16
16
16

16
15
14
13
12

12
13
12
11
11

10
9.8
9.6
10
9.8
9.5

419.7
13.5
19
9.5
832

MIN 1

9
8
8
7
8

8
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7
7
10

12
14
14
12
11

9
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7
6
8

6
7
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6

6
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. 1 .40
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83 1.16
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0 AC-FT 27,980

JUL

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SAN JOAQUIN RIVER BASIN

11308000 NORTH FORK CALAVERAS RIVER NEAR SAN ANDREAS, CALIF.

LOCATION.--Lat 38°13'17" (revised), long 120°41'54", in NVfti sec.7, T.4 N., R.12 bank 0.5 mile upstream from Chile Gulch and 1.8 miles northwest of San Andre

DRAINAGE AREA.--85.2 sq mi.

PERIOD OF RECORD.--March 1950 to September 1970.

on right

GAGE.--Wate

AVERAGE DISCHARGE.--20 years,
(26,800 acre-ft per year).

EXTREMES.--Maximums

Annual maxim

Date Time
Dec. 29, 1965 0415

cre-ft pe edian of yearly mean discharge

Mar.
Apr.

1966
1966
1967
1967
1967
1967
1967

0145
1300
0315
1215
1215
2230
0230

Wtr yr Date
1966 Long periods
1967 Oct. 1-16, 1966
1968 Long periods

id m

i di

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166

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800 9,
760 10.
320 7.
340 7,
530 7,
880 8,

(dis

(*)

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,S2

. 49
, 70
, 77
,19
. 21
. 60
,29

charge

and pe

Date
Apr.

Feb.

Jan.
Jan .
Jan .
Feb.
Feb.

minim

in

ak

18

20

13
21
2b
15
24

cubic

discha

, 1967

, 1968

, 1969
, 1969
, 1969
, 1969
, 1969

Discharg

feet

rges a

Time

0830

1945
0215
0800
2000
1630

discha

0
0

per secon

bove base

Disch.
1,900

*688

2,190
*4,2SO
2 ,690
1,620
1,820

rge, wate

Wtr yr
1969
1970

d, gage height in fe

(800 cfs, revised) ,

G.H.
8.32

5.66

8.04
10.38
8.72
7.16
7.36

Date
Oct. 1
Aug. 19

Date
Dec. 21,
Dec. 25,
Jan. 14,
Jan. 16,
Jan. 21,
Feb. 17,
Mar. 1,

1966-70

- 29, 1968
, 20, 1970

et).

wate

1969
1969
1970
1970
1970
1970
1970

r yea,

Time
1830
1345
1630
1200
1530
0500
2000

Disch.
1,140
1,030
2,750
*2,940
2,720
824
1,400

charge
0
. 18

Maximum disc 6,200 cfs
in most ye

age height, 12.52 ft) ,

REVISIONS.--WSP 1930:

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

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1.5
l.T

2.9
2.6
2.3

OCT

3.8
2.4
2.6
2.2
2.1

2.1
2.5
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. 6
. 8

4.9
4.5
4.2

NOV

3.8
4.3
4.9
5.3
5.6

4.8
4.5
4.8
4.7
5.2

5.7
8.2
12
21
16

10
23
195
74
30

18
13
68

DEC

14
12
11
10
9.6

9.6
9.1
8.9
8.3
8.3

8.9
19
21
15
13

12
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11
10
10

10
10
9.8

JAN

199
99
70
58
128

131
85
63
52
44

38
34
30
28
26

25
23
21
20
19

19
18
19

FEB

94
87
60
50
4T

470
224
119
80
63

52
45
41
36
34

31
29
28
27
27

25
24
23

MAR

31
30
28
26
25

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35

36
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19
18
19

APR

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13
13
12
12

12
12
12
12
19

24
2T
23
16
14

13
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12
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12
11
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MAY

6.9
6.T
6.1
6.1
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5.4
5.4
5.3
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9.2
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5.3
4.8
4.0
3.6
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2.9
3.0
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3.3
3.5
3.7
3.8 513
312
388

132
148

T.9
7.5
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1.4

MEAN
MAX
M1N
AC-FT

3.83
9.3
1.9

SAN1 JOAQUIN RIVER BASIN

11308000 NORTH FORK CALAVERAS RIVER NEAR SAN ANDREAS, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

1.9
. 61
1.3
1.5
1.1

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18
14
4.6
3.2

2.5
2.3
2.5
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4.4

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. 5 23
. 1 12
. 5 11

30

IB
343
379
7
45

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75

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31
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9.9
9.6
9.4
9.4

9.4
9.4
9.4
9.3
9.0

9.
8.
8.
8.
9.

392
218
149
112
90

74
65
60
55
50

45
42
40
40
38

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36
33
31

27
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26
25

24
24
24
23
22

38
234
389
295
198

951
695
303

138

302
310
261
218
350

417

1,270
524
320
243

342
363
269
210
208

203
220
1,400

460

10
9
8
8
8

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8
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51

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9.6
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8.2
7.7

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. 56
. 42
f 5
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. 1
. 5
f 3
5

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MEAN
MAX
MIN
AC-FT

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MEAN
MAX
MIN

1.5
7.1
8.5
10

13
14
14
13
12

9.3
9.6
8.6
7.7
7.7
4.0

4.52
14
0
278

OCT

7.9
9.7
36
16
9.8

6.7
5.9
5.5
5.5
5.5

5.6
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5.1
5.3
4.8

5.4
5.2
5.2
5.2
5.1

4.9
6.0
6.1
6.5
6.5

5.8
6.0
6.0
6.4
6.5
6.4

7.35
36
4.8

23
12
11
30

45
105
42
19
11

7.3
5.7
6.3
19
21

14.9
105
. 61
886

DISCHARGE

NOV

6.4
6.2
6.2
6.9
7.0

6.8
7.0
7.4
7.4
7.6

7.9
8.4
8.1
14
14

9.8
8.9
11
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26

16
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9.5
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9.4
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11.5
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108
1.010
14

8.
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560
1.340
244
283
283

178
186
143
563
448
817

169
1,340
8.6

. IN CUBIC FEET

DEC

28
21
23
58
69

62
58
56
22
18

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69
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JAN

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9.4
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66
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136

82
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28.2
136
8.6

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67.9
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PER SECOND,

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84
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82
54

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24
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157
169
72
345

322
182
109
79
58

46
38
33
30

2,383
82.2
345
19

695
303

138

110
91
85
90
71

64
59
58

76
178

150
951
22

WATER

MAR

28
26
24
22
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19
20
83
110
67

43
36
54
66
46

62
245
137
82
58

46
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33
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26
25
24
23

1,587
51.2
245
19

MIN .

220
1,400

460

850
535
450
530
400

265
240
180
145
120

12,325
411
1.400
120

62
57

51

48
46
43
42
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39
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2,228
71.9
202
37

17,280

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YEAR OCTOBER 1967 TO SEPTEM

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JUN

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7.6 .95

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6.7 .62
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6.0 3.0

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266.5 63.11 122.66
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15 5.0
4.8 .50

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JUL AUG

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NOTE. NO GAGE-HEIGHT RECORD NOV. 27 TO JAN. 10.

SAN JOAQUIN RIVER BASIN

11308000 NORTH FORK CALAVERAS RIVER NEAR SAN ANDREAS, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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31

TOTAL

MAX
MIN

0 B.7
0 14
0 92
0 53
0 16

0 8.4
0 6.9
0 5.9
0 5.2
0 4.4

0 4.0
0 19
0 26
0 16
0 43

0 33
0 18
0 13
0 10
0 9.5

0 8.2
0 7.3
0 6.8
0 7.8
9 9.4

0 9.0
0 8.1
0 7.5
0 7.1
5.5 7.0
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9.3

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95

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374

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140
153
83
56

8.0

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530
628
195

110
73
73
1,180
1,740

2,950
997
413
318
1,210

1,410
603
434
303
245

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191
182
170
254

561
361
248
200
172

299
223
189
809

695
363
400
424
391

319
261
330
929
739

514
389
459

163

453
400
317
263

240
212
188
171
180

163
156
142
127

118
115
110
104
104

175
134
112
103
97

87
81
78
75
71
69

175

69

67
80
69
244

337
25*
17*
139
117

95
85
81
76

69
65
63
60
58

55
53
59
68
59

53
51
49
46
45

2,843
94.6

45

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1.5
1.9
1.7
1.1
. 69

. 81
1.2
1.8
2.0
2.5

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1.9

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20.7 7.08 2.06 2.23
28 12 3.2 3.3
14 3.0 .92 .69

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1973

MAR APR MAY JUN JUL

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MEAN
MAX
MIN
AC-FT

NOTE

2.9 7.5
2.7 7.5
2.7 10
3.3 15
3.6 20

3.7 72
3.9 45
4.6 29
6.0 21
6.2 18

5.8 16
5.8 19
5.9 17
6.3 15
15 13

43 12
34 13
20 12
15 13
12 13

8. 12
7. 12
7. 12
7. 11
7. 11

7. 12
7. 12
7. 12
7. 12
7. 12
7.

9.2 16.9

2. 7.5
56 1,000

NO GAGE-HEIGHT

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182

311
178
53
377
435

159
65
40
30
24
22

68.1

11
4.190

RECORD OCT

20
18
17
16
15

14
14
14
17
186

118
73
83
1,050
460

1,440
630
34B
206
208

1,460
570
279
411

212
284
218
164
135
114

294

14
18,060

25 TO

100
88
80
75
69

64
69
55
53
51

51
57
68
01
44

08
39
226
158
124

104
91
83
76

66
62
61

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110

51
6,120

NOV. 24.

531
429
212
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226

166
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140
131

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J.26

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291

. 71
. 57
. 71
. 92
1.1

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. 64
. 51
. 64
1.1

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1.1
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36

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. 85
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1.2

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. 92

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1.0
1.2

1.2
1.3
. 92
. 92
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. 57
1.2
1.2
1.1
. 78

. 98
1.6
. 35
58

SAN JOAQUIN RIVER BASIN

11308700 NEW HOGAN LAKE NEAR VALLEY SPRINGS, CALIF.
(Formerly published as New Hogan Reservoir near Valley Springs)

LOCATION.--Lat 38°09'01", long 120°48'45", in SVftSWij at new Hogan Dam on Calaveras River, 3.0 miles sou

DRAINAGE AREA.--362 sq mi.

PERIOD OF RECORD.--December 1963 to September 1970. Valley Springs.

. 31, T.4 N., R.ll E., Calaveras County, in control house Df Valley Springs.

to October 1965, published as New Hogan Re

GAGE.--Wate

EXTREMES.--Maximums and minimums (c tained in the following table:

Maximu
Wtr y
1966
1967
1968
1969
1970

Date

Mar. 29 to Apr . 7 , 9 - 15 , 1966
Apr. 18, 1967
Feb. 21, 1968
Jan. 21, 1969
Jan. 17, 1970

203,800
241,200
214,500
215,600
208,100

Elevation
681.80
692.53
685.00
685.30
683.10

Date

Sept. 30, 1966
Nov. 14, 1966
Sept. 30, 1968
Nov. 1, 1968
Sept. 30, 1970

142,200
137,200
142,800
139,800
125,400

661.30
659.44
661.51
660.39
654.90

that will not cause flows greater than 6,000 cfs at Bellota.

COOPERATION.--Records furnished by Corps of Engineers and reviewed by Geological Survey.

Capacity table, water years 1966-70 (elevation, in feet, and contents, in acre-feet)

650 113,200 670 167,000 700 269,700

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

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2
3
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12
13
1*
15

16
IT
18
19
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21
22
23
24
25

26
27
28
29
30
31

MAX
MIN

(t)
(I)
(tt)

167,500
167,200
166,900
166,900
166,700

166,500
166,400
166,100
166,000
165,900

165,800
165,700
165,700
165,700
165,600

165,500
165,500
165.400
165,400
165,300

165,200
165.200
165,100
165,100
165,000

164,900
164,800
164,800
164.700
164,600
164,600

167,500
164,600

- 3,200
1,433

164,400
164,400
164,300
164,300
164,200

164,100
164.000
163.900
163,800
163,800

163,700
163,700
163.900
164,100
164,200

164,300
164,600
165,600
166,100
166,300

166,400
166.500
167,000
168,300
169,100

169,500
169,800
170.000
170.000
170.100

170.100
163,700

+5,500
489

170,200
170,200
170,300
170,300
170,300

170.300
170,400
170,400
170,400
170,400

170,500
170,600
170,600
170,700
170,700

170,700
170,700
170,700
170,700
170,600

170,600
170,600
170,600
170,600
171,300

171,800
172,000
172,800
176,100
180,100
182,700

182,700
170,200

+12,600

183,900
184,600
184,800
184,500
183,900

181,800
180,200
180,100
180,000
180,000

180,000
180,000
180,100
180,200
180,300

180,500
180, -00
180,700
180,800
180,900

181,000
181,100
181.200
181,300
181,400

181,400
181,500
181,500
182,100
184,900
186,200

186,200
180.000

+3,500

187,200
187,900
188,400
188,700
189,200

192.500
194,200
195,200
195,800
196,300

196,600
196,900
197,200
197,500
197,600

197,900
198,100
198,300
198,500
198,700

198,900
199,000
199,100
199,400
199,600

199,900
200.100
200,300

200,300
187,200

+14,100

200,500
200,700
200.800
200,900
201,000

201,100
201,300
201,400
201,500
201.800

202,100
202,300
202.500
202.700
202,800

202,900
203.100
203.200
203,300
203.400

203,500
203,500
203,600
203,600
203,600

203.700
203,700
203,700
203,800
203.800
203,800

203,800
200,500

+3,500

203,800
203,800
203,800
203,800
203,800

203,800
203,800
203.700
203.800
203.800

203.800
203.800
203.800
203.800
203,800

203.700
203,500
203,300
203,100
202,800

202,500
202,200
201,800
201,500
201,200

200,900
200.500
200,200
199,800
199,500

203,800
199,500

- 4,300

199,200
198,800
198,500
198,100
197,900

197,600
197,300
197,000
196,700
196,500

196,200
196,000
195,700
195,400
195,100

194,800
194,400
194,100
193,800
193,400

193.100
192,800
192,500
192,200
191,800

191,500
191,100
190,800
190,500
190,200
189,900

199,200
189,900

- 9,600

189,600
189,300
189,100
188,900
188,600

188,300
187,900
187,600
187,200
186,900

186,500
186,200
185,900
185,400
184,900

184,500
184,000
183,500
183,000
182,500

181,900
181,400
180,800
180,200
179,700

179,300
178,800
178,400
177,800
177,300

189,600
177,300

- 12,600

176,800
176,300
175,900
175,400
175,000

174,500
174,000
173,500
173,100
172,700

172, 300
171,800
171,300
170,900
170,400

170,000
169,600
169,200
168.800
168,300

167,800
167.300
166,800
166,300
165,900

165,400
164.900
164,500
164,000
163,600
163,200

176,800
163,200

- 14,100

162,700
162,300
161,900
161,400
161,000

160,600
160,200
159,900
159,600
159,100

158,500
158,000
157,500
157,000
156,400

155,900
155,400
154,900
154,400
153,900

153,400
153,000
152,400
151,900
151,500

151,100
150,800
150,400
150,100
149, 700
149,300

162,700
149,300

- 13,900

148,900
148,500
148,300
148,000
147,500

147,200
146,900
146,600
146,400
146.200

145,900
145,700
145,400
145,100
144,900

144,600
144,400
144,200
143,900
143,600

143,500
143,300
143,200
143,100
143,000

142,900
142,800
142,700
142,400
142,200

148,900
142,200
661,300
- 7,100

WTR YR 1966 MAX 203,800 MIN 142,200 t -25,600

t ELEVATION, IN FEET, AT END OF MONTH,
t CHANGE IN CONTENTS, IN ACRE-FEET.
tt EVAPORATION,IN ACRE-FEET.

11308700 NEW HOGAN LAKE NEAR VALLEY SPRINGS, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEET, AT 2*00, HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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29
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31

MAX
MIN

(t)

wCtt)

142,000
1*1,900
141,600
141,400
141,300

141,200
141,100
141,000
141,000
140,900

140,800
140,700
140,400
140,200

139,600
139.300
139,200
139,200
139,000

138,900
138,700
138,700
138.600
138,500

138,500
138,300
138.100
138, 100
138,000
138,000

142,000
138,000
659,710
- 4,200
1,337

137,900
137,800
137,700
137,700
137,600

137,700
137,600
137,600
137,500
137,400

137,400
137,300
137,300
137,200

137,500
137,600
137.600
137,700
137,800

138.000
138,400
138,600
138,700
138,700

138,800
138,800
138,900
138,900
139,000
______

139,000
137,200
660,110
+1,000
519

X 203,800

139.300
141,200
143.800
144,600
148,200

157,300
159,800
160,900
161.600
162.500

163.000
163,400
163.600
163.800

164,300
164.400
164.500
164,600
164,800

164,800
164,900
165,000
165,000
165,100

165,200
165,200
165,300
165,400
165.400
165,400

165,400
139.300

669,480
+26,400
229

MIN 137
MIN 137

165,500
165,500
165,500
165,600
165,600

165,600
165,600
165,700
165,700
165,700

165,800
165,800
165,800
165.800
165,800

165,700
165,700
165,800
165,800
165,900

174,200
187,400
186,300
184,200
180,800

173,900
169,400
167,700
169,700
172,100
175,400

187,400
165.500

672,800
+10,000

175,400
173,900
173,400
174,200
175,000

175,500
176,000
176,500
176.900
177,200

177,500
177,900
178,100
178,300
178,600

178,800
179,100
179,300
179,500
179,700

179,800
180,000
180.200
180,400
180,600

180,900
181,100
181,200

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181,200
173,400
674,710
+5,800

181,400
181,500
181,700
181,800
182,000

182,100
182.300
182,400
182,500
182,700

183,300
185,000
186,300
185,600
184,100

188,700
189.400
185,100
180,000
176,300

175,100
175,700
176,400
177,100
177,700

178,300
178,800
179,400
180,000
180,900
184,100

189,400
175,100
675,640
+2,900

,200 t -17,300
,200 t + 54,900

187,200
189,200
190,700
192,200
194,400

198,900
209,900
214,000
216,500
219,300

223.800
226,900
229,100
230,900
232,700

234,300
235,600
241,200
241,100
236,300

234.000
229,800
224,600
220,000
217,200

217,900
218.300
218,700
218,900
219,000
______

241,200
187,200
686,310
+34,900
744

219,800
220,800
221,800
222,800
223,800

224,600
225,600
226,300
227,300
229,000

230.200
231,200
232.000
232,800
233,500

234,100
234,700
235,300
235,700
236,200

236,700
237,100
237,300
237,400
237,400

237,400
237,400
237.400
237.400
237,300
237,400

237,400
219.800
691,470
+18,400

237.400
237,400
237,500
237,500
237,800

238.100
238,200
238,400
238,500
238,600

238.700
238.600
238,600
238,500
238,400

238,200
238,000
237,800
237.600
237,400

237.200
236,900
236,500
236,300
235,900

235,500
235,200
234,800
234,400
234,000
______

238,700
234,000
690,550
- 3,400

233,700
233,400
233,000
232,500
232,100

231,700
231,200
230.800
230.400
230.000

229,500
229,100
228,700
228,300
227,900

227,400
227,100
226,609
226.200
225,800

225,600
225,100
224,609
224,290
223,909

223,500
223,000
222.700
222,300
221.900
221,500

233,700
221.500
687,020
- 12,500

221,000
220.600
220,100
219,600
219,200

218,700
218, 300
217,800
217,200
216,700

216, 200
215,800
215,400
215,000
214,500

214,000
213,500
213,100
212.600
212,200

211,600
211, 100
210,700
210,200
209,800

209,300
209,800
208,400
208.000
207,500
207,000

221,000
207,000
682,750
- 14,500

206,500
206,100
205,790
205.400
205,000

204,509
204,100
203,700
203,300
203,000

202,500
202,100
201,600
201,200
200,900

200,500
200,200
199,800
199,400
199.100

198.800
198,600
198,300
197,900
197,600

197.300
197,200
197.200
197,200
197,100

206.500
197,100
679,740
- 9,900

t ELEVATION, IN FEET, AT END OF MONTH,
t CHANGE IN CONTENTS, IN ACRE-FEET.
tt EVAPORATION, IN ACRE-FEET.

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

31

MAX
MIN

(t)

(*) Ctt]

197,000
197,200
197,200
197,300
197,200

197,100
197,000
196,900
196.800
196.700

196.700
196,600
196,600
196,500
196,400

196,200
196,100
196,000
195,800
195,700

195,600
195,600
195,500
195,400
195,300

195.300
195,300
195,100
195,300
195,300

196,400 195.200
196,400 195,100
196,400 195,200
196,300 195,300
196,300 195.300

196,300 195,400

195,500
195.600
195,600
195,700
195,900

195,900
196,300
196,300
196,400
196,500

96,500
96,500
96,500
96,500
96,400

96,400
96,500
96,700
96.600
96,700

196,300 195,300

196.300 195,300

196,700
196,800
196,800
196,800
196,800

197,100
197,000
197,100
197,200
197,200

197,300
197,300
197,300
197,300
197,700

197,900
198,000
198,200
198,300
198,900

199,400
199,600
199,700
199.800
200,000

200.000
200.100
200.200
200,200
200.300

204,200
204.600
205,100
205,400
205,600

205,800
205,900
206,100
206,200
206,500

206,600
206,700
206,800
207,000
207,100

207,400
209,100
210,400
211.300
213,600

214,500
121,300
209,500
206.400
203.100

196,300 195,200 196,900 200,400 202,000 196,300
196,200
196.200
196,200
196,200

197,300
196,200
679,470
- 900
1,537

195,200
195,200
195,300
195,500

196,200
195,100
679,230
- 700

615

196,900
197,000
197,000
197,000
197,100

197,100
195,500
679,740
+1,600
432

200,400
200,400
200,400
202.000

203,600

203,600
197,000
681,730
+6,500
338

202,200
202,500
202.800

214,500
121.300

681,480
- 800

384

202,900
203,100
203.300

203,400
203,500

203.600
203,900
205,500
206,400
206,900

207,200
207,400
208,100
208.400
208,700

208.200
207,800
206,500
204,300
202,000

200.000
199,200
199,400
199,600
199,800

200,000
200,200
200,400
200,500
200.600
200,800

208,700
199,200
680,880
- 2,000
809

201,100
201,400
201,600
201,800
201.900

201,900
202.100
202,100
202,200
202.200

202,300
202,300
202,300
202,300
202,200

202,200
202,100
202,100
202.000
201,700

201,500
201.400
201.300
201,100
200,700

200,400
200,200
199,900
199,600
199,200

202,300
199,200
680,400
- 1,600
1,362

MAY

198,900
198,400
198,000
197,700
197,400

197,300
197,000
196,700
196,300
195,900

195,600
195,100
195,000
194,700
194,400

194,100
193,900
193,700
193,400
193,100

192,800
192,500
192,200
191,900
191.700

191,500
191,300
191,000
190,700
190,400
190.000

198,900
190,000
677,530
- 9,200
1,661

JUN

189,800
189.500
189,300
189,000
188,600

188.300
188.100
187,800
187,600
187,200

186,700
186.200
185,900
185,400
185,000

184,700
184.400
184,100
183.700
183.300

182.800
182,200
181,800
181,300
180,800

180.300
179,700
179,200
178.700
178.300

189,800
178,300
673,740
- Ili700
2,276

JUL

177,800
177,300
176,900
176,500
176,000

175,500
175,000
174.500
174,100
173,600

173,200
172,700
172,200
171,800
171.200

170.800
170,400
170.000
169,500
169,100

168,700
168,300
167,900
167,600
167,000

166,500
165,900
165,600
165,100
164,700
164,390

177,800
164,300
669,100
- 14,000
2,598

AUG

163,900
163,500
163,100
162,800
162,300

162.000
161,700
161,200
160,800
160.400

160,000
159,500
159,100
158,600
158,000

157,500
156,900
156,500
156,000
155,500

154.900
154.500
154,100
153.700
153,400

153,100
152,700
152,300
151,900
151.500

151,200

163,900
151,200
664,530
- 13,100
2,055

SEP

150,800
150,500
150.200
149,800
149,400

149,100
148.800
148,500
148.100
147,700

147.400
147,100
146.800
146,500
146,200

146.000
145,600
145,100
144,900
144,600

144,400
144,300
144.100
143,900
143,700

143,500
143,300
143.100
143,000
142,800

150,600
142,800
661,510
- 8,400
1,820

,200 MIN 165,500 t +31,700
WTR YR 1968 MAX 214,500 MIN 142,800 t -54,300

t ELEVATION, IN FEET, AT END OF MONTH,
t CHANGE IN CONTENTS, IN ACRE-FEET,
tt EVAPORATION, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11308700 NEW HOfiAN LAKE NEAR VALLEY SPRINGS, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

NOV DEC JAN FEB MAR APR MAY JUN JUL

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MAX
MIN

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31

MAX
MIN

Ct)

Ct) Ctt)
CAL
WTR

142,700 139,800
142,500 13
142,200 14
142,000 14<

J.900
3.500
3.600
141,900 140,700

141,700 140,700

141,200 140,600
141,000 14 >.600
140,900 140.600

140,800 140.800
140.800 14(
140,700 14
140,700 14(

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3,800
),900
140,600 141,100

140,600 14
140,600 14
140,500 14
140,500 14
140,400 14

140,400 14
140,300 14
140,200 14
140,200 14
140.100 14

140.100 14
140,000 14
139,900 14
139,900 14
139,900 14
139.800

,200
. 200
. 300
. 400
,400

,400
,400
,400
. 400
. 400

,500
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,500
,500
,500

4 ,500 155,900 160,300
4 ,400 156,100
4 ,500 156,300
4 ,600 156,500

159,200
158,800
159,800
4 ,600 156,700 161,800

4 ,600 156,700 167,800

41,700 157,100 170,900
41,700 157,200 169,900
41,900 157,300 168,700

42,000 157,500 167,900
42,200 157,700
42,300 164,800
43,000 171.200

168, 300
167,800
167,000
43,800 173,100 171,900

45.000 174,100 175,400
45,400 174,800
45,700 176,100
45,900 186,300

176,100
178,900
80,000
46,100 197,900 178,700

46.200 215,600 176,800
46.300 212.200 174.200
46,400 202,200 174,200
46,700 191,600 178,700
48,900 193,200 180,900

51,700 195,000 181.100
52,900 187,800 181,200
53,900 179,600 184,400
54,700 170,500
55,200 164,900
55,600 161,900

__ .

142,700 141,500 155,600 215,600 184,400 139,800 13<
660,410 66]

,800 141,400 155,900
,010 666,100 668,260 (

58,800
75,740
- 3,000 +1,700 +14,100 +6,300 +22,500

185,900
185,100
183,600
181,400
178,400

175,500

169,100
165,900
162,700

160,400
159,500
158,900
158,200
157,300

156,300
155,900
155,700
156,000
157,200

159,000
160,200
161,200
162.100
163,100

163,900
164,800
165,600
166,400
167,400
168,200

185,900
155,700
670,420
- 16,200

169,100
170,000
170,800
171,700
174,700

178,600
181.100
182,800
184,200
185,500

186,500
187,600
188,800
189,600
190,600

191,300
192,100
192,700
193,400
194,100

194,700
195,300
195,900
196,600
197,000

197,600
197,900
198,400
198,700
198,900

198,900
169,100
680,300
+30,700

199.100
199,200
199,400
199,500
199,700

199, BOO
199,900
200,000
200,200
200,300

200,400
200,500
200,500
200,400
200,400

200,400
200,200
200,200
200,000
200,000

199,900
199,800

199,700
199,600

199,500
199,300
199,100
199,000
198.900
198,700

200,500
198.700
680,220
- 200

198,500
198,300
198,200
197,900
197,700

197,300
197,000
196,800
196,600
196.500

196,300
196,100
195,900
195,700
195,500

195,300
195,100
194,800
194,500
194,100

193,800
193,500
193,100
192.800
192,400

192,100
191,700
191,400
191,200
190,900

198,500
190,900
677,800
- 7,800

190,600 178,800
190,333
190,000
189,700

178,500
178,100
177,700
189,300 177,200

189,200 176,900
188,900 176,500
188,500 176,100
188,200 175,700
187,900 175,400

187,500 175,100
187,100
186,700
186,300

74,600
174,100
173,600
185,990 173,200

185,600 172,700
185.100
184,600
184,200

172,300
171,900
171,500
183,800 171,000

183,400 170, 600
182,900 170,200

181,900
181,590

181.100
180,800

179,900
179,600
179,200

69,400
68,900

68,500
68,100

67,300
66,900
66,500

190,600 178,800
179,200
674,020

66,500
>69,850
- 11,700 -12,700

YR 1968 MAX 214,500 MIN 139,800 t -41,500

166.200
165,800
165,500
165.200
164,900

164,600
164,300
164,000
163,800
163,500

163,200
162,900
162,700
162,500
162,200

162,000
161,800
161,600
161,300
161,200

160,900
160,700

160,200
160,000

159,800
159,630

159,100
158,900
______

166,200
158,900
667,250
- 7,600
2,008

YR 1969 MAX 215,600 MIN 139,800 t +16,100

ELEVATION, IN FEET, AT END OF MONTH.
CHANGE IN CONTE NTS, IN ACRE-FEET.
EVAPORATION, IN ACRE-FEET.

CONTENTS, IN ACRE-FEET, AT 2400

158,700 156,500 159,200 171,800 159,100 158,500 15<
158,200 IS
158.000 15<

,600 159,200 171,800
>.600 159,200 172,000
>,700 159,200 172,100

58,800
58.600
158,800
157.800 157.300 159,200 172,100 159,100

157,600 157,800 159,200 172.200 159,600 157,400 ISi
157,300 15
157,100 ISi

,200 159,200 172,300
,300 159,200 172,400
,400 159,200 172,700
156,900 158,400 159,300 174,000

156,700 158,500 159,300 175,100 156,500 15
156.300 ISi
156.300 151

,600 159,400 175.700
. 700 159,400 176,500
1,800 159,400 189.000
156,400 158,800 159,400 193,000

156,600 158,900 159.500 205,400 156,700 15<
156,800 15<
156.800 15<

,900 159,500 208,100
>,000 159.500 204.000
>,000 159,700 196,100
156,800 159,000 160,500 188,900

60,000
60,300
60,600
60.900

61,200
61,600
62.300
63,700
64.400

65.000
67,200
67,200
67.200
68,200

156,800 159,000 162.400 193.300 169,000 156,700 15<
156,800 15<
156,700 15<

MOO 163,700 189,600
MOO 164,300 183,300
,100 166,100 178,200

169.600
70,200
70.700
156,700 159,100 168,800 172,000 171,200

156,600 159,200 170,000 164.900 171.500 156,600 1S<
156,500 15<
156,500 15'

,200 170,600 160,400
,200 171,000 159,500
,200 171,200 159,400

72,000
72,300

156.500 159,200 171,500 159,400
156,500 171,800 159.300 ------

158,700 159,200 171,800 208,100 172.300 156,300 15<
666,410 661

,500 159,200 159,300
,340 671,600 667,390 6

58,600
71,790
- 2,400 +2,700 +12,600 -12,500 +13,000

, WATER YEAR OCTOBER 1969

181.800
184,900
183.400
182.600
181,500

179,400
176,900
174,900
172,400
169,800

167,000
165,600
165,200
165,900
166.500

167,200
167,800
168,100
168,500
168,900

169,300
169,700
170,000
170.300
170,700

170,900
171,200
171.500
171,700
171,900
172,100

184,900
165,200
671,700
- 200

172,300
172,400
172,600
172,700
172,900

173,000
173,100
173,200
173,100
173,000

173,000
173,000
173,200
173,500
173,600

173,700
173,800
173,800
174,000
174,200

174,200
174,200
174,100
174,100
174,000

174,100
174,100
174.100
174,000
173,800

174,200
172.300
672,290
+1,700

173,700
173,700
173.600
173,600
173,500

173.400
173,300
173,200
173,100
172,900

172,700
172,500
172,300
172,200
172,100

172.000
171.800
171.600
171,400
171,000

170.800
170.600
170.400
170,200
170,100

169,800
169,700
169,500
169,400
169.300
169,200

173,700
169,200
670,740
- 4,600

TO SEPTEMBER 1970

169,100
168,900
168,700
168,300
168,100

167,800
167.600
167,300
167,100
167,100

166,900
166,600
166,200
165,900
165,600

165,300
164,900
164.600
164,200
163,700

163,400
162,900
162,600
162.200
161,900

161,500
161,200
160,800
160,500
160,100

169,100
160,100
667,670
- 9,100

159,800
159,400
159.100
158,700
158,300

157.900
157.600
157,100
156,700
156,300

156,000
155,700
55,300
54,900
54,400

53,900
53,600
53,300
52,900

AUG

47,200
46.900
46,400
46,100
45.600

45.200
44,800
44,500
44,100
43,700

43,300
42.800
42.300
41,900
41.400

40,900
40,500
40,000
39,500
52,500 138,900

152,000 138,400
151,600
151,100
150,700

38,000
37,600
37,100
150,300 136,600

149,900 136,200
149.400
149,000
148,500

35,800
35,300
35,000
148,000 134,500
147,700 134,100

159,800 147,200
147,700
663,270 (

34.100
58,280
- 12,400 -13,600

YR 1969 MAX 215,600 MIN 155,700 t +16,200

SEP

133.800
133.500
133,100
132.800
132,409

132,100
131,800
131,500
131.100
130,800

130,400
130,100
129,800
129,500
129,200

128,900
128,600
128,200
128,000
127,700

127,500
127,200
127,000
126,700
126,400

126,300
126,100
125.800
125.600
125.400

133,800
125,400
654,900
- 8,700

YR 1970 MAX 208,100 MIN 125,400 t -33,500

ELEVATION, IN FEET, AT END OF MONTH.
CHANGE IN CONTENTS, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN

11308900 CALAVERAS RIVER BELOW NEW IIOGAN DAM, NEAR VALLEY SPRINGS, CALIF.

LOCATION. --Lat 38°08'53"

county road bridge, 0
3.0 miles south of Va

DRAINAGE AREA. --363 sq m

PERIOD OF RECORD. --Janua

GAGE. --Water-stage recor

Jan. 26, 1963.

, long 120°49'26", in NEV sec.l, T.3 N., R.10 E., Calaveras County, on . 5 mile upstream from Cosgrove Creek, 0.8 mile downstream from New Hog lley Springs.

i.

ry 1961 to September 1970.

Auxiliary nonrecording gage 300 ft downstream at different datum used

right bank
an Dam, and

vel (levels

at

by

AVERAGE DISCHARGE.--9 years, 247
from New Hogan Reservoir.

EXTREMES.--Maximums and minimums (discharge in c 1966-70 are contained in the following table:

), adjusted for change in contents a

second, gage height in feet) for the

iy
Wtr yr
1966
1967
1968
1969
1970

P

days

REMARKS
seep

are

DAY

1
2
3
4
5

6
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9
10

11
12
13
14
15

16
17
18
19
20

it22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
M1N
AC-FT
MEANt

CAL YR
WTR YR

Date
Jan . 6 ,
Apr. 20,
Feb. 22-
Jan. 25,
Jan. 18,

in 1961-

. - -Record

1.5 cfs.

published

OCT

10Z
10Z
102
97
88

88
88
88
88
60

30
30
30
30
Z9

29
29
Z9
29
Z9

30
30
30
30
30

30
30
30
30
30
30

Ii527 1
49.3
10Z
29
3.030
21.3

1966
1967
24, 1968
26, 1969
1970

record: Max
65.

rth Fork Sta

DISCHARGE,

NOV

3Z
38
39
39
39

39
39
39
39
39

39
27
. 10
. 40
14

48
49
51
49
51

49
51
53
46
36

38
39
39
39
36

. 136. SO 1
37.9
53
. 10
2.Z50 2
138

1965 TOTAL 55,627.70
1966 TOTAL 40,673.50

ce Dec. 20
nislaus Ri

IN CUBIC

DEC

32
3Z
35
36
36

36 I,
36 1.
36
36
36

36
36
36
36
37

38
38
38
38
38

38
38
38
38
38

38
27
15
43
38
33

. 106 5,
35.7
43 1.
15
,190 11.
244

MEAN 152
MEAN 111

Disc

arge,

, 1963

harge G
1,960 3
4,770 5
1,990 3
7,830 7
5,040 5

7,830 cfs

, flow reg

logical Survey.

FEET PER SECOND.

JAN

31
30
178
468
703

450
140
590
266
160

105
105
67
3Z
3Z

32
31
31
31
31

31
31
31
31
31

31
31
31
33
38
33

565
180
450
30
040
243

MAX
MAX

FEB

31
Z9
28
29
31

33
30
29
29
Z9

29
29
30
30
30

30
30
30
30
30

30
30
30
31
30

30
30
30

837
29.9
33
26
1,660
292

1,640 M1N
1,450 MIN

. H.
. 66
. 68
. 69
. 46

Date
Nov. 1.

Sept.SC
Oct. IE
Apr. 1.
. 90 Nov.]

, 1965
, 1967
- 20, 1967
- 20, 1969
- 4, 1969

Jan. 25, 26, 1969 (ga s <= u^gm, .-.«

ulated by New Hogan Lake (see station

WATER YEAR OCTOBER 1965 TO SEPTEMBER

MAR

30
30
30
30
30

30
31
31
31
31

31
31
31
31
31

31
31
41
49
49

43
41
49
64
66

56
57
57
57
57
56

1,263
40.7
66
30
5,510
111
6,800

. 10
. 10

APR *AY JUN

56 177 136
56
56
56

77 IZ8
71 128
50 125
56 147 125

56
56
56
56
56

79
98
73
51
61

87
110
136
144
165

47 125
47 144
47 165
47 174
47 159

47 ISO
47 16Z
47 174
47 1B8
47 192

47 Z12
62 Z16
68 Z16
71 Z16
62 216

174 150 220
174
174
174

53 224
53 232
53 23?
174 153 Z20

174 153 208
174
174

47 208
33 216
177 133 Z24
177 133 Z24
136 ......

3,310 4.699 5,559 6
110
177
51
6,570 9.:

52 185
77 232
33 125
20 11.030 12
62.0 24.7 22.5

AC-FT 110,300
AC-FT 80,680

MEANt 271 AC-

Dis

11308700). Som
rvoirs, normally

1966

JUL

219
198
198
198
198

211
224
212
191
173

174
1BB
208
208
180

169
177
187
208
230

237
228
200
200
200

200
200
200
200
200
200

. 216
201
237
169
,330
8.75

FTt 196
MEANt 97.8 AC-FTt 70

ter year

AUG

200
200
ZOO
ZOO
185

175
157
139
176
223

240
Z40
240
2*0
Z40

Z36
240
240
228
210

210
230
240
225
199

179
170
170
170
170
170

6,342
205
2*0
139
12,580
18.2

,200
,770

charge
. 10
1.4
. 30
8.1
. 20

many

1966

SEP

170
164
148
148
156

170
159
134
103
85

85
93
133
126
110

110
110
110
110
110

92
65
52
40
40

40
32
39
79
100

3,113
104
170
32
6,170
13.1

t ADJUSTED FOR CHANGE IN CONTENTS AND EVAPORATION FROM NEW HOGAN LAKE.

SAN JOAQUIN RIVER BASIN

11308900 CALAVERAS RIVER BELOW NEW HOGAN DAM, NEAR VALLEY SPRINGS, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
4
5

6
7
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9
10

11
12
13
It
15

16
17
IB
19
20

21
22
23
24
25

26
27
26
29
30
31

TOTAL
MEAN

MAX
MJN
AC-FT

AC-FTt

CAL YR

92
92
90
69
35

27
20
17
17
17

17
IB
95
130
130

130
97
»7
26
29

22
16
17
IB
18

26
79
70
28
29
29

1,551
50.0
130
16
3,080

217

29
29
29
29
30

30
28
25
26
26

26
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27
27
27

26
30
29
27
27

27
23
16
16
16

16
16
IB
17
17

738
2<t.6
30
16
1.460

2,980

1966 TOTAL 39,872

t ADJUSTED FOR CHANGE IN

17 27
16 27
18 27
16 27
19 27

26 27
16 27
16 27
17 25
17 26

17 31
17 36
17 36
16 36
16 36

16 36
16 36
16 36
23 36
29 36

29 61
29 65
28 1.520
26 3,020
28 3,720

2B 4,650
26 3,400

28 1,820 26 1,790
26 1.810
28 1,820

679 24,298
21.9 784
29 4,650
16 25
1,350 48,200

27,980 58,460

. 0 MEAN 109 MAX

1,820
1,800
989
37
43

43
43
43
43
43

43
»5
45
36
29

29
29
29
26
28

26
29
29
29
29

29
29
29

5.478
196
1.820
28
10,870

17,000

1,450

CONTENTS AND EVAPORATION

18
9.6
9.6
9.6
9.6

9.6
10
10
10
10

11
13
899
1,710
1,710

2,310
3,260
3,960
3,930
2,850

1,230
199
19
19
19

19
13
1.6
1.6
2.7
12

22.295.3
719
3.960
1.8
44.220

47,800

MIN 16

FROM NEW

DISCHARGE. IN CUBIC FEET PER SECOND. WATER

DAY

1
2
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4
5

6
7
e
9
10

11
12
13
1*
15

16
17
IB
19
20

21
22
23
2<t
25

26
27
2B
29
30
31

TOTAL
MEAN

MIN
AC-FT
MEANt

CAL YR
WTR YR

OCT

1.4
1.6
1.4
21
46

46
46
46
46
33

21
22
22
17
. 90

. 40
. 40
. 30
. 30
. 30

. 40
. 40
. 40
. 60

. 60
. 60
. 60
. 50
. 50
. 50

378.50
12.2

. 30
751
22.6

1967 TOTAL
1968 TOTAL

NOV

21
SO
62
75
62

35
35
35
35
35

35
35
35
35
35

35
35
35
35
33

26
26
26
26

26
26
26
26
26

1,053
35.1

21
2,090
33.6

113,683
50,241

DEC JAN

26 25
26 25
26 25
26 25
26 25

26 25
26 25
28 25
29 25
29 25

28 23
24 2*
26 24
26 24
26 2<t

26 25
26 26
26 26
26 26
26 26

26 26
26 26
26 26
26 28

25 35
25 35
25 35
25 35
25 35
25 35

26.1 27.1

24 23
1,610 1,670
59.2 138

90 MEAN 311 MAX
50 MEAN 137 MAX

FEB

35
35
35
35
35

35
35
35
35
35

35
35
35
35
35

36
36
36
36
214

1,970
1,980
1,970
1.970

776
34
34
34

374

34
?1,500
366

4,720
1,980

MAR

36
36
36
36
36

36
36
43
36
36

36
36
36
36
75

675
1.000
1.120
1,480
1,490

587
35
35
35

35
35
35
35
35
35

278

35
17.0BO
258

MIN .30
MIN .30

8.1
3.6
2.B
2.6
2.3

9.6
17

4.9 2. a
6.5

13
4.7
2.6
2.3
2.9

2.2
410
1,770
3,060
4,600

4,720
4,700
4,700
4,540
3,130

1,010
1,010
908
720
720

36,106.3
1,204
4,720
2.2
71,620

107,300

AC-FT 79

364
18
16
18
IB

18
18
18
19
19

19
19
28
49
62

75
75
75
75
75

75
94
129
15B
156

156
158
158
158
158

144
123
126
126
108

100
80
51
51
SI

67
115
129
145
160

164
150
147
147
147

159
203
207
165
165

193
210
224
212
199

2,642 4,328
85.2
364
18
5,240

144
224
51

(.580
414 j.t.j.
25,470 7,180

090 MEANt 107

196
196
19
19
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19
19
19
19
209

217
200
200
193
172

172
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174
174
167

159
168
177
177
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177
169
168
171
177
177

5,712
184
217
159
11,330
30.7
1,890

190
211
226
216
200

200
212
226
226
228

214-
195
194
192
200

216
224
224
224
209

211
224
210
209
208

199
185
203
225
226
216

6,547
211
228
185
12,990
23.9
1,470

190
177
47
40
78

99
82
174
174
174

174
174
171
165
153

153
153
146
143
127

111
112
112
112
112

112
64
1.9
1.5
1.4

4,035.8
135
199
1.4

6,010
3.41
203

AC-FT+ 77,420

HOSAN LAKE.

YEAR OCTOBER 1967 TO

APR

35
35
35
35
35

35
35
35
35
35

42
50
50
50
50

50
50
50
90
147

70
79
144
204

186
149
149
179
208

81.7

35
4.860
77.6

AC-FT 225,
AC-FT 99,

MAY

208
208
183
151
125

72
114
178
198
190

175
175
175
188
171

159
150
132
142
152

159
159
150
130

108
127
147
160
165
142

157
208
72
9.630 10
34.0
2,090 1

500 MEANt
650 MEANt

SEPTtMHER 1968

JUN

125
125
125
140
145

123
12*
122
122
159

236
206
180
180
180

148
130
142
170
216

236
236
207
204
236

236
235
221
192
192

,?95
177
236
122
,500
18.2
,080

378
84.3

JUL

192
192
192
192
202

220
220
220
203
190

192
192
192
192
192

192
192
179
169
169

169
169
178
203

225
227
190
190
190
190

193
227
169
11,870
7.61

AUG

190
169
146
146
146

146
146
161
182
174

174
174
195
234
244

244
244
225
217
245

222
179
147
147

147
165
194
185
169
147

5,752
166
248
146
11,410
5.94

468 soj

AC-FTt 273,800
AC-FTt 61,230

SEP

147
147
147
147
147

147
147
147
147
147

147
133
122
124
124

124
146
163
126
9?

43
43
54
73
79

90
75
46
46
46

*112
163
43
6,680
1.68
100

t ADJUSTED FOR CHANGE IN CONTENTS AND EVAPORATION FROM NEW HOGAN LAKE.

11308900 CALAVERAS RIVER BELOW NEW HOGAN DAM, NEAR VALLEY SPRINGS, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
IB

1920
21
22
33

2425
26
27
28
39
30
31

TOTAL
MEAN
MAX
MIN
AC-FT
MEANt

CAL YR
WTR YR

y>
79
90
85
76

76
76
76
74
57

23
S3
23
23
17

10
10
10
10
10

10
12

17ieie
laie

18

ie

a 19
8 19
8 19
8 20
8 20

8 20
0 20
2 20
1 20
9 20

9 20
9 20
9 PO
9 22
9 23

9 20
9 20
9 19
9 17

19 1
19 1
19 1
18
18

18
18
18 1
IB 1
18 1

18 1
18 1
31 1
24 1
22 1

21 1
19 1
21 1
262 2
8 17 2,380 2

8 18 B la
8 18 8 ie
8 21

8 26
8 19
8 PO
8 19

il

1.088 559 610 7
35.1 18
90 <
10
2,160 1,1
4.73 51

6 19.7
>2 26
S 17
0 1,210 14

. 750 2
,350 2
,500 2
,500 2
,590 2

,500 2
,500 1
,500

,209 42
,394 1
,500 2
18
r,200 B4
9 255 2,498 1

1968 TOTAL 50,257.0 MEAN 137 MAX It 1969 TOTAL 176,824.6 MEAN 4 J4 MAX 7,

,740 2,
,520 2.
,030 2.
139 2.
14 2,

18 2.
131 2.
. 140 2,
,460 2,
,480 2,

,4BO 1,
,480 1,
,4BO
,480
,480

00 20
00 20
90 20
90 20
80 28

80 27
60 22
60 22
60 22
60 22

40 22
00 22
50 2?
90 17
90 8.1

. 480 990 B.
,480 <
,480 c
,040 t
. 500

. 480
,470
,480
,490
,490

,490
,690
847

>54 8.
14 8.
'36 8.
19 8.

19 44
19 47
19 56
19 56
19 56

19 56
19 56
19 62
19 92
19 100

,509 33,572 979.6 3,
,518 l.C
,500 2,'.
14

,320 66, c

83 32.7
00 100
19 B.I
90 1.940 7,
,930 831 566

980 MIN 10 AC-FT 99,680
500 MIN

t ADJUSTED FOR CHANGE IN CONTENTS AND EVAPORATION FROM

DAY

1
2
3
4
5

6
7

e
9
10

11
12
13
1*
15

16

17ie
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT
MEANt
AC-FTt

CAL YR
WTR YR

DISCHARGE. IN CUBIC FEET PER

94 .20 22
79 .2
73 .<
73 .2

0 22
0 22
0 22
73 .90 22

73 1.3 22
72 .<
72 .<
72 .'-

0 22
0 22
0 22
72 .50 21

72 .50 21
6B .'.
59 .?
49 .'.

0 21
0 21
0 21
32 .50 21

32 .50 21
33 5.5
31 12
31 12

21 2 21 :
21 «

16
17
17
17
17

17
20
25
25
25

26
26
33
74
53

513
,250
,910 1
,960
31 6.0 21 4,940

31 9.7 23 4,960
21 9.
. 40 9.
56 9.E
31 11

29 21
27 21
26 21
20 21
16 21

22 '
22 «
22 <

,970
,900
,880
22 4,840

17 4,760
6.9
6.5
6.5
8.5

1.830
,450
S45
736
9.0 -- 1D *~rc -

1,457.40 200.60 601.4 53,644 5
47.0 6.C
94 2

9 19.4
1 23 <
. 40 .20 6.5

,730
,970 1
16

27.5 62.3 230 1,534

1969 TOTAL 176.8Z7.00 MEAN 484 MAX 7 1970 TOTAL 110,792.40 MEAN 304 MAX 4

. 1 AC-FT 350,700

NEW HOGAN LAKE.

SECOND, WATER YEAR OCTOBER

500
510 1
422 1,^
230 2,(

63 32
19 33
10 49
30 60
49 2,030 60

51 2,020 60
51 2,C
51 2.C
51 2,C

20 60
20 90
10 110
53 2,010 110

53 2,000 110
57 1,:
130 '.
184
177

177
665
,040
718
33

36
36
36
36
36

36
36
37

90 110
15 110
28 110
28 110

31 110
35 110
35 110
35 72
35 59

35 141
36 156
36 142
36 127
36 112

36 112
36 112
36 127
36 175

33 179

,511 21.351 3,058 3,
197 f
,040 2,C
33

69 102
30 179
26 32

110
129
125
125
125

125
134
114
100
100

100
100
120
151
151

151
151
151
150
139

121
122
117
111
111

122
143
165
160
139
134

996 4
129
165
100
930 9
153
430 3

MEANt
MEANt

1969 TO

130
114
103
95
110

122
122
122
122
142

153
147
147
136
120

125
125
133
165
180

165
144
126
126
126

122
105
94
94
94
92

907 5
126
160
92

438 698 149 79.0

,500 MIN
,970 MIN

20 AC-FT 350,700
20 AC-FT 219,800

MEANt
MEANt

136
136
136
163
1B6

180
171
171
159
145

134
145
151
151
151

151
163
19?
200
196

188
188
188
188
188

188
181
161

150

,985
166
200
134
,890
66.9

101
527

150
150
150
150
150

150
156
166
161
153

166
168
203
200
192

168
192
200
200
195

186
190
202
202
195

180
1BO
180
172
168
162

5,477
177
203
150
10,860
29.9
1,840

AC-FTt 73
AC-FTt 381

SEPTEMBER 1970

92
98
147
156
136

122
122
122
122
122

112
153
180
164
188

192
216
240
240
228

228
204
184
184
164

164
164
184
164
164

,076
169
240
92
. 070
48.6

528
278

192
192
192
192
192

192
192
192
166
177

177
177
177
193
212

197
174
174
174
174

198
225
21B
168
179

177
190
216
216
203
173

5,911
191
225
173
11,720
28.6
1,760

AC-FTt 382
AC-FTt 201

150
150
159
168
168

168
168
168
161
150

158
181
200
226
226

206
173
173
179
190

190
167
172
172
180

198
191
178
159
150
150

5.451
176
226
150
10,810
13.3
819

,250
,800

AUG

165
165
165
175
200

208
191
168
166
171

166
206
220
216
208

206
212
226
247
246

213
196
196
200
200

200
200
195
164
164

6,107
197
246
165
12,110
13.0

,300
,300

150
150
150
150
141

125
125
125
125
125

126
118
100
100
100

100
99
97
98
98

98
98
96
98
98

98
98
98
105
98

3.389
113
150
97
6,720
19.0
1,130

SEP

174
165
165
165
165

165
165
165
158
158

145
136
136
136
134

135
136
124
112
112

112
112
112
112
105

91
91
91
90
101

3.966
132
174
90
7,870
16.4

t ADJUSTED FOR CHANGE IN CONTENTS AND EVAPORATION FROM NEW HOGAN LAKE.

SAN JOAQUIN RIVER BASIN

LOCATION.--Lat 38°0

0.4 mile upstrea

11309000 COSGROVE CREEK NEAR VALLEY SPRINGS, CALIF.

ng 120°50'06", in SI
uth and 2.7 miles sc

;.3S, T.4 N., R.10 E., Gala
3f Valley Springs.

ight bank

DRAINAGE AREA.--21.1 sq mi.

PERIOD OF RECORD.--October 1929 to September 1969 (discontinued).

AVERAGE DISCHARGE.--40 years, 7.62 cfs (5,520 acre-ft per ye (3,980 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet pe

Annual maximum discharge (*) and peak discharges

edian of yearly charges, 5.4

econd, gage height in feet).

ve base (500 cfs), water years 1966-

Date
Jan,

Dec.
Jan.
Jan .
Jan .
Apr.

30,

6,
22,
29,
31,
7,

1966

1966
1967
1967
1967
1967

Time
0300

0930
0030
0900
0630
0200

Disch.
*442

1,090
*1,780
685
1,720
965

G.H.
4.63

5.92
7.01
5.17
6.93
5.70

Date
Apr.
Apr.

Jan.
Feb.

Dec.

10,
17,

30,
21,

26,

1967
1967

1968
1968

1968

Time
2300
2400

2000
0700

0230

Disch.
965
705

*705

625

700

G.H.
5.70
5.21

5.21
5.05

5.03

3ate
an.
an .
an .

eb .
eb.
eb .

13,
19,
25,
15,
23,
28,

1969
1969
1969
1969
1969
1969

Mo flow for long periods in each ye
Period of record: Maximum disch
extended above 1,400 cfs on 1
year.

rge, 3,240 cfs Dec. 23, 1955 (gage height, 8.96 ft), from
:>f slope-area measurement of peak flow; no flow for several

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

REVISIONS (WATER YEARS).--WSP 861: 1936(M). WSP 1930: Drainage area.

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
4
5

6
7
8
9
10

11
12
13
1*
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR 1965
MTR YR 1966

0 0
0 0
0 0
0 0
0 0

0 0
0 0
0 0
0 0
0 0

0 0
0 .10
0 0
0 0
0 0

0 0
0 0
. 10 0
0 0
0 0

0 0
0 0
0 0
0 0
. 70 2.3

. 30 1.2
. 10 .70
. 10 2<t
0 73
0 BO
53

0 1.30 234.30
0 .043 7.56
0
000

. 70 BO

0 2.6 465

TOTAL 1,458.00 MEAN
TOTAL 1.037.30 MEAN

23
14
B.O
7.5
29

16
10
7.0
6.0
5.2

4.5
3.4
3.0
2.6
2.4

2.2

1.9 i.e
1.6
!.<

1.3
1.3
1.3
1.3
1.2

1.1
1.0
1.0
3.1
183
35

3B1.1
12.3
183
1.0
756

3.99
2.84

23
14
8.0
7.5
18

139
29
16
10
7.5

6.0
5.2
4.5
4.0
3.8

3.4
3.4
3.2
3.0
2.8

2.6
2.4
2.4
3.8
5.8

20
6.5
5.8
- «~w

360.6
12.9
139
2.4
715

MAX 134
MAX 183

4.0
3.4
3.0
2.4
2.2

2.0
2.0
2.0
1.9
3.0

3.0
2.4
2.2
1.9
1.6

1.4
1.2
1.2
1.0
1.0

. 90
. 90
. 80
. 80
. 80

. 70
. 60
. 60
. 60
. 50
. 50

50.50
1.63
4.0
. 50
100

MIN 0
MIN 0

. 50
. 50
. 0
. 0
. 0

. 0
. 0
. 30
. 30
. 70

. 60
. 80
. 70
. 50
. 40

. 30
. 30
. 20
. 20
. 10

. 10
. 10
. 10
. 10
. 10

. 10
. 10
. 10
. 10
. 10

9.40
. 31
. 80
. 10
19

AC-FT 2t890
AC-FT 2.060

)
)

. 10

. 10 0
003 0
. 10 0
0 0
. 2 0

SAN JOAQUIN RIVER BASIN

11309000 COSGROVE CREEK NEAR VALLEY SPRINGS, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

1
2
3
4
5

6
7

a
9
10

11
12
13
1*
15

16
17
18
19
20

21
22
23
2*
25

26
27
28
29
30
31

TOTAL
MEAN
MAX

MIN
AC-FT

CAL YR 1966
HTR YR 1967

0 .10
0 .10
0 .80
0 .60
0 51

0 256
0 49
0 24
0 15
0 19

0 8.0
0 5.4
0 4.0
0 3.2
0 2.8

0 2.2
0 1.9
0 1.6
0 1.4
. 10 1.3

0 1.2
. 10 1.0
0 .90
0 .90
0 .80

0 .80
0 .80
0 .80
0 .70
0 .70
. 60

. 20 456.60 2
. 007 14.8
. 1 0 258
0 .10
. 4 910

TOTAL 1.260.50 MEAN
TOTAL b. 970. 30 MEAN

. 60 71
. 60 35
. 50 21
. 50 16
. 50 13

. 50 11
. 50 8.6
. 50
. 50
. 40

. 40
40
. 40
. 40
. 30

. 30
. 30
. 30
. 30
. 50

351
336
34
165
59

42
48
62

. 5
. 9
4

. 6
. 4
. 2
. 6
2

. 0
. 8
. 6
. 6
. 2

. 0
. 6
. 6
. 6
. 8

. 8
. 8
*

253
454

. 036.70 263.4
65.7 9.41
454 71
. 30 2.4
4.040 522

3.45 MAX 258
16.4 MAX 454

2.4
2.2
2.2
2.2
2.0

. 8
. 6
. 6
. 6
. 4

10
92
83
57
19

155
72
26
16
11

8.8
6.9
6.6
5.6
4.9

4.4
4.2
4.2
4.6
125*

743.6
24.0
155
1.4
1.470

MIN 0
MIN 0

70
21
13
16
47

191
335
56
28
120

208
46
24
18
32

26
74
331
158
52

147
90
51
54
38

24
20
17
13
11

2.331
77.7
335
11
4.620

AC-FT 2
AC-FT 11

8.B
8.4
7.2
6.6
5.9

5.4
4.9
4.4
4.4
11

5.9
4.9
4.0
3.6
3.2

2.8
2.4
2.0
1.9
1.9

1.6
1.3
1.2
1.1
1.1

1.0
1.0
1.0
1.0
. 90
1.0

111.80
3.61
11
. 90
?22

. 500
. 840

1.4
1.9
1.9
1.4
1.9

4.6
2.6
1.8
1.2
. 90

. 80
. 80
. 50
. 50
. 40

. 30
. 30
. 30
. 30
. 20

. 20
. 10
. 10
. 10
. 10

. 10
. 10
. 10
. 10
0

25.00
. 83
4.6
p
50

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
4
5

6
7
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11
12
13
14
15

16
17
16
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

WTR YR 1968

0 .12
0 .06
0 .06
0 .12
0 .26

0 .14
0 .30
0 .26
0 .14
0 .10

0 .06
0 .06
0 .05
0 .02
0 .02

0 .01
0 .01
0 .05
0 .12
0 .12

0 .10
0 .06
0 .05
0 .05
0 .05

0 .05
0 .03
n .02
0 .02
. 04 .01
0

0 .04 2. 54
0 .001 .082
0
000

. 04 .30

0 .08 5.0

TOTAL l,06b.46 MEAN

0
0
0
0
0

0
0
0
0

24

6
3
2
1
1

1
1

157

284
9

2.

16 3.8
10 3.4
6.6 2.8
5.6 2.6
4.9 2.6

4.2 2.2
3.8 3.0
3.4 99
3.0 24
. 08 3.0 11

. 10 2.8 6.4
. 75 2.4 4.9
. 54 2.2 6.2
. 48 2.0 5.2
1.8 4.2

. 2 2.4 14
. 6 39 20
. 4 14 8.0
. 8 7.2 5.2
. 4 121 4.0

. 2 152 3.4
. 1 31 3.0
. 63 16 2.8
. 75 12 2.4
. 75 8.0 2.2

. 75 6.2 2.2
. 93 5.4 1.9
. 93 4.6 1.6
. 75 4.2 1.4
1.3

. 4 .10
. 6 .06
. 9 .05
. 9 .06
. 9 .05

. 8 .05
. 0 .03
. 93 .06
. 4 .38
. 2 .05

. 0 .04
. 1 .03
. 75 .05
. 48 .18
. 43 .06

. 38 .04
. 34 .02
. 30 .02
. 26 0
. 26 0

. 26 0
. 18 0
. 14 0
. 14 0
. 14 0

. 14 0
. 10 0
. 10 0
. 08 0
. 10 0

. 34 49B.7 255.8 22.71 1.33 n
. 17 17.2 8.2S
157 152 99
0 1.8 1.1
564 989 507

. 76 .043 n

2.6 .38 (I
. 08 0 0
45 ?.6 0

91 MAX 157 MIN 0 AC-FT 2.110

SAN JOAQUIN RIVER BASIN

11309000 COSGROVE CREEK NEAR VALLEY SPRINGS, CALIF.--CONTINUED

DISCHARGE! IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

NOV DEC JAN FEB MAR APR MAY JUN JUL

TOTAL
MEAN
MAX
MIN
AC-FT

MTR YR 1969 TOTAL

0
0
3.3
. 83
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8.90
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IL 1>769
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50
91

31
9.8
5.9
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6.2

4.6
3.4
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79

221
48
57
33
22
17

697.28
22.5
221
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1.380

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277
189
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19
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58
249
251

273
142
51
83
341

199
72
138
51
36
27

2>631.4
84.9
341
6.9
5,220

4.83
19.3

22
20
16
15
97

142
43
25
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16

91
167
41
40
401

104
46
251
142
65

40
30
217
169
91

103
42
162
. . . . . .
. . . . . .

2,618
93.5
401
15

5(190

MAX 221
MAX 401

160
61
51
33
24

20
16
IS
21
28

15
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23
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12

10
9.8
9.3
8.0
24

51
IS
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8.8
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709.1
22.9
160
5.2
1.410

MIN 0
MIN 0

4.9
5.4
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95

89
24
15
11
8.0

7.2
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4.0

3.8
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5.6
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3.4
3.0
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352.8
11.8
95
2.2
700

AC-FT 3
AC-FT 13

2.0
2.0
2.0
2.0
1.9

1.4
1.2
1.1
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. 83
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SAN JOAQUIN RIVER BASIN

11309500 CALAVERAS RIVER AT JENNY LIND, CALIF.

LOCATION. --Lat 38°05'20", long 120°51'53", in 27, T.3 N., R.10 E., Calaveras County, on right bank 70 ft from bridge on Milton road, 0.2 mile south of Jenny Lind, and 6.5 miles downstream from Co

PERIOD OF RECORD.--Januai
lished in WSP 1315-A.

ods, pub-

AVERAGE DISCHARGE.--58 years (1908-66), 215 cfs (155,700 ac

mum discharge during water year 1966, 2,120
. 15.

5-ft pe

age height, 6.26 ft); daily,

datum), fr

REMARKS.--Records good. Flow regulated by New Hogan Lake (see station 11308700); prior to December 1963, flow regulated by New Hogan Lake beginning in 1930 (usable capacity, 75,000 acre-ft). Some seepage of North Fork Stanislaus River water enters above station from diversion canals and reservoirs, normally not over 1.5 cfs. Small diversions above station for irrigation. Water-quality records for the water year 1966 are published

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

MOV DEC JAN FEB MAR APR MA* JUN JUL

67 40

ZB 40
Z6 41
Z6 9.5
Z7 .60
27 .30

Z6

28 39
ZB 40
ZB 39
Z8 39
ZB 39
28 ......

1,384 1,154.40
44.6 38.5
90 57
26 .30
Z.750 Z.Z90

CAL YR 1965 TOTAL 56.20Z.40
WTR YR 1966 TOTAL 41,105.40

1

2

0
0

34
36
36

37
37
37
37
37

38
39
39
39
37

39
40
40
41
41

41
41
42
41
50

46
43
16
105
110
79

,367
44.1
110
16
,710

MEAN
MEAN

1BO
450
668

1,430
1,300
2B8
273
177

111
110
88
42
42

2
2
2
2
1

1
1
1
1
1

40
39
39
46
311
110

6,357
202
1,430
39
12,410

154
113

54
52
52

227
B9
64
56
50

46
44
43
41
40

39
39
38
3B
37

37
36
37
37
38

54
40
3B
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1,505
53. B
227
36
2,990

MAX 1,690
MAX 1,430

36
36
36

35
36
3
3
3

3
3
3
4
4

4
4
4
SB
58

57
51
54
66
72

61
61
60
60
61
61

1,476
47.6
72
35
2,930

MIN
MIN

61
59
5B
57
56

55
55
55
55
56

66
96
90
48
54

79 lie
136
162
178

19Z
19Z
190
190
188

188
185
18Z
18Z
1BZ

. . . . . .

3,467
116
192
4B
6.880

i AC-FT i AC-FT

1BO
176
154
150
150

150
150
150
150
150

150
150
14B
148
148

14B
156
164
164
162

14B
14B
14B
14B
14B

148
144
130
130
130
130

4,650
150
180
130
9,220

111.500
B1.530

128
12Z
1Z2
122
120

120
134
156
174
164

150
156
170
1B5
188

202
212
21Z
215
Z15

Z15
ZZO
ZZ8
228
ZZO

205
205
Z10
Z15
215

5.4ZB
1B1
ZZB
1ZO
10,770

Z10
1BB
1BB
188
188

198
21B
Z12
190
166

170
178
202
ZOO
19Z

15B
17Z
174
192
Z15

Z2Z
Z1B
185
1BZ
1BO

182
182
182
18Z
1B2
1B2

5,878
190
Z2Z
158
11.660

1B2
1B2
182
18Z
174

16Z
150
134
15Z
198

220
220
220
220

220

21B
220
21B
212
190

188
202
220
210
182

166
158
156
156
15*
156

5.B04
187
220
134
11.510

154
154
132
130
134

150
144
120

75
75
112
112

2,735
91.2
154

SAN JOAQUIN RIVER BASIN

11312000 BEAR CREEK NEAR LOCKEFORD, CALIF.

LOCATION.--Lat 38°09'10", long 121° ;. 31, T.4 N., R.8 E., San Jo
2 southeast of Lockeford.

DRAINAGE AREA.--47.6 sq mi.

PERIOD OF RECORD.--October 1930 to Septe rtier 1970. Monthly discharge only for some periods, published in

GAGE.--Water

els by Co

AVERAGE DISCHARGE.--40

(6,450 acre-f

EXTREMES.--Maxi

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Jan. 13,
Jan. 19,
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Jan. 25,

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64
13
85

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height :

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Date
Jan.
Feb.
Feb.
Feb.

Jan.
Jan.
Jan .
Mar.
Mar.

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water

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1969
1969
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1970
1970

years

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1400

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1600
2045
2230

1966-70

Disch.
735
577
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514
586

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652
742
751
699

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. 75
. 80
. 50

Wtr yr Date
1966 Long periods
1967 do.
1968 do.

Wtr yr Date
1969 Dec. 9, 1968
1970 Nov. 28 to Dec. 8, 1969

Period of record: Maximum discharge, 2,930 cfs Apr. 3, 1958
months in most years.

height, 15.13 ft); no flc

REMARKS.--Re

Municipal Utility District aqueduct into Bear Creek above station. Summer discharge influence flows from irrigated areas.

REVISIONS.--WSP 1635: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

om East Bay
by return

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26
27
28
29
30
31

TOTAL
MEAN
MAX

MIN
AC-FT

CAL YR
WTR YR

. 50
1.3
1.0
1.4
. 50

. 60
1.2
. 90
. 90
. 70

1.4
1.2
1.1
1.7
1.7

1.1
. 40
. 40
. 30
. 10

. 20
. 80
1.3
1.4
1.0

. 40
. 20
1.3
1.7
. 40
. 30

27.40
. 88
1.7
. 10
54

1965 TOTAL
1966 TOTAL

. 30 .10
. 30 0
. 30 0
. 20 0
. 20 0

. 20 0
. 10 0
. 10 0
. 10 0
. 10 0

. 10 0
. 10 .80
. 20 .30
26 .10
2.4 .10

4.0
7.2
17
5.0
1.4

. 60
. 30
1.2
1.7
2.1 22

1.3 12
. 60 36
. 30 36
. 20 275
. 10 179
- - 122

73.70 683.40
2.46 22.0
26 275
. 10 0
146 1,360

4,433.20 MEAN
2,142.10 MEAN

47
IS
8.2
5.2
6.1

11
6.6
4.2
2.9
2.1

1.4
1.1
. 80
1.0
. 40

. 20
. 20
. 10
. 10
. 10

. 10
0
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0
0

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0
. 90
438
118

670.70
21.6
438
0
1,330

12.1
5.87

FEB

47
30
13
14
20

296
58
19
11
7.5

5.2
3.8
2.7
2.4
2.2

1.9
1.9
1.7
1.6
1.4

1.3
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1.1
1.1
1.3

4.4
6.6
3.6
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560.9
20.0
296
1.1
1>110

MAX 1>640
MAX 438

MAR

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1.3
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1.1
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. 90
. 80
. 70
. 60

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1.0
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37

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MIN 0

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8.60
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. 90
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AC-FT
AC-FT

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. 30

13.80
. 45
1.0
. 20
27

8,790
4,250

JUN

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. 80
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22.30
. 74
1.4
. 30
44

. 40
. 10

. 60
. 20

1.0
. 90
1.1

1.3
. 90
. 80

. 90

21.60
. 70
1.4
. 10
43

. 40
. 40
. 70
. 50
. 40

. 50
. 60
. 60
1.4
. 60

. 60
. 50
. 20
. 20
. 20

. 80
. 70
. 40

. 40
. 50
1.0
. 70
1.6

1.2
1.2
1.0

. 20

19.40
. 63
1.8
. 20
38

1.9
. 70

. 20
. 70
1.2

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1.4

. 90
. 50
. 70
. 70

21.50
. 72
1.9

SAN JOAQUIN RIVER BASIN

11312000 BEAR CREEK NEAR LOCKEFORD, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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13
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1920

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a6a728a9

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31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

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1.1 .4.0
. 70 .10
. 30 .10
. 30 .10

.ao 1.9
. 50 19
1.1 1.0
1.1 .30
. 20 .20

1.1 .10
1.1 .10
. 90 .10
. 90 0
. 60 .10

. 10 6.1
. 10 .60
. 10 .30
. 60 1.4
. 40 14

. 10 3.4
. 10 1.7
. 10 .90
. 10 .40
. 30 .20

. 60 .10
1.8 .10
1.8 3.1
. 70 1.7
. 90 .50
. 30

19.10 58.40
. 62 1.95
1.8 19
. 10 0
38 116

1966 TOTAL 2.427.
1967 TOTAL 8,986.

DEC

. 40
10
26
17
163

554
123
30
14
18

13
7.Z
4.6

3. a
2.4

1.8
l.Z
. 90
. 70
. 50

. 40

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992.10 3
32.0
554
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1,970

ZO MEAN
60 MEAN

JAN

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427

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213

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41
49
385

473 89a
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1Z6
1.020
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6.65
24.6

FEB

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az

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7.5
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5.5

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2.4
1,120

MAX 554
MAX 1.020

MAR

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. 60

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5.2

4.6 4. a
3.8
5.2
46

738.70 23.8
230
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1,470

MIN 0
MIN 0

APR

105
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183

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214
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359
86
106
55

32
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16
14

11

a, 507
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385
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4,970

AC-FT
AC-FT

MAY

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3. a
a. s
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1.9
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73.20

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9.Z
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145

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17,820

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1.9
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43.90
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2.0
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1.1
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. 70
. 90

1.7
1.4
1.2
1.0
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23.90
. 77
2.0
. 10
47

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a. 6
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3.0
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1.6
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1.0

44.60
1.49
3.3
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88

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

NOV DEC JAN FEB MAR APR MAY JUN JUL

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TOTAL
MEAN
MAX
MIN
AC-FT

WTH YH

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. 67
. 50
2.6

1.1
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. 61
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. 35
. 22
. 86
. 73

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. 41
. 28
. 16
. 21

1.1
1.5
1.4
. 58
. 32
. 22

18.85
. 61
2.6
. 15
37

. 13
. 15
. 26
5.5
6.2

4.3
2.2
8.1
9.2
6.3

2.5
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. 14
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. 04

55.49
l.Bb
9.2
. 03
110

. 03
. 02
. 03
. 04
1.3

. 94
1.5
1.7
1.8
. 68

. 24
. 09
. 05
. 03
. 02

. 01
. 01
. 03
. 01
0

0
0
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B.S3
. 28
l.B
0
17

0
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0

2.4
2.4
. 94
. 44
33

7.7
2.6
1.2
. 64
. 32

. 21
. 14
. 11
. 08
. 07

. 05
. 05
. 04
. 04
187

725.43
23.4
486
0
1,440

40
18
10
6.
4.

3.
Z.
2.
2.
1.

1.
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1 .)
I ,
. 79

1.4
95
50
16
96

235
65
27
IS
9.3

6.7
5.Z
4.1
3.4

726.39 1
25.0
235
. 79
1,440

2.8
2.3
l.R
1.4
1.1

. 87
2.3
474
90
32

16
8.7
15
45
20

115
174
42
20
11

7.
6.
S.
4.
3.

2.
2.
1.
1.
. S

,111.89
35.9
474
. 67
2.210

MIN 0

1.6
. 86
. 80
. 60
. 43

. 36
. 43
. 36
. 29
. 07

. 18
. 2^
. 11
. 18
. 70

. 43
. 23
. 07
. 29
. 60

1.1
1.2
1.2
. 67
. 40

. 14
. 23
. 23
. 23
1.3

15.58
. 52
1.6
. 07
31

AC-FT

. 90
. 51
. 51
. 23
1.0

1.1
1.3
1.4
1.2
. 60

. 90
. 29
. 43
1.0
1.3

1.9
1.3
. 90
1.0
. 43

. 70
. 51
. 80
. 60
1.7

1.2
. 68
. 56
. 24
. 44
. 54

26.17
. 84
1.9
. 23
52

15.870

. 53
. 40
1.4
1.0
. 46

. 60
. 17
. 36
. 49
. 46

. 28
1.2
. 92
1.4
1.1

. 80
. 60
. 51
. 80
1.3

a. a
. 90
1.8
1.2
. 18

. 36
. 70
. 60
. 70
. 70

24.12
. 80
2.2
. 17
48

1.7
1.1
. 60
. 60
. 23

. 43
. 70
1.2
. 80
. 80

1.6
. 60
. 43
. 90
. 80

. 60
. 70
. 72
. 66
1.6

1.3
1.4
. 36
. 29
. 18

. 34
. 59
. 62
. 83
. 90
1.6

25.18
. 81
1.7
. 18
50

. 96
1.2
1.2
. 34
. 50

. 62
. 60
. 64
1.0
1.4

1.4
. 90
. 56
. 13
. 24

. 78
1.5
1.1
1.2
. 85

1.6
1.5
. 58
. 62
. 44

. 36
. 58
. 69
. 71
. 78
2.7

27.68
. 89
2.7
. 13
55

2.2
1.0
. 71
. 34
. 51

. 79
. 88
. 69
. 45
2.4

2.0
. 85
1.1
. 31
1.2

1.3
. 67
. 68
. 48
2.9

2.3
. 86
1.0
. 91
1.0

. 86
. 71
. 53
. 74
2.0

32.37
1.08
2.9
. 31
64

SAN JOAQUIN RIVER BASIN

11312000 BEAR CREEK NEAR LOCKEFORD, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1969

DAY

1
2
3
it
5

6
7
8
9
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11
12
13
14
15

16
17
IB
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
MTR YR

OCT

1.8
1.2
1.4
. 61
. 79

. 62
. 77
. 55
. 54
1.7

1.5
1.5
1.9
1.5
. 41

. 13
. 09
. 07
. 06
. 07

. 06
. 04
. 16
1.1
1.5

1.3
. 67
1.2
. 26
. 14
. 06

24. 14
. 76
1.9
. 04
48

1968 TOTAL
1969 TOTAL

NOV

. 06
. 06
11
3.2
1.0

. 37
. 14
. 07
. 06
. 05

. 05
. 05
. 04
. 05
3.5

1.4
. 55
. 26
. 12
. 08

. 06
. 05
. 04
. 04
. 04

. 04
. 04
. 03
. 04
. 04

22.53
. 75
11
. 03
45

3.327
10.660

DEC JAN

. 04 3.6
. 04 2.6
. 04 2.1
. 03 1.7
. 03 1.4

. 03 1.2
. 03 .99
. 03 .64
. 02 .74
. 03 .61

. 05 1.3
. OS 19
. 10 422
32 263
46 56

69 23
10 13
4.6 55
2.8 611
2.0 376

1.4 422
1.1 216
. 67 87
2.1 115
72 585

210 562
40 165
29 167

27 105

s'.6 44

565.59 4.422.46
18.2 143
210 611
. 02 .61
1.120 8.770

. 07 MEAN 9.09
. 41 MEAN 29.6

DISCHARGE. IN CUBIC FEET

DAY

1
2
3
4
S

6
7
8
9
10

11
IE
13
1*
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL

MAX
MIN
AC-FT

CAL YR
HTR YR

OCT

. 08
. 08
. 07
1.0
1.1

. 90
. 97
. 45
. 40
. 23

. 10
. 15
. 18
. 21
. 26

. 48
. 76
. 36
. 14
. 07

. 04
. 03
. 03
. 13
. 35

. 09
. 04
. 03
. 02
. 01
. 01

6.79
. 28
1.1
. 01
17

1969 TOTAL
1970 TOTAL

NOV

. 02
. 02
. 02
. 02
. 03

. 04
. 04
. 03
. 04
. 37

. 51
. 60
. 29
. 10
. 10

. 06
. 05
. 04
. 03
. 03

. 02
. 02
. 02
. 02
. 02

. 02
. 01
0
0
0

2.57
. 086
. 60
0
5.1

10.349
5,395

DEC JAN

0 .32
0 .24
0 .23
0 .23
0 .23

0 .23
0 .23
0 .25
. 01 .69
. 16 9.3

. 36 6.9
. 69 3.9
. 76 3.5
. 25 558
. 20 352

. 16 466
. 12 196
. 11 93
. 14 62
13 63

26 605
15 242
4.3 62
2.1 111
8.7 61

10 37
2.8 60
1.5 43
. 94 21
. 56 16
. 39 14

90.27 3.106.45
2.91 100
28 605
0 .23
179 6,170

. 78 MEAN 28.4
96 MEAN 14.8

FEB

31
25
19
16
45

210
107
45
28
21

106
445
123
63
456

452
117
320
275
126

67
45
323
325
303

226
95
83

4.503
161
456
16
6,930

MAX 466
MAX 611

MAR

99
72
46
32

25
20
17
14
50

23
16
44
21
14

11
9.4
6.1
7.1
6.9

21
15
9.1
6.6
5.5

5.0
4.6

3.9
3.3
2.8

663.9
27.9
245
2.6
1.710

MIN 0
MIN .

PER SECOND. MATER

FEB

14
10
8.2
6.8
6.2

5.3
4.8
4.5
4.2
4.0

3.6
3.9
6.5
41
15

9,3
39
68
22
13

9.0
6.8
5.6
4.9
4.4

3.9
3.6
3.5
. . . . . .
. . . . . .

331.2

68
3.5
657

MAX 611
MAX 605

MAR

323
399
75
206
290

70
37
82
53
41

27
16
13
10
6.0

6.7
5.7
4.7
3.6
3.1

2.8
2.5
2.2
1.
1.

1.
1.
1.
1.
1.
1.

1,695.

39
1.
3,360

MIN o
MIN o

APR

2.0
2.0
2.3
49

170 1
45
21
13
9.2

6.6
5.3
4.1
3.6
4.1

3.4 1
2.4
2.1 1
. 39 1
. 50

. 56
. 44
. 62
. 60
2.6

5.6
3.5

2.0 1
2.1

MAY

. 11
. 12
. 09
. 09

. 2
. 66
. 49
. 57
. 05

. 09
. 06
. 09
. 08
. 09

. 5
. 94
. 3
. 0
. 60

. 31
. 05
. 05
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. 09

. 09
. 07

. 3
. 47

369.33 13.60
12.3
170
. 39
733

AC-FT 6,
02 AC-FT 21,

YEAR OCTOBER

APR

1.6
. 48
. 92
. 55
. 27

. 18
1.2
. 11
. 41
1.5 1

1.2 1
1.1
. 35 2
. 30 1
. 13 1

. 09 1
. 08
. 08
. 11
1.6 1

1.8 1
1.1 1
. 87
. 57
1.4

1.4
. 73
. 36
. 66
1.3 2
1

Z2.47 28

1.8
. 06
45

AC-FT 20.530
AC-FT 10,700

. 45
1.5
. 05
27

600
540

1969

MAY

. 96
. 31
. 73
. 19
. 12

. 12
. 52
. 56
. 84
. 9

. 9
. 94
. 0
. 3
. 3

. 3
. 78
. 15
. 22
. 9

. 5
. 1
. 66
. 70
. 95

. 57
. 46
. 34
. 36
. 0
. 7

. 60

2.0
. 12
57

JUN

. 08
. 07
. 08
. 09

. 10
1.6
2.1
. 69
. 57

. 05
. 05
. 68
1.2
. 51

. 26
1.2
1.4
. 65
1.2

. 13
. 10
. 13
. 13
. 11

1.1
3.6

1.6
1.2

24.15
. 81
3.6
. 05
48

JUL

. 55
. 70
. 05
. 15

. 25
. 31
. 13
. 08
. 18

. 96
1.1
1.2
1.4
. 69

. 10
. 06
. 12
. 21
. 29

. 14
. 39
. 89
. 83
. 40

. 39
1.6

. 10
. 12
. 19

14.46
. 47
1.6
. 05
29

AUG

. 22
. 20
1.5
1.1
. 76

. 66
. 40
. 16
. 10
. 11

. 15
. 14
. 20
1.0
. 66

1.3
. 71
. 69
. 61
. 26

. 07
. 13
. 18
. 23
. 69

. 43
. 61
1.1
. 95
1.1
1.0

16.04
. 58
1.5
. 07
36

SEP

I&8
. 23
. 22
. 37

. 44
. 49
. 44
1.2
1.1

1.2
. 67
. 60
. 70
. 59

. 31
. 28
. 26
. 32
. 31

1.6
2.0
1.5
1.2
. 54

. 54
. 30
. 08
. 07
. OB

16.97
. 63
2.0
. 07
38

TO SEPTEMBER 1970

JUN

. 89
. 65
. IB
. 26
. 31

. 31
. 28
. 3S
2.5
1.3

1.6
1.2
. 87
. 40
. 80

. 65
. 58
. 91
2.4
1.6

3.4
2.6
. 94
. 79
. 20

. 27
. 50
. 4?
. 28
. 16

27.63

3.4
. 16
55

JUL

. 26
2.3
1.8
2.0
1.5

1.3
. 22
. 45
. 70
. 50

. 30
. 26
. 90
1.2
. 79

. 67
. 14
. 16
. 24
. 23

. 16
. 16
1.6
1.2
. 63

. 70
. 09
. 06
. 11
. 15
. 11

20.91

2.3
. 06
41

AUG

. 11
3.0
1.9
1.5
. 68

. 77
. 13
. 31
. 45
. 56

. 50
. 39
. 93
. 93
1.8

1.5
1.1
. 74
. 33
. 38

. 51
. 36
. 53
. 87
2.1

1.7
1.9
1.0
. 89
. 40
. 34

27.53
. 89
2.1
. 11
55

SEP

. 41
. 43
. 36
. 86
2.1

3.1
2.0
1.2
. 99
. 48

. 61
. 54
. 91
1.1
. 90

3.5
2.2
2.1
1.2
1.1

. 49
. 39
. 36
. 34
. 24

. 27
1.0
1.9
3.1
. 86

32.04
1.07
3.5
. 24
64

SAN JOAQUIN RIVER BASIN

11313000 DELTA-MENDOTA CANAL AT TRACY PUMPING PLANT, NEAR TRACY, CALIF.

LOCATION.--Lat 37°47'49", long 121°35'03", in SWjSWij sec.31, T.I S., R.4 E., Alaraeda County, at Tracy pumping plant at intake to canal, 6 miles southeast of Byron and 10 miles northwest of Tracy.

PERIOD OF RECORD.--June 1951 to September 1970. Pr October 1959, published as "nea

GAGE. --Water-stage
Datum of gage is

AVERAGE DISCHARGE. -

EXTREMES. --Period o
years .

REMARKS. --Discharge
Delta by way of

1966-70 are publ

COOPERATION. --Recor

- 19 year

Old Rive

ished in

ds furni

DISCHARGE

DAY OCT

1 2,020 1
2

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16
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21
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23

242s
26
27
28
29
30
31

TOTAL 5
MEAN
MAX
MIN
AC-FT 10

,810 1
. 880
. 880
. 880

,770
,780
,850
,890
,920

,920
. 920
. B50
,850
. 850

,810
,770
,760
,770
,640

,660
,660
,660
,460
,470

,500
. 400
,360
,290

,190.210

,680 17
,699
,020 1
,190
,500 34

CAU YR 1965 TOTAL
WTR YR 1966 TOTAL

NOV

,190
190
960
959
929

927
930
930
645
646

646
645

61(1
613
611

502
503
504
395
395

394
394
39S
395
358

357
213
213
143
0

. 592
586
. 190
0
. 890

726.037.
806.379.

s, 1,747 cfs (1,

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reports of the

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, IN CUBIC FEET

DEC JAN

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69
108

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644

0 1,866
0 60.2
0 867
0 0
0 3,700

00 MEAN 1,989
00 MEAN 2,209

266,000

discha

channel

Geologi

f Recla

acre-ft per year] .

l_10 rtUg.

to Tracy Pumping PI

cal Survey

PER SECOND, WATER

FEB

869
867
869
870
872

872
872
870
540
251

132
476
475
475
615

552
867
867
868
865

928

997
,340
. 470

. 480
. 470
. 410

24,001
857
1.480
132
47,610

MAX 4
MAX 4

MAR

,590
. 710
. 660

I540

,540
. 610
2,050

2.250

2,510
2.520

2.620
2,620

2,620
2,710
2,680
2,680

2,670

2,760
2,860
2,850

2.920
2.920
2,920
2.850
2,790
2,770

75,010
2,420
2,920
1.540
148,800

,436 MIN
,930 MIN

reviewed

).

11, 196

ant whe re it is 1

by Geological Sur

YEAR OCTOBER 1965 TO SEPTE

APR

2.590
2,520
2.530
2.530
2,600

2.600
2.590
2.520

2.590

2.590
2,520

2,580
2,740

2,910
2,920
2,850
3,110

3,430

3,550
3,500
3,490

3,590
3,740
3,940
3,940
3,930

90,180
3,006
3,940
2,520
178,900

0 AC-FT
0 AC-FT

MAY

4,670
3,640
3,660

3,660

3,570
3,500
3,500

2,780

2,520
2,520

2,830
2,B90

2,910
2,910
2,920
2,990

3,140

3,140
3,140
3,170

3,170
3,170
3,170
3,880
3,870
3,160

100,590
3,245
4,670
2,520
199,500

1,440,
1,599,

JUN

3.490
3.500
3,560

3.560

3.720
3.810
3,690

3.740

3,730
3,790

3,730
3,750

3.970
3,960
3,960
4.620

4,160

4.370
4,330
4,260

4,130
3,980
3.980
3,990
4,150

116,840
3,895
4,620
3,490
231,800

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000

ifted 200

vey.

<BER 1966

JUL

4,220
4,290
4,430

4,380

4,150
4,150
4,140

4,130

4,130
4,130

4,200
4,310

4,440
4.440
4.430
4,380

4,440

4,430
4,690
4,430

4,650
4,670
4,670
4,800
4,810
4,790

136,320
4,397
4, BIO
4,130
270,400

y days in

ft into

AUG

4,930
4,800
4,160

4,220

4,270
4,270
4,410

4,460

4,410
4,480
4,480
4.470
4,460

4,440
4,230
4,320
4,320
4,380

4,380

3,900
3,830
3,730

3,420
3,310
3,150
3,080
2,810
2,690

126,600
4,084
4,930
2,690
251,100

oaquin
canal.

SEP

2,520
2,350
2,020

2,020

2,010
2,600
2,620

2,630

2,630
2,560
2,390
2,270
1,950

1,950
2,020
2,050
2,020
1,920

1,850
1,840
1.930
1.850
1.920

1,930
1.960
1,970
2,140
2,070

64,700
2,157
2,690
1,840
128,300

11313000 DELTA-MENDOTA CANAL AT TRACY PUMPING PLANT, NEAR TRACY, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECONO> WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

1
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it
5

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11
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16
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19
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21
22
23
2*
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
KTR YR

2,020 1
2,050 1
2,000 1
1,770
1.8BO

2,030 1
2,030 1
2,020
2,020
2,020

1,920
1,920
1,870
1,900
1,910 1

1,910 1
1,910 1
1,910
1,910
1,910

1,910
1,840
1.B80
1,720
1,430

1,260
1,230
1,230
1.230
1,2<>0
1,190

55,070 27
1.776
2.050 1
1.190
109.200 55

1966 TOTAL
1967 TOTAL

. 030
. 160
,070
991
963

,030
,030
S65

865

S66
867
867
932
,040

,180
,100
926
928
964

S96
859
862
S64
S62

865
S66

573

,729
924
,1SO
573

,000

832,055
634.471

538
539
613
611
35S

251
215
250
213
213

213
213
249
322
357

356
6S1
680
677 1
675 1

599
462
6S
69
69

70
716
715
826
867
464

13,149 22
424
867 1
6B
26,080 45

. 00 MEAN
. 00 MEAN

176
176
861
858
B65

864
B65
865
790
788

866
867
865
864
863

862
922
924
. 020
. 030

971
873
581
505
324

360
650
760
761
471
325

. 772
735
. 030
176
. 170

2.280

1,738

324
215
178
178
177

213
213
213
215

215
All
614
685
865

931
994
995
998
996

1.100
1.160
1,160
1.170
1,170

1,160
1,160
1,100

19,187
685
1.170
177
38.060

MAX 4.
MAX 4.

1.200
1.340
1,770
2,000
2,000

2,?70
2,210
2.380
2.530

2.260
2,170
1.680
1.270
1.330

1.210
1.200
1,350
1,350
1,290

1,860
2,230
2.550
2,570
2,600

2,600
2,570
2,030
2,060
2,140
1,940

60,090
1,93ft
2,600
1,200
119,200

930 MIN
550 MIN

,730 1
,730 1
,690 1
,170 1
,550 1

,270 1
,350 1
,280 1
,220 1

1.150 1
1.430 1
975 1
722 1
723 1

652 1
866 1
867 2
871 2
870 2

871 2
944 2
1.530 2
946 2
1,200 2

1,180 1
1.110 2

1.040 2 947 2
1,060 2
1

34,434 56
1,148 1
1,730 2
652 1
68,300 112

0 AC-FT 1
68 AC-FT 1

,090
. 160
,200
. 200
,200

,280
,?BO

,350

, 30
< 30
. 40
, 40
, 40

,840
. 970

,540
,540
,550

. 560
,610
. 620
,570
,050

,820
,040
. 280
. 100
,200
,870

,680
,828
,620
,090
,400

,650,
,258,

1,810
1,700
1.760
2,490
1,690

1,620
1,690

1,810

2,490
1,810
1,780
2,010
2.030

2,010
2,110
2.900
2,120
2.210

2,220
2,370
2,300
2,260
2,850

2,250
2.220
2,120
1,620

61,690
2,056
2.900
1.450
122.400

000
000

1.300
1.360
1,380
1,380
1,360

1,360
1,290

1,290

1,280
1,290
2,920
3,150
3,080

2,840
2,780
2,550
2,110
2,030

2,810
3,330
3,330
4,030
4,030

4,060
4,050
4.160
4.170
4.170

79.590
2.567
4.170
1.280
157.900

4.170
4,250
4,480
4.470
4.300

4.430
4.450

4.410

4.440
4.430
4,470
4,280
4,160

4,170
4,160
4,210
4,380
4,350

4,350
4.280
4.150
4.070
3.900

3.620
3.630
3.550
3.330
3,370

128,900
4,158
4,550
3,330
255,700

?,750
?.520
?,510
2,520
?,530

2,530
2,530

2,260

2.290
?,860
2.870
2,800
?,830

2,850
2,740
2,200
2,120
1,940

2.030
2,100
2,210
?i280
2.210

2.780
2.850
2.850
2.810

75.180
2.506
2,870
1,940
149,100

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
4
5

6
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14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN

MAX MIN
AC-FT

CAL YR
MTR YR

2.890
2,890
2.750 1
2.600
2,130

1,990
2,200
2,200
2,140
2,070 1

2,200 3
1,800 3
2.270 1
1,950
1.720 1

1,720
1,170
1,090
1,090
1,100

1,100
1.070
997
865
717

716
716
717
723
716
864

49,171 28
1,586
2,890 3
716
97,530 57

1967 TOTAL
1968 TOTAL

864
867
. 010
870
869

867
867
755
861
. 060

. 220
. 230
. 070
321
. 090

962
997
964
965
900

759
754
717
642
571

572
572
573
573
57*

. 916
964
. 230
321
. 350

629
1.006

321
284
284
575
576

573
464
428
212
140

320
609
608
642
997

1,500
1,720
209
568
468 1,

533
534 2,
213 1.
0 1.
0 1.

102 2.
104 It
176 1,
107

0 1, 0 1.

13,267 19,
428
1,720 2,
0
26,320 39,

,877 MEAN 1,
,806 MEAN 2.

0 1.340
0 1,470
0 1,360
0 1,890
0 1,040

0 1,210
0 1.500
0 1,500
0 1,500
0 1,500

0 2,450
0 1,500
0 1,500
0 1,870
0 2,050

0 2,230
0 1,550
70 2.080
931 1.870
470 1,980

863 2.040
230 2,960
720 929
790 1,240
920 2,630

200 1,140
740 2,600
520 1,870
938 1,100
ISO ......
250

792 49,899
638 1,721
230 2,960
0 929
260 98,970

726 MAX 4.5
751 MAX 4.9

1.660
2,050
3,380
1,760
2,660

3.170
2,530
3,150
3,180
4,920

3,270
2,920
3,220
3,350
3,230

3,250
4,830
3,060
3.150
3,150

3,100
3.150
3.440
4,900
3,250

3,430
3.400
3,420
3,420

4,920

101,750
3,282
4,920
1,660
201,800

so MIN
30 MIN

3 260
3 450
3 440
3 420
3 430

3,430
4,890

3,420
3,420

3,410
3,430
3,930
4,900
3,940

3,950
3,940
3,930
3,860

3,490
3,530
4,100
4,380
4,390

4,240
3,550
3,360
3,490

113,130
3,771
4,900
3,230
224,400

0 AC-FT
0 AC-FT

4,430
4,440
4,450
4,430
4,900

4,410
4,410

4,430
4,400

4,420
4,880
4,420
4,360
4,130

4,130
3,970
4,190
4,770

3,930
3,930
4,180
4,390
4.240

4,880
2,650
1,730
1,980

4,210

129.130
4.165
4.910
1.730
256,100

1,249,000
1,997.000

3,650
3,650
3,700
3,860
3,890

3,870
3.850

4,140
4,140

4,210
4,430
4,420
4.420
4,130

3,870
3,870
3,940
3.880

4.190
4,270
4,310
4,390
4,460

4,530
4,930
4,930
4,910

126,010
4,200
4.930
3.650
249.900

4,900
4,700
4,700
4,800
4,680

4.700
4,710

4,720
4,650

4,800
4,820
4,910
4,900
4,730

4,700
4,510
4,380
4.330

4,760
4,910
4,910
4,900
4,900

4,900
4,910
4,900
4,890

4,500

146,870
4,738
4,910
4,330
291,300

4,470
4,470
4,490
4,400
4,400

4,390
4.300

4.310
4,310

4,310
4,310
3,850
2,710
2,540

3,520
3,530
3,780
3,680

3,950
3,910
4,570
4,910
4,900

4,890
4,890
4,890
2,030

1,180

120,967
3,902
4,910
857
239,900

4,930
4,930
3,730
868
866

1,170
4,040

4,680
1,190

4,530
1,180
1,520
3.820
4,910

4,440
4,410
3.950
3.950

3.930
4.890
3,910
3,920
3.920

3,930
3,930
3,950
4,460

107,904
3,597
4,930
866
214,000

SAN JOAQUIN RIVER BASIN

11313000 DELTA-MENDOTA CANAL AT TRACY PUMPING PLANT, NEAR TRACY, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. MATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

1
2
3
it
5

6
7
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9
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11
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13
14
15

16
17
18
19
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21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN

HIM
AC-FT

CAL YR

DAY

1
2
3
it
5

6
7
8
9
10

11
12
13
14
IS

16
17

19
20

21
22
23
24
25

26
27
<!B
29
30
31

TOTAL
Mt AN
MAX

AC-FT

CAL YR
WTR YR

3,950
3.950
3.950
3,940
4,420

4,890
3,910
4,410
4,410
4,410

4,420
4,440
4,910
4,430
4,410

4,400
4,4lO
4,030
3,15
4,14

3.14
2,89
1.47

1,610
2,710

3,400
3,790
3,250
3,440
3,430
3,240

117,350
3,785

1,470
232,800

3,200
3,190
3,190
3,230
3,240

3,130
2,050
2.050
3.110
3.110

3.050
2,720
2,770
2,960
2.650

2.910
2.910
3.020
3.050
2.780

935
936 2
1.080 1
1.080 2
1,080 2

1,170 2
1,180 2
1,110 3
1,110 2
932 2
2

68,933 34
2,298 1

932
136,700 67

1968 TOTAL 1,135,989

OCT

2,530
2,600
2,730
3,170
4,140

3,100
2,880
2,460
2,050
2.0SO

1,B60
1,900
1,910
2,030
2,030

1,660
1,590
1,410
1,330
1.330

1.110
975
434
433
433

416
434
433
433
324
325

50,510
1 ,629
4,140
324
100,200

DISCHARGE.

NOV

323
324
323
323
321

722
576
397
397
433

361
360
SOS
578
650

0
72
215
286
286

359
360
323
288
650

866
685
0
0
0

10.983
366
866
0
21.780

1969 TOTAL 770,701
1970 TOTAL 833.472

863 2,570
861 2,520
859 2,540
677 2,580
679 2,580

213 2,640
249 2.870
250 2.880
214 2.870
180 2.870

180 3.070
179 3.380
180 2.860
216 2.860
216 2,860

212 2,840
212 3,040
321 3,360
390 2,860

888 2.870
. 520 2.870
,980 2,880
,040 2,870
,820 3,090

,820 3,410
. 810 2.890
. 010 2.910
. 880 2.900
,540 2,900
. 580 2,890

,254 89,360
,105 2,883

179 2,520
,940 177,200

. 00 MEAN 3,

3,090
3,390
2.870
2.870
2,870

2.870
2,860
3,050
3,370
2.870

2.880
2.890
2,890
2,890
3,110

2,900
2,900
2,900
2,890

2,890
3,400
3,400
2,890
2,890

2,890
2,900
2,910
. . . . . .
. . . . . .

83,950
2,998

2,860
166,500

104 MAX

3,120
3,420
2,910
2,920
2,900

2,890
2,880
3.080
3,380
2,870

2,870
2,860
2,870
2,860
3,050

1,310
1,280
1,290
1,390

1,390
1,310
145
510
783

1,890
1,990
1,750
1,750
1,750
1,750

68,398
2,206

145
135,700

1,750
1.820
1,820
1,750
1,750

1,740
1,750
1,720
1,690
1,690

1.770
2.350
2.340
2.450
2,440

2.580
2.610
2.600
2,600

2,350
1,890
1,890
1,620
1,190

1.190
1.170
1.180
1.190
1.250

56.580
1,886

1.170
112,200

4,930 HIM .0

1,410
2.170
2.180
2.180
2,180

2.240
2,920
2,950
3,010
3,120

3,120
3,130
2,830
2,030
2.070

1.890

1.900
1.830

1,770
1,820
1,880
1,950
1.950

1.950
1.960
1,860
1,860
1,870

67,800
2,187

1,410
134,500

AC-FT 2 *r_CT i

IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969

DEC JAN

0
0
0
0
0

0
0
0
0
0

0
0
0
0
130

1,680
1,690

73
109

110
147

1.030
1,020

773
518
788
785
905
1.020

0 12,768 0 412

0 1.690 0 0
0 25,330

MEAN 2.112
MEAN 2.283

FEB

1,240
908
781
900

774
772

1.250

1.260
1.260
1.250
1.670
1.680

1.420
1.890

2.090
2.080

2,170
2.120

1.970
1.930

2.020
1.640
1.890
. . . . . .
. . . . . .

41,460

2.170

82,240

MAX 4,940
MAX 4,600

MAR

1,880
1.310
1,380
1,540

1,140
908

1,200

935
858
862
866
944

1,080
1.280

1.650
1.640

1.960
2.090

2,750
3,200

3,170
3.180
3,190
3,190
3,190
3.200

54.457

3,200

108,000

MIN o
MIN 0

APR

3,280
3,680
3,660
4,130

4,100
4,100

4,080

4,070
4.080
3.900
3.900
3,820

3,970
3,920

3,870
3,860

3. BOO
3,720

3.180
3,150

3,130
3,550
3,370
874
2,860

109.334

4,140

216,900

AC-FT I
AC-FT 1

MAY

3,660
2,240
1,590
1,590

1,620
1.740

4.010

4,020
3,930
3,950
3,940
4,000

4,030
3,990

3,920
3,960

4,270
4,300

4,310
4,?40

4,?50
4,?20
4,170
4,140
4,210
4,200

110,420

4.310

219,000

,529.000
. 653.000

1.880
1.880
1.880
1.940
1.870

1.940
1,970
1,970
1,680
1,540

1,740
1,800
1,840
1.B50
1,840

1,840
1,840

1.820
2.000

2.000
1.960
1.930
1.930
1.980

1.970

1.990
1.980
1.990

56.690
1.890

1.540
112.400

. 253.000
. 844.000

TO SEPTE

JUN

4,150
4,110
4,190
4,170

4,590
4,380

4,460

4,140
3,770
3,780
3.780
3.800

4,060
4,470

4,260
3.970

4.500
4.290

4.090
4,220

4,180
4,510
4,480
4,320
4,390

126,900

4,590

251,700

1,930
1,930
1,960
1.960
1.950

1,880
1.040
1.160
1.330
2,260

2,730
2,970
2,900
2,460
2,450

2,350

2,350
2.350

2.420
3,190
3,130
3,460
3.560

4,240

4,250
4,170
4,170
4,130

83,780
2,703

1,040
166,200

MBER 1970

JUL

4,380
4,380
4,500
4,480

4,490
4,510

4,510

4,560
4,560
4,560
4,580
4,600

4,580
4,590

4,580
4,580

4,570
4,370

4,260
4.190

4,220
4,190
4,220
4,370
4,320
4,360

137,870

4,600

273.500

4, ISO
4,140
4.140
4.220
4.910

4.920
4.930
4.930
4.930
4.930

4,940
4,930
4,930
4,930
4,920

4,920
4,920

4,690
4,730

4,480
3.620
3.920
3.900
3.910

3.840

3.570
3.440

3,060
2,910

135,340
4,366

2,910
268,400

AUG

4,360
4,340
4,230
4,080

3,500
3,870

3,860
3,840

3,730
3,900
3,930
3,960
3,900

3,930
3,850

3,510
3,460

3.350
3,360

3,360
3.100

2.910

2,990
3,020
2,470
2,480
2,330

110,330

4,360

218,800

3,240
3,190
2,730
2,380
2.400

2.280
2.0BO
1,990
1,730
1,730

1,730
1,730
1,740
1.740
1.740

1.800
1,950

2,090
2,040

2,040
2,040
2,000
2,290
2,660

2,730

2,800
2,760
2,730

67,310
2,244
3,240
1,730
133,500

SEP

2,150
2,280
2.280
2.090

1.860
1.860

1,920
1,900

1,970
2,100
2,100
2,090
2,090

2,020
2,060
2.050
2.060
2.050

2.170
2,430

3,040
3.160

3.030
3.030
2.820
2.820
2.690

68.440
2.28 1
3.160

135.800

fbMrf ft«M,

»! *f»<*»« (HOT

Mtodoo Lakt
5,660 acre- (let
Staragt btgan 1903

Tiger Crttk
r --(Ftrtk"»
f 2,610 ocrt-tt«t
Since 1931

Twin Lake
1,210 acrt-tttt
Storagt btgan 1901

NORTH FORK MOKELUMNE RIVER

MIDOLf fORK MOKELUMNe RIVER
Co la vt rat Public

P
\ Lifting For I: Mo»t/umnt Rivtr

South Fork Molttlumnt Rivtr

Bay Municipal utilitiM Dutrict
Aqueduct to Oakland

FIGURE «-Schematic di.|r.m ihowinf di<

SAN JOAQUIN RIVER BASIN

11313500 SALT SPRINGS RESERVOIR NEAR WEST POINT, CALIF.

18

DRAINAGE AREA.--169 sq mi.

PERIOD OF RECORD.--March 1931 to September 1970.

GAGE.--Nonrecording gage. Datum of gage is at me

EXTREMES.--Maximums and minimums (c ntents in aci tained in the following table:

Prior to October 1964, records published as usable conten

in sea level Clevels by Pacific Gas 5 Electric Co.).

;-feet, elevation in feet) for the water years 1966-70 are

Wtr yr Date

Ma observed

1966
1967
1968
1969
1970

Contents
June 1, 1966 139,100
July 9-19, 1967 141,900
June 5-7, 1968 129,900
July 1-15, 1969 141,900
June 3-14, 17-24, 27, 1970 141,900

Elevation
3,955.1
3,958.0
3,945.3
3,958.0
3,958.0

Mi
Date

Feb. 19, 20, 1966
Feb. 2, 1967
Feb. 13, 1968
Jan. 18, 1969
Dec. 19, 1969

mum obse
Contents
4,970
2,200
3,750
25,500
35,100

3,728.6
3,710.0
3,721.5
3,794.3
3,814.8

REMARKS.--Reservoir i

Capacity, 141,900

formed by
cre-ft betw

ete-faced, rockfill dam, completed in 1931; storage began in March 1931. vations 3,667.75 Outlet drain) and 3,958.0 ft (top of radial gates) through powerhouse just below dam and discharged Figures given herein represent total contents. S this report.

Tiger Creek powerhouse conduit (see station 11314000).
chematic diagram of Mokelumne River basin elsewhere in

COOPERATION. --Record of cor

REVISIONS.--WSP 1930: Drai

3,710.0
3,715.0
3,720.0
3,725.0
3,730.0

.nage area.

2,200
2,810
3,520
4,320
5,230

3,735.0
3,740.0
3,750.0
3,760.0
3,780.0

6,230
7,320
9,800
12,700
19,600

3,800.0
3,850.0
3,900.0
3,958.0

28,000
54,900
90,800
141,900

DAY

1

CONTENTS. IN »CRE-FEFT, AT 1700, taATEP. YEAR OCTOBER 1965 TO SEPTEMBER 1966

OCT

93,700
93,000
93,200
91,200
90,200

B9.000
87,900
86,900
85,800
84,700

63,600

82,500
81,500
80,300
79,400

76,300
77,300
76,100
74.800
73.600

72,700
71 ,600
70,700
69,900
68,900

67,800
66,700
65,900
6l>,800
63,700
6<!,HOO

93,700
62,800

NOV

61,500
60,300
59,400
58,400
57.40U

56,700
55.70U
54,700
53,700
52.700

51.800
51.00U
49,800
49.000
48.400

47,600
47,600
49,200
49, SOU
49,700

49,500
49,100
48.7UU

48,700
48,200

47,600
47,200
46,600
46.000
45.500

. . . .

61,500
45,500

LiEC

44.900
44,200
43,600
43,100
42,500

41,900
41,300
40,700
40,100
J9.500

38,800
J8.100
37,600
J7.000
36,200

35,700
34,900
34,200
33.500
32.900

3?. 200
31,600
30,900
JO, 300
29,700

29.000
28,500
28.000
27,600
27,100
16,400

44,900
26,400

SS.BOO
25,100
24,700
24,300
23.800

23.400
22,900
22,500
22,200
21,700

21,300
20,900
20,400
19,900
19,100

18,200
17.700
17.300
16.800
16,000

15,600
15.10U
14,^00
14,300
13,400

12. 'on
11,800
11,400
1U.300
9,530
8,760

25.800
8,760

8.03U
7,670
6,940
6,550
6,400

6,340
6,190
6,020
5.860
5,720

5,660
5,700
5.620
5.620
5. 520

5,360
5,230
5,100
4,970
4,970

5,300
5.34U
5.460
5.580
5,660

5,700
5,720
5,760
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8,030
4,970

5,800
5,900
5,740
5.580
5.420

5.4?0
5,320
5.230
5,190
5,600

6,020
6,190
6.740
7.320
7,840

8,?7n
8,510
8,810
9,020
9,1?0

9,270
9,480
9,720
10. 100
10,600

11,300
12.200
12,800
14,200
15,800
17,800

17,800
5,190

19,900
22,500
25.200
28,000
29.200

32,000
34,900
37,700
40,600
43.100

45.200
46,900
48,400
49,000
50,900

52,700
55,000
57.700
59.DOO
60.100

61.200
62.200
63,300
64,700
66,800

69,400
72,200
74,400
76,600

7B,«oo
. . . . . .

78.800
19,900

81,100
83,700
66,700
89,800
93. POO

96.400
99,900
103,100
106,800
109,900

113, POO
1 15,700
118.000
120.600
122.700

124,<JOO
126,900
129,000
131,000
132,800

134, ?00
135,400
136,200
136,700
137, ?00

138,?00
138,700
128,900
139,000
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139,000
HI, 100

JUM JUL

139,100 125,500
139,000 124,500
138,500 123.500
138,300 122,600
137.700 121,700

137.300 121.200
136.900 120,700
136,700 120,30(1
136,600 119,200
136,400 118.200

136. 10P 117,300
135, BOP 116,500
135,400 116,200
135,400 115,800
135,400 115.400

135.200 114,500
134,700 113,700
134,20(1
133,500
132,800

112.200
131,400
130,700
130.000
129,500

129,000
128,500
1P7.700
127.000
126,200
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13.100
12,800
12,400

12,100
11,700
1 1,300
10,800
10,700

10,300
10,100
09,600
09,400
08,700
08,000

139,100 125,500
126,200 108,000

AUG

107,300
104,400
106.700
106,500
106,200

105,600
105,000
104,300
103,900
103.400

102.600
102,000
101,400
100,700
100.100

99.500
99.000
98.400
97.800
96,900

95,900
95,200
94,200

93,000

92,400
91,700
91,200
90,400
89,600
88,800

107,300
88,800

SEP

87,900
87.600
86,600
85,400
84.700

83,700
83.100
82,400
81 ,800
80.700

79,600
78,500
77.900
77,200
76.600

75.800
74,700
73.600
7?. 700
7P.200

7! .500
70,800
70,400

68,000

67,000
66,100
65,600
65.200
64.400

. . . . . .

87,900
64,400

SAN JOAQUIN RIVER BASIN

11313500 SALT SPRINGS RESERVOIR NEAR WEST POINT, CALIF.--CONTINUED

CONTENTS. IN ACKt-fEET. »T 1700. «4TER YEAR OCTOBER 1966 TO SEPTEMBER 1967

UAT

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MAX
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DAY

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21
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24
Z5

26
27
28
29
30
31

MAX
MIN

ULT

63,400
6?, 400
61,600
60,900
60,300

59, 100
59,000
58,000
b7,JOO
S5.BOO

55.200

b4,500
53.900
53.300
52,200

51,?00
50,300
49.700
49,100
48,400

47,900
47,000
46.100
45,100
44,500

43,900
43,300
42,800
42,700
42,700
41.HOO

63,400
41,800

105,900
105, ?00
104,900
104,800
104,300

103,900
103,200
10Z.600
102,000
101,300

100, 6CO
99,900
99,100
98,500
97,700

97,000
96, SCO
95,600
94,800
9*, 200

93,700
93,703
93,200
92,400
91,600

90,800
90,000
89,200
88,300
8T.600
86,800

105,900
86,890

NOV

41,200
40.600
39.900
39.300
38,200

3?. 100
36.100
35.500
34.900
34.200

33. 100
32.00U
31.000
30.000
29.400

29.100
28,800
2B.300
2?. 400
26,900

26,400
26.200
25.700
25,300
24.800

23.800
23.000
22.400

24,900
25.200
- - - - - -

41,200
22.400

24.700

24,900
25.600
25,500
26,100

28,700
30,500
J0.700

30, bOO
JO, 100

29.800
29,300
2B.HOO
28,200
27, BOO

27.600
26,900
26,300
25,900
25.600

24,700
24,300
23,500
22,700
22,000

21,200
20,300
19,500
18,600
I 7. BOO
17,400

30,700
17,400

CONTENTS, IN

B6.0CC
85,400
84,700
83,600
82,500

81,500
83,700
79,900
79,000
78,200

77,200
76, 100
75,000
74,400
73,800

72,900
72,100
71,100
70,200
69,300

68.700
67,900
66,800
65,900
64,800

63,800
62,800
62,000
61,200
60,400

86,000
60,400

59,600
58,900
57,800
56,90C
56,400

56.000
55,500
55,000
54,000
53,200

52.300
51.50C
50,600
49,500
48,700

47,800
46,800
45,900
45,100
44,300

43,500
42,600
42,400
41,600
40,800

40,003
39,201
38,600
37,600
36,500
35,600

59,600
35,600

1 '.000
lh.500
16.300
15.HOO

lb,400

15,000
14,600
14,100
13,700
13.300

12.800
12.400
12,000
11,800
11,600

11.200
10.800
10.300
9,930
9,b30

9.530
9,610
9,400
9,120
8,460

7,760
8,100
8,370
8.640
B.220
6.550

17,000
6,550

ACRE-FEET,

34,600
33,600
32,600
31,900
30,900

30,000
29,000
28,100
27,200
26,600

25,700
24,700
23,800
22,800
22.300

21,900
21,500
20,600
19,600
18,700

17,900
17,100
16,400
15,800
15,000

14,200
13,300
12,500
12.000
11,400
10,600

34,600
10.600

3,370
2,?00
2.430
2.570
2.810

3,990
4,820
5,960
7.10U
8,640

9,930
11,?00
12,100
12,900
13,700

13.800
15,100
15,800
16,300
16.800

17,?00
17,100
17,000
16,900
16,700

16,600
16,500
16,300
. . . . . .

. -<...-

. . . . . .

17,?00
2,?00

AT 1700,

9,820
9,120
8,320
7,420
6,570

6,130
5,880
5,520
5,060
4,910

4.343
3,840
3,750
3,830
3,840

3,860
4,170
4,800
5,170
7,700

10,203
11,900
13,400
15,600
16.900

18,000
18,900
19,700
20,400

- - - - - -

20,400
3,750

16,200
16,100
16.000
15.900
15,700

15.600
15.500
15.400
15.200
15,100

15,000
15,000
14,900
14,800
14,800

17,700
24,100
27,100
28,900
30, loO

31,300
32,400
33,500
34,600
35,400

36,000
36,600
37,200
38,500
39,100
39,400

39,400
14,800

39,600
39.300
39.000
38, ROD
38.800

38.500
38.600
SB, 400
3H.200
SB, 100

38,000
37.900
37.700
37,700
37,600

37,400
37,?00
37,000
36,700
36,400

36. POO
36,000
35,700
35,400
35,200

34,800
34,600
34,300
33.900
33.700

. . . . . .

39,600
33.700

33,300
33,000
33,000
33,100
33,400

33,700
34,400
36,400
39,300
41,400

42,600
43,?00
43,600
44,?00
45. 500

48, POO
52,100
57,100
61,100
65,900

72.?00
79,600
87,100
93,800
100,600

106,100
112,100
116,900
120,600
121,900
127,400

127,400
33,000

JUN JIIL

128,800 140.700
129.700 140.400
130.200 140,900
131,90(1 140,200
134,10(1 140.700

134,300 141.700
135.000 141,100
135,80(1 141,400
136,20(1 141,900
136.500 141,900

136,600 141,900
136,500 141,900
136,30(1 141,900
136,300 141,900
136,700 141,900

137,300 141,900
138.300 141.900
137.400 141.900
136,200 141.900
136,200 141,600

137,600 141,400
138,300 141,000
139.200 140,500

140,500 139,800

140,500 139,600
140,300 139,600
140.500 139,600
140.500 139,100
140,400 138,500
138,000

140,500 141,900
128,800 138,000

WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

21,100
21,700
22,100
22,500
23,000

23,300
23,500
23,900
24,100
24,200

24.300
24,700
24,800
25,100
25,500

25,800
26,100
26,400
26,700
26,900

27,300
27,600
27,300
27,200
27,200

27,300
27,700
28,100
28,900
30,000
31,300

31,300
21,100

32,600
33,400
33,900
34,200
34,700

35,300
35,800
36,500
37,100
38.200

39,900
41,700
43,200
44,500
46,200

47.600
48,800
49.200
50,300
51,300

52,100
52,600
53,300
54,100
55,100

56,400
57,900
59,500
61,700
64,100
_____

64,100
32,600

66,900
69,700
72,000
74,700
77,300

79,600
81,200
83,300
85.400
87.200

89,200
91,400
93,000
94,300
95,600

96,800
98,200
99,700
101,900
104,500

107,700
109,900
111.200
112,200
113.600

115,800
117,300
119,600
121,800
123,600
125,400

125,400
66,900

126,200 124,100
127,200 123,300
128,300 122,500
129,200 121,800
129,900 121,409

129,900 120,909
129,900 120,500
129,700 119,900
129,500 119,409
129,300 118,700

129,200 118,100
129,200 117.800
129,000 117,100
128,900 117,200
128,600 116,500

128,100 115,900
127.800 115.600
127,700 115,100
127,700 114,700
127,700 113,900

127,800 113,290
127,700 112,500
127,600 112,000
127,400 111,600
127,200 111,300

126,800 111,100
126,600 110,500
126,200 110,800
125,600 110.100
124,900 109,700
109,500

129,900 124,100
124,900 109,500

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137,600
137.400
137,000
136,600
136,100

136.300
135.700
135.000
134,400
133.900

133.200
132.400
131.400
130,600
130,100

129,700
129.100
128,800
128,100
127,300

126,600
126,400
125.900

125.400

125.300
1?4,500
124.000
123.600
123.200
122.700

137.600
122,700

AUG

109,000
108,600
108,100
107,500
107,100

106,500
105,900
105,400
105,400
104,200

104,200
103,400
102.900
102,300
101,700

101,100
100,600
100,600
99,500
99,100

98,600
98,100
97,200
96,200
95, 100

94,200
93,400
92,800
92,100
91,400
90,500

109,000
90,500

SEP

122.500
121.800
121.200
120,300
119,400

119,000
118.400
117,800
116,900
116,000

115,300
114.700
114,300
113,700
113,200

113,400
11?, BOO
11?, 200
111,700
111.500

111.100
1 10,600
10,200

09,200

08,700
08,200
07,700
07,000
06,500

122.500
106,500

SEP

89,400
88,400
87,600
86,900
86,500

85,600
84,700
84,700
83,900
83,300

82,700
82,100
81,600
80,900
80,100

79,100
78,400
77,800
77,100
76,400

5,400
4,300
3,300
2,600
2,000

71,400
70,700
70.200
69,500
68,800

89,400
68,800

SAN JOAQUIN RIVER BASIN

11313500 SALT SPRINGS RESERVOIR NEAR WEST POINT, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEET, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AuG SEP

2 67,749 5*1312 4e!lB2 32^525 44^627 33,400 33,939 73*630 131,444 141,858 136,323 114,694
3 67,184 54,852 47,715 31tB03 44,292 32,912 35,026 76,276 131»444 141,658 134,437 113*614
4 66,622 55,355 47,193 31,182 43,902 32,428 35,635 78,959 131,444 141,856 133,591 112,938

6 65,715 54,769 45,700 30,191 43,073 31,611 36,145 83,746 131i444 141,858 132,469 111,628
7 64,745 54,269 45,473 29,677 42,853 31,230 38,773 68*099 131,444 141* 858 132,003 11,279
6 64*057 S3,915 44,627 29,166 42*524 301661 39*141 93,027 131,444 141*858 131*537 10*758

10 62*965 53,481 43,404 28,156 41*599 29,863 39,722 105,179 131,444 141*856 129,866 10,151

11 62,288 53,172 43,073 27,566 41,112 29,398 40*361 112,500 133,685 141*858 129*126 09,719
,028

310
15 60,260 52,926 41,545 26,891 39,669 27*475 43,902 132,749 138*792 141,658 126,456 106,Tl1

16 60,015 52 9 603 41,220 26,534 39*299 27,160 43*183 132*656 139,938 141*473 125,727 105,944
17 59*487 52*557 40,790 26* 049 38,878 26,802 43,902 132,843 139,938 141* 069 124,997 105*179
16 58*961 52* 373 40,361 25,480 38*511 26,534 45,020 132,643 140,225 140,705 124,359 104,499
19 56,503 53,357 39,968 26,666 38,145 26,445 46,271 132,643 141,377 140,225 123,542 103,654
20 58,046 53,605 39* 510 30* 520 37,762 26,226 47,949 132,656 141,377 140,225 122,998 102,896

22 57,013 53,296 38,511 36,854 36,905 25*917 54,102 131,444 141,377 139,269 121,463 101,387
23 56,500 53,234 37*989 37,471 36,496 25* 786 57,723 131,444 141,377 139,365 121*103 100* 554
24 56* 053 53,049 37,730 37*969 36,086 25*654 59,949 131 *444 141,377 139,365 120,474 99,557
25 55 *544 52,603 37*471 39* 722 35,683 25,698 61,346 131,444 141*377 139,460 119,846 98*647

26 55*166 52*557 36,956 43,349 35 * 260 25,786 62 »153 131* 444 141,377 139,365 119,130 97,824
27 54,664 52,190 36,854 45*303 34,660 26,049 63*169 131*444 141*377 138,792 116*236 97*413
28 54*227 51,399 36,139 45,671 34,185 26,668 64,263 131,444 141*377 138,125 117,527 97,003
29 53,791 50,554 35,431 45*473 ---- 27,475 66*412 131,444 141*377 137,555 116,726 96,104
30 53,419 49,777 34*680 45,020 - ~- 28,705 68,610 131,444 141,665 137,270 116,106 95,238
31 52*967 33,939 44,571 30,473 131,444 136,607 115,577

MAX 68*243 55,355 46,947 45,871 44,627 33,693 68,610 132,643 141,665 141*856 136,323 115,224
HIN 52,967 49,777 33,939 25,480 34*165 25,654 32*380 71,671 131*444 136,607 115,577 95,206

WTR YR 1969 MAX 141,858 MIN 25,480

CONTENTS, IN ACRE-FEET, AT 1700, MATER YEAR OCT06ER 1969 TO SEPTEMBER 1970

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP

3 92,144 70* 593 49,656 47,135 100,055 93,166 82,596 90,152 141,658 139*747 122* 094 104,330
4 91*106 69,949 48,711 46,962 100,367 92,705 62,979 92,224 141,856 139,365 121,643 103,833

6 89,044 69,3C7 46,846 46,329 100*720 91,425 84,208 97,003 141,656 136,506 121,013 102,726
7 88*021 68*455 45,871 46,100 100*970 90.786 64,903 99,226 141,856 137,935 120,743 101,387
6 87,002 67,396 45,020 45,871 101,304 90,390 65,290 100,720 141,658 137,270 120,474 100,803
9 85,969 66*622 44,18L 45,644 101,638 89*914 66,067 101,636 141,856 136,796 119,846 100,470
10 84,903 66* 342 43,349 46,271 101,636 89,360 67*159 103,317 141,658 136,607 119*041 100*803

11 83,746 65,924 42,470 46,443 101,636 68,729 66,257 104,499 141,856 135,945 I18,506 100.887
12 82,672 65,924 41,599 46,443 101,636 88,021 89*261 105,519 141*856 135,190 118,149 100,720
13 61,680 65,437 40,629 46,556 102,057 87,550 69,993 106,541 141,658 134.531 117,704 100,304
14 60*618 65,090 39,616 47*425 102,224 67*159 90,629 108,597 141,858 134*246 117* 260 99*669

17 61,073 62*694 36,956 59,355 100,970 66,300 90,766 120,205 141,858 133,310 114,606 99*060
16 80,315 62,288 36,038 62* 490 100,554 65,678 90,629 125,270 141,856 132* 469 114,078 96* 647
19 79,561 61,681 35,078 64,126 100,136 65,445 90,629 129,311 141.856 131*630 113,639 97,906

21 78,060 60,612 39,246 71,167 99* 474 64* 440 90,231 134*719 141.856 130*700 112 * 762 96,022

24 76,646 57*853 44,683 91,565 96*839 83*592 69*439 136*792 41,858 129*588 110,238 94*802

,100 108 f 770 92,305
1 458 108* 339 91,345

31 72,902 47,367 99,060 82,625 140,321 124,614 105^519 ---

MAX 94.236 71*671 51,459 99,060 102.224 93,993 90,768 140*321 141*858 140*601 123,614 105,010
MlN 72*902 52*373 35*076 45*644 94* 317 82*625 82,596 89* 360 140,513 124* 814 105,519 89*993

WTR YR 1970 MAX 141,658 MIN 35,076

SAN JOAQUIN RIVER BASIN

11314000 TIGER CREEK POWERHOUSE CONDUIT BELOW SALT SPRINGS DAM, CALIF.

LOCATION.--Lat 38°29'47", long 120°13'04", in SWs sec.33, T.8 N., R.16 E., Amador County, Eldorado National For-est, on left bank 1,000 ft downstream from Salt Springs Dam and powerhouse.

PERIOD OF RECORD.--June 1931 to September 1970.

AVERAGE DISCHARGE.--39 years, 338 cfs (244,900 acre-ft per year).

EXTREMES.--Period of record: Maximum daily discharge, 577 cfs June 22, 1945; no flow at times in some years.

COOPERATION. --Gage-height re

collecte

DAY

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1*
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2*
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28
29
30
31

TOTAL 15.
MEAN
MAX
MIN
AC-FT 31,

WTR VR 1966

d by

OCT

*72
309
176
5*3
550

5*8
550
5*9
5*9
550

552
55*
550
550
*96

552
550
550

550

550
550
53*
530
526

520
506
*58
489

500

910
513
55*
176
560

Pacific Gas

DISCHARGE,

NOV

502
502
*96
494
484

262
5*6
558
550
555

550
550
550
5**
5**

5*3
5*3
51*

517

5*6
5*3
532
530

530
532
533
538

15,679 15
523
558
262
31,100 30

gram

cord

5 El

IN

DEC

*91
533
530
535
536

830
523
522
523
*97

*57
5
454
513
513

*97
50*
509

507

507
507
448
*09

414
39*
*21
505

431

,188
*90
536
39*
,130

of Mokelu

and 18 di

ectric Co.

CUBIC FEET

JAN

393
388
*66
419
378

376
372
369
366
386

*28
496

498
508

513
513
515

50*

320
188
536
496

7
352
385
538

502

13.703

538
188
27,180

scharge measurements for the water years 1966-67 furni

, under general su

PER SECOND, WATER

FEB

*02
321
454
253
203

202
202
202
197
182

133
102

137
152

170
151
125

10*

102
137
101
100

100
101
101

4,741

454
100
9.400

MAR

101
162
199
198
156

121
200
200
273
276

277
202

353
*28

385
387
3*8

203

424
*03
424
335

199
200
391
381
355
3*6

8,638

*28
101
17,130

MIN 0

pervision of the G

YEAR OCTOBER 1965

APR MAY

313 58
305 60
306 59
305 58
32* 65

230 58
282 59
289 *6
230 12
230 8.1

230 7.
226 6.

375 6.
396 6.

416 6.
422 6.
422 6.

418 2.

*65 0
*58 .20
453 .20
454 .20

450 5.8
458 503
460 550
27 55
460 556
336

10,9*2 5,850.60

*65 556
226 0
21,700 11,600

AC-FT 300,900

eological Survey,

TO SEPTEMBER

JUN

397
502
501
501
500

498
466
*27
446
***

*** 44 e
448
386

402
450
450

448

**6
**7
448
390
301

300

405 *sn
438
45?

13,13* 15,
438
502
300
26,050 31,

1966

JUL

518
5*0
S3*
531
526

525
535
525
520
518

S16
S12
507
507
50*

498
*92
494
495
494

*92
492
494
169
53*

552
5*3
553
553
553
553

769
509
553
169
280

shed by Pa

in connect

AUG

550
55*
55*
5*7
539

536
5*1
535
532
532

53*
530
522
517
506

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500
502
500
495

500
500
502
50*
502

500
322
191
5**
5*9
5*7

15,692
506
55*
191
31,130

cific
1968-70
ion

SEP

5*9
5*3
55?
5*8
5*8

550
550
5*9
550
552

552
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5*9
5*9
5*9

550
552
550
55*
5*9

55*
511
558
550
550

553
552
5*7
539
5*7

16,*56
5*9
558
511

32,6*0

SAN JOAQUIN RIVER BASIN

11314000 TIGER CREEK POWERHOUSE CONDUIT BELOW SALT SPRINGS DAM, CALIF.--CONTINUED

DISCHARGEi IN CUBIC FEET PER SECOND. WATER YEAH OCTOBER 1966 TO SEPTEMBER 1967

OCT NOV DEC JAN FEB MAR APR MAY JUN JUL

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31

TOTAL

MAX
MIN
AC-FT

CAL YR
WTR YR

544
539
536
538
516

535
533
528
523
523

519
522
514
515
508

505
516
516
517
513

500
484
480
511
517

515
313
325
2.2
154

548
549
549
547

547
547
549
547
545

543
547
547
549
550

523
521
537
533
524

522
537
534
535
535

536
541
537
523
524

14<799.2 16.175 16 477 "~

544
2.2

3 J*

550
521
29,350 32.080 32

1966 TOTAL
1967 TOTAL

152,154.8

513 541
496 540
498 540
515 540

477 540
480 542
506 543
530 543
518 542

528 542
528 541
528 538
528 542
530 540

532 540
533 523
528 538
529 447
535 392

541 507
542 517
541 531
542 522
537 503

535 496
542 504
543 505
543 505

,255 16,079
524 519
543 543
477 392
,240 31,890

0 MEAN 417
176.592.90 MEAN 484

DISCHARGE*

DAY

1
2
3
it
5

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14
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IB
19
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21
22
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29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
MTR YR

OCT

530
509
527
474

529
529
524
526
526

523
524
520
511
503

505
499
492
480

112
125
538

549
553
553
547
549
549

15.413 16
497
553
112
30,570 31

1967 TOTAL
1968 TOTAL

NOV

547
549
549
549

549
545
544
549

539
539
539
538
533

529
529
524
520

433
520
520
530

542
545
545
545
545

. 044 16!
535
549
433
. 820 32,

177.099.7
161,952.0

IN CUBIC FEET

DEC JAN

545 541
538 541
536 490
536 492
539 511

539 524
539 526
539 521
539 409

542 529
541 529
495 517
536 517
538 517

509 517
492 514
520 509
539 533
538 532

512 533
486 530
482 448

508 529
539 527
539 526
539 524
541 526
541 524

525 515
545 541
474 409
,290 31.670

MEAN 485 K
MEAN 442 >

366
227
227
214

203
203
203
203
203

197
193
193
192
188

200
229
229
228
229

387
512
510
509
510

509
509
510

8,286
296
512
188
16,440

MAX 558
MAX 564

510
514
518
518
517

520
523
502
522
515

508

503
503
500

465
458
456
459
458

459
458
453
455
453

440
436
418
403
402
400

14,749

523
400
29.250

MIN 0
MIN 2.2

PER SECOND, WATER

FEB

524
503
485
468
448

436
417
405
409

346
356
255
193
172

193
194
196
194
?58

334
375
388
382

415
426
441
441

359
524
172
20,660

IAX 564
IAX 553

MAR

444
462
476
486
489

489
490
479
479

379
311
352
326
326

326
326
326

325
355
400
399

238
198
189
194
201
201

360
490
189
22,120

MIN 7.8
MIN 5.4

399
399
399
414
432

454
461
460
460
460

460

460
455
450

450
449
449
445
450

449
447
448
449
449

449
450
450
450
449

13.356

461
399
26.490

AC-FT
AC-FT

449
449
448
449

449
450
116
8.1
7.8

7.8

545
538
545

549
551
552
550
549

550
553
55?
55?
552

550
550
551
552
551
551

13.867.7

553
7.8
27,510

301,800
350,300

YEAR OCTOBER 1967

APR

284
400
402
403
330

200
200
334
405

403
330
200
200
333

403
400
329

200
334
405
405

405
266
200
201
201

320
405
199
19.010

MAY

342
403
405
405
405

405
403
403
403
405

328
163
5.4
9.1
7.9

7.6
7.6
7.6

7.6
7.6
7.6
7.6

7.6
417
545
545
544
54S

231
S45
5.4
14,?30

552
552
550
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548
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550

547
547
547

548
545
537
536
535

536
538
538
537
536

535
263
8.0
310
534

15.271.0

55?
8.0
30,290

TO SEPTE

JUN

544

544
544
544

542
54?
542
54?
54?

545
545
545
547
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5*7
547
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550
5*5
547
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544
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544

545
55n
539
32,420

534
532
534
534
535

465
535
533
531
531

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531
531
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531

531
529
531
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530

519
520
520
514
507

503
505
506
506
505
499

16,173
522
535
465
32,080

MBER 1968

JUL

542

421
313
353

317
317
417
532
533

518
512
291
218
539

545
539
539

542
536
5?9

5)8

505
506
22?
515
503
503

467
547
218
28,690

498
498
498
499
85

154
546
551
551
551

550
551
551
550
552

554
554
556
562
561

560
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556
556
556

559
558
562
564
558
552

16,112
520
564
85
31,960

AUG

505

349
349
463

498
490
489
482
274

214
512
512
514
511

512
93
228
552
552

447
547
552
552
552

552
550
544
539
526
505

465
552
93
2B.590

552
547
545
544
540

534
524
512
509
506

500
496
490
491
484

163
538
549
551
546

540
543
538
532
532

531
536
539
5?9
529

15,470
516
552
163
30.680

SEP

503

521
499
415

46n
258
179
503
'J03

503
503
505
226
545

55?
55?
550
550
550

550
541
536
536
536

536
533
5?7
5?3
50?

490
55?
179
29.160

AC-FT 351.300
AC-FT 321,200

SAN JOAQUIN RIVER BASIN

11314000 TIGER CREEK POWERHOUSE CONDUIT BELOW SALT SPRINGS DAM, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER

D&Y

1
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it
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1112
1314
15

16
17
18

1920

2122

asa*25
26
27
28
29
30
31

TOTAL MEAN
MAX
M1N
AC-FT

CAL YR
WTR YR

OCT

517
soa
511
508
294

208
550
ssa
553
408

547
539

539 S2o
430

Ml
426
496
490
493

489
485
485
82
77

72?a
747a
72
71

14,747 15
476
553
208
29.250 30

1968 TOTAL
1969 TOTAL

NOV

472
105
174
514
536

550
547
542
541
541

541
542
545
538
539

533
533
532
533
430

549
547
542
549
552

552
552
550
549
549

,279
509
ssa
105
,310

160,921
181,936

DEC

550
550
550
552
550

549
544
545
545
542

535
545
541
517
536

538
542
545
545
545

547
545
541
5a4
523

521
523
524
523

521 521
16,679
538
ssa
517
33,080

. 0 MEAN
,0 MEAN

JAN

520
524
529
535
536

536
536
536
535
535

532
529
517
509
5a7

536
535
523
396
352

351
349
351
349
352

337
346
351
439
470
429

14,402
465
536
337
28,570

440
498

FEB

330
448
480
477
478

483
491
490
493
499

507
506
504
506
506

506
506
506
504
502

508
507
506
506
506

505
505
507

13,772
492
508
330
27,320

MAX 553
MAX 554

MAR

510
510
512
512
512

510
508
512
519
527

528
525
528
523
522

522
521
521
521
523

525
526
522
514
516

516
513
501
497
496

15,992
516
528
497
31.720

MIN 5.4
MIN 0

YEAR OCTOBER 1966

APR

498
499
497
497
494

495
495
499
494
498

499
501
493
493
493

492
492
492
492
492

492
494
494
492
488

484
484
464
485
4S6

14,786
493
501
484
29,330

AC-FT 319
AC-FT 360

MAY

486
487
488
30
0

0
0
0
0
0

0
0
0
0
0

0
237
547
551
551

551
550
550
550
550

550
550
549
549
549
549

9,424
304
551
0
16,690

,200
,900

TO SEPTEMBER 1969

JUN

54B
554
553
550
550

550
550
550
550
549

550
550
550
550
550

549
550
550
550
550

550
550
549
549
550

550
550
550
550
549

16,500
550
554
546
32,730

JUL

549
549
549
549
550

550
550
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549
550

550
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549
550
551

550
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542
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549
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549
547
550
550

17,028
549
551
542
33.760

AUG

550
550
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548
50?
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551

550
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550
550
550
549

17.002
546
551
502
33,720

SEP

550
550
550
5*9
549

543
550
506
552
550

551
550
551
550
550

550
550
549
549
550

550
550
549
544
549

549
497
493
546
5*7

16,325
S44
552
493
32,360

DISCHARGE, IN CU8IC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

1 547
2 545
3 544
4 544
5 544

6 544

8 544
9 544
10 544

11 544
12 544
13 545
14 545
15 532

16 506
17 509
18 521
19 545
20 549

21 549
22 5*9
23 545
24 550
25 552

26 550
27 550
26 549
29 549

30 550 31 550

TOTAL 16,829 16 MEAN 543
MAX 552
MIN 506
AC-FT 33,380 32

CAL YR 1969 TOTAL
WTR YR 1970 TOTAL

550
552
550
550
549

549

550
549
549

550
550
550
550
549

547
547
547
549
549

550
550
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547
549
549
550

,477
549
552
547
,680

164,355
185,778

552
550
545
550
549

549

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549
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549
549
550
550
550

550
552
550
550
527

400
43B
549
423
353

352
352
426
503
526
526

15,616
510
S5P
352
31,370

. 00 >

526
541
545
539
541

541

541
538
536

526
529
530
318
231

233
23*
235
231
225

230
385
502
502
502

450
424
424
445
466
476

13,467
435
545
225
26,750

«CAN 505
. 70 MEAN 509

476
474
474
474
472

474
474
474
471
472

474
469
520
520
520

518
518
518
516
520

520
520
520
520
520

520
527
532
. . . . . .
. . . . . .

14,029
501
532
471
27,630

MAX 554
MAX 552

524
514
516
516
516

523
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526
526
524

524
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523
524
526

526
526
526
526
526

526
526
526
526
527

533
530
529
530
530
529

16,260
525
533
514
32,290

MIN 0
MIN 0

529
529
536
541
541

542
541
542
541
542

539
541
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544
544
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544
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545
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547

545
545
545
7.9
0

. 90
. 50
0
0
0

5.1
4.1
. 20
362
550

550
550
549
549
550

552
550
549
550
550

550
550
550
550
550

16,253 11,364.70
542
547
529

32,240

AC-FT 365
AC-FT 366

367
552
0
22,540

,700
,500

549
550
550
549
549

549
549
549
549
549

550
550
550
550
549

549
547
545
550
549

549
549
550
550
550

550
549
549
549
550

16,476
549
550
5*5
32,660

550
549
549
547
549

549
550
550
550
549

549
549
550
550
549

545
544
545
541
536

535
532
498
524
524

529
530
523
516
515
515

16,693
536
550
496
33,110

515
515
512
506
503

499
496
174
547
552

550
547
551
551
550

550
550
550
551
550

549
546
5*B
5*7
5*9

5*9
5*9
5*S
5*8
5*7
5*7

16,350
537
552
174
32,430

545
538
532
524
519

512
510
509
500
497

496
332
521
529
539

543
545
546
547
545

541
540
542
542
540

541
536
539
536
534

15,724
524
547
332
31,190

SAN JOAQUIN RIVER BASIN

11314500 NORTH FORK MOKELUMNE RIVER BELOW SALT SPRINGS DAM, CALIF.

DRAINAGE AREA.--170 sq mi.

PERIOD OF RECORD.--September 1926 to September 1970. Monthly discharge only for some periods, published in WSP 1315-A. Published as "above Moore Creek" 1926-30.

EXTREMES.--Ma
1966-70 ar

inimums (discharge in cubic feet per second, gage height in feet) for the water years
in the following table:

Wtr yr Date
1966 May 23, 1966
1967 June 18, 1967
1968 May 13, 1968
1969 May 24, 1969
1970 June 9, 1970

Discharge G.H.
916 5.14
5,500 11.20
330 3.46
4,780 10.66
4,290 10.04

Minimum daily
Date

Feb. 2, 1966
Feb. 26, 1967
Jan. 3, 5-7, 1968
Dec. 19, 1968
Nov. 30, Dec. 14-17, 1969

3.6
4.4

REMARKS.--Since 1931, flow regulated by Salt Springs Reservoir 0.3 mile upstream (see station 11313500). Diver-sion above station through Tiger Creek powerhouse conduit (see station 11314000). See schematic diagram of Mokelumne River basin elsewhere in this report. Diversion from Bear River and Cole Creek to Salt Springs powerhouse, furnished by Pacific Gas 6 Electric Co., for the water years 1966-70 is as follows: 127, 184, 114, 182, and 171 acre-ft, respectively.

COOPERATION.--Gage-height record and 20 discharge measurements for the water years 1966-67 furnished by Pacific Gas § Ele proje

ission project.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

1
2
3
*

5

6
1
B
9
10

11
12
13
1*
15

16
17
IB
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN
MAX
MIN
AC-FT

OCT

395
174
355
30 B
296

288
291
290
2B8
2B6

285
2B1
263
278
330

271
270
268
267
265

261
259
274
278
276

281
289
232
305
297
290

284
395
17*
17,440

2B1 172 .7 3.6 7.1 6.2 12 15 13 11
284 160 .7 5.7 7.2 5.8 11 15 13 11
285 169 .8 5.2 7.1 6.1 11 15 13 10
290 166 .7 5.3 7.2 6.1 11 15 13 10

268 16 .9 6.3 6.9 6.1 11 15 13 10
222 16 .1 6.4 7.1 6.5 12 15 13 10
209 16 .2 6.B 7.4 7.0 12 15 12 10
206 16 .2 6.B 7.8 7.3 76 15 12 10
198 11 .0 6.7 7.4 B.3 358 15 12 10

194 .2 .8 6.4 7.0 8.3 362 15 12 10
191 .0 .8 6.2 6.8 7.9 365 15 12 10
187 .9 .6 6.1 6.7 7.6 368 13 12 11
185 .9 .8 6.1 6.6 7.4 369 15 12 11
180 .3 .7 6.1 6.3 7.4 370 15 12 11

154 .5 .9 6.2 6.4 7.8 405 15 11 11
5.6 .5 .8 6.1 6.3 8.1 426 14 11 1C 9.3 .4 .6 6.1 6.2 7.7 415 14 11 10 7.5 .4 .5 6.1 6.0 7.1 529 4 11 10

6.3 .4 .4 6.1 6.2 7.1 905 4 11 10
16 .4 .8 6.2 6.3 7.0 906 4 11 10
84 .4 .1 7.1 5.8 6.7 909 4 11 10
99 .3 .1 6.7 5.1 6.8 B65 4 11 10
01 .5 .9 6.6 5.0 6.8 739 4 11 9.7

97 .4 .2 6.6 4.9 7.1 596 14 11 9.7
95 .3 .1 6.5 4.9 7.1 337 14 11 11
B6 .7 .1 6.4 5.4 7.3 259 14 11 10
79 .3 .6 5.4 11 221 14 11 10
170 .1 .8 5.6 12 59 14 11 9.7
. 0 .4 5.7 15 11 9.2

176 5.1 6 35 6.11 6.34 7.36 341 14.5 11.7 10.2
290 72 .2 7.1 7.8 12 909 15 14 11 5.6 .9 .1 3.6 4.9 5.8 11 14 11 9.2
10,470 3. 30 90 339 390 438 20,940 865 722 629

9.2
9.2
9.2
9.2
9.2

9.7
9.7
9.7
9.7

9.2
10
11

283.0
9.43
11
8.8
561

WTR YR 1966 TOTAL 28,489.8 MEAN 78.1 MAX 909 MIN 3.6 AC-FT 56,510

SAN JOAQUIN RIVER BASIN

11314500 NORTH FORK MOKELUMNE RIVER BELOW SALT SPRINGS DAM, CALIF .- -CONTINUED

DAY

1
2
3
4

6
7

a
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN
MAX
MIN

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN
MAX
MIN

OCT

10
10
10
10
10

9.9
9.7

9.4
9.3

9.8
10
9.7

9.2

9.2
9.2
9.2
9.1
9.2

8.9
8.8
8.9
9.2
9.2

9.7
9.7
9.2
12
11
10

9.63
12
8.8

OCT

101
91
46
74
84

98
97
100
121
128

128
127
122
125
131

131
147
160
171
174

42
28
111
102
101

101
100
98
101
94
87

107
174
28

DISCHARGE, IN

NOV DEC

9.6 5.9
5.6 9.8
5.6 8.9
5.4 7.3
5.4 14

5.3 IB
5.3 8.4

5.3
5.3

5.8

5.6

6.0

6.0
5.7
5.7
5.4
6.4

6.1
5.7
5.7
5.7
5.7

5.7
5.4
5.7
5.8
5.7

5.79
9.6
5.3

DISCHARGE

39
9.6
77
112
58

66
104
114
115
115

116
116
116
98
96

112
125
133
52
89

141
119
46
91
112

12
11
12
15
00

97.4
141

5.1
5.4

4.9

5.1

5.0

5.1
4.9
4.9
4.8
141

214
229
245
246
244

249
252
252
252
175

85.1
252
4.7

CUBIC FEET PER

JAN

5.0 1,51
5.1 44
5.1 3$
5.1 17
5.4 3

5.6 3
6.1 3

6.1 3
6.1 3

6.0 3

5.7 4

5.7 4

5.7 3
5.5
5.4
5.3
6.2

13
14
8.4
8.0
7.4

8.5
9.5
240

SECOND, WATER

FEB MAR

» 5.4
3 5.6
8 5.7
5 5.4
1 5.1

I 5.7
1 5.8
5 5.5
I 6.0
I 6.8

7 10
2 9.9
2 9.2
3 8.5
3 8.9

20
. 9 12
. 4 7.8
. 6 6.3
. 9 5.6

. 6 5.2
. 6 5.7
. 6 6.9
. 5 7.7
. 6 7.0

. 4 6.4
. 6 5.8
. 6 7.8

110 106 20.3
1,330 1.510 260
5.0 4.4 5.1

. IN CU8IC FEET PER SECOND, WATER

89
91
88
92
54

4.5
50
72
74

91
101
84
94
107

44
4.8
66
102
101

70
4.5
4.5
4.5

4.5
4.8
4.8
4.8
4.5

107

4.5 5
4.5 5
4.2 7
4.5 7
4.2 7

4.2 6
4.5 5
4.5 6
5.6 6

6.0 5
6.3 5
6.6 6
6.6 6
8.0 5

6.3 7
6.3 7
6.6 7
5.3 12

5.3 11
5.6 9
6.0 8
6.0 7

6.3 7
6.0 7
5.6 6
5.3 6
5.3 -

8.0

. 0 6.3

. 0 6.3
. 3 6.3
. 3 6.3

. 0 6.3
. 6 7.0
. 3 7.0
. 0 6.6

. 6 6.3
. 3 6.3
. 0 7.0
. 0 6.6
. 6 6.3

. 3 7.7
. 0 7.3
. 3 7.0
7.0

6.6
. 6 6.3
. 4 6.3
. 7 6.3

. 0 6.0
. 0 6.0
. 6 6.0
. 3 6.0
6.0

12 7.7

YEAR OCTOBER 1966 TO SEPTEMBE

APR MAY JUN

259 197 373
259 196 375
258 194 378
246 198 438
230 200 940

212 203 1,160
206 208 1,430
206 253 1,840
204 630 2,120
204 635 2,300

204 644 2,340
203 525 2,290
202 161 2,200
207 171 2,200
211

211
210
211
175
209

208
201
207
207
194

159
202
201
199
198

210
259
159

178
190
210
225
244

261
276

309
322

335
345
352
359
365

297

161
18,270 14

YEAR OCTOBER 1967 TO

6.6

6.6
6.6
6.6

6.3
6.3
6.6
6.6

6.6
6.6
6.6
6.3
5.6

4.8
4.8
4.8
5.0

5.0
5.0
4.8
5.0

5.0
5.C
5.0
5.3
6.3

6.6

8.8

9.2
10
10

11
11
11
11
12

12
119
190
315
315

217
217
219
221

219
215
223
178

115
26
14
14
15

3,325.2

315
8.8
6,600

2,850
4,110
4,660
3,580
2,630

3,100
3,160

2,460
3,840

3,780
3,630
4,010
3,910

2,491 1

373
8,300 68

SEPTEMBER

JUN

15
16
16
17
17

17
17
17
17
17

16
16
16
16
16

16
16
16
16
16

16
16
16
16
16

16
16
16
16
16

486

17
15
964

(1967

JUL

,510
,190
,170
,880
,890

. 080
,100
,300
,500
,240

. 050
,120
,450
. 050

. 110
624
636
526
445

446
442

312
254

136
72
70
71

. 109
. 510
70
,170

1968

JUL

16
16
16
16
15

L5
15
15
15
15

15
15
15
15
15

15
14
14
14
14

14
14
14
14
14

14
14
14
14
13

452

16
13
897

AUG

121
120
117
117
39

33
69
65
66
66

64
63
63
63

78
78
71
58
58

58
59

75
69

67
70
72
74

72.5
121
33
4,460

AUG

13
13
13
13
13

13
13
13
13
13

13
12
12
12
12

12
13
12
12
12

11
11
11
11
11

11
10
10
10
1C

369
11.9
13
10
732

SEP

BO
B3
89
90
93

100
110
122
122
127

42
48
49
55

48
112
97
96
131

108
109
115
121
121

121
117
114
111

112
163
48
6,680

SEP

13
10
10
13
10

10
10

11
11
11

11
10

1011
10

13
10
10
13
9.6

9.6
9.6
10
10
9.6

9.6
9.6
9.6
9.6
9.6

301.4
10.0
11
9.6
598

SAN JOAQUIN RIVER BASIN

11314500 NORTH FORK MOKELUMNE RIVER BELOW SALT SPRINGS DAM, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

1
2
3
4
5

6
7
B
9
10

11
12
13
1*
IS

16
IT
18
19
20

21
22
23
2*
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN

CAL YR

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
IB
19
20

21
22
23
2*
25

26
27
28
29
30
31

MEAN
MAX
MIN

9.6
9.6
9.2
9.2
10

10
9.6
9.6
9.6
10

9.6
9.6
10

9.6

10
10
10
10
9.6

8.8
8.8
9.2
10
9.6

9.6
9.6
9.6
10
9.6

298.8
9.64
10
8.8

1968 TOTAL

OCT

262
262
260
260
258

260
262
262
262
262

267
262
260
269
69

9.2
8.4
8.0
9.6
10

10
10
10
10
10

10
9.6
9.6
9.6
9.6

125

B.O

8.0
7.3
7.3
5.3
5.3

5.3
5.0
5.0
5.0
5.0

5.0
5.6
5.3

5.6

5.6
5.6
5.6
5.6
11

4.7
4.7
5.0
5.3
5.3

5.0
4.7
4.7
4.7
4.4

5.58
11
4.4

6.306,0

DISCHARGE

NOV

B.D
6.0
6.0
6.0
6.3

7.3
6.3
6.3
6.0

6.3
6.0
6.0
6.0
6.0

6.0
6.0
5.6
5.3
5.3

5.6
6.0
6.0
6.0
5.6

5.6
5.6
5.6
5.3
5.0

5.98

5.0

4.7
4.4
4.2
4.2
4.2

3.9
4.7
5.0
4.4
4.7

4.7
4.4
4.2

5.6

5.0
4.4
3.9
3.7
4.2

5.9
5.9
5.9
7.6
9.6

6.6
5.9
5.6
5.6
5.3

5.10
9.6
3.7

5.0
5.0
5.3
5.6
5.3

5.3
5.0
5.0
5.0
5.0

5.3
5.3
11

7.3

5.9
5.9
6.9
16
30

40
18
11
10
23

26
11
13
180
317

38.4
386
5.0

MEAN 17.2

IN

DEC

5.6
6.3
6.3
6.3
6.6

6.3
5.3
6.0
6.0

5.6
5.6
5.3
5.0
5.0

5.0
5.0
5.6
6.0
7.3

8.8
7.3
7.3
11
13

10
8.8
8.4
7.7
7.7

6. 88

5.0

CUBIC FEET

7.3
7.0
7.0
7.0
7.0

6.6
6.6
6.6
8.4

B.O
B.O
8.4
21
14

25
21
14
11
10

24
65
176
265
262

93
L6
14
12
12

37.5

6.6

581
343
155
B.O
8.0

77
233
233
225
217

207
209
187
204
207

204
198
200
96
69

90
89
87
87
85

83
81
78

198
581
8.0

MAX 315

11
ID
10
10
10

1C
10
10
27

155
52
12
207
348

327
350
348
345
340

340
337
337

335

332
325
320

192

10

172
171
166
162
159

160
159
152
131
121

118
115
114
111
109

108
108
105

104

101
100
102
111
109

111
116
133
149
157

129
172
93

MIN 3.

330
274
332
330
330

325
320
320
320

317
310
317
315
315

307
315
315
312
312

310
310
305

262

298
293
300
300
300

310

262

181
190
194
202
213

217
200
215
202
221

223
231
237
408
972

606
237
241

256

265

291
293
307

315
318
320
324
332

972
181

340
346
350
59
331

528
525
664
874
886

901
915
925
1,620
3,590

3,510
3,800
3,620

2,910

2.940

3.890

3,910
3.660

3,910
4,050
3,450
3.260
3.450

4.050
59

3.600
3.530
3.790
3,650
3,550

3.480
3,140
2,770
1,980
1,050

840
968
1.150
1,320
1,580

2,190
1,920
1,540

2,090

1,840

1,930
1,470
1,480

1,070
1,110
923
728
865

3,790
728

1,383
941
1.100
848
736

624
577
540
519
628

646
557
93
90
81

00
03
310

169

81

19
19
19

19
19
19
18
IB
18

1.100
18

8
8
8
8
8

7
7
7
7
6

16
16
169
223
271

284
281
279

277

276

275
274
273

271
263
273
172
15
15

284
15

14
154
223
223
155

45
29
31
32
IB

114
269
267
267
269

269
269
269

269

267

265
243
271

122
12
136
271
269

186
271
12

1 AC-FT 12,510

223
127
70
6.6
6.6

63
165
136
65

6.6
72
102
121
180

94
94
90
76
49

49
49
47

47

128
96
96
94
97

117

6.6

97
97
98
490
388

239
503
744
789

650
628
632
265
58

55
56
225
356
358

366
848
1.950

2.080

1.900
L.B50
1,720
1,540
1.530

813

55

159,300

JUN

1,380
1.390
1,650
1,830
1 ,420

1,430
1,340
1,860
2,400

823
848
465
500
444

315
577
781
806
764

712
760
543

307

570
2,190
388
388
377

954
2,400
307

JUL

386
383
172
13
13

180
227
227
68
12

12
12
12
12
12

12
12
11
11
11

11
10
10

10

U
10
10
10
10

61.6
386
10

AUG

11
11
11
10
9.6

9.6
9.6
10
10
10

10
10
13
10
10

10
10
1C
10
10

10
10
10
9.6
9.6

9.6
9.6
9.6
9.6
9.6

9.95
11
9.6

SEP

9.6
9.2
9.2
9.6
13

13
13
13
10
10

10
10
13
ID
10

10
13
13
10
10

13
10
13
13
11

11
13
10
10
10

9.99
LI
9.2

SAN JOAQUIN RIVER BASIN 585

11315000 COLE CREEK NEAR SALT SPRINGS DAM, CALIF.

LOCATION.--Lat 38°31'26", long 120°12'28", in SEh sec.21, T.8 N., R.16 E., Amador County, Eldorado National For-

of Mokelumne Peak.

DRAINAGE AREA.--20.4 sq mi.

PERIOD OF RECORD.--July 1927 to November 1942, October 1943 to September 1970.
as Cold Creek near Mokelumne Peak. October 1958 to September 1960 published

to October 1958, published
jar Mokelumne Peak."

GAGE.--Water-stage

AVERAGE DISCHARGE.-

EXTREMES.--Maximums

Annual in

corde map).

Ap

10, I960
25, 1966 2100

Altitude of gage is 5,970 ft (from topograph

42 years, 63.9 cfs (46,300 acre-ft per year).

and minimums (discharge in cubic feet per second, gage height in feet).

ximum discharge (*) and peak discharges above base (500 cfs), water years 1966-70

Disch. G.H.

*440

28, 1966
6, 1966
16, 1967
May 21, 1967
June 17, 1967

1500
1100
1600
1900
1900

Date Time
Feb. 20, 1968 0600

Nov. 3, 196
19, 1969
Ap
May 9, 1969
May 23, 1969
June 14, 1969

21, 1969 2200
1800

)isch.
: 1,290

770
658

555 *960
955
740

G.H.
5.55

4.59
4.35
4.10
4.97
4.96
4.53

Date
Dec. 21, 1969
Dec. 25, 1969

Time
1500
1100
16, 1970 1230
Jan. 21, 1970
May 17,
May

1970
1970
1970
1970

Disch.
1,530
692
1,870
*2,820
765
583
657

G.H.
5.90
4.42
6.33
7.36
4. 58
4.16
4. 34
5.01

Backwater from ice

Wtr yr Date
1966 Several days
1967 do.
1968 Sept. 19, 1968

Period of record:
extended above 900 c

Annual minimum daily discharge, water years 1966-70

Discharge Wtr yr Date
0 1969 Sept. 23-30, 1969
0 1970 Sept. 29, 30, 1970
. 18

Discharge
.20
. 10

charge, 6,140 cfs
f slope-area meas

Dec 23, 1964
nt at gage

age height, 10.21 ft), from rating curve it 9.69 ft; no flow for many days in

REVISIONS (WATER YEARS).--WSP 1515: 1928, 1930-31, 1938(M), 1944, 1947. WSP 1930: Drainage arc

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

1
2
3

t,
5

6
7
8
9
10

11
12
13
14
15

16
IT
IB
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

OCT

. 80
. 30
. 20
. 30
. 30

. 30
. 30
. 30
. 30
. 30

. 30
. 30
. 30
. 50
. 80

. 50
. 40
. 40
. 30
. 20

. 20
. 20
. 20
. 20
. 20

. 20
. 20
. 20
. 20
. 20
. 20

9.60
. 31
. 80
. 20
19

NOV

. 20
. 20
. 10
. 10
. 10

. 10
. 10
. 10
. 10
. 10

. 10
. 30
. 40
7.8
21

32
86
209
51
32

25
23
21
21
21

20
20
20
21
21

653.80
21.8
209
. 10
If 300

DEC

29
36
50
56
39

3*
32
29
24
19

18
17
15
14
12

11
10
10
9.6
9.4

9.2
9.1
8.8
8.2
8.1

8.2
8.2
8.2
8.6
8.7
8.7

568.0
18.3
56
8.1
1.130

JAN

8.7
8.8
9.3
9.4
9.7

11
14
24
18
15

14
13
13
14
14

14
14
13
13
13

13
12
12
12
11

11
11
11
11
11
10

387.9
12.5
24
8.7

FEB

10
10
10
10
11

11
11
11
11
10

10
10
11
11
12

12
13
14
14
13

13
14
15
14
13

13
13
14

334
11.9
15
10

14
14
14
14
15

15
16
16
18
25

30
40
50
54
45

47
45
41
50
46

46
51
77
93
108

132
153
178
192
208
235

2,082
67.2
235
1*

M[N .10

270
242
225
232
255

258
260
245
210
196

142
131
120
137
184

228
252
200
126
104

112
128
149
208
262

272
230
208
208
238

6,032
201
272
104

AC-FT 51

245
250
248
275
288

250
245
248
202
272

198
168
176
170
155

156
142
140
147
140

123
104
87
80
77

67
58
49
43
35
29

4,867
157
288
29
9,650

9,280

26
22
19
18
16

16
18
17
28
33

20
15
13
12
10

9.0
8.0
6.8
5.8
4.9

4.4
4.0
3.5
3.2
2.7

2.4
2.2
2.0
1.7
1.4

345.0
11.5
33
1.4
684

1.3
1.2
1.1
1.0
. 90

. 80
. 70
. 70
. 70
. 60

. 50
. 50
. 50
. 40
. 40

. 40
. 40
. 40
. 40
. 40

. 40
. 30
. 30
. 39
. 39

. 30
. 20
. 20
. 20
. 20
. 20

16.20
. 52
1.3
. 20
32

. 20
. 10
. 10
. 10
. 10

. 10
. 10
. 10
. 10
. 10

. 10
. 10
. 10
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. 10

. 10
. 10
. 10
. 10
. 10

. 10
. 10
. 10
9
0

0
0
0
0
0
0

2.40
. 077
. 20
0
4.8

. 10
. 10
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
. 10
. 10

. 10
. 10
0
0
0

0
0
0
0
0

. 60
. 020
. 10
0
1.2

SAN JOAQUIN RIVER BASIN

11315000 COLE CREEK NEAR SALT SPRINGS DAM, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

1
2
3
4
5

6
7
e
9
10

11
12
13
14
15

16
17
IB
19
20

21
22
23
24
25

26
27
26
29
30
31

TOTAL

MAX
MIN

CAL YR

DAY

1
2
3

i,
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN
MAX
MIN
AC-FT

WTR YR

0
0
0
0
0

0
0
0
0
0

0
0
0
0
. 10

. 10
. 10
0
0
0

. 10
. 10
. 10
. 10
. 10

. 10
. 10
. 10
. 10
. 10
. 10

1.40

. 10
0

OCT

. 39
. 59
3.1
8.9
2.7

2.0
1.6
1.1
. 89
. 7*

. 67
. 60
. $2
. 52
. 45

. 41
. 39
. 41
. 41
. 41

. 45
. 48
. 52
. 46
. 45

. 41
. 39
. 45
. 45
. 45
. 39

1.02
B.9
. 39
63

. 10 58
. 10 72
. 10 77
. 10 37
. 10 64

. 10 427
. 20 124
. 20 68
. 10 53
. 10 48

. 10 48
. 10 41
. 10 41
. 10 34

2.9 38
12 38
4.6 39
2.3 40
63 39

17 32
17 30
9.8 28
7.2 26

7.2 23

222 24
1B2 23
57 22

. 10 20

DISCHARGE. IN CUE

NOV DEC

. 37 4.
. 39 4.
. 37 5.
. 39 6.
. 39 8.

. 41 7.
. 39 7.
. 39 7.
. 39 7.
. 39 7.

. 39 8.
. 39 9.
. 39 8.

. 60 7.

. 48 6.
. 52 6.
. 74 6.
1.7 5.
1.7 4.

2.7 3.
2.2 3.
1.4 4.
1.1 5.
1.0 6.

1.0 10
1.0 14
1.0 17
1.1 14
3.1 12

. 90 7.62
3.1 17
. 37 3.6
54 469

19 51
18 38
13 34
19 33
18 41

17 41
16 48

16 54
17 60

22 52

26 37
26 38
23 37
22 38
17 36

28 38
23 37
25 38
31 37

30 29

48 37

16 29

1C FEET PER SECOND,

JAN FEB

9. 20
8. 21
7. 22
7. 21
6. 19

5. 18
5. 18
5. 20
5. 22

4. 22
4. 22
5. 16

45 12

30 11
25 25
17 40
16 90
16 731

17 272
18 172
19 295
20 180
21 131

21 124
20 122
19 112

14.4 93.0
45 731
4.7 11

44
44
48
37
33

32
40

38
36

33

772
498
248
156
124

111
123
123
103

85

103
94
80

32

WATER

MAR

98
80
84
88
87

66
55
53
46

41
37
35

32

32
41
33
30
32

39
41
41
51
62

46
56
98

160

63.2
162
30

61
55
50
46
43

41
45

47
41

56

38
41
41
40
37

36
35
34
33
32

34

32
30
32

30

YEAR OCTOBER

APR

147
90
77
90
93

74
90
17
46

84
72
55

170

132
92
77
84
87

83
77
92
111
136

170
178
200

210

131
229
74

3B
45
57
72
56

87
98

114
101

168
280

397
454
443
426
577

676
662
619
607
552

499

442
385
313

38

1967

MAY

204
206
230
212
170

137
137
144
146

134
131
100

116

114
120
137
151
162

144
100
70
62
87

101
112
110

76

130
230
62

650

160 418
126 429
155 358
292 313
328 278

272 252
337 216

358 144
328 137

391 112
460 96

513 83
587 69
513 59
482 47
471 37

4B8 32
496 27
443 25
482 22
520 20

482 18

471 14
478 13
474 11

587 429
126 9.0

TO SEPTEMBER 1968

JUN JUL

61 1.4
61 1.2
53 1.2
45 1.0
37 .89

29 .78
26 .74
28 .67
22 .60
21 .56

20 .52
19 .52
18 .48

16 .48

13 .48
11 .48
9.0 .45
8.5 .41
6.8 .39 1

6.0 .48
5.1 .48
4.4 .45
3.8 .45
3.2 .41

2.7 .39
2.3 .37
2.0 .30
1.7 .28
1.5 .28

16.5 .58
61 1.4
1.5 .28

. 5 .40
. 0 .40
. 0 .40
. 0 .40
. 5 .40

. C .40
. 5 .43

. 7 .30

. 5 .40
. 3 .40
. 2 .43
. 1 .30
. 0 .30

. 90 .30
. 8C .30
. 70 .70
. 70 .63
. 70 .40

. 80 .40
. 0 .40
. 0 .50
. 0 .60
. 0 .70

. 2 .50

. 90 .40
. 80 .40
. 70 .40

7.5 .70
. 50 .30
113 25

AUG SEP

. 33 .28
. 33 .28
. 33 .26
. 30 .26
. 26 .24

. 24 .24
. 22 .22
. 22 .22
. 20 .22
. 20 .22

. 20 .19
. 20 .19
. 22 .19
. 22 .19
. 24 .20

. 24 .20
. 24 .20
. 26 .19
. 89 .18
. 1 .19

. 71 .22
. 67 .22
. 45 .22
. 39 .22
. 35 .22

. 33 .20
. 30 .20
. 30 .20
. 30 .24
. 30 .28

. 62 6.58
. 35 .22
1.1 .28
. 20 .18

SAN JOAQUIN RIVER BASIN

11315000 COLE CREEK NEAR SALT SPRINGS DAM, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

NOV DEC JAN FEB MAR APR MAY JUN JUL

I
2
3
4
5

6
7
B
9
10

11
12
13
14
15

16
17
IB
19
20

21
22
23
2*
25

26
27
28
29
30
31

TOTAL
MEAN

MIN

WTR YR

. 30
. 30
. 28
. 28
. 28

. 28
. 30
. 26
. 24
. 24

. 26
. 39
1.0
1.1
. 71

. 56
. 48
. 41
. 71
l.l

. 89
. 78
. 74
. 67
. 60

. 52
. 48
. 45
. 60
. 95

1.6
80
357
54
32

21
14
19
55
36

19
101
44
22
21

23
26
173
96
51

38
29
34
25
27

24
21
22
21
16

16.94 1,502.6
. 55
l.l
. 24

1969 TOTAL

50.1

1.6

37,964.

IB
20
21
21
22

19
17
16
15
16

23
21
20
16
19

18
15
11
13
14

16
17
18
24
29

30
29
28
26
24
23

619
20.0

11

32 MEAN

22
22
22
24
28

30
31
30
2B
25

25
25
30
33

22
22
21
355
396

199
100
69
56
211

261
110
76
61
52
48

2,468
79.6

21

104

DISCHARGE, IN CUBIC FEET

DAY

1
2
3
4
5

6
7

a
9
10

11
12
13
I*
15

16
17
IB
19
20

21
22
23
2*

27
28
29
30
31

MEAN
MAX
WIN

CAL YR
WTR YR

OCT

. 22
. 22
. 21
. 19
. 19

. 21
. 22
. 22
. 22
. 22

. 22
. 22
. 24
. 31
8.6

185
46
20
10
11

9.4
7.8
6.6
5.8

2.5
2.0
1.7
1.4
1.1

10.7
185
. 19

1969 TOTAL
1970 TOTAL

NOV

. 89
. 83
. 83
1.1

5.4
7.6
10
15
18

23
28
29
28
28

30
21
13
9.7
10

11
9.4
8.1
7.1

6.2
5.6
5.2
4.1

11.7
30
. 83

38,989.
28,859.

DEC

3.6
3.2
3.1
2.8

2.8
2.5
3.4
4.6
5.4

6.0
6.4
9.2
12
10

8.3
8.6
7.8
66
684

599
181
91
92

74
53
50
46
40

8 .0
84
. 5

19 MEAN
97 MEAN

JAN

40
40
40
35
35

30
30
30
35
51

36
36
33
41
43

1,029
461
226
177
362

1,680
1,340
344

145

118
116
89
77
73
62

219
1,680
30

107
79.1

44
41
39
37
36

36
32
29
27
27

28
27
34
25

26
25
26
22
22

21
21
23
24
25

28
27
26

804
28.7

21

MAX 658

PER SECOND

FEB

61
56
58
61
61

58
65
71
68
60

61
81
65
60
57

51

47
44
42

39
39
42

46

56
61
58

55.7
81
39

MAX 684
MAX 1,680

25
21
22
19
18

18
18
18
17
17

16
17
19

21
23
24
31
33

29
26
41
48
48

66
93
129
158
200
235

1,483
47.8

16

21B
IB4
112
110
134

94
76
73
79
84

196
188
149

117
174
214
218
2BB

373
388
326
180
131

124
150
233
307
325

5,492 15
183

73

MIN .20 AC-FT 75

, HATER

MAR

49
51
42
39
40

44
51
50
41
35

30
36
63
94
90

85

62
45
52

69
88
111

134

125
111
106
118
97
74

72.8
134
30

MIN
MIN

325
2BO
208
18B
318

474
524
559
658
640

559
575
544

530
611
587
513
482

506
575
611
587
527

583
5B7
492
535
524
578

,773 8
509
658
18B

,310
,300

YEAR OCTOBER 1969 TO

APR

86
96
102
136

150
145
134
157
159

144
139
119
86
77

69

66
77
63

55
49
52

78

84
57
54
57

91.9
159
49

. 19 AC-FT
. 10 AC-FT

MAY

118
163
224
261
289

226
181
159
213
199

144
140
207
300
365

430

393
313
249

281
316
302

322

330
279
240
226
238
238

260
440
118

77,340
57,240

520 122
559 116
543 103
460 93
476 84

415 77
370 67
2B2 63
220 60
186 57

214 48
304 40
3B6 37

371 27
248 22
258 18
268 17
248 16

214 16
225 14
210 11
200 9.
166 8.

144 6.
139 5.
124 4.
117 3.

122 2.

,544 1,234.

. 8
. 5
. 3
. 2
. 1

. 95
. 84
. 74
. 71
. 78

. 67
. 63
. 60
. 56

. 52
. 52
. 52
. 48
. 45

. 39
. 37
. 37
5 .35
0 .35

8 .33
I .33
2 .30

8 .28
3 .28

0 20.28
2B5 39.8 .65
559 122 l.B
117 2.3 .28

. 26
. 26
. 26
. 24
. 22

. 26
. 37
. 48
. 35
. 30

. 28
. 26
. 26
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. 26

. 24
. 24
. 22
. 22
. 22

. 22
. 22
. 20
. 20
. 20

. 20
. 20
. 20
. 20
. 20

7.50
. 25
. 48
. 29
15

SEPTEMBER 1970

JUN JUL AUG

302 27 «»

249 23
240 19
211 16
IB7 14

181 13
157 11
279 8.
461 7.
163 7.

. 83
. 77
. 72
. 67

. 67
. 63

) .54
. 54
. 50

120 6.4 .47
102 5.f
92 5.
112 4.
83 3.

76 3.

89 2.
92 2.
94 I.

74 1.
64 1.
52 I.

37 1.

102 1.

159 1.
66 I.
47 1.
34

. 43
. 43
. 40
. 40

. 40

. 37
. 37
. 34

. 31
. 27
. 22
. 19
. 17

. 17
. 17
. 17
. 17
5 .17
5 .17

135 6.45 .42
461 7 .89
34 .95 .17

SEP

. 17
. 16
. 14
. 14
. 14

. 16
. 16
. 14
. 14
. 14

. 14
. 14
. 12
. 12
. 12

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. 12
. 12
. 12
. 12

. 12
. 12
. 12
. 11
. 11

. 11
. 11
. 11
. 10
. 10

3.B4
. 13
. 17
. 13
7.6

SAN JOAQUIN RIVER BASIN

11316000 BEAR RIVER NEAR SALT SPRINGS DAM, CALIF.

DRAINAGE AREA.--48.0 sq mi.

PERIOD OF RECORD.--October 1951 to September 1970.

AVERAGE DISCHARGE.--19 yea 57.6 cfs (41,730

EXTREMES.--Maximums and minimums (discharge in cub 1966-70 are contained in the following table:

e-ft per year).

t per second, gage height in feet) for the water ye

Wtr yr
1966
1967
1968
1969
1970

Date
Apr. 10, 1966
June 27, 1967
Feb. 20, 1968
May 24, 1969
Jan. 16, 1970

Discharge
86
974
221
967

G.H.
1.53
3.52
2.04
3.51
3.34

Minimum daily
Date Discharge
Nov. 11, 1965 2.2
Nov. 5, 1966 2.1
Nov. 5-13, 1967 2.6
Nov. 10, 11, 1968 3.0
Aug. 14, 1970 3.0

REMARKS.--Since 1900, flow regulated by Bear River Reservoir (capacity, 6,760 acre-ft) and since December 1952, by Lower Bear River Reservoir 4 miles upstream (capacity, 49,100 acre-ft). Since December 1952, water diverted for power from Lower Bear River Reservoir through tunnel to Salt Springs powerhouse on North Fork Mokelumne River. Water diverted occasionally from Cole Creek into Lower Bear River Reservoir. See schematic

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

1 4.
2 4.

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MIN 2.2 AC-FT 8,190

SAN JOAQUIN RIVER BASIN

11316000 BEAR RIVER NEAR SALT SPRINGS DAM, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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.8 2.3
. 8 2.3
.8 2.3
.8 3.1

.8 16
.8 5.7
.8 3.5
. 7 3.9
.8 15

.0 9.5
.0 9.0
23 5.0 6.4
24 5.0 4.9
25 4.9 4.2

26 4.9 4.0
27 4. 4.4
28 4. 24
29 4. 18
30 4. 8.9
31 4.

TOTAL 150.2 181.1
MEAN 4.85 6.04
MAX 5.0 24
MIN 4.7 2.1

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IB
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872.9
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9.3

B.B
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8.5

8.5
8.8
8.8

8.8
8.5
B.4
8.4
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32
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84

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660

662
564
495

536
712
772
590
706

273
772
34

Jill

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601

462
412

349
293
241
212
176

154

130
97

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8.4
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8.0

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206.1

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SEP

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170.2
5.67
7.8
5.3

WTR YR 1967 TOTAL 22,086.2 MEAN 60.5 MAX 772 NIN 2.1 AC-FT 43,810

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

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1 5.5
2 11
3 14
4 6.1
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11 5.5
12 5.5
13 5.4
14 5.4
15 5.4

16 5.4
17 5.4
IB 5.4
19 5.3
20 5.3

21 5.3
22 5.3
23 5.3
24 5.3
25 5.1

26 5.1
27 5.1
28 5.1
29 5.1
30 5.1
31 5.0

MEAN 5.85
MAX 14
MIN 5.0
AC-FT 360

NOV

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5.0
4.6
2.7
2.6

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2.6
2.6
2.6
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4.0

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3.1

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3.1
4.6
3.9
4.9

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7.0
2.6
211

DEC

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5.0
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5.4
5.0
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5.4
5.0
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304

4.4 9.0 38 38 13 .0 5. 4.4 4.4
4.1 10 35 37 12 .0 5. 4.4 4.4
3.9 9.0 35 35 12 .0 5. 4.4 4.4
4.0 9.0 33 33 11 .6 5. 4.3 4.3

5.9 9.6 30 32 11 .0 5. 4.3 4.3
3.8 10 29 30 11 .0 5. 4.3 4.3
3.8 9.6 32 29 11 .0 5. 4.3 4.3
4.0 15 29 29 10 .6 5. 4.3 4.3
5.3 12 26 30 10 .6 5. 4.9 4.3

4.9 11 25 29 9.6 .5 4. 6.1 .3
4.9 10 23 27 10 .5 4. 5.9 .4
4.9 10 26 26 12 .5 4. 4.6 .4
5.6 9.6 23 25 14 .3 4. 4.3 .4
37 9.0 22 25 12 .3 4. 4.3 .4

17 12 23 22 11 .3 4. 4.4 4.4
8.5 51 23 21 10 .2 4. 4.3 4.3
7.0 33 21 19 10 .1 4. 4.4 4.3
6.5 38 21 18 9. .9 4. 7.5 .1
6.6 136 21 18 9. .5 4. 5.5 .3

7.0 120 22 17 9. .4 4. 4.9 .3
8.5 86 22 16 9. .2 4. 5.0 .1
B.5 95 22 15 9. .2 4. 4.6 .1
8.0 76 23 14 9. .2 4. 4.5 .1
B.O 62 27 14 9. .1 4. 4.5 .1

7.5 58 27 15 8. .1 4. 4.4 4.1
7.5 55 27 15 8. .1 4. 4.6 4.1
7.0 49 30 14 8. .1 4. 4.5 4.1
6.5 44 37 14 7. .1 4. 4.5 4.1

q.O 42 14 7. .9 4. 4.5 4.1
12 40 7. 4. 4.4

7.62 36.7 28.2 23.9 10. 6.41 4.91 4.70 4.26 37 136 42 46 I 8.0 5.8 7.5 4.4 3.8 6.6 21 14 7. 5.4 4.4 4.3 4.1 468 2,110 1,730 1,420 628 381 302 289 254

SAN JOAQUIN RIVER BASIN

11316000 BEAR RIVER NEAR SALT SPRINGS DAM, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 196B TO SEPTEMBER 1969

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MEAN *
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AC -FT

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7.4 66 22 120 120 637 101 6.2 5.
7.9 58 21 108 116 626 93 6.2 5.
11 56 21 97 106 637 74 6.1 5.
12 51 20 95 101 555 38 6.1 5.
14 49 21 120 111 514 20 6.1 5.

14 38 20 BB 136 415 9.
14 37 19 82 143 309 9.
11 35 19 80 149 212 8.
10 35 18 84 160 173 8.

12 35 IB 101 15* 128 7.
14 37 18 118 146 168 7. 64 32 18 113 136 182 7.

40 35 20 95 340 456 7.

29 32 22 97 34C 465 6.
24 30 23 106 332 253 7.
44 30 27 118 324 221 7.
250 27 29 118 185 246 7.
. 3 13 393 21 27 128 72 200 6.

. 9 14 411 26 29 143 381 182 7.

. 2 14 120 27 35 143 708 160 6.
. 0 14 123 25 38 120 714 125 6.
. 0 11

. 6 8.

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3 7.

7.92 8.3
58 1
3.0 5.

344 25 44 104 649 125 6.

157 22 66 97 708 151 6. 128 22 82 108 593 128 6.

86 113 123 598 95 6.
74 120 637 6.

98.3 35.0 36.4 109 336 285 16.

7.4 22 18 80 72 95 6.

5.9 7.
5.9 6,
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5.9 5.

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5.8 5.
5.8 5.
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5.6 5.

5.8 5.

180.5 164.3
5.82 5.48
6.2 7.0
5.4 5.0

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

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TOTAL 223
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MAX
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. 3 21 68 46 25 33 203
. 3 17 60 40 25 35 194
. 3 15 56 37 23 37 171
. 2 14 55 35 22 37 176
. 1 14 51 37 22 35 125

. 1 12 46 37 21 32 123
. 1 12 44 37 21 30 93
. 5 13 42 38 19 29 136
. 5 30 40 37 17 27 480
. 1 42 40 37 17 27 157

. 1 32 38 33 16 26 38
. 6 42 50 33 16 23 37
. 5 55 51 38 19 23 20
. 2 162 46 44 21 21 16
. 8 120 44 42 20 20 21

. 6 514 49 42 20 17 9.
. 4 287 SB 42 21 17 9.
. 6 171 49 38 21 16 9.
171 42 37 26 287 8.
4.6 90 173 40 35 21 356 8.

4.3 101 643 38 35 21 320 8.
4.1 44 273 37 35 21 376 7.
4.0 32 182 37 35 21 356 7.
3.9 138 185 37 35 22 305 7.
3.9 179 149 35 35 25 298 7.

3.8 84 125 35 33 27 338 8.
3.6 53 157 35 32 25 305 8.
3.5 3B 116 38 30 23 230 7.
3.4 30 99 29 25 206 7.
3.4 26 86 29 29 200 7.
- . 23 76 26 200

4.88 30.1 129 45.0 36.1 21.7 137 70.
14 179 643 68 46 29 376 48
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CAL YR 1969 TOTAL 29,553.1 MEAN 81.0 MAX 714 MIN 3.1 AC-FT 58,620

SAN JOAQUIN RIVER BASIN

11316800 FOREST CREEK NEAR WILSEYVILLE, CALIF.

DRAINAGE AREA.--20.8 sq mi.

PERIOD OF RECORD.--July 1960 to September 1970.

GAGE.--Water-stage recorder. Altitude of gage i

AVERAGE DISCHARGE.--10 ye
(14,500 acre-ft per ye

EXTREMES.--Maxiir

rs, 25.0 cfs (18,110
r).

2,950 ft (from topographic map),

re-ft per year); median of yearly mean discharges, 20

(discharge in cubic feet per second, gage height in feet),

rge (*) and peak discharges above base (120 cfs), water years 1966-70

Date

Feb. 5,

Dec. 2,
Dec. 6,
Jan. 21,
Jan 29

Mar. 16)
Apr. 6,
May 10,
May 21,

Wtr yr
1966
1967
1968

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1966

1966
1966
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1967

Date
Sept. 30
Oct. 1
Aug. 11

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0730
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, 1968

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Disch. *57

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*446

178
198
413
134
230
195

d: Max:
cfs on

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G.H.
3.86

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5.30
4.51
4.59
5.22
4.32
4.70
4.58

Annual

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Date
Feb.

Jan.
Jan.
Jan.

Apr.
Apr.
Apr.

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20, 1968

13, 1969
21, 1969
26, 1969

5, 1969
23, 1969
29, 1969

jm daily d:

Discharge
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Dec.

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Disch. G.
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*1,200 6.
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Wtr yr Date
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1970 Sept

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795
*925

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144
156

Di

cfs Aug

Jiagram

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DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

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12 5.3
13 5.3
14 .5
15 .4

16 .8
17 .3
18 .0
19 .8
20 .8

21 5.6
22 5.6
23 5.3
24 5.3
25 5.3

26 5.3
27 5.3
28 5.3
29 5.3
30 5.3
31 4.6

MEAN 5.65
MAX 9.4
MIN 4.6
AC-FT 348

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15 14 18 45 17 9.0 .2 3.5 3.0
13 14 18 45 16 9.0 .2 3.0 2.8
14 14 17 44 15 9.0 .9 3.0 2.4
14 15 17 41 14 9.0 .5 2.8 2.3
23 20 18 39 14 8.2 .8 2.8 2.3

26 35 18 38 14 7.8 .0 2.6 2.2 23 22 20 37 14 8.2 .3 2.2 2.3 21 19 23 35 14 8.2 .7 2.6 2.1
19 18 26 34 14 7.8 .7 2.6 1.8
17 16 39 44 16 7.4 .2 2.3 2.4

17 14 39 47 IS 7.4 .4 2.7 2.6
15 15 42 44 14 6.8 .2 2.3 2.7
14 14 44 39 14 6.5 .1 2.3 2.8
14 14 45 36 14 .0 .1 2.8 2.8
14 14 42 34 13 .6 .1 2.8 2.7

14 14 42 32 12 .8 .9 2.6 2.6
14 14 38 31 12 .8 .9 2.4 2.6
13 14 36 33 12 .3 .0 2.3 3.0
13 14 37 31 9.4 .4 .7 2.2 3.5 12 14 37 28 9.4 .6 .7 2.1 3.0

12 14 35 27 9.4 .8 .7 2.2 2.7 12 15 35 26 9.8 .1 .8 1.6 2.6 12 18 35 23 9.8 .3 .7 1.7 2.6 12 20 35 23 9.4 .6 .8 2.1 2.6 12 19 36 22 9.4 .2 .0 2.2 2.6

12 19 37 21 9.0 .2 .4 2.4 2.6 11 18 38 21 9.0 .6 .7 2.7 2.7 11 18 40 20 9.0 .6 .4 2.2 2.4
12 42 19 9.0 .4 .4 2.6 1.7
14 44 ia 9.4 4.2 .0 2.8 1.0
14 44 9.4 .1 3.0 ______

14.8 16.8 33.5 32.6 12.1 6.26 3 37 2.50 2.51
26 35 45 47 17 9.0 .4 3.5 3.5 11 14 17 18 9.0 4.2 .4 1.6 1.0 910 930 2,060 1,940 745 373 207 154 ISO

SAN JOAQUIN RIVER BASIN

11316800 FOREST CREEK NEAR WILSEYVILLE, CALIF.--CONTINUED

DAY OCT

1 1.7
2 2.2
3 2.4
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6 2.4
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23 2.3
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25 2.3

26 2.1
27 2.1
28 2.1
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TOTAL 77.0

MAX 3.0
MIN 1.7

DAY OCT

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25 5.7

26 5.6
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MEAN 6.61
MAX 13
HIN 5.4

UTR YR 1968 TOTAL

DISCHARGE, IN CUBIC FEET PER SECOND

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DISCHARGE

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IN CUBIC FEET

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PER SECOND,

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WATER

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YEAR OCTOBER 1967

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AC-FT

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TO SEPTEMBER 1968

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107.1
3.45
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SEP

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3.0
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3.2
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11316800 FOREST CREEK NEAR WILSEYVILLE, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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TOTAL

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MEAN
MAX
MIN

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2.5
1.4
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2.B
2.8
2.7
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2.6
3.0
5.3
6.9
4.4

3.B
3.5
3.4
3.3
3.3

3.3
3.2

3.0
3.1

3.1
3.1
3.1
3.B

103. B

6.9
1.4

3.5
3.3
4.0
4.2
4.2

4.2
4.2
4.6
4.B
4.8

4.6
4.6
4.6
4.B
22

39

12
6.B
6.5

6.0
6.0
6.0

6.2
6.5
6.8

7.1

7.63
39
3.3

NOV

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7.4
39
U
7.4

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5.5
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4.9

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6.4
8.2

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6.4
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39
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OISCHARGE

7.1
7.1
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36
IB
15
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7.1
6.B
6.B

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7.4
7.4
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7.1
6.B
6.B

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6.5

9.50
36
6.5

DEC

7.2
6.1
6.5
6.3
6.0

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6.2
6.3
6.3

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9.5
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IB
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50
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93

47
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32

25

26.1
122
6.0

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13
13

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13
13
12

13
15
81
87
50

3B
31
41
241
526

833
299

149
397

570
244
174
133

12

FEET

24
22
20
20
18

19
IB
IB
2B
77

4B
47
60
209
136

4B9

201
138
125

316
201
257

1BO
133
no

B5

144
642
IB

88
BO
73
66
69

79
70
60
57

60
71
67
61
143

125
95
B6
Bl
70

63
58

87
BO

72
59
64

54

PER SECOND,

78
71
65
62
56

52
4B
41
38
36

35
4B
65
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53

55

70
62
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51
44
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34
34

52.6
95
34

70
64
56
4B
47

49
46
44
43

42
42
41
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44
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59
59

66
71

77
86
96
109

41

HATER

91
75
64
59
55

53
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56
55
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53
51
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41
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49.3
91
35

3.3

134
137
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124
173

146
131
123
116

121
124
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112

no
113
121
120
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128
134

150
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114
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126

110

YEAR OCTO

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2B.B
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AC-FT 34

114

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106
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TO SEPTEMBER

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JUL

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3.9
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SAN JOAQUIN RIVER BASIN

11317000 MIDDLE FORK MOKELUMNE RIVER AT WEST POINT, CALIF.

DRAINAGE AREA.--68.4 sq mi.

PERIOD OF RECORD.--October 1911 to September 1970. Monthly discharge only for October 1911, published in WSP 131S-A.

GAGE.--Wate

at pr ite and datum.

AVERAGE DISCHARGE.--59 years, 61.0 cfs (44,190 acre-ft pe

EXTREMES.

Date
Nov. 18,

Dec. 6,
Jan. 21,
Jan. 31,
Mar. 16,
Apr. 6,
May 1 0 ,
May 21,

Wtr yr D
1966 J
1967 0
1968 A

Per

Time
1965 0600

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1967 2400
1967 0830
1967 1800
1967 2200
1967 0800
1967 2100

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ct. 11, 1966
ug. 11, 1968

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- Records goo
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Disch.
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940
900
676

*1,240
612
684
568

d : Max

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3.98
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Wtr yr
1969
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G.H. Date
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an. 16
3.40 an. 21
7.49 an. 27
6.88- eb. 17

3.25
4.32
3.48

years 1966-70

Date
Oct. 4, 1968
Aug. 31, 1970

(gage height, 8.9

ord Dec. 15, 1965
Fork Reservoir (c

y, 15 cfs) and Li

feet),

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Disch. G.H.
1,160 5.24
1,770 6.18
*1,920 6.38
663 4.08
462 3.44
591 3.87

Discharge
4.4
6.8

Aug. 23 to

1966, which
acre-ft) ,

REVISIONS (WATER YEARS).--WSP 151S: 1919-20, 1927-28(M), 1936(M). WSP 1930: Dr

DISCHARGE. IN CUBIC FEET

DAY

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TOTAL
MEAN
MAX
MIN

CAL YR 19

OCT

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857
27.6
37
22

NOV

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31
30

28

28
23
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29
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26
11
11

38

42
48
148
90
61

54
51
100

75
66
64
60
59

51.5
148
11

DEC

57
56
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53

52
51
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49
48

49
50
47

45

43
41
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46
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45
44
41

45
48
74
107
80
72

52.8
107
41

JAN

66
54
50

67

75
72
68
64
60

56
53
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46

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43
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38
36

35
36
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46

48.1
75
32

PER SECOND. HATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

FEB

47
44
42

54

124
80
65
59
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50
49
46

45

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46
45
46
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44
46
50

56
54
50

53.1
124
42

MAR

51
50
48

46

48
50
53
57
82

82
80
90

89

87
82
82
89
86

83
80
79

80
80
82
83
85
94

94
46

APR

121
124
121
118
116

111
108
102
100
126

129
126
110

96

93
92
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SAN JOAQUIN RIVER BASIN

11317000 MIDDLE FORK MOKELUMNE RIVER AT WEST POINT, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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DISCHARGE

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CUBIC FEET

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SAN JOAQUIN RIVER BASIN

11317000 MIDDLE FORK MOKELUMNE RIVER AT WEST POINT, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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IN CUBIC FEET

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YEAR OCTOBER 1969

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SAN JOAQUIN RIVER BASIN

11318500 SOUTH FORK MOKELUMNE RIVER NEAR WEST POINT, CALIF.

LOCATION.--Lat 38°22'06", long 120
500 ft upstream from highway br

DRAINAGE AREA.--75.1 sq ni.

PERIOD OF RECORD.--October 1933 to September 1970.

GAGE.--Water-stage recorder. Altitude of gage is 1,950 ft (from topographic map). October 1933 to Sept. 19, 1957,

AVERAGE DISCHARGE. --37 y
(52,900 acre

EXTREMES

Date

Dec. 3,
Dec. 6,
Jan. 22,
Jan. 31,
Mar. 16,
Apr. 7,
May 10,

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0 cfs (61,580 acre-ft per year); me

(discharge in cubic feet per second

ge (*) and peak discharges above ba

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72 Jan. 21, 1969 1045 *4,420
24 Jan. 26, 1969
00 Feb. 15, 1969 - 1,130
56 Feb. 24, 1969 1315 710

Discharge Wtr yr
6.5 1969
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12, to Sept. 26, 1934.

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REVISIONS (WATER YEARS).--WSP 1315-A: 1934(M). WSP 1930: Drainage area.

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

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7.7
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7.6
7.2
7.0

6.5
7.1
7.1
7.3
7.2

6.5
6.6
7.0
7.6
8.3

7.7
7.7
8.2
8.6
B.9

7.9
7.6
7.4
7.6
7.6

7.6
7.3
7.7
7.3
7.3

225.0
7.50

6.5
446

CAL YR 1965 TOTAL 44,222.0 MEAN 121 MAX 2,080 MIN 16 AC-FT 87,710

SAN JOAQUIN RIVER BASIN

11318500 SOUTH FORK MOKELUMNE RIVER NEAR WEST POINT, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

0»Y OCT

1 7.7
2 8.1
3 8.6
4 8.9
5 8.7

6 8.9
7 7.9
8 7.9
9 8.1
10 7.0

11 5.9
12 6.2
13 8.4
1* 7.3
15 7.3

16 7.0
17 7.8
18 8.3
19 8.4
20 8.5

21 8.5
22 8.3
23 8.4
24 8.4
25 8.2

26 8.6
27 8.7
28 8.2
29 8.5
30 8.6
31 9.0

MEAN 8.07
MAX 9.0
MIN 5.9
AC-FT 496

CAL YR 1966 TOTAL

OAY OCT

1 19
2 30
3 61
4 38
5 33

6 32
7 30
8 28

10 27

11 25
12 24
13 24
14 25
15 25

16 25
17 25
18 24
19 24
20 24

21 24
22 23
23 24
24 24
25 24

26 23
27 23

29 23
30 23

MEAN 26.6
MAX 61
MIN 19

NOV

8.5
8.6
9.4
9.7
9.9

L6 1,
29
17
15
L3

13
13
12
12
14

62
38
23
22
68

66
87
43
31
26

22
IB
32
75
48

28.7
87 1,

1,710 8,

16,557.7

DISCHARGE.

NOV

22
22
22
21
21

22
22
22

22

21
21
21
27
25

23
23
24
47
32

24
23
23

23
23

27
37

24.6
47
21

DEC

48
275

112
448

060
404
220
156
141

113
96
86
78
71

65
60
56

49
46
44
42
41

36
36
35
35

139

MEAN

IN CU

DEC

32
27
26
28

45
57

32

30
29
23
39
37

28
27
32
32
28

28
28
30

33
34

32
30

33.9
90
23

33
32

31
32

29
29
29
28
28

27
27
27
26
26

25
25
25

513
649
182
19L
156

158
170
477
484

139

45.4

1C FEET

28
27
27
28

30
28

57

46
35
32
32
116

76
55
45
40

36
35
34

34
36

33
55

40.0
116
26

291

198
179

164
154
147
140
138

135
134
136
136
123

115

103

89
84
80
77
82

75

138

MAX 1,060

PER SECOND

51
63
70
61

61
59

63

56
53
51
49
46

52
143
140
107

194
171
145

130
119

101

107
315
46

71

71
70
69
68
70

80
128
146
130
150

1,050

700

340
316
327
301
272

240

275

258

MIN 5.

, WATER

95
89
83
81

75
77

105
88

80
76
94
87
80

114
140
112
98

8
8
B
8
8

86
84

90
98
100

91.3
140
75

275

380
480
310
275
270

280
255
252
254
260

245

330

272
275
302
273

310

255

280

9 AC-FT 32

YEAR OCTOBER

117
106
101
97

90
87

83
82

81
79
76
74
72

70
68
66
64

59
56
55
55
54

51
49

45
43

72.2
117
43

290

292
320
75
50
19

00
40
08
12
58

528

573

563
523
481
433

388
351

297

415

,840

1967

44
43
42
40

39
38

37
35

35
38
46
56
48

43
40
38
37

34
32
31
30
29

28
28

26
25

36.3
56
23

JUN

251

253

229
215
206
196
187

178
170
161
154
141

136

125

115

103
98
94
91

89
85

79

151

TO SEPTEM

JUN

23
23
22
23

24
25
26
23
23

23
22
21
20
20

19
18
18
17

14
15
15
14
15

14

13
13

18.9
26
13

JUL

73

62
60
58
56
56

55
53
51
50
48

48

45

43

40
41
40
39

38
36

36

35

1,539
49.6

BER 1968

JUL

13
13
11
11
11

11
9.8
11
11
11

10
9.8
9.4
9.7
9.4

9.0
9.0
8.9
8.8

9.3
9.0
8.8
8.8
8.7

7.7

7.7
8.0

9.59
13
7.5

AUG

35

32
32
32
32
31

30
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28
28
28

27

25
25
25

25
25
25
25
24

25
25
24
22
22
22

860
27.7
35

AUG

9.2
7.7
8.5
8.1
7.8

7.3
7.5
7.2
6.9
7.2

7.4
7.5
7.4
7.6
7.1

7.6
7.7
7.9
10

12
11
11
10
9.8

9.7

9.2
8.7

8.73
15
6.9

SEP

22

22
22
22
23
22

21
22
22
21
20

20
21
27
26
22

21
21
22
25
26

23
23
22
22
21

672
22.4
27

SEP

7.7
7.2
7.0
7.2
7.2

7.3
7.4
7.2
7.4
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7.6
7.5
7.7
7.3
8.3

8.2
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7.3
6.9
7.3

7.8
B.O
8.2
8.5
7.7

8.0

6.8
6.7

7.50
8.5
6.7

SAN JOAQUIN RIVER BASIN

11318500 SOUTH FORK MOKELUMNE RIVER NEAR WEST POINT, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER L969

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21
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30

MAX
MIN

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27
28

30

MEAN
MAX
MIN

7.1
6.8
6.9
7.4

7.5
7.7

7.3
7.8

7.7
8.4
13
22
15

14

13

12

11
11
11
11
11

11
11

20

6.8

6
7
7
6
6

16
16
17
17
18

18

17
18
39

94
53

29
27

24
23
23
22
22

22
21
21

21

24.3
94
16

17
125
52
29

23
21

18
17

17
48
29

37

28

26

25

23
21
21
24
25

20
20

19

13

DISCHARGE

20
20
20
21
31

93
46
35
30
28

26

26
25
25

28
27

25

25
24
24
23
23

23
22
22

22

27.7
93
20

DEC

25
21
20
20

20
20

20
26

58
36
30

87

88

41

31

32
36
31
69
196

74
83

58

20

. IN

21
22
21
21
21

21
21
22
23
23

25

23
21
21

21
21

72

198
120
88
240
285

160
110
92

77

65.5
285
21

JAN

45
45
47
49

50
50

46
42

44
55
352

144

144

2,230

3,730
1,500
840
680
2,200

1,300
800

420

CUBIC FEET

72
67
63
61
58

56
56
58
73
215

148

240
700
510

1,840
1,210

453

1,840
948
651
760
553

435
553
421

310

462
1,840
56

FEB

330
300
275
300

345
290

220
230

245
325
260

590

385

320

285
252
271
489
430

289
357

690

PER SECOND,

241
215
198
184
169

156
147
138
132
128

125

218
229
182

169
386

200

184
169
160
152
L44

138
134
L44

182
386
125

330
288
257
235

225
211

192
190

174
174
165

164

191

219

220
210
221
233
249

305
351

437

465

MATER

501
379
277
264
239

220
207
220
205
203

186

173
177
179

173
171

150

145
140
137
134
131

128
123
119

113

188
501
108

450
415
393
634

544
471

406
401

425
455
450

383

407

414

449
470
492
431
379

347
355

366

634

YEAR OCTOBER

104
99
96
92
90

87
86
85
81
80

78

90
107
95

93
89

96

90
87
84
84
85

96
96
87

89

90.2
107
76

346
325
309
310

327
346

375
373

361
340
319
296

253

229

198

187
178
170
162
152

141
133

L20

375

9,000

1969

89
87
87
85
81

80
78
76
76
73

69

65
63
59

57
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53

52
51
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48
47

47
47
4

4

62.
8
4

71,400

103
100
98
95

91
88

85
84

84
84
80
77

75

72

65

64
64
63
61
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58
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54

109

TO SEPTEHf

42
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38.5
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2.320

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20.7
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24
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23
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24
22
21
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18

19

IB

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18
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17
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18
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18

635

26
17
1,260

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17
17
16
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16
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15
14
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L4
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12
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12
11
11

LI
LI
11

10

13.1
17
10

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16
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20
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19
19
18
17
L8

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17

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17
18
18
17
17

16
L6

17

525

23
16
1,040

LI
11
11
11
12

11
11
11
11
11

10

9.9
13
11

11
11
10
10
11

11
11
11
11
1L

10
. 8
. 2

. 2

1 .6
12
9.1

SAN JOAQUIN RIVER BASIN

11319500 MOKELUMNE RIVER NEAR MOKELUMNE HILL, CALIF.

LOCATION.--Lat 38°18'46", long 120°43'09", in SW!,SWH(sec.l, T.5 N., R.ll E., Calavei of bridge, 1.2 miles northwest of Mokelumne Hill and 8 miles downstream from coni Forks.

DRAINAGE AREA.--544 sq mi.

by California Divisio
ng gage at site 3 mil
at site 40 ft upstre

AVERAGE DISCHARGE.--44 ye

EXTREMES.--Max
1966-70 are

(1903-4, 1927-70), 976 cfs (707,100

:t per sec

Wtr yr
1966
1967
1968
1969
1970

Pe
5 cfs

REMARKS.
fair.

diagr
are p

Date
Nov.
June
Feb.
Jan.
Jan.

riod
Aug

18,
18,
20,
21,
21,

of r
. 13-

- - Records
Be

ubli

ginni

f Mok

1965
1967
1968
1969
1970

ecord: Ma
15, 17, 18

excellent
ng in 1931

^"reports'

ximum d
, 1904.

except
, flow
erplant

Discha
1,
7,
2,
17,
13,

ischarge, 33

those for p
regulated by

"Geological

rge
620
010
410
200
700

,700

eriod
Salt

G.H.
4.65
8.79
5.44
13.31
11.96

cfs Dec.

of no ga
Springs

y-

Date

June 26, 1966
Oct. 30, 1966
Aug. 11, 1968
Oct. 6, 1968
Sept. 12, 1970

3, 1950 (gage height,

ge-height record Jan.

fforlrriga^ion'and0!
. Water-quality recol

Discharge
87
25
97
194
262

18.5 ft); minimum observed,

16 to Mar. 1, 1967, which are
i 11313500) , several smaller

- ds for the water years 1966-70

REVISONS
Draini

(WATER YEARS).--WSP 1445:

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

1
2

4
5

6
7
8
9

11
12

1*
15

16
IT
18
19

21
22
23
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25

26
27
28

30

MEAN

NIN

WTR YR

977
758

71*
99 3

935
8B5
939
993

929

946
965

959

914
901

969

915
906
889

895
908
870

830

1966 TOTAL

862
713

905
833

857
741
721
894

923

996
867

900

1,280

744

1,010

1,230

1,120
1,040

919

243,203

SOB
862

878
943

887
780
816
862

700

680
601

648

632

636

558

715

600
493

MEAN

700
552

775
735

749
700

404

531

735

702

796

581

417

675
602

666

835
496

513
426

864
684

423

369

458

509

166

385

328

259
325

MAX 1,340

348
463

283
498

268

505

777

1,020

825

682

608

887

688
639

MIN 87

1,050
915

1,030
894

878

841

811

910

957

851
911

987

770
827

851

AC-FT

698
712

B57
738

600

299

516

615

1,090

967
702

736

299

482,400

400
599

680
517

641

383

371

490

377

87
275

439

87

28 B
266

559
529

533

596

581

595

265

563
555

520

265

606
711

598
575

409

466

418

578

50C

460
340

525

241

577
476

6D2
519

610
661

709

626

514

538
516

638
610

589

476

11319500 MOKELUMNE RIVER NEAR MOKELUMNE HILL, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

1
2
3
4
5

6
7
6
9
10

11
12
13
14
15

16
17
16
19
20

21
22
23
24
25

26
27
26
29
30
31

TOTAL
MEAN

MIN

CAL YR

DAY

1
2
3
4
5

6
7
6
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

WTR YR

OCT

619

524
555

604

635

418
534
568

541

565
487
513

641
566

25
381

NOV

596

664 3
663 2

465 1

666
802
666

763

714
767
576

573
600

1,100

1966 TOTAL 236,000

OCT

671

704
665
693

653
710
696
566
681

610
630
623

631
98
61
33
10

23
98
570
717
592

701
631

DISCHARGE,

NOV

616

602

627
661
640
576

566
658
700

763
600
730
723
676

652
699
549
580

666
606

198 496
36,490 36,930 39,

1966 TOTAL 220.763

DEC JAN

,560 669

,130 757

831 544
906 716

660 531

,020 1,210
,050 1,010
,070 968

. 020 1,220
978 621

966 3,260

MEAN 647

IN CUBIC FEET

664 590

744 563
767 541
624 500

689 693
674 659

664 616
425 660
613 679

662 666

710 636
633 587
467 631

583 602
605 634

425 453
150 38,250

MEAN 603

FEB

837

681

785
716

611

816
794
819

605
841

MAX 3,560

PER SECOND

591

542
692
563

580

336
657
877

,660
,380
. 160

950
878

269
45,070

MAX 1,720

MAR

687

914

4,030
4,910

1,960

1,650

1,630

1,330

1,390

MIN 25

, WATER

696

669
1,030
649

590

730
613
617

667

740

717
533

533
44,650

MIN 97

APR

1,930

1.750

1,710
1.620

1,810

1,790

1.690

1.730

54,750

AC-FT

MAY

1,740

2,620

3,080

3:?ss
3,460

2.660

466,100

YEAR OCTOBER 1967

715

770
921

282
811
661

820

749
606
713

668

522
587

289

616
955
282
36,660

AC-FT

see
581
660
558

609
595

325

615
331
375

312

400

656

469
721
128
28.820

437.900

JUN

3,010 3

4,030 1

5.330 1

5.540

5,510

TO SEPTEM6ER

JUN

666
563
620
603

673
690

694

583
726

560
703
562

610

468

540

622

616
726
468
36.650 29,

JUL

,130

,910

,280

,130
969

637

610

1966

JUL

524
561
617
342

300
430

640

536
602

656
546
558

656

552
602

348

658

483
656
166
670

AUG

305
605
675

719

741

744

681
576

740

236

AUG

612
530
410
300

490
565

432

97
475

495
265
131

624

634
590

676
590

634

494
676
97
30.350

SEP

665

657
605
656

636

643

325

620
694

628
684

633

18,814

325

SEP

536
563
574
553
516

351
286
224

577

460
463
586

572
675
566

712

683
501
596

491
555

491

712
224
31,190

SAN JOAQUIN RIVER BASIN

11319500 MOKELUMNE RIVER NEAR MOKELUMNE HILL, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

1
2
3
4
5

6
7
8
9
10

11
12
13

15

16
17
IB
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN
MAX

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13

15

16
17
IB
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN

CAL YR
MTR YR

355
483
515
554
344

469

494

639
489

4B5

5B3
506

494
508
512

512

570
508

513

244

905
809

585

828

770
708

618

708
551

600
617
680

669

582
682

656

DISCHARGE,

OCT NOV

841 615

766
822

850
871
759
608

909
901
768
8B3
954

1,030
1,010
899
760
626

621

724

659
610
653
741

737

23.824 19
769
1,030
504

1969 TOTAL
1970 TOTAL

559
732

782
703
739

663
617
715
617
642

620
7B3
643
639
482 1

743 2

668

519 1
666 1
63B
582

. 458 27
649
926 2
482

662,001
450,724

DEC

700

573
662

778

635

691
660
1.040

1.030

726

709

IN C

DEC

608

566
601

665
596

649
607
704
590
535

747

660
632
. 510

,140

. 550
,030
831

B78

. 114
B75

443

MEAN
MEAN

669
733

7^30

3,160
2,500
5,640

9,000

2,420

2,625

BIC FEET

658

B13
692

787
704

1,190

1.230
3,280
2.510

7,380

3,720
2,410
2,450

9,050

2,900
2,670
2,440

1,740

81,367

658

1,814
1,235

1,710
2,160
2,160

1,851

PER SECOND

1,660

1,380

1,140
1,230

1.100

1,500

1,620

1,940
1,830
1,660

1,700

1,530
1,400
1,510

42.170

1.100

MAX 13,500
MAX 9,050

1,400
1,520
1,570

2,330

1.569

2,850
2,600
2,240

2,390

2,486

, MATER YEAR OCTO

2,470

1,830

1,670
1,680

1,730

1,590

1.510
1.500
1.520

1,480

1,340
1,420
1,340

1,340

49.800

1,340

MIN 202
MIN 262

1,330

1,100

1,030
1.040

1,100

1,200
1,190
1,160

1,160

1.13D
1,160
984

33,584

984

AC-FT
AC-FT

7,000 3,400
7,190 2,710
6,800 2,880

6,200 1,720

4,580 3,684

1,288,000

(ER 1969 TO SEPTEM

,040 2,850

,180 3,280

BB5 2.39C

1,230 2,110
1,080 1,770

1,500 1,580
1.59D 1.800
2.020 1.720

1,840 1,560

3,460 1.060
3.460 3.020
3.190 1.630

3.080

57,676 59,960

885 1,060

1.313,000
894.000

JUL

1.180

781
732
721
610

670

1.143

JER 1970

JUL

1,230

983
731

871
1,020

955

724
455
680

572

578
5B4
668

524
632
566

460
572
680

440

22,253
718
1,230
440

AUG

680

898

882

881

912
947
B81
848

801

787

AUG

524

644
602
476

470
644

328

640
540
593

588

592
636
517

480
616
547

600

572
545
516

584

17,073
551
644
328

SEP

896

751

737

885
965

872
839

851
892

B32
778
932
931

794

761

SEP

577

510
626
481

566
494

692

5D3
262
598

536

612
580
607
448
642

561
565
586
579
566

577
573
487

16.445
548
642
262
32.620

SAN JOAQUIN RIVER BASIN

11320000 PARDEE RESERVOIR NEAR VALLEY SPRINGS, CALIF.

LOCATION.--Lat 38°15'25", long 120°50'59", in N>sSWi»

DRAINAGE AREA.--578 sq

ations only), October 1930 to September 1933. Octobe
70.

GAGE.--Water-stage recorder. Datum of gage is at mean sea level (levels by East Bay Municipal Utility District). EXTREMES.--Maximums and minimums (contents in acre-feet, elevation in feet) for the water years 1966-70 are con-tained in the following table:

Maximum Minimum
Wtr yr Date Contents Elevation Date Contents Elevation
1966 Oct. 14, 15, 1965 205,200 565.55 Mar. 4, 1966 158,400 542.50
1967 July 9, 1967 211,400 568.31 June 6, 1967 147,500 536.44
1968 June 17, 1968 209,100 567.27 Sept.27, 30, 1968 179,500 553.42
1969 Jan. 21, 1969 213,900 569.39 May 1, 1969 157,500 542.01
1970 June 4, 1970 211,500 568.32 Mar. 2, 1970 186,700 556.92

Valley Irrigation District. See schematic diagram of Mokelumne River basin elsewhere in this report.

COOPERATION.--Records furnished by East Bay Municipal Utility District and reviewed by Geological Survey.

REVISONS.--WSP 1930: Drainage area.

Capacity table, water years 1966-70 (elevation, in feet, and contents, in acre-feet)

570 215,300
54C

136,500
153,800

550 172,700
560 193,200

CONTENTS, IN ACRE-FEET, AT 2400, HATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

1
2
3
4
5

6
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14
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17
18

20

21
22
23
24
25

26

28
29
30
31

MAX
MIN

(t)

w(tt)

(it)

CAL YR
WTR YR

201,500

201,300
201,200
201,700

202,100
202,400
202,800
203,300
203,700

204,000
204,400
204,700
205, ?00
205,200

204,900
204,900
205,000

204, 100

204,100
203,700
202,700
201,700
202,000

202,000

201,900
201,603
201,800
201,600

205,200
201,200
563.99
+788
643
18,030

1965 MAX
1966 MAX

201,900

201.800
202,000
201,800

202,000
201,600
201,600
201,800
202,000

201,700
201,800
201,800
201,600
201,200

203,900
200,600
200,900

201,200

200,400
199,900
199,700
200, 20C
230,400

200, 4CO

200.100
199,900
199,600
______

202,000
199,600
562.97
- 2,230
240
18,200

211,600
205,200

199,200

198,800
199,800
201, 100

201,000
200,600
200,400
200,200
200,100

200,900
201,600
201,000
200,600
200,000

199,400
198,600
199,200

199,300

198,700
19B.300
197,600
197,200
198,000

198,500

197,400
197,700
197,900
198, 10C

201,60?
197,200
562.29
- 1,480
211
18,000

MIN 180
MIN 158

197,400

196,700
196,100
195,500

194,700
194,000
193,300
193,300
192.400

191,200
190,300
189,500
188,700
187,900

188,600
188,200
188,400
188,600
188,300

188,100
187,800
187,300
187,000
187,100

187,000

186,000
186,900
188,300
188,400

197,700
186,000
557.75
- 9,680
230
17,650

,400 t
,400 t

187,900 156,900

185,800 15B.700
184,600 158,400
183,500 158,900

183,400 158.900
182,600 158,900
181,500 159,200
180,100 159,400
178,500 159,000

177,100 159,000
175,500 158,900
173,800 159,800
173,100 159,700
172,600 160,200

172,200 160,300
171,700
170,600
168,700
166,900

165,700
164,800
163,800
163,000
162,400

161,300

159,000

______

60,600
60,600
60,500
61,300

61,000
60,800
61,000
61,200
61,300

61,100

61,700
61,900
62,000
62,300

187,900 162,300
159,000 158,400
542.80 544.58
- 29,440 +3,320
211 325
15,490 15,410

- 3,000
- 42,400

162,600

162,700
162,900
162,900

162,900
162,600
162,400
162,400
1 62 , 400

162,300
162,300
162,000
161,900
162,000

162,000
16 ,800
16 ,700
16 ,700
16 ,700

16 ,600
16 ,500
16 ,600
161,300
160,900

160,700
160,600
160,400
160,300
159,800

162,900
159,800
543.23
- 2,520
631
16,060

160,500

161,400
162,200
162,800

163,100
163,800
164,100
163,800
164,100

164,400
164,900
165.300
165,700
166,300

166,500
166,800
167,200
167,500
168,300

169,500
171,200
172,400
173,400
174,200

175,100
175,700
176,400
177,900
178,900
179,400

179,400
160,500
553.35
+19,600
1,014
16,860

179,100

179,300
180,000
180,400

180,600
180.900
181,000
180,700
181,100

181,500
182,000
181,900
181,700
182,000

181,900
181,900
182,300
182,900
182,700

182,900
183,000
183,000
183,000
183,200

182,900
182,800
182,900
182,900
182,900
______

183,200
179,100
555.00
+3,520
1,331
17,080

182,600

183,503
183,900
183,600

183,100
182,500
182,233
182.709
183,139

182,600
182,100
181,500
181,100
180,600

181,190
181,600
181,033
180,600
180,200

179,500
178,800
178,739
178,800
178,300

177,800
177,400
176,900
176,500
177,000
177,500

183,939
176,590
552.44
- 5,350
1,383
17,900

177,000

176.200
175,600
175,000

174,200
174,700
174,300
173,500
173,000

172,400
171,909
171,300
1 1,900
1 1,400

1 0,600
1 9.900
1 9,409
1 8,900
1 8,400

168,500
168,000
167,300
166, 700
166,109

165,400
164,400
164,300
163,600
163.100
162.500

177,000
162.500
544.70
- 15,020
1,350
17,470

162.200

162.200
162.800
162.300

162.000
161,600
161.200
161,000
161,400

161,830
161.539
161,200
160,800
160,600

160.100
160,600
161,100
160,500
160,500

160.000
159,700
159,293
159,700
160,333

159,900
159,600
159,200
159,000
158,600

- - - - - -

162.800
158,600
542.62
- 3,870
884
16,290

t ELEVATION, IN FEET, AT END OF MONTH,
t CHANGE IN CONTENTS, IN ACRE-FEET.
tt EVAPORATION, IN ACRE-FEET.
tt DIVERSIONS, IN ACRE-FEET, FROM PARDEE RESERVOIR TO EAST BAY MUNICIPAL UTILITY DISTRICT AND TO JACKSON VALLEY IRRIGATION DISTRICT.

SAN JOAQUIN RIVER BASIN

11320000 PARDEE RESERVOIR NEAR VALLEY SPRINGS, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEET, AT 2400, HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

1
2
3
4
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19
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21
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23
24
25

26
27
28
29
30
31

MAX

(t)
(t)
(tt)
(tt)

WTR

t
t
tt
tt

OCT NOV

159,300 156,600
159,700 156,700
159,600 156,900
159,500 157,100
159,200 157,600

158,900 158,500
158,700 158,800
159,500 159,000
160.000 159,200
159,900 159,200

159.500 159,800
159,200 160,400
159,100 161,000
158,500 161,100
159,200 161,700

159,500 162,100
159,300 162,600
159,100 163,000
158,900 163,600
158,500 164,800

158,400 165,400
158,700 166,000
159,300 166,100
158,900 167,000
158,500 167,200

156,100 167,800
156,100 168,400
157,900 168,700
157,700 169,600
157,200 170,200
156,500

160,000 170,200

541.46 548.71
- 2,100 +13,700
649 291
16,820 16,460

YR 1966 MAX 197,700
YR 1967 MAX 211,400

ELEVATION, IN FEET,
CHANGE IN CONTENTS,
EVAPORATION, IN ACR
DIVERSIONS, IN ACRE

170, BOO
172,300
174,600
176.100
176,600

185,600
188,600
189.000
189,200
189,100

189.000
188,500
188,100
167,700
187,100

186,400
186,000
185,400
184,800
184,200

184,100
163,600
183,400
183.100
163,000

182,700
182,400
182,000
181,900
161,500
161,000

189,200

554.14
+10,800
198
17,530

181,900
182,700
182,400
182,200
182,000

181,700
181,500
182,300
181,900
181,600

181,000
180,700
180,400
179,900
180.700

180,100
179,900
179,600
179,100
178,500

181,000
186,300
187,100
187,600
187,700

188,100
188,600
188,400
192,300
197,500
200,900

200,900
178,500
563.59
+20,000
121

MIN 147,500 t

AT END OF
IN ACRE-F
E-FEET.
- FEET, FR

MONTH.
EET.

DM PARDEE

197,500
191,300
191,800
191,600
190,700

190,000
189,700
169,600
188,700
188,100

187,700
187,100
186,500
186,000
185,200

184,703
184,600
184,600
184,700
184,600

184,600
185,200
184,900
184,400
183,900

183,600
183,100
162,600
.

197,500
182,600
554.95
- 18,300
154

+34,900

RESERVOI

181,900
181,400
180.900
180,200
179,800

179,200
178,600

177,300
176,700

176,400
176,500
177,500
176,300
178.700

185,400
192.300
194,900
194,300
193,000

193,800
194,500
195,000
194,000
193,700

194,000
194.000
194.000
193,600
193.200
194,000

195,000
176,400
560.40
+11,400
337

R TO EAST

194,000
193,800
193,500
193,800
193,800

194,700
193,500

195,200
194,900

193,300
194,000
194,700
195,500
194,600

194,200
194,700
193,700
193,500
194,100

194,300
193,300
193,900
194,700
194,900

194,100
192,000
189,900
187,900
187,100
______

195,500
187,100
557.14
- 6,900
321
14,050

BAY MUNI

185,300
182,900
180,500
178,300
176.200

174,100
171,900

170,500
169,700

167,300
165,600
165,800
166,300
164,000

161,800
159,300
159,300
159,200
159,300

159.500
157,100
154,200
150,900
150,200

150,200
150,400
150,400
150,300
150.500
147,600

185,300
147,600
536.52
- 39,500
804

CIPAL UTI
IRRIGATION DISTRICT.

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
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19
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21
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23
24
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26
27

29
30
31

MAX
MIN

(t)
(t)
(tt)
(tt)

DCT NOV

193,100 185,300
193,000 185,600
193.100 185,500
193,500 186,000
193,600 186,700

193,700 186,600
194,000 186,500

194,200 186,500
194.300 186,600

194,200 186,400
194,000 186,400
193,800 186,500
193.700 186,600
193,500 187,000

193,300 187,800
193,100 187,700
193,100 188,600
192,800 189,800
192,700 189,900

191,900 189,800
190.800 189,800
190,300 190,400
190.200 190,200
189,500 191,000

189,000 191, 8OC
188,300 191,600
187,700 191,600
187,000 191,600
186.300 191,800
185,500 -

194,300 191,800
185,500 185,300
556.37 559.37
- 7,900 +6,300

6,640 17,010

DEC

191,500
191,000
191,900
192.100
192,400

192.800
193.100

192,700
193,700

193,300
192,800
192,200
191,800
191,300

190,903
191,200
190,700
190,100
189,700

189,303
188,800
187,900
188,400
189,003

188,300
187,830
187,300
186.500
186,100
186,700

193,700
186,100
556,93
- 5,100

17,640

187.300
187,000
186.800
186.300
186,100

186,800
187,400

186,700
186,300

186,300
186,200
186.900
187.800
188,100

188,400
188.400
188.300
188,400
189,200

189,900
189,700
189,600
189,100
188,900

188,800
189,600
190,300
189,800
190,900
191,100

191,100
186,100
559.01
+4,400

17,460

FEB

191,600
192,300
192,900
193,800
194,500

194,900
195,200

196,200
196,700

197,100
197,600
197,700
197,400
197,300

197,300
198,300
199,500
200,000
202,900

204,800
205,500
205,700
206.300
206,500

206,400
206,400
206,200
206,200

206,500
191,600
565.96
+15,100

15,700

206,100
206,000
205,600
205,200
204,900

204,300
203,600

203,500
203,200

202,700
201,800
201.200
200,500
199,500

199,300
199,100
198,800
198,000
197,600

197,100
196,700
196,200
195,600
195,000

194,400
193,600
192,700
191,900
191,003
190,200

206,100
190,200
558.61
- 15,900
380
17,780

JUN

147,900
147,700
147,800
148,000
147,900

147,500
147,900

148,300
150,200

151,800
153,800
155,300
157,000
159,100

160,600
163,200
165,500
166,300
168,100

170,300
173,000
174,500
176,100
179,200

182,500
186,500
190,400
194,700
198,000
______

198,000
147,500
562.26
+50,400
818
'

LITY DIST

JUL

200,390
201,200
203,500
204,890
207,000

209,600
211,100

210,500

209,900
210,000
209,900
210,000
210,000

209,900
209,900
210,330
209,700
209,900

209,830
209,800
209,900
208,500
208,300

207,600
206,930
206,100
205,530
204,600
204.100

211,400
200,300
565.04
+6,100
1,395
18,380

RICT AND

AUG

203,300
202,600
201,900
201,200
200,000

199,000
198,600

197,800

197,600
197,300
196,900
196,700
196,300

196,100
195,800
195,300
195,100
194,700

194,400
194,000
193,800
193,600
193, 100

192,700
192,600
192,200
192,000
191,700
191,300

203,300
191,300
559.11
- 12,800
1,401
18,150

TO JACKSQ

SEP

191,230
191,800
192,400
193,130
192,930

192,800
192,500

193,830

193,600
193,300
193,200
192.900
192,700

192,800
193,200
192,903
192,900
192,500

192,200
192,200
192,930
193,700
193,600

193,500
193,200
193,030
192,733
193,500
______

193,800
191.200
560.14
+2,200
1,035
17,290

N VALLEY

n CCDTCMBCD lafcft

190.800
191.600
192,500
193,500
193,900

194,800
194,700

196,100
196,600

197,100
197,800
198,300
198,800
199,000

199,700
200.000
200.500
201,000
201,200

201,400
201,600
202,100
202,500
202,600

202,800
203,300
233,500
203,500
203,200

203,500
190,800
564.64
+13,000
705
18,030

203,300
203,400
203,500
204,000
204,400

204,600
204,600

204,600
204,600

204,900
204,900
204,600
204,600
2C4.400

204,500
204,100
204,200
204,200
203,800

203,400
202.900
202,500
202,200
202,000

201,500
201,200
201,500
201,600
202,300
202,300

204,900
201,200
564.22
- 900

19,290

203,000
203,500
203,800
204,000
204,300

204.600
205,000

206,100

206,700
207,100
207,400
207,700
238,200

208,700
209,100
208,700
238,600
208,500

208,500
208,400
238,800
208,700
208,700

208,500
208,300

238,100
238,600

209,100
203,000
567.06
+6,300
1,300
18,460

208,300
208,233
208,233
207,730
207,300

207,200
206,600

205,900

205.600
205,403
204,600
204,300
204,000

234,133
203,700
233,500
203,130
203,000

203,100
203,000
202,600
202,433
202,200

201,700
201,130

200,433
200,333
199,700

208,300
199,700
563.01
- 9,000
1,464
21,440

199,400
199,000
198,500
198,300
197,700

197,200
196,700

195.800

194,600
194,000
193,700
193,200
192,900

192,500
191,600
191.003
190.800
190, 60C

190,400
189,800
189.600
189,200
189,400

189,200
189,000

188,200
188,000
187,500

199,400
187,500
557.31
- 12,200
1,149
22,040

187,700
188,100
187, 700
187,200
186,600

185,800
185,600
185,200
184,700
184,303

183,600
183,333
182,500
182,400
182,600

182,233
181,900
181,400
181,133
180, 900

181,333
181,800
181,100
180,830
180,330

180,100
179,503

180,100
179,500

188,100
179,533
553.44
- 8,000
933
21,160

CAL YR 1967 MAX 211,400 MIN 147,500 t -5,700
WTR YR 1968 MAX 209,100 MIN 179,500 t -14,000

t ELEVATION, IN FEET, AT END OF MONTH,
t CHANGE IN CONTENTS, IN ACRE-FEET,
tt EVAPORATION, IN ACRE-FEET
tt DIVERSIONS, IN ACRE-FEET, FROM PARDEE RESERVOIR TO EAST BAY MUNICIPAL UTILITY DISTRICT AND TO JACKSON VALLEY IRRIGATION DISTRICT.

SAN JOAQUIN RIVER BASIN

11320000 PARDEE RESERVOIR NEAR VALLEY SPRINGS, CALIF.--CONTINUED

CONTENTS, IH ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

NQV DEC JUN JUL

179, 100

178,600
178,500
178,500

173,100
177,900
178,200
178,600

173,800
179,300
180,000
180,300
180,400

180,400
130,400
180,200
180,800
131,300

82, BOO

84,200
85,000
85.50C

85,700
85,300
36,000
86,600

88,100
88,700
88,800
89,300
89,300

89,300
88,900
89,000
89,000
88.800

89,300

89,500
89,400
89,300

189,200
190,000
190,600
190,700

191,200
191,303
191,400
192,500
193,800

194.200
194.400
194,600
194,500
194,600

196,500

195.800
195,600
195,500

195,200
195,100
195,000
194,600

193,700
193,000
193.900
196,000
196,500

196,700
196,300
196,400
201,800
208,800

192,800 181,800 174.000 157,500 184,600 210,700 197,100 195

192,500 173,500 173,400 157,700 190,700 210,700 197,300 193 191,800 173,500 174,000 157,600 192,200 210,200 196,800 193 191,400 173,000 173,700 158,100 192,600 210,503 196,300 193

191,530 173,900 174,200 157,900 193,400 210,600 195,800 192 191,100 174,600 173,100 157,700 194,200 210,500 195,300 193 191,500 173,600 170,700 157,700 195,300 210,500 194,900 192 191,800 173,000 168,900 157,600 195,400 210.400 194,400 192

191.800 174,200 170,100 157,700 199,100 210,633 194,400 190 191,900 174.700 169,800 157,700 201,200 210,500 193,900 190 191,700 174,300 169,700 158,100 202.300 210.400 193,400 189 191,300 173,800 68,500 157,800 202,000 210.400 193,100 190 192,100 173,400 67,100 159,200 202,500 210,233 193,000 190

190, 8JO 173,400 64,000 159,500 202,300 210,000 193,000 191 189,500 173,800 63,700 160,500 202,300 209,800 193,800 190 189,700 174,400 64,700 162,400 202,000 209,700 193,800 191 190,100 174,400 63,700 163,800 204,000 209.400 193.900 191 190,200 173,600 64,100 163,500 204,700 208.600 193,300 192

131,400
131,700
181,700
181,600
181,600

88,700
88,700
88,60C
88.40C
88,400

195,200
195,900
195,700
195,303
195,900

213,900
210.500
206,200
200,700
201,400

189,900
189,400
189,500
190,60:
191,500

172,800
173,300
174,000
174,500
173,900

164,200
162,300
160,100
158,700
158,300

163,300
164,600
167,500
170,500
172,800

204,000
205,300
207,600
208,000
207,700

207,800
207,030
206,000
205,000
203,800

193,900
193,300
193,900
194,700
194,600

193,400
193,500
193,400
193,700
193,900

182,400
182,400
182,700
132,800
182,800

88,200
38,900
88,700
88,700

196,700
196,800
196,900
196,700
196,500

206,400
202.600
196,800
192,600
192.400

158,200
157,900
158,200
158,200

NIN

(t) (t) (tt)

(tt)

177,900 182,800
555.05 557.87
+3,300 +5,900

189,200
561.58
+7,800

192.400
559.62
- 4,100

192.800
187.800
557.48
- 4,600

172,900
173,000
173,500
174,400
173,500

181,800 174,200
172,800 157,900
550.40 542.41
- 14,300 -15,300

178,000
179,800
180,400
181,400
182,600

182,600
157,500
554.92
+24,400

207,900
208,600
208,800
209,800

202,009
200,800
199,700
198,600
197,500

194,500
194,400
194,300
194,100
194,700

209,800 210,700 197,300
184,600 197.530 193,000
567.60 562.04 560.70
+27,200 -12,300 -2,800

194,000
194,990
195,000
194,909
195,000

195,100
189,900
560.84
+ 300

CAL YR 1968 MAX 209,100
WTR YR 1969 MAX 213,900

MIN 177,900
MIN 157,500

t +9,800
t +15,500

t ELEVATION, IN FEET, AT END OF MONTH,
t CHANGE IN CONTENTS, IN ACRE-FEET,
tt EVAPORATION, IN ACRE-FEET.
tt DIVERSIONS, IN ACRE-FEET, FROM PARDEE RESERVOIR TO EAST BAY MUNICIPAL UTILITY DISTRICT AND TO JACKSON VALLEY IRRIGATION DISTRICT.

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

OCT

195,000
195,000
194.900
95,900
96,300

96,900
97,000
96,900
97,000
96,900

197,900
199,000
198,700
198,800
199,200

199,700
200,000
201,000
201,800
201,200

NOV

193,200
193,900
193,300
192.900
192,700

192,900
192,800
193.200
194,000
193,600

194,300
193.800
193,600
193.200
193,300

194,000
193.800
193,300
192.800
192,400

DEC

191,400
191,200
190,800
190,400
190,100

190,500
191,200
190,BOO
190.500
190,000

189,700
189,400
189,900
190,600
190,000

189,900
189,200
189,000
188.700
191,100

200,200 192,300 195,200

198,500
197,600
197,100

197,700
196,700
195,800
195,000
194,100
193,000

193,000
192,600
191,900

191,300
192,000
191,500
191,800
192.300

197,000
198,800
200,700

201.600
201.400
201.000

200,300
199,900
199,500

198,700
198,000
197,500
196,700
196,000

195,200
194,600
194,000
193,500
193,800

194,000
194,000
194,300
199,600
200,600

205,500
207,200
203,700
197,700
193,500

202,500
206,500
203,800
202,000
198,200

195,600
194,000
192,200
190,700
189,000
189,300

189,700
189,800
189,800
189,700
189,400

189,500
190,700
190,000
190,600
191,200

191,600
192,400
191,000
190,800
191,000

189,000
187,000
187,100
187,000
187,200

187,700
187.BOO
187,300
187,200
187,000

186,900
187,500
187,800

186.900
188,300
188,900
191.700
193.000

192,400
192,500
192,500
192,500
192,400

192,300
192,200

191,100
191,100
191,100
191,200
191,200

MAX
MIN

(t)
(t)
(tt)
Ctt)

201,800 194.300 201.600 207,200 192,400 193,000 191,300 188.700 189,000 186,900

192,100
192,700
192,100
191,500
191,300

191,500
191.600
191,900
192.600
193,400

194,100
194,800
195,400
194,200
193,100

191,800
191,100
191,000
191,300
191,700
192,100

195,400
186,900

191,700
191,600

191,500
191,300
191,300
191,400
191,500

191,500
191,500
191,600
191,700
191,700

191,800
191,700
191,700
191.600
191,600

191,600
191,700
191,300
191,400
191,300

192,500
191,300

191,300
190,800
190,400
190,400
190,600

190,700
190,500
190,300
190,200
190,100

190,200
190.700

191,330
192.000
193,600

194.800
196,400
200,400
205,000
209,900

211,100
210,900
210,600
211,100
211,200
211,000

211,200
190,100

JUN

210,300
211.300
211.400
211,000
211,000

211,000
210,800
211,200
209,800
209,500

210,200
210,900
210,800
210,500
210,600

210,500
210,300
210,700
211,000
211.000

210,900
210,900
210,800
210,500
210,400

210,000
211,100
210,400
210,200
210,000

JUL

209,930
209,800
209.700
209,299
208.400

208,000
208,500
208,399
208,333
208,400

208,700
209,000
206,900
208,400
208,600

208,600
208,609
208,700
209,230
209,200

208,800
208,790
208,400
208,090
208,300

208,600
208,339
208,200
208,000
207,900
207,490

209,900
207,400

AUG

207,400
207,800
207,600
207,600
207,200

207,000
207,000
206,600
206,500
206,300

206.200
206.000

205,800
205,600
205,900

206,200
206,100
206,000
205,900
205,500

205,200
205,400
205,800
205,600
205,400

205,000
204,700
204,800
205,300
205,100

207,BOO
204,700

SEP

204,900
204,700
204,500
204,400
204,400

204,800
205,200
204,900
204,830
204,490

204,100
203,700
234,200
203,930
203,600

203,400
233,200
203,000
203,100
203,630

203,400
203.200
203,190
202.900
202,600

203,300
202,990
202,700
202,500

205,200
202,500

- 2,000
628
18,973

+19,700 -1,000 -2,600 -2,300

CAL YR 1969 MAX 213,900 MIN 157,500 t +3,000 WTR YR 1970 MAX 211,400 MIN 186,900 t +7,500

t ELEVATION, IN FEET, AT END OF MONTH.
t CHANGE IN CONTENTS, IN ACRE-FEET.
tt EVAPORATION, IN ACRE-FEET.

IRRIGATION LISTRICT.

- 2,600
982

LOCATION.--Lat 38°13'31", long 121°01'17", in SB's Mokelurane River, 4.3 miles northeast of Clemen

DRAINAGE AREA.--621 sq mi.

PERIOD OF RECORD.--December 1963 to September 1970.

SAN JOAQUIN RIVER BASIN

11322300 CAMANCHE RESERVOIR NEAR CLEMENTS, CALIF.

6, T.4 N., R.9 E., San Joaquin County, at Ca

GAGE.- -Water -

EXTREMES. --Ma

Wtr yr Date
1966 Oct.

1967 July
1968 Oct.

1969 July
1970 July

Period

RE MAR

re-ft b(

ximums and

1, 1965
14, 1967
1, 1967
4, 1969
3, 1970

of record:

;tween ele\

minimums (cc

rations 104.01

mtenfs in acre

278,500
425,700
322,400
393,900
372,200

itents, 425,700

earthfill dam.

) (invert of em

elsewhere in this report.

COOPERATION. --Records furnished by East Bay Munici

DAY

1
2
3
4
5

6
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8
9
10

11
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15

16
17
18
19
20

22
23
24
25

26
27
28
29
30
31

MAX
MIN

Ct) mCtt)
CAL YR
WTR YR

OCT

278,500
275,400
272,200
268,900

259,600
256,400
253,200
250,100

246,600
243,300
240,500

234,600

232,300
229,300
226,500

221,700

216,500
214,600
212,800
209,700

207,000
204, 100
201,500
198,700
195,300
193.100

278,500
193,100
197,840
- 88,300
1,829

1965 M
1966 M

160 57,100
170 82,600

CONTENTS, IN ACRE

NOV DEC

189,800 133,300 133
186.800 133,003 132
183,300 132,700 132
180,900 131,209 133

172,100
168,800
165,600
162,600

159,900
157,100
154,600

149.900

147,900
146,100
143,700

139,000

134,800
133,800
133.500
133,500

133,600
133,600
133,600
133.600
133,600

189.800
133,500

- 59,500
679

AX 312,500
AX 278,500

129,900 135
130,200 136
130,500 135
130.800 136

130.200 137
129,300 137
129.503 137

130,100 138

130,400 137
130,700 137
129,900 136

129,200 135

129,900 134
130,200 134
130,900 133
130,200 133

129,300 132
129,700 132
130,600 131
131,300 131
131,900 130
132,400 130

133.300 138
129,100 130

- 1,200 -2
351

MIN 129,100
MIN 68,700

190
220

- FEET, AT 2400,

. 000 130,800
. 300 131,200
,900 131,500
,600 131,900

. 600 133,800
. 200 134,100
,700 134,400
. 300 134,700

,000 135,500
,600 136,600
,800 137,800
. 200 138,200
,500 138,500

. 300 138, OOC
,100 136,900
,600 135,800

,500 135,100

,500 133,500
,000 132,400
,600 131,700
,300 131,000

,700 130,200
,300 129,400
,900 128.500
,400
,800
,400

,500 138,500
,400 128,500

,000 -1,900
486 557

t -90,800
t -210,600

- feet, e

213.31
234.82
220.23
230.54
227.51

acre-ft

Storag
. ergency

pal Util

levation i:

Date
Sept
Oct.
Sept
Oct.
Feb.

July 14,

e began De
valve rele

ity Distri

n feet) for the wat

Min

. S, 11, 18, 1966
16, 23, 1966
. 29, 1968
30, 1968
16, 1970

1967 (elevation, 23

c. 18, 1963. Usabl
ase) and 235.50 ft

ct and re

156,200 2
320,900

r WATER YEAR OCTOBER 1965 T(

126,700
125,000
123,300
121,600

115,900
114.200
112,500
111,900

112,400
113,000
112.700
113,300
113,800

114,400
115,000
115,600

115,800

116,800
117,200
117,600
117,900

118.300
117,700
118,000
118,400
118,800
119,200

126,700
111,900

- 9,300
818

119,600
120,200
120,600
121.100

122.800
123,500
124,300
125,000

125,400
126,400
127,000
127,800
128,200

128,600
129,100
129,300

129,700

129,900
130,200
130.400
130,600

130,800
131,100
131,400
131,600
131,800

131,800
119,600

- 12,600
1,621

131,000
130,400
129,600
128,700

126,200
125,300
124.400
123,800

123,100
122,400
121,700
120,900
119,900

119,400
118,700
118,000

116,600

114,700
113,900
113,300
112,600

112,000
111,300
110,300
109,400
108,400
107,800

131,000
107,800

- 24,000
2,025

c diagram

viewed by

er years 1966-70

Contents
68,700
69,100
219,100
214,000
230,500

4.82 ft) ; minima
ft) .

e capacity, 430,
(spillway crest)

Geologica

35.5 430,900

3 SEPTEMBER 1966

JUN JUL

107,200 84,439
106,500 83,500
105,900 82,403
104,900 81,433

102,600
102,000
101.400
100,800

99,800
98,800
98,300
97,700
96.900

96,100
95,200
94,100

92,400

90.900
90.200
89,500
88,300

87,300
86,600
85,800
85,100
84,500

107,200
84,500

81,130
81,000
81,090
80,030
78.930

78,700
78,639
78,500
78,500
78,300

77,330
76,330
76.100

75,930

75,800
74,700
73,700
73,533

73,400
73,333
73,200
73,100
72,200
71,100

84,433
71,100

- 23,300 -13,400
2,157 1,903

1 Surve

t)

AUG

71,100
71,200
71,200
71,300

71,503
70,500
7D,60C
70,800
70,900

71,000
71,100
71,100
70,200
70,200

70,300
70,400
70,500

70,600

69,700
69,800
70,000
70,100

70,300
70,400
69,500
69,600
69,800
70,100

71,500
69,500

- 1,000
1,806

Elevatioi
164.9
165.1.
202.9:
201.9i
205.0

300
above

SEP

70,330
70,603
69,900
69,200

69,600
69,800
70,000
70,200
69,500

68,700
68,830
69,130
69,400
69,700

70,000
69,400
68,700

69,300

69,900
70,300
69,700
69,100

69,400
69,700
70,130
70,400
70,800

70,800
68.700

+ 700
1,288

t ELEVATION, IN FEET, AT END OF MONTH, t CHANGE IN CONTENTS, IN ACRE-FEET.
tt EVAPORATION, IN ACRE-FEET.

SAN JOAQUIN RIVER BASIN 607

11322300 CAMANCHE RESERVOIR NEAR CLEMENTS, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEET, AT 2400, HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY OCT NOV DEC JAN FEB HAR APR HAY JUN JUL AUG SEP

1 70,200 70.400 73,600 112.300 162,600 208,800 273,900 312,100 312,400 402,900 423.100 380,903
2 69,600 70,600 74.100 117,100 172,600 210,200 276,100 311,300 310,400 406,200 423.000 378,400
3 69,700 70,800 74,000 113,000 174,600 211,600 278,200 310.600 307.600 410.900 422,800 37S.800
4 69,800 70,900 74,100 114.000 176,700 213.100 279.900 309,700 304,600 414,000 422,300 373,400
5 70,000 70,700 74,700 114,900 178,900 214,600 282,000 308,800 304,100 414,200 420,900 371,800

6 70,200 70,700 76,000 115,900 180,600 215,800 285,500 307,900 304,400 413,739 419,300 370,300
7 70,400 70,900 77,100 116.600 182,000 217,300 292,700 307.100 303,700 415.000 418,000 368,700
8 69,800 71,000 78,600 116,500 183,400 218,700 294,900 306,500 304,500 416,500 416,400 367.100
9 69,300 71,200 80,200 117,500 184,700 219,300 297,100 304,400 305,800 416,800 414,900 364,600
10 69,400 71,400 81,700 118,600 186,200 221,600 300,200 305,000 306,800 419.730 413,300 362,200

11 69,600 71,200 83,200 119,700 187,700 223,400 304,200 306,300 307,900 422,590 411,800 360,600
12 69,700 71,000 84,700 120,500 189,200 225,000 305,100 306,300 308,900 422,400 410.400 359,130
13 69,900 70,800 86,100 121,500 190,700 226,300 305,300 303,700 311,500 429,000 409,100 357,500
14 70,200 71,000 87,600 122.400 192,000 227,100 305,400 301,200 314,500 425,700 407,700 355,800
15 69,700 71,500 89,000 122,300 193,300 228,400 307,300 301,800 317,500 425,200 406,300 354,300

16 69,100 71,800 90,500 123,100 194,800 230.600 308,800 303.000 321,800 425,000 404.600 351,900
17 69,300 72,000 91,900 124,100 195,800 233.400 309,600 305,300 327,000 423,900 403.200 349,300
18 69,500 72.200 93,300 125,000 196,500 236,200 313,500 305,200 335,000 423,300 401,700 347,700
19 69,600 72.300 94,700 125,900 197,200 240,800 315,400 305,100 342,800 422,800 400,100 346,400
2C 69,900 72,100 96,400 127,100 197,800 245,500 315,400 304,800 348,800 422.030 308.600 345,100

21 70,100 72,400 97,800 130,700 193,500 247,700 316,100 305,200 354,600 421,800 397.100 343,600
22 69,600 72,600 99,200 131,400 199,103 249,700 317,300 308,700 360,600 421,930 395,700 341,600
23 69,100 72.800 100.600 132,700 200,200 251,600 316,500 312,600 366,700 422,100 394.400 338,800
24 69,400 72.700 102,100 134,500 201,700 255,100 315,900 316,500 371.500 423.500 393,000 335.900

26 69,900 72,800 105,000 137,800 204,600 259,500 315.500 317,700 388,200 423,330 389,700 332,300
27 70,200 72,600 106,500 139.300 206,100 261,300 316,100 317,000 387,300 423,300 388,300 330,500
28 70,400 72,900 107,900 141,000 207,500 263,300 316,100 315,900 391,000 423,300 386,800 328,600
29 69,900 73,100 109,409 143,100 266,000 315.400 315,300 394,500 423,290 385,303 326,900
30 69,600 73,300 110.903 145,830 268,800 313,100 313,600 398,400 423,200 383,900 324,100
31 70,200 112,400 15?,500 271,300 314,600 423,190 382,500

M1N 69,100 70,400 73,600 112,100 162,600 208,800 273,900 301,200 303,700 402,900 308,600 324,100
(t) 165,550 166,740 179,040 189,140 200,720 212,110 218,800 219,030 231,150 234,380 228,960 220,480
(t) -600 +3,100 +39,100 +40,100 +55,000 +63,800 +41,800 +1,500 +83,800 +24,800 -40,600 -58,400 (tt) 932 396 179 273 452 1,115 1,310 2,889 3,385 5,573 5,133 3,367

CAL YR 1966 MAX 138,500 MIN 68,700 t -20,000
WTR YR 1967 MAX 425,700 MIN 69,100 t +253,300

t ELEVATION, IN FEET, AT END OF MONTH,
t CHANGE IN CONTENTS, IN ACRE-FEET.
tt EVAPORATION, IN ACRE-FEET.

CONTENTS, IN ACRE-FEET, AT 2400, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP

1 322,400 273,700 275,503 294,500 305,500 301.100 314,ICO 296,800 277,100 257,100 238,300 224,800

3 319,300 270,600 276,400 295,400 305,300 300,600 314,400 295,700 275,500 256,100 237,400 223,700
4 317,800 269.500 276,800 296,000 305,300 300,400 314,100 294,700 274,800 255,790 236,300 223,600

6 314,500 268,300 277,800 296,000 304,500 299,900 313,300 293,200 273,400 254,300 235,400 223,700

9 309,909 268,700 279,902 297,000 304,100 300,500 312,000 291,630 270,600 252,303 234,100 222,233
10 308,200 268,800 279,700 297,900 303,600 300.200 311,700 291,100 269,900 251,700 233,800 222,200

11 306,600 268,800 280,600 298,300 303,200 300,100 311,100 290,200 269,200 251,330 232,800 222,290
12 304,900 268,800 281,500 299,000 303,100 300.100 310,600 289,100 268,600 250,800 232,300 222,300
13 303,400 268,600 282,300 298,600 302,900 300,100 309,600 288,600 267,800 250,203 231,900 222.400
14 301,600 269,200 283,100 298,900 302,700 300,500 309,100 288,200 267,200 249,133 231,500 221,800
15 300,200 269,4CC 284,000 299,400 302,700 301,700 308,500 287,800 266,100 248,630 231,100 221,000

16 298,500 269,300 284,900 299,800 302,700 302,900 307,800 287,300 265,100 248,103 230,800 220,930

18 295^300 269,'sCO 2B5,'sOO 300,'700 302,? 400 304J700 101', 500 28fc',000 264^100 247^100 229J500 221J100
19 293,700 270,200 286,700 301,300 302,500 305,500 305,900 285,000 263,800 246,600 229,300 221,100
20 292,100 270,800 287,700 300,900 302,600 306,400 395,000 284,500 263,400 246,100 228,900 221,100

21 290,400 271,500 288,600 300,600 303,000 307,100 304,100 284,100 262,900 245,000 228,6CO 220,400

23 287,400 271,700 290,800 301,300 302,600 308,800 302,600 282,900 262,100 244,000 228,200 219,833
24 286,000 272,200 290,600 301,800 302,400 309,700 302,000 282,600 261,100 243,333 227,900 219,900
25 284,500 272,000 290,400 302,200 302,200 310,400 301,300 281,800 260,500 242,830 227,000 220,103

26 283,000 271,800 291,300 302,700 302,009 311,300 300,600 280,900 260,200 242,200 226,700 220,200

28 280,000 273,003 293,300 301.800 301,900 313,400 298,700 280,100 259,200 240,600 226,300 219,700

31 275,400 29*,900 305,600 315,500 278,100 238,800 225,700

MAX 322,400 274,500 295,200 305,600 305,600 315,500 315,100 296,800 277,100 257,100 238,300 224,800
MIN 275,400 268,300 275,500 294,500 301,500 299,900 297,200 278,100 257,700 238,800 225,700 219,100
(t) 212,790 212,640 215,960 217,640 216,990 219,170 216,320 213,230 209,810 206,510 204,140 202,940
(t) -48,700 -900 +20,400 +10,700 -4,100 +14,000 -18,300 -19,100 -20,400 -18,900 -13,100 -6,500
(tt) 2,140 820 753 764 541 1,403 3,249 3,699 4,789 5,002 3,829 3,317

+ ELEVATION, IN FEET, AT END OF MONTH,
t CHANGE IN CONTENTS, IN ACRE-FEET.
+t EVAPORATION, IN ACRE-FEET.

11322300 CAMANCHE RESERVOIR NEAR CLEMENTS, CALIF.--CONTINUED

CONTENTS, IN ACRE-FEETi AT 2400, HATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY

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MAX
HIM

(t)

w (tt)
CAL
WTR

t
t
tt

DAY

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MAX
MIN

(t) C*) Ctt)
WTR

t

OCT

219.000
219,000
218,800
218,900
218,300

217,700
217,500
217,300
217,300
217,200

217,100
216,700
216,300
216,000
216,000

216,000
216,000
215, 900
215,600
215,100

215,000
215,000
215,000
215,000
215,000

214,700
214,200
214,100
214,100
214,000
214,200

219,000
214,000
202,010
- 5,000
1,821

YR 1968 MAX
YR 1969 MAX

NOV DEC

214,500 225,200
214,700 225,700
215.100 226,200
215.500 226,700
215,700 227,000

215,900 227,300
216,200 227,100
216,400 227,000
216,200 227,500
216,000 228,100

215,900 228,300
216,200 228,800
216,400 229,600
216,800 229,800
217,400 230,000

217.900 230.400
218,400 230,900
219,200 231,300
219,800 231,600
220,400 232,000

221,000 231,800
221.600 231,600
222.200 232,400
222,700 233,900
223,200 235,700

223,800 237,100
224,500 238,700
224,300 240,100
224,900 241.400

244,100

225,500 244,100
214,500 225,290
204,110 207,460
+11,300 +18,600
748 721

315,500 MIN 214
393,900 MIN 214

CHANGE IN CONTENTS, IN ACRE-F
EVAPORATION, IN ACRE-FEET.

CONTENTS. IN

OCT NOV DEC

303,900 264,500 265,800
302,700 264,200 265,800
301,400 265,100 265,800
299,400 266,300 266,000
297,300 267,300 266,300

296,000 268,200 266,000

293,800
292,700
291,500

289,300
287,100
286,200
285,200
284,600

283,600
282,500
280,600
278,500
277,500

276,800
275,600
274,400
273,400

269,300
268.200
267,300
266,400
265,400
?65,000

303,900

211,060
- 40,000
2,310

268.200 266,400
267,500 267,200
267,600 268,000

266,800 268,700
267,100 269,400
267,100 269.200
267,300 268,800
267,100 269,503

266,200 270,100
266,400 270,800
266,600 271,400
266,900 272.600
267,100 273,600

267,300 273,800
267,000 274,400
266,100 275,000
266,200 275,390

266,700 277,900
266,000 278.800
266.300 279,800
265.800 280,600
264.900 281.600

268,600 282,500

- 100 +17,600
1,087 788

YR 1970 MAX 372,000 MIN 231

245,600
246,900
248,200
249,600
250,900

252.300
253.600
254,900
256,300
257,500

259,200
260,500
263,100
264,700
266,000

267,300
268,400
270,500
272,700
279,500

302,200
303,000
304,300
307,500

310,600
312,300
313,300
313,800

308,100

313,800
245,600
218,030
+64,000
720

,000 t
,000 t

MONTH.
EET.

ACRE-FEE

283,400
284,300
285,200
286,000
287,000

287,900

290,300
291,100
292,100

292,700
293,600
294,700
297,100
298,100

301,500
305,300
308,900
312,600
315,300

318,200
320,600
321,800
322,400

322,403
319,500
316,400
312,200
307,800

323,400

+18,700

,300 t
.,400 t

MONTH.

303,600
299,000
295,500
293,000
290,900

288,900
286,300
283,200
280,000
277,800

277,600
277,400
277,000
276,900
279,200

280.900
281,500
281,200
280,100
278,500

275,600
275,000
274,400
273,400

272,200
270,900
273,600

303,600
270,900
212,490
- 34,500
946

- 50,800
+85,800

T, AT 2400

294,100
287,700
281,000
275,200
270,300

265.100

255,600
250,400
245,400

241,300
237,200
236,100
234.100
231,400

231,400
234,000
234,303
234,600
234,300

233,900
233,500
233,109
233,500

233,600
233.000
232,900

294.100

- 68,300

+38,400
- 16,100

279,100
284,400
284,400
282,500
281,000

278,100
275,400
273,700
272,200
269,500

267,000
265,000
263,200
260,900
258,600

255,700
252,500
249,800
248,100
247,700

245,400
243,200
241,100
240,500

239,900
239,300
238,900
238,200

284,400
237,600
206,540
- 34,700

, HATER

238,300
239,000
238,300
237,600
236,900

236,600

235,100
237,700
239,500

238,400
237,600
238,300
238,900
239,300

240,000
241,400
242,500
243,200
244,000

244,800
245,500
246,300
248,700

253,200
255,300
256,400
257,200
257,900

258,600

+25,700

239,400
240,500
241,400
240,800
244,100

245,200
246,000
248,000
249,400
248,100

246,600
246,400
246,400
247,000
248,400

251,600
250,700
248,900
248,900
247,900

248,300
250,400
250.900
249,900

248,700
246,600
245,300
243,400

251,600
239,400
207,110
+3,200

241,600
239,600
238,500
236,300
233,200

232,300
232,500
233,000
234,400
234,700

236,000
235,800
235,000
234,600
238,000

242,100
246,200
250,300
254,400
258,300

266,800
271,000
275,600
280,009

284,700
289,200
293,900
298,900

308,900
232,300
218,150
+66,800

YEAR OCTOBER 1969

259,300
260,000
260,800
261,500
262,209

263,000

264,200
265,000
265,700

266,300
267,100
268,200
268,900
269,800

270.400
271,100
271,800
272,500
273,200

273,900
274,603
275,200
275,900

277,100
277,400
277,900
278,200
278,700

278,700

+20,100

280,290
280,900
281,600
282,200
282.800

283,200
283,800
284,400
284,900
285,400

285,900
286,500
287,000
287,690
288,100

288,700

289,700
290.200
290,700

291.203
291,700
292,300
292,800

296,900
302,100
306,600
339,800
313,200

317,400

+38,700

313,900
318,700
320.400
325,300
330,700

336,100
340,300
343,200
345,400
345,200

344,100
343,600
345,300
348,700
352,100

355,800
362,809
366,500
368,400
372,000

379,000
380,900
383,400
386,800

387,900
389,600
390,300
390,900

390,900
313,900
230,110
+81,900

TO SEPTEMB

321,900
324,000
327,100
331,900
334,800

338,000

343,100
352.000
355,200

356,400
357,000
358,000
358,800
359,400

359,900

360,903
361,900
363,000

364,100
365,100
365,800
366,500

367,100
369,500
371,200
371,500
371,500

371,500

+54,100

391,100
392,800
393,100
393,900

393,000
392,500
391,893
391,100
390,300

389,909
389,400
388,839
388.100
387,300

386,600
385,800
385,000
384,299
383,500

381,900
381,100
380.403
379,639

378,809
378,100
378,239
376,500

393,933
375,000
227,910
- 15,800

IER 1973

JUL

372,300
372,333
372,309
372,000
372,333

372,000

370,439
369,900
368,930

367,500
365,903
364,833
363,700
362.600

361.630

359,200
357,600
356,533

355,500
354,490
353,400
352,300

349,333
348,133
347,100
346,000
344,900

372,000

- 27,600

373,900
373,100
371,000
370,000

368,100
366,800
365,800
364,800
362.700

361,400
360,500
359,300
358,200
357,500

356,400
354,200
353,200
352,300
351,200

349,200
348,000
346,000
345,000

343,900
342,900
341,809
340,800

373,900
337,200
222,440
- 37,800

AUG

342,500
340,903
339,900
338, 700
337,600

336,400

334,103
332, 40C
331,403

330, 20C
329,300
328,400
327,500
326,103

324,600

322,900
322,200
321,400

323.803
319,800
318,700
317,900

316,600
315,900
315,300
314,200
313,000

342,500

- 31,500

335,700
335,000
334,400
333,900

332,503
330,700
329,900
329,300
328,600

327,939
327,300
326,700
324,700
324,100

323, 230
322.300
321,433
320,430
318,709

316,900
316,030
315,000
313,800
312,700

311,500
309,400
307,300
336,130
305,000

335,730
305.030
217,550
- 32,200

SEP

311,303
310,933
310,233
309,700
308,500

307,300

305,503
304,900
334,330

303,600
302.530
301,203
300, 500
299,933

299,400

298,200
297,130
295,930

295,203
294,530
293,930
293,433

291,830
290,603
290,003
289,400
288.900

311,833

- 23,500

SAN JOAQUIN RIVER BASIN

11323500 MOKELUMNE RIVER BELOW CAMANCHE DAM, CALIF.

DRAINAGE AREA.--627 sq

GAGE.--Water-stage recorder. Datum of gage is 82.71 ft (revised) above mean sea level. See WSP 1930 for history of changes prior to Oct. 1, 1961.

Maximum
Wtr yr Date
1966 Oct. 7, 1965
1967 May 24-26, 1967
1968 Oct. 10-14, 16, 17, 19, 1967
1969 Jan. 28, 1969
1970 Jan. 24, 1970

Discharge G.H.
2,120 6.91
3,140 7.82
1,580 6.30
4,940 10.01
5,130 9.96

ight in feet) fo

Minimum daily
Date Discharge
Feb. 13-15, Mar. 13, 1966 206
Dec. 22-27, 1966, Feb. 7-23, 1967 59
Nov. 16-18, 20-28, 1967 109
Nov. 18, 1968 100
Nov. 2, 1969 83

Period of record: Maximum discharge, 28,800 cfs Nov. 21, 1950 (gage height, 24.40 ft, site and datum then in use); no flow July 9, Aug. 15, 20-23, 1924.

REMARKS.--Re

March 1931 by Salt Sprii
ion 11320000), several sr

gs Re station 11313500), since March 1929 by Pardee Res-
and by four powerplants. East Bay Municipal Util-

Pardee Reservoir full. See atic diagram of Mokelumne River basin elsewhere in thi

REVISIONS (WATER YEARS).--WSP 751: Drainage area. WSP 881: 1905-9(yearly sum
1971(M), 1925 CM).

only). WSP 1445: 1911,

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

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6
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9
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1

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4

6
7
8

21
22

25

26

28

30

MEAN
MAX
MIN
AC-FT

AC-FTt

OCT

1,890

2,060
2,060

2,080
2,080
2,080

2,080
2,080

2,060

2,060

2,060

2,061
2,080
1.890
126,700

40,230

NOV

2,070

2,070
2,070

2,050

2.050
1,800

855

849

845

1,758
2,090
844
104,600

45,780

DEC

823

465

70

85

85

538
841
460
33,110

32,260

JAN FEB MAR

696 689 209

693 ,060 332

692 ,070 332

612 778 519
752 1,070 1,070
470 2C6 206
37,630 43,210 31,940

36,120 41,870 23,460

APR

213
2L3

211
211

386
388
387

486

460

459

361
525
211
21,460

35,680

MAY

538

528
521

491
48 I

480
495

500

470

480

500
542
463
30,720

8,740

JUN

511

512

511

489
492

520
536

557
553

548
536

540

548

514

527
557
489
31,330

10,190

JUL

499

5L1

520

520
515

515
515

515
510

51 1

513
510
510

510

510

505

5L1
521
494
31,400

19,940

AUG

485
480

463

464

450
455

476
475

472
474

453

453
457
453

437

435

417

456
485
414
28,070

28,880

SEP

330
332

332
331

330

354
354

323
304

308
308

295

289
283
281
28L
280

280

280

280

312
355
280
18,560

20,550

CAL YR 1965 TOTAL 474,127 MEAN 1,299 MAX 2,840 MIN 216 AC-FT 940,400 MEANt 1,207 AC-FTt 873,600 WTR YR 1966 TOTAL 271,621 MEAN 744 MAX 2,090 MIN 206 AC-FT 538,800 MEANt 475 AC-FTt 343,700

t ADJUSTED FOR CHANGE IN STORAGE AND EVAPORATION FROM CAMANCHE RESERVOIR.

SAN JOAQUIN RIVER BASIN

DAY

1
2
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16
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31

MEAN
MAX
MIN
AC-FT
MEANt

CAL YR

OCT

2TB
279
284
287
287

287
278
272
275
275

275
275
269
260
260

260
260
260

25*

248
245
245

248
248
248
242
160
109

256
287
109
15.740
261

113

DISCHARGE.

NOV

93
95
107
116
116

120

118
114
99

99
99
99
99
100

99
101
102

100

101
102
102

99
99
102
99
99

103
120
93
6.140 4
162

1966 TOTAL 151,776

t ADJUSTED FOR

DAY OCT

1 1.450

3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18

20

21
22
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24
25

26
27
28
29
30
31

MEAN
MAX
MIN

MEANt

1,450
1,450
1,450

1,470
1.460
1.460
1.460
1.520

1,570
1,570
1.570
1.570

1.570
1,570
1.570

1.560

1.560
1,560
1,560
1.550
1,550

1,550
1,560
1,550
1,550
1.540
1,540

1,529
1,580
1.450

772

23500 MOKELUMNE RIVER BELC

IN CUBIC FEET PER SECOND,

DEC JAN FEB

86
109

146

87
85
90

87
87
87
87

71

71

59
59
59

59
59
62
62
62

78.7

59
,840 5
718

MEAN 416

62
62

62

62
62
62

62
62
62
62

65

80
138
87

71

71
121
131

83.6

62
,140
740

MAX

62
62

60

59
59
59

59

59

59

63

62

62

60.8

3,380 6

1,070 MIN 59

CHANGE IN STORAGE AND EVAPORATION FROM

DISCHARGE, IN CUBIC FEET PER SECOND,

NOV DEC JAN FEB

562
376

373
373

373
373

373
373
282
110

109
109
109

109

109
109
109
109
109

109
109
109
111
115

329
1,540
109

328

119
121

119
120

119

119
119

119

119
120

119

119
119
119
119
119

119
119
117
119
119

119
121
117

463

196
196

195
195

95

95
95

202

196

195

195
197
195
195
195

195
195
195
195
243

194
243
119

381

19B
198

198
198

198

95

95

202

215

583
935
931
931
929

929
927
928
929

414
935
195

352

W CAMANCHE DAM, CALIF .- -CONTINUED

WATER YEAR OCTOBER 1966 TO SEPTEMBER

61
61

61

62
62
61

62

91 1

164 2

164 2

164 1

164 2
164 2
170 2

100 1

,160 75

455 3,090
454 3,080

464 3,080

469 3.080
463 3,080
615 3,080

985 3,090

. 500 3,100

,010 3,110

,000 3,110

,620 3,130
,840 3,100
,830 3.090

. 275 3.091

. 860 190.100

AC-FT 301,000 MEANt

CAMANCHE RESERVOIR.

WATER TEAR OCTOBER 1967

MAR APR MAY

916 296 463

917

916
918

924

919

330

237

226
225

225
225
225
225
225

225
225
228
228
228

528
954
225

779

251 468

243 468
246 463

246 460
319 459

365 459

364 458

367 54

419 50
419 50

419 48
419 50
419 50
438 45
450 441

441 41
459 41
459 41
464 41
464 41

464 468
243 441

110 204

3.110 2.
3,100 1,

3,100 1,

3, ICO 1,
2,910 1,
2,570 1.

2,570 1.

1.180 1,
903 1,

903 1,
903 1,

910 1,

924

931

1,400
1,400
1,400

1,811 1,

107,800 73,

408 AC-FTt

TO SEPTEMBER

JUN

440
450

473

482
477

477
477

477

482

482
482
482
482
482

482
482
482
482
486

500
500
500
500
500

500
438

217

1967

030
960

613
730
580
183
140

133
020

240
683

680
683

183

565

735

733
733
733

203

980

295,

1968

JUL

599
500
500
500
500

500
505
505
505
500

500
500

500

500
500
593
515
515

520
520
515
515
520

515
515
520
525
523
520

525
500

282

733

962
1,300

1,300
1.300
1,300
1.300
1,290

1,290
1,290

1,290
1,300

1,310
1,310

1,310

1,310

1.310

1.300
1.300
1.300

1.236

731
76,000
659

300

AUG

520
519
515
518
520

520
498
482
482
482

482
482

467

468
468
468
460
450

450
437
426
427
428

428
428
428
428
428
428

520
426

316

1,330

1,290
1,290

1,290
1,290
1,290
1.300
1,300

1,300
1.310
1,310
1,310
1,330

1,300
1,300

1,290

1,410
1,470

1,460

1,450
1,450
1,450

1,343

1.290

79,940
418

SEP

428
428
427
379
354

356
353
354
363
349

340
342
350
350
334

350
332
337
352
353

350
334
321
320
339

324
314
320
314
320

428
309

295

WTR YR 1968 TOTAL 175,338 MEAN 479 MAX 1,580 MIN 109 AC-FT 347,800 MEANt 376 AC-FTt 273,200

t ADJUSTED FOR CHANGE IN STORAGE AND EVAPORATION FROM CAMANCHE RESERVOIR.

SAN JOAQUIN RIVER BASIN

11323500 MOKELUMNE RIVER BELOW CAMANCHE DAM, CALIF.--CONTINUED

DAY

1
2
3
4

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MAX
MIN
AC-FT
MEANt
AC-FTt

WTR YR

t ADJ

DAY

1
2
3
4
5

6
7
8
9
10

12
13
14
15

16
17
IB

20

21
22
23
24
25

28
29

31

MEAN

MIN
AC-FT
MEANt
AC-FTt

WTR YR

OCT

298
281
271
258
259

258
250
240
241
241

242
241

230

222
212
221
219
219

216

216
225
225

223
223
225
225

121

298
121
14.260
180
11,080

USTED FOR

OCT

1.090
1.090
1.090
1.090
1.090

1.090
1.090

1.100

1.100
1.090
1.100
1,100

1.090
1,100
1.090

1.210
1,360
1,350
1,360
1,360

1,350
1,350

1,080

1,174

l.OBO
72,160

34,470

121
121
125
121
120

119
119
121
122
121

121
119

102

101
101
100
104
104

104

104
104
104

104
104
104
103

125
100
6,600
313
18,640

104
104
104
104
171

184
106
106
106
107

106
106

115

106

165
104

104

104
105
112

114
106

105

104

184
103
7,010
428
26,330

104
104
104
104
104

104
104
104
104
104

105
106

112

108

616

2,020

4,720
4,590
4,310

4,300

4,900

4,430

4,920
104
99.560

164,300

315 MA

CHANGE IN STORAGE AND EV«

DISCHARGE, IN CUBIC FEET

318
83
84
211
393

409
416

41B

4 9
4 9
4 9
4 9

4 B
4 4

414
414

414
414

414
414

382

83
22,740

23,730

414
414
414
414
177

164
164

164

171

171
166

165

169
160

183
319

313
313

313

232

158
14,270

32,660

313
313
313
313
311

309
308

430

421

553
1,390

3,490

3,610
4,080

5,030
4,980

4,950
4,930

4,900

2,449

150,600

170,600

3,870
3,850
3,340
2,820
2,830

2,820
2,810
2,800
2,420

1,990
1,990

2,170

2,590

2,590

2,580

2,630
2.61D
2,600

2,600

3,870
1,960
147,200

113,700

2,580
2,590
2,590
2.590
2,590

2,570
2,590
2,590
2,590

2,280
2,060

2,570

2,570

2,040

2,040

2,020
2,020
2,020

2.020

2,040

2,040

2.590
2.020
141.700

2,040 2,930
2,040 2,920
2,040 2,920
2,040 2,920
2,060 2,720

2,270 2,030
2,500 1,990
2,480 2,270
2,480 2,470

2,480 2,710

2.710 3,170

2,720 3,200

2,740 3,180

2.780 3,040
2,930 2,970
2,950 2,980

2,930 2,970

2,930 2,980

2,930 2,720
2,950 2,730

2,740

2,950 3,200
2,040 1,990
153,900 174,900

TO SEPTEMBER 1969

2,740
2,740
2,740
2,600
2,490

2.500
2.510
2,240
1,790

1,410

833
833

840

833
833

840
833
826

833

833
833
840

2,740
826
83,830

108,600 159,300 245,400 170,200

MIN 100 AC-FT 254,800 MEANt 322 X 4,920 MIN 100 AC-FT 1,024,000 M

PORATION FROM CAMANCHE RESERVOIR.

PER SECOND, WATER YEAR OCTOBER 1969

4.BBO
4,850
4,820
4,370
3,820

3.360
3,340

3,320

2,660

2,690
2,680

2,020

1,570
1,570

1,470

1,260

2,652

147,300
1,437
79,830

1.280
1,270
1,490
1,590

1.550
1.550

1,570

1.470

1,370
1.370

406

415
416

416

417
419

415

937

57,610
1,389
85,380

420 65
418 68
420 63
420 56

418 77
422 506

420 507

422 489

404 520
405 510

410 505

404 516
442 499

456 500

462 504
461 505

505

427 496

25.400 30.490
808 1,195
48,050 73,480

EANt 1,578

TO SEPTEM

JUN

507
504
505
505

500
501
516

540

549

547
548

548
54B

548
548

593

591
584
637

547
637

32,560
1,539
91,550

840
840
1,210
1,230
1.240

1,220
1,190
1,190
1,190

1,190

1,190
1,190

1.200

1.190

1,190
1.190
1.190

1,050
1,020
1.020
1.020
1,020
1,020

1.240
840
70.200

60,660

AC-FTt
AC-FTt

)ER 1970

JUL

661
673
673
673

704
726
724

753

774
802
822
822

822
821
821
821
B19

820
820
820

B16

818
814
814
821
818
819

775
822

47,680
431
26,510

AC-FTt

1,020
1,020
1,020
1,020
1.020

1,020
1,030
1,030
1,030

1.030

1.050
1,040

1,040

1,050

1,050
1,050
1,060

1,060
1,060
1,060
1,060
1,070
1,070

1,100
1,020
64,250

32,230

233,800
1,142,000

AUG

817
B15
814
818

BIB
818
817
817
818

785
774
749
724

724
705
683
650
625

614
602
602
603
609

614
614
614
614
614
614

714
818
602
43,880
290
17,830

701,000

1,070
1,020
979
977
977

984
985
1,000
998

986
978
980
973
973

973

966

966
959
,040

,120
,120
,120
,080
,080

30,425

1,120
959
60,359

32,060

SEP

612
612
614
613

614
614
614
613
607

606
606
605
605
604

604
605
60B
608
608

607
604
603
607
633

603
603
603
600
600

607
614
600
36,140
285
16,940

t ADJUSTED FOR CHANGE IN STORAGE AND EVAPORATION FROM CAMANCHE RESERVOIR.

SAN JOAQUIN RIVER BASIN

11325000 WOODBRIDGE CANAL AT WOODBRIDGE, CALIF.

PERIOD OF RECORD.--A

GAGE.--Water-stage r

70.

by Ea

corder and gate-opening recorde of gage 32.18 ft abov

ight bank at

el (le

earn at different datum.

AVERAGE DISCHARGE.--44 years, 136 cfs (98,530

EXTREMES.--Period of record: Maximum daily di

cre-ft per year).

charge, 482 cfs July 8, 1953; no flow at times ch ye

DISCHARGE, IN CUBIC FEET PER SECONO, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
IT
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
M1N
AC-FT

HTR YR

OCT

158
165
166
1ST
158

150
139
136
135
134

132
131
136
1*1
124

112
108
108
121
135

142
145
141
133
132

137
136
14T
144
132
133

4,268 1,
138
166
108
8,470

1966 TOTAL

134
134
123
113
10T

105
103
8
2
4

4
1
1.9
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

239.9
41.3
134
0
2,460

54,849.00

0
0
0
0
0

0
0
0
0
0

0
0
D
0
0

7.1
72
122
170
251

306
325
320
306
304

303
292
291
289

2T9

0 0 0 0 121
0
00000

0 0 0 325

MEAN 150 MAX 368 MIN 0 AC-FT 108,800

269
269
278
303
322

339
346
344
352
347

347
338
341
352
336

334
331
346
349
341

334
329
333
324
316

311
306
308
306
311
316

325
352
269

JUN

327
330
334
335
329

331
339
338
335
331

315
295
301
315
316

324
333
338
341
349

351
368
368
365
359

344
351
352
349
345

337
36B
295

JUL

316
319
317
321
319

326
334
335
336
336

338
340
332
328
321

333
333
343
346
341

333
329
316
316
337

337
333
324
331
329
323

339
346
316

AU(

32 C
331
33?
32 C
32C

32<
32C

33(
312
296

29C
29C
29
29
31

32
32
31
30
30

30
30
3
2
2

2'

2
28
29
28

30
33
27
18,85

SEP

278
255
229
211
201

198

) 198
199
200
291

210
> 211
206
195
192

185
178
167
172
175

179
178
177
175
175

176
171
168

169

193
278
! 167
11,500

SAN JOAQUIN RIVER BASIN

H32SOOO WOODBRIDGE CANAL AT WOODBRIDGE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

1 163
2 146
3 143
4 139
5 146

6 149
7 145
B 135
9 133
10 130

11 130
12 130
13 131
14 133
15 135

16 136
17 127
IB 121
19 122
20 133

21 134
22 132
23 132
24 132
25 131

26 131
27 135
28 137
29 136
30 131
31 91

OTAL 4,14B
EAN 134
AX 163
IN 91
C-FT 8,230

DAY

7
8

10

11
12
13
14
15

16
17
IB
19
20

21
22
23
24
25

26
27
2B
29
30
31

TOTAL 4,
ME IN
MAX
MIN

AC-FT 9,

OCT

72
65
65

T2Te
T2
67
61
59
58

70
74
74
70
67

67
59
58
46
43

37
43
51
54
62

72
72
62
46
24
40

J54
57
74
40
30

WTR YR 1968 TOTAL

NOV

49
7.9
0
0
C

C
0
C
0
0

0
0
0
0
0

C
C
0
0
0

0
0
0
0
0

0
0
0
0
0

56.9
1.90
49
0
113

DISCHARGE,

NOV

0
0
0
0
0

55,743.00

0 0 0 0

0000

0 0 0 0

0000

IN CUBIC FEET PER SECOND, WATER

DEC JAN FEB MAR

0
0
0
0
0

0
20
47
47
40

30
30
20
20

10
0
0
0

10
20
20
30

40

60
75
91

0 0 0 26.3
0
0000

0 0 94

000 1,610

MEAN 152 MIX 344 MIN 0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
27

40
41
40
40
41

229 6
7.63

0

AC-FT 100,300

YEAR OCTOBER

APR

90
93
97
97

96
100
108
144
172

194
206
212
234

228
229
256
267

264
263
263
264

264

291
308
309

203
309
90
12.110 IB,

AC-FT 101,500
AC-FT 110,600

1

4
6
B

96
113
140
172
175

182

221
222
231

267
280
279
281
286

280
286
280
320
324

329
315
299
303

296

216

41

1967

MAY

309
314
311
307

320
320
304
283
276

273
274
290
289

293
291
283
290

296
300
301
295

294

303
301
296

296
320
273

JUN

280
277
286

289
289
294
298
299

303

326
339
342

352
359
365

363

367
374
373
376
379

382
383
387
370

335

277

TO SEPTEMBER

JUN

273
276
278
2 84

310
315
323
323
331

326
326
338
344

338
339
339
331

306
302
309
309

311

307
305
304

315
344
273

JUL

32T
321
323

324
332
327
305
310

324

332
331
326

316
369
388

3T7

365
349
324
333
357

377
369
353
337

331

340

305

196B

JUL

315
316
312
306

306
307
305
306
297

294
293
293
297

297
305
338
316

321
326
335
328

318

316
327
335

311
338
293

AUG

380
378
380

373
363
359
359
351

363

334
334
346

367
375
371

348

355
359
371
372
364

353
347
350
348

340

360
380
334

AUG

340
337
337
331

339
335
314
304
302

308
311
307
304

300
304
307
304
302

286
283
280
280

282
282
281
279
278

304
340
271

SEP

309
337
313

311
308
318
316
307

308

299
278
262

247
232
222

221

211
205
205
189
186

189
IBS
186
184

255
340
173

SEP

268
262
268
259

229
215
204
206
203

IBS
190
291
210
214

220
224
221
218
209

234
293
195
191

184
176
166
162
161

210
268
161

SAN JOAQUIN RIVER BASIN

11325000 WOODBRIDGE CANAL AT WOODBRIDGE, CALIF.--CONTINUED

2
3

5

6
7
8

10

11

13
14
15

17

19
20

21
22
23

25

26
27
28

TOTAL

MAX

AC-FT

154
151

150

146
14*
1*3

123

116

111
106
97

B6

103
103

115
126
12*

119

120
119
119

3t637

15B

7,210

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCT01

15
15

5.0

5.0
5.0
12

26

22

41
65
92

15*

181
185

212
244
243

247

253
252
265

0 0 0 0 0 3,723.0

0 0 0 0 0 284

0 0 0 0 0 7,380

)ER 1968

301
293

309

306
301
300

332
317

310

304
298

297
297

302
294
305

9,417

332

18,680

TO SEPTEMBER

311
311

313

314
306

336
331

338

338
339

332
334

347
350
355

9,839 11,

355

19,520 22,

1969

379
371

371

370
367

359
368

361

350
353

364
371

366
357
356

288

379

390

363
361

352

351
34B

339
331

328

335
321

317
311

304
313
309

10,237

373

20,319

241
225

236

232
229

237

227
222
219

220

2C6
195

195
198
232

213

219
208
200

6,602

274

13,190

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1973

1
2
3
4
5

7
B
9
10

11

13
14
15

16
17
18
19
20

21
22
23
24
25

26

2B
29
30

TOTAL
MEAN
MAX
HIN
AC-FT

WTR YR

191
185
183
79
59

B3
77
6B
76

77

75
63
129

101
90
90
89
85

83
BO
88
82
73

74

70
27
0

3,700 0
119 0
191 0
0 0
7,340 0

1970 TOTAL 60,361.00

0
0
0
0
0

0
0
0
0

0

0
0
0

0
0
0
0
12

33
31
30
49

70

85

141

0 0 0 825

0 0 0 0

000 175

000 1.640

MEAN 165 MAX 388 MIN 0

208
216
217

193
196
195

256

264
268
2B6

278
269
265
261
271

292
313
309

310

299

301

313
178
15.210

AC-FT 119,

303
2B8
284

295
308
324

335

327
325
317

316
301
313
322
320

318
318
317

328

340

344
284
19,550

700

333
335

325
331

340

357
357
360

360
355
355
355
353

342
340
348

353

334

360
325
20,390

359
351

343
342

371

352
355
369

371
373
367
365
362

374
3B3
388

375

3S3

38B
333
22,380

362
362

37B
369

362

370
376
355

341
349
352
347
348

316
315
306

301

293

378
270
20,910

270
270

214
219

222

201
200
202

199
193
193
191
180

180
181
180
180

1BO

174

270
173
12,310

SAN JOAQUIN RIVER BASIN

11325500 MOKELUMNE RIVER AT WOODBRIDGE, CALIF.

ict.

DRAINAGE AREA.--661 sq mi.

PERIOD OF RECORD.--May 1924 to September 1970 (low-water

GAGE.--Water-stage recorder. Datum of gage is 14.9 ft a Di

rds only 1924-25).

mean sea level (levels by East Bay Municipal Utility

Ma ch 1931 to July 25, 196

AVERAGE DISCHARGE.--41 years (1929-70),
aqueduct, 624 cfs (452,100 acre-ft pe

ince start of diversion through East Bay Municipal Utility District year).

EXTREMES.--Ma
1966-70 ar

and minimums (discharge in cubic feet per ained in the following table:

ight in feet) for the

daily
Wtr yr
1966
1967
1968
1969
1970

Date
Nov. 12,
May 3,
Oct. 31,
Jan. 31,
Jan. 29,

1965
1967
1967
1969
30, 1970

Discharge
2,510
2,970
2,170
4,660
4,720

G.H.
16.16
17.72
15.05
22.72
22.68

cfs Nov.

Date
May
Jan .
June
Oct.
May

22, 1950 (gas

25
6
22
10
6

;e

, 1966
, 1967
, Sept. 14,
, 11, 1968
, 7, 1970

height, 29.

Dischi

15, 17, 1968

58 ft), from rating curi

Sept. 19, 20, 22, 1927.

years 1966-70 are published in reports of the Geological Survey.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2

4
5

6
7
8
9
10

11
12
13

15

16

18
19

21

28
29
3C

MAX
KIN

,600

,720
. 680

,690
,720

,750

,750
,750
,740

,780

,780
,770

,750

,730
,740

,780

,760 762

,790 745

,780 739

,800 480

. 790 480
. 080 *80

,940 452

,980 444
,960 442

,950 442

770 485
762 474

',080 768

434 61D 612
432 315 286

612 205 215

611 918 205
611 942 203

628 278
684 272

684 966 966

253
253

185
121

120
141

28

24
24

21
19

18

18
18
18

100
255
18

18
18

22

19
22
32

39
50
41

21

21

21
20

20
17

19

19
20
21

743
24.0
50
17

20
22

32

40
36
33

21
22
22

22

24

31
39

28
26

26

26
26
26

873
29.1
47
20

26
24

25

24
25
27

42
29
26

25

26

33
24

22
22

24
26

23

22
22
23

823
26.5
46
22

49
30

26

26
29
32

25
25
26

41

32

26
27

29
32

35
36

35

39
45
39

988
31.9
49
25

36
27

25

24
24
25

26
26
26

26

28

26
27

32
30

27
27

27

28
28
27

812
27.1
36
24

AC-FT 781,700
AC-FT 351,600

SAN JOAQUIN RIVER BASIN

11325500 MOKELUMNE RIVER AT WOODBRIDGE, CALIF.--CONTINUED

DAY

1
2
3
4
S

6
7
8
9
10

11
12
13
14
15

16
17
IS
19
20

21
22
23
24
25

26
27
28
29
30
31

OC7

33
54
70
66
56

52
53
59
90
102

83
82
B4
75
68

63
67
65
67
68

66
61
59
59
53

50
51

48
97

MAX 102
HIN 33

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24

26
27
28
29
3B
31

MIN

OCT

,090
,100
,100
,100
,090

,100
,110
,120
,120
,120

,200
,219
,200
,190
,200

,200
,229
,220
,250
,240

,250
,250
,240
,230

,130
, 1BO
, 190
,210
,280
,660

,990

DISCHARGE,

MOV

132
164
202
234
186

121
113
98
87
86

77
74
71
71
76

102
77
77
83
116

82
57
65
64

64

65

234
57

NOV

1,550
1,420
1,160
817
477

408

375
366
358

355
354
369
363
237

142
132
120
116
106

99
95
99
101

86
85
85
86
92

85

IN CUBIC

68
78
69
64
78

110
90

66
66

60
57
56
62
56

55
52
45
43
43

41
21
58
3B

37

36
36

110
21

DEC

87
88
88
91
103

98

89

85

84
84
82
83
83

84
84
90
86
83

83
82
82
80

78
76
74
74
74

74

FEET PER SECOND, WA7ER

36
36

17

16
28

32

32
34

35
36

35
34
34
33
41

289
134
82

62

105

93 36
57 34

38 30
3B 33

36 27

36 40
36 43

35 39
35 38

35 52
35 71
62 50
37 38

35 18
34 18
34 20

35 20
31 22

39

16 27 18

75

115
150
153

154

152

163

153

153
165

156
152
150
150

150
150
149

150
152
150

55 858
54 860
52 B58

50 395

56 804

48 788

46 790

45 585
45 418

53 246
56 201
49 179
47 164

72 125
28 128
08 141

46 111
46 79

75 145 77

YEAR OCTOBER 1966

100
230

366
387

441

626
829

870
880

880
880
880
860

,200
,300
,750
,750

,750
, BOO

2.450

100

137
108
104

106
103
74

50

53

59
54

49
49
50
49

47
47
46

40
41
42

175
40

AC-FT 540

2,750

2.780
2,760

2,650

2,650
2,640

2,570
2.580

2,530
2,510
2.520
2,520

2,530
2.530
2.520
2.510

2,500
2,520

2,530

2,450

,700

42
42
43

42
41

37

37
37

38
37
36
36

38
37
36

35

33

43
33

,800

TO SEPTEMBER

2,590 1

2,590 1
2,610

2,240

2,060
2.080

1,090
645

549 1
511 1
487
476

450
404
412
415
421

421
413

787

404

JUN

33
34
35

36
36

36

34
35

34
33
32
32
32

31
29
30

36

37

37
29

1967

. 010
,070

,180
914
,240

539

644
522

404
932

,020
,020
980
684

552
299
187
128
150

196
200

201
218

128

JUL

38
36
37
37

37
39

38

40
43

41
41
40
36
37

38
40
43

32

38

41
32

188
196
203

678
694
696
705
679

681
732

737
715

696
683
685
719

737
710
703
687
717

724
739
751
735
726

186

AUG

39
40
40
44

42
41
38

36

40

39
36

36
38
42
55
5J

46
48
41
38
39

36

35

55
34

53
87
89
84
82

71
68
71
787
814

809
822

859
861

895
894
899
897
892

888
940
,030
,960
. 133

,060
,060
. 050
. 060
,060

1,100
753
53,140

SEP

36
42
42
35

33
32
30

30

33

29
29

30
29
32
33
33

46
55
46
41

40

40

55
29

SAN JOAQUIN RIVER BASIN

11325500 MOKELUMNE RIVER AT WOODBRIDGE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

L
2
3
4
5

6
7
8
9
10

11
12
13
1*
15

16
17
18
19
20

21
22
23
2*
25

26
27
28
29
30
31

MAX
MIN
AC -FT

CAL YR

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
2*
25

26
27
28
29
30
31

MAX
MIN

41
4L

40

40
41
41

38

38
39
57
L07
101

95
89
83

72

67

48
50
50
58

574

574
38
4,560

1968 TOTAL

OCT

785
790

834
826

607
833
822

812
814
816
810
915

IS
06
02
02
19

910
100
120
120
130

130
130

350
360

1,360
785

272
136

108

95

92

91

88
91
84
68
107

79
68

68

67

60
62

61
60

63

118

80

72
64
63
83
86

76

123

69

69 4,360 2,360
68 3,940 2,360

64 3,470 2,350

72 2,860 2,350

71 2,800 2,350

74 1,950 1,980

154 1,830 2,230

82 2,100

263 2,320

806 2,300

,690

1,890

83 4,180 2,350 1,860
80 4,160 2,340 1,860

68 4,640

272
60
5,260 4

42,600

DISCHARGE,

MOV

865
488

123
105

352
390
391

39
39
39
39
39

39
39
39
39
38

38
38
386
362
382

380
3 BO

377
376

865
95

,700

59 S3 1,830 1,700
,650 83,790 143,600 130,200

MEAN 116 MAX 860 MIN 29

IN CUBIC FEET PER SECOND,

377

376

10S
102
101

99
100
100
98
97

88
8B
89
95
137

123
106
91
96
183

272
275

277
277

B8

276 ,660

276 ,620

275 ,330
289 ,250
372 ,220

402 ,180
401 ,910
396 ,610
478 ,530
553 ,530

,660 ,290
. 020 ,690
,130 ,650
. 180 ,600

,320 ,570
,380 ,560
. 730 ,540
,330 ,530
,330 ,520

,370 ,400
,660 ,360

,680
. 630

WATER

. 310

,290
,510

, 60
, 50
, 60

, SO
, 40
. 330
,300
,300

6B1
526
503

122
314
330
334
326

274
2B4

273
230

270 1,280 122

1,640
1,660

1,820

1.900

2,180

2.250

2.190

2,280

2,230

2,370
2,370

1,660
130,500

AC-FT

YEAR OCT

129
118
113
125

133
135
94

57
60
85
90
56

43
36
35

34
33
34
39

40
43

43
42

33
4,450

2,320
2,300

2,050

1,900

2,090

2,400

2,450

2,440

2,310
2,310
2.300

2.090

1,610
137,100

84,500

OBER 1969

MAY

37
35
33
32
33

31
36
49
51

56
45
43
54
61

47
49
47

54
53
46
41

46
53

52
45

31
2,780

2,090
2,100

1,900
1,900

1,530

805

417

401
387
377

379

354

340
327

322

319
55,990 35,

TO SEPTEMBER

JUN

3
1
1
2
5

SO
52
64
83

Bl
81
83
82
65

58
S8
56

67
BO
83
78

111
112

145
190

41
4,550 16,

282
270
321
566
622

641
668

636

631
610
607

580
585
580
S90

570

588

639
610

S61

668
270
320

1970

JUL

168
169
192
19B
201

232
256
223
194
217

252
272
303
335
30 6

321
317
326

315
300
309
298

310
311

296
296

168
740

548
466
477
464
449

450
460

463

456
488
SC9

481
476
481
488

495
508

526
532

505
515

551

15, 158
489
551
449
30,070

AUG

311
323
323
306
299

295
292
308
313
318

296
269
235
259
255

246
206
204

159
155
164
174

189
194

205
218

146
15,050

573
628
554
533
536

537
572
586

566

572
562
572

585
593
638
625

630
622

724
765

744
766

18,660
622
766
533
37,010

SEP

245
241
241
280
273

263
291
283
268
275

286
284
300
365
342

336
319
320
326

345
349
332
326

355
349

354
341

241
18,550

618 SAN JOAQUIN RIVER BASIN

11326300 DRY CREEK ABOVE SUTTER CREEK, NEAR IONE, CALIF.

LOCATION.--Lat 38°24'54", long 120°S4'18", in StftSlft sec.32, T.7 N., R.10 E., Amador County, on 1,000 ft downstream from bridge on State Highway 104 and 4.6 miles northeast of lone.

DRAINAGE AREA.--70.9 sq mi.

PERIOD OF RECORD.--February 1960 to September 1970 (discontinued).

GAGE.--Water-stage recorder. Altitude of gage is 500 ft (from topographic map).

AVERAGE DISCHARGE.--10 years, 40.3 cfs (29,200 acre-ft per year).

ight bank

EXTREMES. --Maxi
1966-70 are

Wtr yr Date
1966 Feb. 6
1967 Jan. 22
1968 Jan. 30
1969 Jan. 21
1970 Mar. 1

Period of
extended abo

year.
REVISIONS

10.22 ft) , s

COOPERATION. --R

DAY OCT

1
2
3
4
i

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL 0
MEAN 0
MAX 0
MIN 0
AC-FT 0

contained in

, 1966
, 1967
, 1968
, 1969
, 1970

record: Ma
ve 1,800 cfs

. - -The maxim

uperseding f

DISCHARGE

0
0
0
0
0

0
0
0
0
0

0
1.4
3.9
11
8.2

5.2
13
49
26
12

7.5
6.0
14
21
34

20
14
11
9.2
8.1

274.5 1,
9.15
49
0
544

the following

Maximum

ximum di

urn disch
igure pu

Di

scharge

arge fo
blished

, IN CUBIC FEET

7.5
6.7
6.6
6.3
5.4

5.4
5.4
5.3
5.3
5.3

5.8
15
12
9.4
6.6

7.7
7.2
6.6
6.4
7.2

6.4
5.7
5.5
5.6
74

45
26
48
295
347
390

395.0
45.0
390
5.3
2,770

162
86
62
56
100

84
65
54
45
39

34
31
28
26
24

23
22
20
19
18

17
17
18
18
15

16
15
14
23
287
132

1,570
50.6
287
14
3,110

table:

scharge G
586 S
6,350 10
1,120 6
3,610 9
2,120 8

, 7,300 cfs

r the water
in WSP 1930

above stati

PER SECOND,

98
79
64
63
69

422
217
128
92
74

61
54
48
44
40

36
34
32
31
29

27
26
27
32
38

49
37
33

_____

1,984
70.9
422
26
3,940

. H.
. 65
. 97
. 72
. 24
. 25

Jan. 6,

year 19

HATER

31
29
26
25
24

23
22
21
21
29

27
24
24
22
21

20
19
19
19
19

18
16
15
15
14

14
13
13
13
13
12

621
20.0
31
12

1,230

second, gage height in feet) for the water year

Minimum daily
Date Disch
Long periods
do .
do .
do .
do.

1965 (gage height, 11.30 ft), from rating curve
P E P

63 has been revised to 5,270 cfs (gage height,

YEAR OCTOBER 1965 TO SEPTEMBER 1966

12
11
11
11
10

10
10
10
10
17

17
19
16
13
12

11
10
10
10
9.3

8.9
8.8
8.8
7.6
7.3

. 3 .90
. 2 1.0
. 9 1.0
. 2 .60
. 0 .60

. 0 1.0
. 9 .70
. 2 .60
. 0 .50
. 2 .40

. 9 .30
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6.1 .80 0
6.0 1.2 0
6.0 .50 0
5.8 .30 0

5.5 .60 0

310.1 104.10 7.80 0 0
10.3 3.36 .26 0 0 19 7.9 1.0 0 C 5.5 .30 0 0 0 615 206 15 0 3

SAN JOAQUIN RIVER BASIN

11326300 DRY CREEK ABOVE SUITER CREEK, NEAR IONE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

6.2
3.7
2.7

2.2
1.9
3.4
5.3
4.4

DEC

5.5
41
98
24
127

5S6
202
78
48
47

36
30
26
24
21

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16
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11
11

0.7

9.4
9.0
8.9
9.0
9.7

9.0
8.0
7.8
7.6
7.4

7.3
7.8

7.4
7.6

7.6
7.0
6.8
6.5
9.2

1,080
1,730
284
374
329

242
262
217
718

I -din

476
257
171
125
100

83
70
61
55
50

45
41

39
35

33
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3D

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17
16
16
16
15

57
151

405
221

692
566
283
1S2
132

105
89
89
76
65

60
55
54
57

5ns

256
179
143
140
202

572
1.410
481
296
285

464
350

193
204

168
190
635
630
429

490
500
420
425
342

269
230
200
161

118
106
96
87
80

75
68
62
61
86

63
56
51
46
43

41
37
35
34
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31
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51

JUN

24
24
22
20
38

37
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11
9.3

8.5
7.4
6.5
6.0
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5.2
4.9
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JUL AUG SEP

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60 0
50 0

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MEAN

MIN
AC-FT

CAL YR 1966

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TOTAL

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50.7

5.5
3,120 13,

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22B

6.5
990

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71.0

21
3,940

MAX 556

137

15
8,400

MIN 0

355

135
21,110

AC-FT

49.9

21
3.070

12,340

14.8

3.9
879

1.70

. 30
134

. 016

0
1.0

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1967 TO SEPTEMBER 196S

JUL

TOTAL
MEAN
MAX

5
1

24
13
11
20
87

38
35
34
21
16

13
11
8.7
7.4
7.3

6.B
6.6
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21
18

15
13
12
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13

14
14
13
12
23 11
10

0 199.3 552.8
0 6.64 17. B
0 57 87
0 0 6.6
0 395 1.10C

9.8
9.5
8.7
8.3
8.3

8.2
8.2
8.1
8.2
45

59
32
23
19
162

88
51
37
30
25

22
20
17
16
16

15
21
21
18
378
391

1,583.3
51.1
391
B.I

3,140

175
120
110
82
65

56
48
42
39
42

35
32
29
27
26

28
76
84
62
316

342
216
170
132
101

B2
6B
58
50
- - - - - -

2,713
93.6
342
26
5.3BO

45
41
36
33
31

29
32
157
98
72

58
50
84
107
88

137
199
136
102
82

69
61
54
49
46

43
39
35
33
31

2,105
67.9
199
28
4,180

37
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IB
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9.9
9.4
9.0
8.4
7.6

521.3
17.4
47
7.6
1,030

7.5 .6
7.1 .3
6.5 .0
6.3 .9
7.0 .9

6.9 .1
6.4 .4
6.2 .5
5.8 .3
5.8 .0

6.1 .6
6.2 .5
11 .0
21 .1
11 .90

8.4 .60
7.1 .40
6.2 .20
5.B .10
5.7 0

5.8 0
5.5 0
5.4 0
5.3 0
5.4 0

5.1 0
4.3 0
3.8 0
3.4 0
3.2 0

204.0 30.40
6.58 1.01
21 2.6
2.8 0
405 60

SAN JOAQUIN RIVER BASIN

11326300 DRY CREEK ABOVE SUTTER CREEK, NEAR IONE, CALIF.--CONTINUED

DISCHARGEi IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR
WTR YR

DAY

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31

MEAN

MIN

WTR YR

0 8.6 26
0 1
6.0
14
4.3

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2
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3
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57
82

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44
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138

79
60

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23
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IB
16

15
13
13
12
11

16
25
633
723
220

123
87
115
1.263
1,480

2.400
1,003
436
386
1,230

587
504
362
280
31 tit

0 147.3 1,116.2 13,376
0 4.91 36. C
0 14 156

431

2,400
0 0 4.7 11

1968 TOTAL 8,420.50 MEAN 23.0 1969 TOTAL 33,666.60 MEAN 92.2

DISCHARGE. IN CUBIC FEET

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. 70

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1.

1. 4
1. 1
1.
2.
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1.7
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1.1
1.3
1.4
1.7
2.0

2.2
2.4
2.8
2.7
2.6

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. 9 4.

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. 5 6.
6 5.

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17

14
13

12
12
13
20
81

57
50
62
890
340

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. 1 5.
. 8 5.
. 8 12
. 9 106

. 7 107
. 7 46
. 7 219
. 7 153

. 8 93
. 9 58
. 9 40
. 9 31
. 9 25
2.8 tt

L 540

) 272
174
161

580
275
500
307

204
246
181
141
117

1.70 5.59 39.2 244

. 20 2.7 3.9 12

1970 TOTAL 16.606.50 MEAN 45.5

183
165
142
125
253

610
419
264
201
161

241
580
334
284
675

556
347
379
386
366

288
231
437
813
850

481
501

11,052
395
850
125

MAX 391
MAX 2.400

PER SECOND

85
75

63
57

52
49
47
44
42

42
46
72
109
72

77
349
194
140
112

80
72
66
60

56
53
52

83.1

42

MAX 1,160

669
464
349
267
211

180
153
133
130
127

104
112
105
89
81

75
73
68
64
74

155
98
86
78
72

61
58
54
52
49

4,357
141
669
49

MIN 0
MIN 0

, WATER

895
495

237
217

160
132
241
184
179

140
119
104
92
83

75
68
62
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52

46
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137

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MIN 0
MIN 0

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409

396
235
168
133
112

97
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73
67

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AC-FT
AC-FT

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16,700
66,780

YEAR OCT08ER 1969

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23. 1

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AC-FT
AC-FT

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9.2

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7.0
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6.5

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5.1
4.9

4.7
4.8
4.9
4.8
4.4
3.9

8.75
15
3.9

67,120
32,940

7.2
7.1
7.3
7.3
7.7

7.3
7.0
8.1
9.7
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9.7
8.3
7.5

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6.2
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200.1 3
6.67

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11 2.9
3.3 0
397 67

TO SEPTEMBER 1970

3.3 1.1
2.9 .50

2.1 0
1.8 0

1.7 0
1.8 3
2.3 0
6.8 0
6.7 0

4.8 3
4.2 0
4.1 0
3.8 0
3.7 0

3.4 3
3.0 0
2.8 0
2.4 3
1.9 0

1.5 0

1.2 0
. 80 0
. 60 3
. 50 0

. 60 0
. 90 0
1.3 0
1.5 0
1.4 0
0

2.54 .058 6.8 1.1
. 50 0

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SAN JOAQUIN RIVER BASIN

11327000 SUITER CREEK NEAR SUITER CREEK, CALIF.

LOCATION.--Lat 38°23'45", long 120°46'49", in SE 1* sec.5, T.6 N., R.ll E., Amador County, on left bank 1.3

DRAINAGE AREA.--48.1 sq mi.

PERIOD OF RECORD.--October 1935 to December 1941, March 1960 to September 1970. Monthly discharge only fo periods, published in WSP 1315-A.

29, 1937, no

EXTREMES.--*

ed in the following table

Wtr yr
1966
1967
1968
1969
1970

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exte

REMARKS

Date
Dec.
Jan.
Feb.
Jan.
Jan.

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29,
22,
20,
21,
16,

of
ibov

1965
1967
1968
1969
1970

e 1,200

Discharge
244

1,990
312
2,140
1,780

Maximum discharge, 5,770

G.H.
2.14
4.74
2.27
4.91
4.46

cfs Jan.

Date

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Oct.
Seve

31, 1963 (gag

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17, 1968
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ight, 6.27 ft), from rating ci

COOPERATION.--Records furnished by California Department of Water Resources and wed by Geological Sur REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY C JUL

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TOTAL 6
MEAN 2
MAX
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2.B

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75
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63
49

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15.3
75
2.3

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B.I

8.4
B.7
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11
8.5

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9.9

9.3
B.B
B.3
7.B
7.5

7.7
8.1
7.9
8.1
50

30
20
30
140
104
153

24.1
153
7.5

B5
55
40
40
96

79
D
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96
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7.5
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MAY

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4.D
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326

29,320
8,630

JUN

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2.B
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. 30
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48.70

2.B
. 10
97

SAN JOAQUIN RIVER BASIN

11327000 SUITER CREEK NEAR SUTTER CREEK, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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TOTAL
MEAN
MAX
MIN
AC-FT

WTR YR 1967

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9.3
7.3
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TOTAL 18,17

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109
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129
140
123

103
114
97
279
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584

3,128.6
101

243
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23
101
350
301
120

673
435
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140
109

91
79
77
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3,340
108

113
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153

287
606
262
180
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263
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193
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167
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6,030
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111
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DISCHARSE, IN CUBIC FEET PER SECOND,

NOV DEC JAN FEB

HATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

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31

MEAN
MAX
MIN
AC-FT

1.5
2.4
12
5.7
4.1

3.6
3.3
3.3
3.0
3.3

3.0
2.9
2.8
2.9
2.B

2.7
2.7
2.7
2.7 4
2.7 I

2.8
2.9
3.0
3.2
3.3

3.3
3.1
3.1
3.2
3.2 2

. 2 20
. 1 12
. 8 11
. 1 11
. 4 60

. 4 24
. 3 43
. 4 30
. 7 18
. 7 14

. 8 12
. 8 10
. 0 9.7
. 6 8.9
. 5 9.1

. 2 8.7
. 9 8.3
. 5 12
13
11

. 1 9.6
. 3 9.6
. 6 9.9
. 3 11
. 1 13

. 1 15
. 1 16
. 2 16
. 8 16
14

3.37 7.20 15.8
12 41 60
1.5 2.8 8.3

12
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9.9
9.9

9.8
9.7
9.4
9.3
41

41
23
18
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79

52
32
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13
13

12
14
14
13
46
60

22.0
79
9.3

47
44
66
60
53

51
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34
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27
25
23

24
94
91
65
193

166
111
87
70
SB

47
40
34
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60.1
193
23

27
25
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21
68
56
41

33
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SO
67
54

69
104
78
64
54

47
41
36
33
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31
28
25
24
23
21

40.9
104
20

33
39
27
24
22

21
21
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19
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18
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15
15
IS
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14

13
13
13
13
13

14
12
12
14
17

534
17.8
39
12

1,060

IS
16
10
11
10

9.8
9.6
9.2
9.0
9.0

8.8
9.3
11
16
11

10
9.4
8.9
8.6
8.6

8.4
8.2
B.I
7.9
7.8

7.3
6.8
6.3
5.9
5.6
4.9

287.4 8
9.27

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. 6
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. 2
. 0

. 7
. 5
. 3
. 1
. 9

. 6
. 5
. 4
. 4
. 3

. 2
. 1
. 0
. 90
. 80

. 50
. 98
16 5.7
4.9 .80
570 178

. 80
. 60
. 50

MTR YR 1968 TOTAL S,418.20 MEAN 14.B MAX 193 MIN 0 AC-FT 10,750

SAN JOAQUIN RIVER BASIN

11327000 SUITER CREEK NEAR SUTTER CREEK, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. HATER YEAR OCTOBER 1966 TO SEPTEMBER 1969

1 0
2 0
3 0
4 0
5 0

6 0
7 0
8 0
9 0
10 O

11 0
12 0
13 0
14 0
15 0

16 0
17 0
18
19 1.
20 1.

21 I.
22 1.
23 1.
24 I.
25 1.

26 1. 27 1.
28 1.
29 2.
30 3.
31 3.

3.3
4.8
41
18
7.3

4.9
4.0
3.5
3.3
3.1

3.1
11
8.8
6.7
12

11
7.6
0 6.5
6.3
5.9

5.2
4.9
4.5
5.7
7.2

6.5
5.9
5.6
5.4
5.3

MEAN .78 7.61

MIN 0 3.1

. 4
. 2
. 9
. 6
. 0

. 6
. 2
. 3
. 1
. 5

28
17
12
29
49

70
30
20
17
16

13
11
11
34
116

83
52
52
53

29

27.4

6.1

DISCHARGE. IN

1 .90 3.7
2 1.
3 1.
4 1.

) 3.7
> 3.7
5 3.8
5 1.6 11

6 1.6 53
7 1.
8 1.
9 2.
10 2.

) 17
) 10
y 8.2

I 7.2

11 2.0 6.6
12 2.0 6.2

14 2.1 5.6
15 4.6 5.6

16 16 6.1
17 9.7 6.4
18 6.2 6.1
19 4. 9 6.1
20 4.3 6.1

21 3.9 5.9

22 3. r 5.9
23 3.7 5.6

25 3.7 5.6

26 3.
27 3.
28 3.
29 3.

i 5.6
r 5.6
r 5.6
r 5.6
30 3.7 5.6

TOTAL 110.10 238.6 1,

MAX 16 53
MIN .90 3.7

5.9
6.1
6.1
6.4
6.6

6.6
6.6
6.8
7.5
8.1

11
11

9.0
8.2

7.8
7.6
7.2
22
141

156
82
39

166

87
54
35
28
23
20

220.4

729
5.9

22
20
18
17

16
15
14
13
13

14
21
187
245
98

64
46
61
623
754

1.630
624
260
212
509

518

241
182
156
132

227

13

CUBIC FEET

18
16
15
14
13

12
12
12
16
72

44
42

526
221

923
590
282
165
144

890
427
226
342
228

169
217
154
125
106
93

6,177

923
12

126
117
109
164

275
213
160
134
119

131
251
171
157
412

337
225
223
218
213

187
160
182
362
419

318

264

215

109

PER SECOND

84
76
70
67
62

57
54
50
47
45

44
56

98
70

69
211
119
96
84

75
69
64
60
55

52
50
5C

2.924

211
44

258
227
189
162

146
133
120
115
117

105
102
97
90
86

82
80
79
76
82

119
91
83
79
75

72

69
66
66
64

3,519
114

64
6.980

, WATER

628
329
178
160
143

115
100
148
112
109

94
85
BO
70
65

64
59
53
46
44

42
40
39
37
37

36
34
34
33
33
33

3,080

628
33

62
75
63
171

172
138
113
98
89

82
77
74
70
67

62
58
56
53
50

48
47
68
67
54

49

41
40
39

2,191
73.0

39
4,350 1

YEAR OCTOBER

31
30
30
29
28

27
27
27
26
25

26
25
35
49
42

42
36
31
33
31

29
27
26
25
24

26
28
26
24
23

BBS

49
23

36
36
36
35

33
32
31
30
29

28
27
26
26
25

25
25
24
24
23

22
22
21
20
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19

19
IB
18
17

804
25.9

17
,590

1969

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22
21
21
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20
21
20
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19

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12
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22
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16
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15
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15
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17
IB
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12
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12
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11

11

10
10
9.2

410.2 14
13.7 4
18
9.2

. 4 .9
. 0 .8
. 7
. 4
. 3

4
3
8
7
8

5
3
0
0 .
8 .

6
4 .
2 .70
8 .90
2 .90

0 1.0
0 .80
0 .70
9 .70
9 .80

9 .80
7 .70
6 .80
4 .90
3 .90
2 .80

5 34.50
9 1.11
4 1.9
2 .70

814 43 DO

TD SEPTEMBER 1970

9.7 6
9.3 6
9.0 5
8.5 5
8.1 4

8.1 4
7.9 4
9.2 4
19 4
15 4

12 4

11 3 12 3
11 3
10 3

9.9 3

9.1 3
8.5 2
8.3 2

7.8 2
7.1 2
6.7 1
6.4 1
6.4 1

7.1 I
7.8 I
7.5 1
7.3 1
6.8 1
1

276.1 101

19 6
6.4 1

1.8
1.7
1.7
1.7
1.8

1.8
1.6
1.6
1.2
. 60

. 20
0
0
. 10
0

0

0
0
. 10

0
. 10
. 1C
0
3

0
. 20
. 20
. 40
. 40
. 40

17.70

2 .57 i.e
0
>3 35

. 70
. 60
. 50
. 50
. 40

. 40
. 70
1.3
1.6
1.3

1.1
. 90
. 80
. 70
. 80

. 0
. 1
. 3
. 4
. 4

. 6
. 5
. 4
. 3
. 2

1.0
. 90
. 70
. 70
. 89

. 99
1.6
. 40
59

SEP

. 30
. 39
. 20
. 20
. 70

. 90
. 70
. 40
. 30
. 20

. 10
. 10
. 30
. 50
. 70

. 70
. 50
. 40
. 69
. 90

1.3
. 90
. 80
. 70
. 70

. 60
. 60
. 40
. 30
. 30

15.30
. 51
1.0
. ID
39

SAN JOAQUIN RIVER BASIN

11329500 DRY CREEK NEAR GALT , CALIF.

LOCATION.--Lat 38°14'44", long 121°13' 03", in NE>s sec.32, T.5 N. , R.7 E., San Joaquin County, on left bank of of Gait, Oct. 1, 1945, to June 15, 1966, at site across channel.

DRAINAGE AREA.--329 sq mi.

PERIOD OF RECORD.--October 1926 to September 1933, October 1944 to September 1970. Monthly figures only for some periods, published in WSP 1315-A.

AVERAGE DISCHARGE.--33 years, 114
(51,400 acre-ft per year).

:fs (82,590 acre-ft per year); medi of yearly mean discharge

Date
Jan. 30,

Dec. 6,
Jan. 22,
Jan. 24,
Jan. 31,
Mar. 17,
Apr. 7,
Apr. 11,

No fl

days

REMARKS.

Time
1966 1330

1966 2300
1967 0200
1967 2000
1967 1900
1967 0500
1967 1530
1967 0900

ow for long

in each yea

- - Records f

Disch.
*1,510

2,640
*10,500
2,090
4,400
4,220
4,960
2,140

periods i

r.

G.H. Date
10.86 Jan.

1322 i an
14'. 27 an!
12.55 an.
13.60 an.
13.57 an .
13.96 eb.
12.94 eb.
eb.

i each year.
g ,

31, 1968

14, 1969
19, 1969
22, 1969
25, 1969
26, 1969
6, 1969
12, 1969
16, 1969

Time
0600

0330
1845
0215
1445
1400
2000
1315
0200

Disch.
*2,520

2,810
3,020
*7,670
5,800
5,170
2,060
2,300
2,630

3, 1958

G.H. Date
13.17 eb.
eb.
13.34 eb.
13.51 pr.
14.27
14.10 an.
14.03 an.
12.27 an.
12.71 an.
13.16 Mar.

(gage height,

23, 1969
25, 1969
26, 1969
6, 1969

15, 1970
17, 1970
22, 1970
24, 1970
2, 1970

15.28 ft) ;

Time
1745
0700
0830
0015

0045
0245
0445
1215
0300

no fl

Disch.
2,280
2,670
2,640
2,140

3,330
3,900
*4,270
2,210
3,050

ow for s

G.H.
12.69
13.20
13.17
12.43

13.63
13.85
13.91
11.74
13.35

everal

voirs, 1,000 acre-ft and total number of acres irrigated, approximately 500.

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY JUL

I
2
3
4
5

6
7
8
9
10

11
12
13
1*
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

WTR YR

OCT NOV DEC

0 1.3
0 .50
0 1.5
0 0
0 0

0 0
0 0
0 0
0 0
0 0

0 0
C 0
0 8.2
0 8.7
0 5.9

0 3.3
0 1.9
0 1.0
5.4 .40
11 .20

1.1 .50
0 .90
0 .40
C C
57 63

49 18
27 8
13 2
7.0 6 2

1,010

0 5.80 96.0
0
000

57 1,010

1966 TOTAL 14,441.20 MEAN

598
264
180
137
236

268
202
154
137
107

90
77
67
58
53

49
46
43
39
35

33
31
31
30
28

27
28
24
26
906
538

147
906
24

39.6

304
272
202
180
175

912
680
343
236
187

148
129
113
102
95

86
78
75
72
67

63
58
60
60
83

130
111
90

183
912
58

MAX 1,010

84
75
65
60
56

53
49
47
43
46

61
52
48
45
42

39
36
34
32
33

29
26
26
24
23

22
20
20
19

17

40.1
84
17

MIN 0

21
16
15
16
13

11
10
8.9
8.9
12

22
26
28
23
19

18
16
14
13
12

12
11
7.3
4.4
2.7

1.7
. 90
1.3
1.3
. 60

12.2
28
. 60

AC-FT

0
1.4
1.8
. 20
. 10

0
0
0
0
0

0
0
0
0
0

. 40
. 40
0
0

l.l

. 60
1.4
2.2
2.7
2.2

1.5
1.7
. 70
. 40
. 40
. 40

. 63
2.7
0

102,800
28,640

JUN

. 60
1.3
. 50
. 80
2.4

3.3
1.0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

. 33
3.3
0
20

SAN JOAQUIN RIVER BASIN

11329500 DRY CREEK NEAR GALT, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND. WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR MAY JUN JUL

1
2
3
4
5

6
7
8
9
1C

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL 0
MEAN 0
MAX 0
MIN 0
AC-FT 0

CAL YR 1966 TOTAL

DAY OCT

1 0
2 0
3 0
4 3.3
5 1.7

6 .03
7 0
8 0
9 0

10 o

11 .02
12 0
13 0
14 0
15 0

16 0
17 0
18 0
19 0
20 0

21 0
22 0
23 0
24 0
25 0

26 0

27 0
28 0
29 0
30 0
31 0 -

TOTAL 5.05
MEAN .16
MAX 3.3
MIN 0
AC-FT 10

0
0
0
0
0

0
0
0
0
0

a
0
0
0
0

0
0
0
0

1.1

14
11
5.0
1.0
0

0
0
9
. 80
3.8

36.70

14
0

16,031

1.2
2.3
222
163
299

1,490
1,100
323
194
169

145
106
82
64
50

40
34
28
24
23

20
17
15
14
13

13
11
9.5
10
11
9.7

1,493
1.2

B.8
8.2
7.8
7.8
7.9

7.9
7.6
6.5
5.9
5.4

4.3
3.9
1.8
. 2
0

0
0
0
0
0

1.160
6,550
1,190
1,180
1,170

567
655
521
1.580
2.020
3,600

6,550
0

. 90 MEAN 43.9

DISCHARGE, IN CUBIC FEET

NOV

0
0
0
0
0

0
0
0
0
0

0
0
0
c
0

0
0
0
0
0

4.5
. 64
0
0
0

0
0
0
0
0

5.14
. 17
4.5
0
10

DEC

3.7
18
10
8.9
37

110
43
62
41
27

20
15
12
8.2
4.7

1.6
2.2
1.1
4.2
17

13
11
8.2
7.9
7.8

8.4
9.5
11
10
8.9

550.1
17.7
110
1.1
1,090

JAN

7.6
5.8
4.9
4.2
3.8

3.2
2.8
2.4
2.4
3.6

105
70
44
35
146

266
124
88
72
62

56
47
42
40
39

38
38
46
43
127
1.510

3,078.7
99.3
1,510
2.4
6,110

2,600
1.040
671
521
440

391
357
325
311
298

285
278
271
164
131

122
121
114

102

96
94
92
91
107

124
102
90

2,600
90

MAX 1,490

PER SECOND

FEB

455
336
314
290
264

200
173
157
111
96

89
75
62
54
48

48
132

182
758

956
593
408
370
320

279
161
166
173

7,544
260
956
48

80
76
73
65
55

48
41
45
42
40

88
248
886
1,260
649

1,730
2,950
1,050

471

400
362
349
335
211

208
211
198
188

i *

2,950
40

MIN

. WATER

MAR

166
155
145
140
131

77
63
601
418
295

235
145
176
396
256

287
523

236
190

162
140
124
112
111

126
119
87
75
68

6,251
202
601
63
14.960 12,400

696
472
392
351
402

518
3,420
2.030
943
622

1,710
1,080
651
506
476

480
415
,010

,150

,030
,610
,140
,150
940

674
562
520
463
426

3,420
351

0 AC-FT

389
338
333
317
303

298
281
222
187
227

229
190
174
159
148

138
129
121

108

103
95
88
83
73

55
53
53
57
51
47

166
389
47

31,800

YEAR OCTOBER 1967

APR

68
101
108
99
74

60
55
52
47
45

52
81
67
63
60

56
54

61
57

52
52
50
48
58

47
43
40
38

1,790
59.7
108
38
3,550

MAY

39
38
20
10
10

11
10
20
17
15

13
12
13
26
33

29
24

30
44

40
38
31
20
21

8.2
8.4
7.5
7.4
6.5

639.0
20.6
44
6.5
1,270

62
59
63
54
55

111
95
82
68
48

44
40
51
40
40

48
41
45

28

28
25
14
9.9
11

5.0
8.4
8.1

4*8

41.1
111
4.8

2.1
4.3
3.8
1.7
2.2

1.6
1.9
. 40
. 40
1.4

1.4
2.2
3.4
3.7
4.3

2.9
5.4
5.9
4.5
5.0

10
8.4
8.2
7.2
7.6

6.6
5.3
2.5
2.5
5.8
7.0

4.18
10
. 40

10
9.7
4.3
4.0
3.5

3.8
4.8
1.8
. 30
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. 013
. 30
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. 8

TO SEPTEMBER 196B

JUN

8.3
6.1
. 82
. 44
. 49

5.0
6.8
7.2
7.6
8.1

4.7
4.8
5.4
1.1
1.8

3.1
2.4

4.1
3.0

1.5
. 31
. 43
4.2
3.4

3.4
3.2
3.2
3.4

112.69
3.76
8.3
. 31
224

JUL

3.8
2.7
3.4
4.0
2.2

. 01
0
0
. 81
2.8

. 76
. 18
1.4
. 29
. 17

. 94
3.7

3.9
1.5

. 02
0
0
0
0

0
1.8
3.5
8.2
8.2
5.6

64.28
2.07
8.2
0
127

AUG

5.3
6.3
8.4
5.8
6.6

5.8
3.2
4.0
1.4
2.7

5.4
4.5
5.5
4.6
1.1

. 39
. 35

1.5
7.8

5.8
6.5
5.4
4.1
3.2

1.8
4.0
5.9
2.8
3.4
6.1

129.95
4.19
8.4
. 31
258

SEP

4.7
2.8
3.4
4.1
4.1

3.8
3.4
2.9
2.5
1.8

l.D
. 16
. 30
. 78
2.1

. 09
0
0
0
0

0
0
0
0
0

0
0
0
0
0

37.93
1.26
4.7
0
75

SAN JOAQUIN RIVER BASIN

11329500 DRY CREEK NEAR GALT, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 196B TO SEPTEMBER 1969

DAY

1
2
3
4
5

6
7
a
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL YR

DAY

1
2
3
4
5

6
7
a
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN
MAX
MIN

CAL YR

OCT

0
0
0
0
0

1968 TOTAL

OCT

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

. 17
2.7
. 23
0
0

0
0
0
0
0

0
0
0
0
0

. 10
2.7
0

1969 TOTAL

NOV

0
0
0
0
5.5

1.0
0
0
C
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

6.5
. 22
5.5
0
13

22.324

0 71
0 58

0 38
0 35

0 30
0 28

0 23
0 21

26 99
19 942
73 2,370

400 457
161 420
77 422

53 2,350
43 2,210

28 4,810
22 1,770
26 1.290
183 3,910

533 3,900
303 2,330

156 1,330
U5 954
88 776

2,670 38,644
86.1 1,247
533 5.610
0 21
5,300 76,650

. 05 MEAN 61.0

DISCHARGE, IN CUBIC FEET

NOV DEC JAN

00 65
00 47
00 41
00 36
00 31

00 2B

20
11
5.6

. 95
. 01
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

1.75
20
0

105,955

0 31
0 158

0 183
0 128
0 132
0 1,700
8.5 1,990

6.4 2,170
3.3 2,820
. 99 1,440
. 21 620
136 422

367 2,420
593 3.110
149 1.410
367 1,670
555 1,280

413 795
234 B76
176 735
148 5*3
132 474
121 420

110 833
593 3.110
0 26

. 37 MEAN 290

677
656

569
747

1,410

699
627

2,010
1,190
810

2.300
1,250
1.530
1,500
1,250

776
1,680
2,030
2,590

2,520
1,730

2,080
1.550

868
731

626

559
645

538
572
497

375
351
284
260
248

353
284
250
226

2 CO
182

156
144

36,225 16,128
1.294 520
2.590 2.080
569 138
71,850 31.990

MAX 1,510 MIN

PER SECOND

FEB

378
343
317
303
2B7

271

248
238

233
231
Z76
391
320

274
632
562
357
276

226
191
170
157
140

129
121
115

276
632
115

MAX 5,610

, WATER

886
2.410
988
868
1,350

744

728
681

560
466
397
348
308

282
257
230
206
185

181
170
163
156
149

144
133
125
120
112
106

478
2,410
106

MIN 0

131
127

238
684

822

515
468

401
300
245

172

146
136

141
252
178

141
128

113
110

9,218 1
307
1,660
110
18,280 3

0 AC-FT 4

YEAR OCTOBER

101
99
94
88
81

76

65
66

64
61
67
137
132

105
90
77
69

70
68
65
57
45

48
47
59
47
41

74.3
137
41
4,420 1

AC-FT 210,

101
91

79
76

73

64
61

50
49
50
51

46

40
38

31
29
29

29
29

30
29

,556
50.2
101
27
,090

4,280
8.600

1969

36
29
30
30
32

33

34
36
34

32
30
29
26
23

19
18
8.9
10

9.7
9.3
8.4
15
12

4
4
4
1
8

21.5
36
7.0
. 320

200
800

17
12
10
6.0
30

21

9.9
6.6

10
9.5
8.9
8.9

8.3

6.7
7.1

4.7

6.9
7.2
7.6

6.9
7.8
8.5
9.1
9.2

9.6
8.4
8.3
7.0
6.5

6.7
6.1
7.0
8.1
7.3

7.0
7.0
6.7
6.5
5.8

7.6

5.5
3.6

3.4

5.4
4.3
3.4

1.7
4.7
5.3
4.8
4.2

312.4 180.2
10.4 5.81

4.7
620

TO SEPTEMBER

7.2
2.6
1.5
. 44
. 20

0
0
. 50
2.4
11

8.3
5.8
5.5
8.1
9.8

8.2
5.5
5.0
7.0

5.3
2.2
. 65
2.1
3.6

. 94
. 94
7.3
9.2
7.3

4.48
11
0
266

1.7
357

1970

2.7
1.8
l.l
. 82
4.8

3.4
. 50
0
0
9

0
0
0
0
. 57

. 51
. 01
0
0

0
0
0
0
. 15

3.4
4.1
2.3
3.7
2.9

1.14
4.8
0
70

5.1
4.5
2.6
2.5
1.2

2.3
1.0
1.7
1.9
. 43

1.4
2.2
2.0
1.6
. 79

2.3

4.2
5.1

3.9

3.3
4.6
4.7

5.3
6.1
5.9
5.4
6.6

105.52
3.40

. 43
209

4.2
4.5
2.3
4.5
4.7

7.1
7.8
5.2
6.9
7.5

5.7
4.4
4.6
2.8
7.5

8.0
10
8.8
7.8
2.3

. 44
. 03
2.0
4.4
4.0

3.7
2.9
2.9
. 43
14

5.30
14
. 03
326

5.0
3.7
4.9
5.4
7.8

9.2
6.6
3.3
4.4
4.0

4.4
4.9
3.3
4.7
3.5

. 32
2.8
6.0
7.4

6.4

3.5
3.6
1.7

. 39
. 70
. 58
0
0

120.19
4.01

0
238

12
9.3
11
7.5
4.5

2.3
1.6
2.0
14
22

12
5.6
13
16
11

14
11
10
15
16

13
12
9.6
12
8.3

5.0
1.9
. 22
. 09
1.3

273.21
9.11
22
. 99
542

SAN JOAQUIN RIVER BASIN 627

11333000 CAMP CREEK NEAR SOMERSET, CALIF.

LOCATION.--Lat 38°39'26", long 120°39'46", in SVk sec.4, T.9 N., R.12 E., El Dorado County, on right bank 0.2 mile upstream from mouth, 1.3 miles northeast of Somerset, and 5.6 miles south of Camino.

DRAINAGE AREA.--62.6 sq mi.

PERIOD OF RECORD.--February to May 1924 (published as "near Pleasant Valley"), October 1954 to September 1970.

GAGE.--Water-stage recorder. Altitude of gage is 1,820 ft (from topographic map). Feb. 1 to May 31, 1924, non-recording gage at site 0.2 mile upstream at different datum.

AVERAGE DISCHARGE.--16 years (1954-70), 79.5 cfs (57,600 acre-ft per year), adjusted for storage, diversion, and

1966

Wtr yr
1966
1967
1968
1969
1970

P

Aug.

- 70 ar

Date

Apr.
Mar.
Feb.
Jan.
Jan.

eriod
1-3,

12, 1966
16, 1967
20, 1968
21, 1969
21, 1970

of record:
1961.

Discharge
212
1,200
266
2,840
3,960

Maximum discharge, 6,040

feet per second, gage height in feet) for the

G.H.
3.86
6.96
4.13
9.42
10.66

Minimum daily
Date
Aug. 20-26, Sept. 6, 1966
Oct. 1, 2, 1966
Sept.28-30, 1968
Oct. 1, 1968
Nov. 4, 1969

Discharge
1.9
2.3
2.5
2.5
3.2

cfs Dec. 23, 1964 (gage height, 12.50 ft);

REVISIONS.--WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECONOt MATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY 0<

1
2
3
4
5

6
1
8
9
10

11
12
13
14
15 1

16 1
17
18
11
20

21
22
23
24
25

26
27
28
29
30
31

MEAN 6.!
MAX
MIN 5.

AC-FT 4C (t) -i.ic

CO 9'
(tt) 1

,T N

0 6
8 6
6
6
6

6
6
6
6
5

5
4
5
10
7

6
11
26
15
8

7
6
12
16
20

13
q
8
7
i 6

8.

4
5

6

. 0 6.
. 0 6.
. 0 6.
. 0 6.
. 0 6.

. 0 6.
. 0 6.
. 0 6.
. 0 6.
. 8 6.

. 6 6.
. 9 10
. 6 7.
6.
. 2 6.

. 3 6.
5.
6.
5.1
. 7 5.<

. 0 5.f
. 5 5.1
5.'
6.1
13

9.'
. 7 7.1

. 2 17
. 4 40
. 7 29
33

89 9.7
26 4C
. 9 5.<
29 591

25 1

IB
13
11
12
37

38
25
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18
16

U
13
12
11
11

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10
9.
9.
8.

8.
9.
8.
8.
7.

7.
7.

8.
20
18

13.8
38
7.0
848

L 0

17
16
14
15
22

63
38
25
20
16

14
13
12
11
11

10
10
10

1011
10
10
12
21
16

16
14
13

16.8
63
10
932

0

13
13
12
11
11

12
13
13
13
21

17
16
16
14
1*

14
13
12
14
12

11
11
10
10
10

9.7

39
119
148
168

26.4
168
9.4
It620

55

172
174
167
159
156

147
138
131
125
160

3
5
7
8
6

130
121
123
118
103

93
85
78
74
73

69

55
45
37

121
195
37
7,210

186

31
27
25
25
25

24
22
21
20
25

23
18
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15
13

11
8.7
7.2
6.0
7.0

6.7
6.7
6.7
6.5
6.5

6.5

6.3
6.5
6.5
6.5

14.2
31
6.0
874

240

JU

6.
6.
6.
6.
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7.
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7.

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4.

4.
4.
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4.
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4.

4.
3.
3.

5.6
7.
3.
33

27

4 JUL

3.5
4.7
5. B
5.B
5.4

5.4
5.1
5.1
5.1
5.4

5.1
5.1
5.1
5.1
4.9

4.7
4.5
4.3
4.1
4.1

4.1
3.9
3.7
3.5
3.3

3.2

3.D
3.0
11
16

5.04
16
3.0
310

b 306

AUG

14
B.2
3.5
3.0
2.9

2.9
2.6
2.6
2.6
2.6

2.6
2.6
2.6
2.3
2.2

2.2
2.0
2.0
2.0
1.9

1.9
1.9
1.9
1.9
1.9

1.9

2.0
2.0
2.2
2.3

89.2
2.88
14
1.9
177

301

SEP

2.
2.
2.
2.
2-

1.
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2.
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2.

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2.
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2.
2.
2.

2.

2.
2.
2.

71.
2.3
3.
1.
14

- 2,40
2,088
192

WTR YR 1966 TOTAL 7,048.6 MEAN 19.3 MAX 195 MIN 1.9 AC-FT 13,980 MEAN! 39.0 AC-FTt 28,260

t CHANGE IN CONTENTS, IN ACRE-FEET, IN JENKINSON LAKEi FURNISHED BY BUREAU OF RECLAMATION.
J DIVERSION, IN ACRE-FEET, FROM JENKINSON LAKE; FURNISHED BY BUREAU OF RECLAMATION.
tt EVAPORATION, IN ACRE-FEET, FROM JENKINSON LAKE! FURNISHED BY BUREAU OF RECLAMATION.
Jt ADJUSTED FOR STORAGE, DIVERSION, AND EVAPORATION.

SAN JOAQUIN RIVER BASIN

11333000 CAMP CREEK NEAR SOMERSET, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

1
2
3
4
5

6
7
8
9
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13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

MEAN
MAX
MIN

Ct)

(*) (tt)

MEANtt

CAL YR

OCT NOV DEC

2.
2.
2.
2.
2.

2.
2.
2.
2.
2.

2.
2.
2.
2.
2.

2. 1
2.
2.
2.
2. 1

2. 1
2. 1
3.
3.

3,

2.
2.
2.
2.

. 9 .2
. 9 2
. 9 2
. 9 .2
. 9 4

. 5 18
. 5 9
. 7 2
. 7 1
. 5 1

. 5 1
. 3 .0
. 1 .2
. 1 .4
. 3 .0

. 7
. 0 .3
. 5 .0
. 1 .8
. 8

. 4
1
. 0 .9
. 4 .9
. 9 .9

. 9 .9
. 7 .7
. 3 .5
. 0 .5
2. . J .^
2. .1

2.7 5.73 18.2
3. 13 186

1,728 578 149
130 27 12
1.14 20.7 100

3.7
3.5
3.5
3.5
4.1

3.9
3.5
3.5
3.5
3.3

3.3
3.5
3.5
3.3
3.3

3.3
3.2
3.1
3.0
3.4

32
131
33
39
49

44
74
52
138
85
130

28.3
138

5
129

67
42
32
24
19

16
15
13
12
11

10
9.9
9.5
12
9.9

9.2
8.7
8.4
8.1
7.7

7.4
7.2
7.2
7.0
8.9

8.2
7.2
6.8

14.4
67

802

57
156

6.6
6.5
20
46
53

54
54
52
52
53

94
128
150
116
101

587
994
716
537
431

380
363
405
401
354

314
278
284
287
255
262

253
994

15,540

51
265

239
211
192
199
217

255
363
275

234

251
224
214
220
235

208
213
287
270
233

217
220
216
229
209

193
212
213
190
174

228
363

13,590

7
231
13,740

16S
169
185
225
257

269
314
406

732

625
529
454
411
428

522
635
691
672
662

690
689
640
574
502

439
388
350
311
282
262

452
732

27,800

204
468

JUN

240
202
176
170
211

223
209
202

198

191
18
16
16
15

15
17
168
163
149

138
125
113
102
99

95
87
75
65
74

156
240

9.260

201
184

JUL

95
82
76
66
60

54
50
46

39

36
34
31
29
28

27
25
24
23
21

20
20
19
18
17

17
16
16
16
15
14

34.7
95

2,130

338
42.9

AUG

14
14
13
13
12

12
12
12

11

11
11
10
. 9
. 6

. 4
. 2
. 0
8.6
8.4

8.2
8.1
8.1
7.9
8.1

10
11
8.3
7.7
7.3
7.0

10.1
14

618

321
15.1
929

J80

S

180
6.
7

3

1
8.
5

t CHANGE IN CONTENTS, IN ACRE-FEET, IN JENKINSDN LAKE! FURNISHED BY BUREAU OF RECLAMATION, t DIVERSION, IN ACRE-FEET, FROM JENKINSDN LAKE! FURNISHED BY BUREAU OF RECLAMATION, tt EVAPORATION, IN ACRE-FEET, FROM JENKINSON LAKE) FURNISHED BY BUREAU OF RECLAMATION

SAN JOAQUIN RIVER BASIN

11333000 CAMP CREEK NEAR SOMERSET, CALIF.--CONTINUED

DAY

1
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21
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23
24
25

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27
28
29
30
31

MEAN

MIN

m c*) ctt)

MEANtl
AC-FTJJ

5.1
9.0
29
16
11

9.7
9.0
8.2
7.4
7.D

7.0
6.7
6.7
6.7
6.5

6.3
6.3
6.3
6.3 1
6.3

6.0
6.1
6.3
6.3
6.3

6.2
6.0
6.0
6.2

6.2 (
6.0 -

7.87 4

5.1 i

90
7.33 1

451 (

. 0 .0
. 9 .9
. 8 .6
. 7 .0
. 0 2

. 4 1

. 2 1.0 .0
. 0 .2
. 0 .2

. 1 .8
. 9 .5
. 9 .6
. 5 .1
. 4 .2

. 2 .7
. 0 .7
. 3 .5
. 8
. 4 .5

. 8 .1
. 2 .0
. 1 .4
. 0 .2
. 0 .9

. 0 .5
. 1 .4
. 2 .1
. 3 .6
. 3 .2
. 6

39 6.11

. 9 3.1

52 8

97 1,390

4.4
4.2
3.8
4.0
3.8

3.7
3.8
3.7
3.9
12

11
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198

CAL YR 1967 TOTAL 36,781.2 MEAN 101 MAX 994 MIN 2.9 AC-FT 72,960 MEANJ 128 AC-FTJ 93,020 WTR YR 1968 TOTAL 6,465.3 MEAN 17.7 MAX 169 MIN 2.5 AC-FT 12,820 MEAN} 42.4 AC-FTt 30,780 t CHANGE IN CONTENTS, IN ACRE-FEET, IN JENKINSON LAKE; FURNISHED BY BUREAU OF RECLAMATION.
J DIVERSION, IN ACRE-FEET, FROM JENKINSON LAKE! FURNISHED BY BUREAU OF RECLAMATION.
tt EVAPORATION, IN ACRE-FEET, FROM JENKINSON LAKEt FURNISHED BY BUREAU OF RECLAMATION,
tt ADJUSTED FOR STORAGE, DIVERSION, AND EVAPORATION.

SAN JOAQUIN RIVER BASIN

11333000 CAMP CREEK NEAR SOMERSET, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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MAX
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MEAN** 3
AC-FTJt

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. 8 3.5 4.
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. 8 3.2 4.
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. 8 3.2 15
. 2 12 8.
. 3 6.9 6.
. 8 5.0 13
. 2 7.0 22

. 0 6.3 26
. 0 4.8 12
. 6 4.8 8.
. 4 5.0 8.
. 2 4.4 6.

. 3 4.1 5.
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. 2 3.7 5.C
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. 1 6.3 29

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. 2 4.2 17
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. 5 3.2 4.

04 +475 +1,70
S62 641 30
99 20
55 25.5 43.
18 1,520 2,68

9.1 333
8.0 288
7.4 260
7.2 243
6.7 265

6.3 295
5.9 249
5.8 212
5.5 191
5.1 180

6.4 194
11 265
82 247
103 247
42 354

25 379
18 315
19 307
428 285
> 1,390 272

2,020 259
) 858 231
314 246

) 88 263
307 259

900 257
450 213
372 219
495
431

2,020 379
5.1 180

) +15,830 -90
7 284 194
5 5

) 545 264

235
208
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164
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173
192

217
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214
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245

259
281
319
370
441
512

512
125

228
72
220

531
522
483
424
573

546
454
416
392
363

374
402
414
422
392

359
347
371
374
377

397
431
485
460
378

328
300
294
309
320

573
294

338
125
415

325
320
303
280
267

280
306
336
364
372

354
350
328
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262
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203
190
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179
169

156
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283

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AC-FTt 32,66

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WTR YR 1969 TOTAL 45,182.8 MEAN 124 MAX 2,020 MIN 2.5 AC-FT 89,620 MEAN* 160 AC-FTt 115,700

t CHANGE IN CONTENTS, IN ACRE-FEET, IN JENKINSON LAKE! FURNISHED BY BUREAU OF RECLAMATION.
} DIVERSION, IN ACRE-FEET, FROM JENKINSON LAKE! FURNISHED BY BUREAU OF RECLAMATION,
tt EVAPORATION, IN ACRE-FEET, FROM JENKINSON LAKE! FURNISHED BY BUREAU OF RECLAMATION.
It ADJUSTED FOR STORAGE, DIVERSION, AND EVAPORATION.

SAN JOAQUIN RIVER BASIN

11333000 CAMP CREEK NEAR SOMERSET, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND, WATER YE»R OCTOBER 1969 TO SEPTEMBER 1970

DAY

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TOTAL
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MAX
MIN
AC -FT

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MEANtt

CAL YR
WTR YR

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+68 +3,991

98 39 15
8.83 14.4 83.1

1969 TOTAL 45,372.0 MEAN
1970 TOTAL 29,395.8 MEAN

6.7

5.8
5.6
5.4

5.2
5.3
5.7
8.5
30

19
17
23
209
117

904
762
451
650
697

2,260
1,850
994
994
801

631
732
631
507
432
360

14,125.4 5
456
2,260
5.2

+8,882

37
607

124 MAX 2
80.5 MAX 2

306

241
221
199

179
161
14B
135
126

126
139
192
204
168

170
312
259
235
213

193
175
161
153
143

134
126
123

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186
312
123

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190

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225
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18B
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290

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174

MIN 3.2
MIN 3.2

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AC-FT 90
AC-FT 58

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105

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345 308 202
4.00 -11.4 -7.88

AC-FTt 117,800
AC-FTt 75,770

t CHANGE IN CONTENTS, IN ACRE-FEET, IN JENKINSON LAKEi FURNISHED BY BUREAU OF RECLAMATION. t DIVERSION. IN ACRE-FEET, FROM JENKINSON LAKE ; FURNISHED BY BUREAU OF RECLAMATION, tt EVAPORATION, IN ACRE-FEET, FROM JENKINSON LAKE i FURNISHED BY BUREAU OF RECLAMATION. it ADJUSTED FOR STORAGE, DIVERSION, AND EVAPORATION.

632 SAN JOAQUIN RIVER BASIN

11333500 NORTH FORK COSUMNES RIVER NEAR EL DORADO, CALIF.

LOCATION.--Lat 38°35'20", long 120°50'38", in SWV sec.35, T.9 N., R.10 E., El Dorado County, on downstr of left abutment of county road bridge, 0.8 mile north of Nashville, 2.6 miles upstream from mouth,
6 miles south of El Dorado.

DRAINAGE AREA.--205 sq mi.

PERIOD OF RECORD.--August 1911 to Dec 1941, October 1948 to September 1970.

GAGE.--Water-stage recorder. Altitude of gage is 840 ft (from topographic map). Prior to October 1933, non-recording gage at site 1.5 miles upstream at different datum. October 1933 to December 1941 water-stage recorder at site 1,000 ft upstream at different datum.

AVERAGE DISCHARGE.--52 years, 203 cfs (147,100

EXTREMES.--Maximums and minimums (di

e-ft per year).

Date Time
Dec. 29, 1965 0400

Dec. 6, 1966 1930
Jan. 22, 1967 0130
Jan. 29, 1967 1100
Jan. 31, 1967 1130
Mar. 16, 1967 2130
Apr. 7, 1967 0300

Wtr yr Date
1966 Oct. 12, 1965
1967 Nov. 3, 1966
1968 Aug. 31, 1968

2,160
3,390
2,090
2,680
*3,500
2,470

*) and

Date
May

Feb.

Jan.
Jan.
Jan
Apr.

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1967

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irges

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Disch.
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Disch.
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*8,140
3,100
2,570
1,810
2,330

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8.12
10.27
11.12
7.78
7.25
6.31
6.99

7.31
8.30
7.00
7.62
8.34
7.41

Annual minimum daily discharge, water years 1966-70

Discharge Wtr yr Date
. 50 1969 Oct. 1, 1968
6.9 1970 Oct. 1, 1969

charge
5.5
14

Period of record: Maximum discharge, 15,800 cfs Dec. 23, 1955 (gage height, 14.8 ft), from rating curv extended above 7,500 cfs on basis of slope-area measurement of peak flow; no flow for part of 1924, 1926, 1931, 1933-34.

REMARKS.--F

REVISIONS (WATER YEARS).--WSP 1315-A: 1914(M), 1925(M), 1928(M). WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

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MEAN

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AC-FT

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255
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114

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6,980

164
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120
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138

482
296
194
154
135

119
110

98
91

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84
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87

85
84
92
125
133

128
119
110

135

84
7,480

108
106
100
95
94

95
1D4
110
125
188

230
204

242
235

228
204
188
194
188

172
166
164
172
184

192
202
225

386
413

189

94
11,650

431
440
419
407
401

380
353
338
323
401

449
461

359
335

317
302
293
287
248

230
210
200
194
190

190
188
174

150

308

150
18,320

140
130
127
125
123

122
114
108
105
114

119
102
88
79
73

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4,500

JUN

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8.2

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48.7

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SEP

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7.8

16.7
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4.7
994

SAN JOAQUIN RIVER BASIN

11333500 NORTH FORK COSUMNES RIVER NEAR EL DORADO, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

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7.B 7.B
7.8 6.9
8. 8.2
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9. 14 1
8. 19
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8. 22
7. 22

8. 24
8. 26
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9. 28
LO 34

2 56
1 61
2 44
3 36
2 59

2 89
4 79
4 50
5 31
5 24

4 21
4 18
3 24
2 63
1 88

MAX 15 89 1
MIN 7.4 6.9

DAY

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MEAN i
MAX
MIN

DISCHARGE,

OCT NOV

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75 36
54 36

31 36
26 31
24 33
24 31
23 31

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19 34
21 41
21 48

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22 36
19 38
22 70

24 38
24 33
25 31
27 31
28 22

30 28
31 28

31 35
33 51

75 70
19 22

CAL YR 1967 TOTAL 119, 959.0

79
207
350
122
413

,180

367
228
190

166

119
106

99
95
89
85
B3

79
76
73
70
67

0
5
9
6

54

51
49
48

47

4B

45
40
39

39

38
38

38
36

39

764
1,500
368
468
563

759
508
1,500
1,350

35

IN CUBIC FEET

DEC JAN

51 38
38 37
39 35
49 29

83
68
69
49
43

39
38
35
22
31

40
37
44
47

41
38
38
40
43

46
49

48
43

145
22

MEAN

32
31
32
33
58

84
53
44
43
232

174
102
70
55

44
41
39
39
38

3B
44

39
148

232
29

326

1,070
658
498

359

320

281
266
255

245

255

225
208

182

174
166
162
156
164

147
143

143

PER SECOND,

FEPl

96
88
119
105

89
85
82
82

83
4
a
4
3

1
1 2
1 6
1 5

9 7
6 3
5 2
482
383

350
308

238

1,050
61

MAX 2,610

140
138

172

172

16B
168
168

235

617

1,860
2,610

1.080

934
BBO
940
934
825

678
666
706
626

138

HATER

MAR

21B
202
190
170

160
154
220

172
160
208
308
248

293
3B3
293
245

225
248
250
258
263

299
299
2B4
299
326

383
154

MIN

690
594

642

877

1.000
765
706

850

642

618
614

860

B15
835
840
934
810

694
67B
594
534

534

498
482

618

670

B55
,100
,570

,410

,060

,130
,320

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. 44
. 48
. 430
,300
. 180

982
BBS
BIS
760

482

71,170

YEAR OCTOBER 1967 TO

APR MAY

377 123
404 119
365 111
332 106

296
278
266

255
250
238
228
222

212
200
186
176

160
148
142
138
135

131
131
128
128
127

404
127

95
88
80

74
73
B3
116
92

79
71
65
62

62

56
55
53

49
45
43
39

123
34

7.8 AC-FT 236,000

JUN

682
630

554

594

578
562
546

530
514

474

446
443

431

416
401
359
335
329

326
308
299
27B
263

263
,510

SEPTEM

JUN

34
31
28
28

31
40
43

23
22
21
21
22

23
24
23
21

16

71
89
77

43
30
22
25

B9
16
,990

JUL

296
269

238
21B

206

180
170
158

14B
138

123
114

108
151

B8
84

79
74
71
70
68

65
63
6O
59
59

58
8,020

)ER 1969

JUL

23
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34
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43
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62
20
2,540

AUG

51
48

45
45

44

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16
16
IB
21

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27
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22
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51
16
1.830

AUG

43
42
40
48

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33
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44
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45

29

6.5
4.8
3.6

2.3
2.0
2.0
1.9

813.8

59
1.8
1.610

SEP

IB
18
IB
20
21

26

22
16
7.8

11
12
13
18
11

9.6
9.6
11
22
23

IB
14
12
16
22

21
22
16
14
18

26
7.8
1.000

SEP

2.3
2.2
2.2
2.2
2.2

2.4
2.5
3.3
3.3
4.7

7.5
7.8
5.3
4.0
3.4

3.5
4.0
3.3
2.6
3.0

3.5
5.0
6.5
7.2
7.5

7.5
6.8
6.5
5.6

135.7
4.52
7.9
2.2
269

SAN JOAQUIN RIVER BASIN

11333500 NORTH FORK COSUMNES RIVER NEAR EL DORADO, CALIF.--CONTINUED

DAY

I
2
3
4
5

6
7
B
9
10

11
12
13

15

16
17
IB
19
20

21
22
23
24
25

26
27
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29
30
31

MAX
MIN

DAY

I
2
3
4
5

6
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B
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11
12
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14
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16
17
IB
19
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21
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31

MEAN
MAX
MIN

DCT

5.5
8.0
10
13
13

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17
18
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35

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36
38
41
47
58
65

5.5

OCT

14
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17
17
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22
25

23
21
20
IB
29

109
123
B3
54
42

35

27
26

25
25
26
25

23

31.9
123
14

DISCHARGE,

NOV

5B
66
173

52

34
26
23
20
19

19
44
58
39
42

47
37
33
41
45

35
28
24

36

35
29
25
23
24

19

DISCHARGE,

NOV

22
21
21
23
30

100
98
58

42

37
34
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25 1

25

24
23

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34.0
100 1
21

IN C

DEC

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43
35

28

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27
28
28
33

102
77
52
80
118

93
67
63
57

40
38
48

236

221
117
104
117
87

27

IN

DEC

23
23
22

21
23
75

34

38
48
47
43
34

30

28
37
203

554

204

419

202
172

135

166
. 220
21

UBIC FEET

60
56

54

55
56

56
55

56
101
809

418

184
179
2.260
4.630

6,950
3,350
1.590

2,230

3.720

1.480
1,310
1,090

54

CUBIC FEET

JAN

105
99
90

85
87
87

337

248
240
320
1,920
1,290

3,800

2,000
1,660
1.740

5,220

2,520

1,770

1,820
1,470

960

1,446
5,220
85

PER SECOND

677
554

695

1,120
BOB

449
402

436
1,020
690

1,130

963
939
BBl
789

703
586
702

1,010

996

811

402

PER SECOND

590
532
480

440
408
384

328

314
324
4BB

440

432

BOS
635
552

500

428

364

332

504
1.330
314

WATER

831
BOB

520

478

92
01

65
53
62

323

323
329
353
374
398

538
443
437

470

494

622
730
BB5

323

, WATER

668
588
603

527
490

615

531
481
452

453

443

411
381
358

339

316

295

275
271

251

481
1,310
251

YEAR OCTOBER 1968 TO

1,110
1,060

1,410

1,450

BB5
BIO

B20
BB5
928

855

780
755
BOO
B15
830

875
976
I. 100

865

755

678
710
745

678

740
702

614

646

855
900

855
835
790

682

622
598
606
586
546

502
478
446

426

408

365
338
329

323

YEAR OCTOBER 1969 TO

225
216
211

209
205

198
198

197
194
200

218

205

195
206
211

188
183
177

180

1BB
178

201
240
172

181
183
190
199
201

200
201

191
192

IBS
176
167

168

174

185
184
173

152
146
142

132

121
114
108

166
201
105

7,700
4,000

SEPTEMBER 1969

293
278

242

228

174
164

150
154
138

125

147
143
133
126
118

111
104
96
89
82

81

73
70
66

66

SEPTEM

JUN

103
99
96
82
76

74
69

125
112

89
77
73

72

65

57
50
47

38
37
37
38

43

42
39
39

65.3
125
37

77
73

68

64

56
53

51
48
50
52
45

44
41
3B
36
35

33
32
31
33
36

34

30
2B
24
26

24
2,850

BER 1970

JUL

42
43
41
39
37

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28

37.9
53
23

23 14
21 13
20 15
IB 17

19 16
18 17
18 19
17 23
18 21

19 20
19 IB
19 16
19 15
18 15

19 15
18 15
17 15
17 16
16 16

16 16
17 16
15 17
14 16
14 14

15 14
20 13
15 13
15 13
14 13

14 13
1,090 940

AUG SEP

27 42
25 42
23 42
24 42
25 51

31 55
42 54

58 56
51 51

49 52
49 52
47 52
58 53
68 52

68 53

67 50
67 38
53 25

43 22
43 22
43 IB
43 15

36 IB
32 19
31 22
30 22
34 18

44.0 38.9
68 56
23 15

SAN JOAQUIN RIVER BASIN

LOCATION.--Lat 38°37'29"
1,000 ft downstream f

11334200 MIDDLE FORK COSUMNES RIVER NEAR SOMERSET, CALIF.

long 120°42'02", in NlftNlft sec.19, T.9 N., R.12 E., El Dorac om county road bridge, 0.2 mile downstream from Perry Creek,

County, on left bank
nd 1.8 southwest of

DRAINAGE AREA.--107 sq mi.

PERIOD OF RECORD.--October 1957 to September 1970.

VERAGE

age recorder.

DISCHARGE. --13 years
(80,000 acre

XTREMES

ate
pr. 1,

ec. 3,
ec. 6,
an. 22,
an. 30,
ar. 16,
ir . 6 ,
pr. 17,
ay 10,

a From

tr yr
966
967
968

Pe
ft fr
minim
Fl

EMARKS .

. --Maxi

Annu

1966

1966
1966
1967
1967
1967
1967
1967
1967

f loodm

Date
Sept. 10
Oct. 1
Sept. 29

riod of
om f loo
urn , 1.7
ood of

- - Recor

EVISIONS.--WSP

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B
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OCT

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14
15

23
19
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14
15
16

16
15
14
14
14
14

15.4
25
14

- ft per year)

mums and mini

of gag

, 154 cfs (111

mums (d

al maximum discharge

Time Disch.
0100 *412

0200 820
1430 2,460
0100 1,480
2030 1,680
2200 *2,670
2230 990
2230 772
0730 1,290

arks.

G.H.
6.22

7.30
9.85
8.55
8.85
10.08
7.68
7.18
8.25

Annu

ischarg

(*) an

Dat
May

Feb

Jan
Jan
Jan
Feb
Apr

,600

e in

d pe

e
21

. 20

. 13
. 21
. 26
. 15
. 5

al mininiuni

acre-ft

cubic f

ak disch

, 1967

, 1968

, 1969
, 1969
, 1969
, 1969
, 1969

daily di

per

eet p

arge

Time
2100

0830

2300
-

0700
2100
1500

schar

Discharge
, 1966
, 1966
, 30, 1968

record: Max
dmarks) , from
cfs probably
Dec. 23, 1955

1930: Drain

DISCHARGE.

NOV

14
14
14
14
14

14
14
14
14
14

14
16
45
78

53
106
268
205
1C5

76
61
123
223
173

124
106
88
77
71

74.1
268
14

TR YR 1966 TOTAL 28,594.5

imum di
rating
occurr

, reach

age are

scharge
curve

ed Sept
ed a st

gation

IN CUBIC FEET

DEC

66
62
59
57
55

53
52
51
50
49

50
60
52

44
41
40
39
40

41
42
39
42

51
47
74
150
128
167

60.3
167
39

MEAN

87
62
60
72
131

104
88
81
76

70
67
67

63
63
62
62

55

57
55

52
51
50
54
114
90

69.8
131
50

78.3

, 11
exte
. 11

age

PER

MAX

5.0
5.3
6.8

,800 cfs
nded abo
, 1961.
of 18.1

SECOND,

80
71
67
73
92

169
109
89
86

67
74
72

66
65
66
67

69

78
91

103
95
9?

82.1
169
65

378

Feb.
ve 2,

ft, f

gage-

year); median of yearly

er second, gage

above base (700

Disch. G.H.
1,540 8.65

*930 7.56

1,080 7.85
*8,240 alS.80
4,720 12.00
830 7.25
1,180 8.00

ge, water years

Wtr yr Date
1969 Oct. 4
1970 Sept. 27

1, 1963 (gage h
500 cfs on basis

height i

cfs), wa

Date
Dec.
Dec.
Jan.
, an.
. an.
an.
. an.

eb.
Mar.

1966-70

, 5, 196
, 28, 30

eights,

rom floodmarks (discharg

arabaldi ditch w as aband

mean discharges

n feet).

110 cfs

ter years 1966-70

Time
21, 1969 1800
25, 1969 1300
14, 1970 1700
16, 1970 1600
21, 1970 2400
24, 1970 0400
27, 1970 0900
17, 1970 0100
1, 1970 1400

8
, 1970

16.20 ft in gage
utation of peak

e, 11 ,600 cfs).

oned.

WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

91
89
83
81

83
90
101
120

248
238
289

282
248
231
238

211

215
231

267
291
314
338
355
365

216
365
81

MIN

375 163
37B 1
352 1

58
58
350 156
342 153

328 147
311 1
298 1

41
35
287 130

338 131
335 1 18
3DO 109

273
278
282
248

209

188
188

197
192
187
173
169

270 98
378 1
169

14 AC-FT 153

5.0 AC-FT 56

91
87
81
79

70

64
59

52
49
48
46
45
45

43 18
43 17
41 17
40 17
40 16

38 1
39 1
39 1
38 1

34 1
32 1
31 1

28 1
27 1
26 1

25 1 24 1

23 13
24 13

23 12

23 12 22 12

21 11
20 11
20 11
19 11
18 11
12

. 7 29.9 14.3
63
45

. 500
,720

43 18
18 11

Disch. G.H.
1,280 8.18
1,180 8.00
2,020 9.30
*4,220 11.58
4,000 11.40
2,260 9.75
1,420 8.57
786 7.29
1,160 8.10

Discharge
6.6
9.0

well, 18.4 ft
flow over dam;

AUG SEP

13 6.1
12 6.1
12 5.8
10 5.8
9.5 5,4

8.3 5.1
8.3 5.4
. 7 5.6
. 8 5.3
. 6 5.D

. 6 5.1
. 4 5.3
. 4 5.4
. 4 5.6
. 2 5.8

. 1 5.9
. 9 5.8
. 8 5.9
. 4 6.4
. 1 8.3

. 4 7.9
6 6.8

. 4 6.2
. 4 5.8
. 4 5.9

. 4 5.8
. 4 5.6
. 6 5.8
. 8 5.4
. 9 5.3
. 1

6.96 5.85
13 8.3
5.1 5.0

NOTE. NO GAGE-HEIGHT RECORD OCT. 18 TO DEC. 7.

SAN JOAQUIN RIVER BASIN

11334200 MIDDLE FORK COSUMNES RIVER NEAR SOMERSET, CALIF.--CONTINUED DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR MAY JUN JUL

I
2

it
5

6
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10

12
13
I*

17
18
19
20

22

24
25

26
27

30

TOTAL

MAX
MIN

CAL YR

5.3
5.8

6.1
5.9

5.9
5.9
5.9
5.9
5.8

5.6
5.6
5.8

6.*
6.4
6.2
6.2

. 1

. 4
. 2

6.1
6.1

6.2

186.5

6.4
5.3

1966 TOTAL

6.1
6.1

5.8
5.8

7.7
19
u
11
9.5

9.0
9.0
9.0

46
28
21
76

70

29
24

22
21

89

948.6

172
5.8

32,178.

67
309

193
547

1,250
750
422
309
271

199
ISO
164

130
121
116
114

101

90
85

83
71

72

7,016

1,250
67

6 MEAN

67
65

62
63

55
55
58
53
54

53
52
51

49
48
48
62

644

300
273

273
358

1.080

7,376

1,270
48

88.2

832
610

424
386

362
348
342
338
338

335
342
348

269
256
244
227

204

190
199

183
175

8,971

832
171

MAX 1,250

171
167

167
158

155
152
152
152
153

310
320
258

2.120
1,340
935
788

656

652
596

547
496

481

16,087

2,120
152

MIN 5

451
412

400
395

553
644
472
424
421

406
390
392

430
526
487
424

424

439
388

358
382

318

12,710

644

0 AC-FT

309
318

380
421

436
520
692
872
1,120

804
728
716

,150
,180
. 160
. 220

,330

,140
,020

900
832

628

25,550

1.330

63,830

523
478

439
511

475
460
451
460
460

430
409
398

460
445
415
390

380

340
340

330
307

262

12,166

523

246
227

187
169

155
140
127
119
112

97
91
86

75
71
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246

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19

L8

687

28
18

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

8
9
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11
12
L3
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16
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31

TOTAL
MEAN
MAX
MIN

18
22
75
34
28

25

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18
19
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19
L9

19
L8
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18

22.5

L8

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17

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28
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62
38

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25
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23.3

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26
28
90

68

45
32
31

29

17
21
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38
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31

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32
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31

1,058
34.1

L7

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27
26
25
25

24

26
28
55

62

37
35
172

140
90
60
49
47

48
51
52
52

52

48
105
77

53.6

24

82
107
104
85
78

77

78
95
U2

97

88
86
81

84
224
258
225
668

676
568
557
502

342

289

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236

77

269
248
234
224
218

204

252
233
202

185

222
220
195

236
242
213

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183
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183
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213

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276
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217

177

316
287
260
246
240

227
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211
204
204

197
182
169

156

148
144
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L38

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194

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US

114
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76

74
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64
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LOS
153
59

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33.3
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L2

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ID
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12.5
17
ID
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15 .9
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9.6 .8
903 41

SAN JOAQUIN RIVER BASIN

11334200 MIDDLE FORK COSUMNES RIVER NEAR SOMERSET, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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MAX
MIN
AC-FT

CAL YR

NOTE.

DAY

1
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TOTAL
MEAN
MAX
MIN

WTR YR

OCT

6.8
6.8
6.7
6.6
6.6

6.7
6.8
6.9
6.8
6.8

6.8
7.9
12
25
20

14
12
11
11
10

10
10
9.5
9.5
9.5

9.2
9.5
9.5
11
16

6.6
635

1968 TOTAL

NO GAGE-H

OCT

15
15
15
15
15

15
15
15
17
16

16
16
15
16
24

86

38
29
26

23
22
22
22

22
21
21
21

720
23.2
86
15

14
17
173
88
39

30
26
24
22
22

22
47
38
32
39

45
38

34
32
31

38

33
31
31
30
31

37

31

29

30
30
30
30
40

85
49
48
80
125

57

43
40
56

194

128
89
89
79
68

59

56

61

67

75
70

77
105
426

400

1.900

5,500
4,000
1,420

2.290

3,370
1.950

890
750

14 29 56
2,270 3,940 62,910

29,838.9 MEAN 81.5
110.501.9 MEAN 303

EIGHT RECORD JAN. 19-22.

DISCHARGE, IN CUBIC FEET

NOV DEC JAN

20 22 128
20 22 112
20 23 102
20 23 96
32 22 85

100 23 82
48 23 89
36 22 88
32 30 129
29 26 370

28 32 259
27 33 271
27 32 344

27

29
27
26

26

24

24
24
23
23

880 4
29.3
100
20

1970 TOTAL 69,191.5

27

25
40
334

336

560

312
233
188
160

,689
151
716
22

938

1,620
1.140
1,090

2,450

1,690

1,140
890
766
650

28,282
912
2,880
82

MEAN 190

595

496

538

610

399
377

529
430

460

399
374
419

466

457
416

iiini

448

399

317

307

287
275

263
252

284

357
320
328

374

416
481

669
798
886

374 248
26,380 22,960

MAX 676 MIN 6
MAX 5,500 MIN 6

PER SECOND, MATER

FEB MAR

510 726
455 495
422 418
398 410
368 380

342 360
326 345
310 418
295 368
286 375

277 345
321 328
388 323

321

425
405
380

330

306

282
293

__ -_.-

9,969
356
543
277

MAX 2,880

348

326
310
297

282
273

264

242
232
230
230

10,349
334
726
210

MIN 9.

890

810

940

862

652
606

754
770

706

810
890
935
802
686

627
606

666
683

698

620

606

655

758
830
830

786
758

602

529
532
535
532
508

487
472

433
433

940 834
606 427
44,000 37,890

6 AC-FT 59,190
6 AC-FT 219,200

YEAR OCTOBER 1969

APR MAY

195 174
191 179
188 193
182 208
181 204

179 222
178 210
173 197
171 191
174 197

170 189
166 181
182 171
202 176
170 182

166 202

162
171
162

152
151

148

149
157
151
160

5,055
169
202
145

0 AC-FT

226
214
191

176
170

160
151

44
32
22
13

5,521
178
226
110

137,200

JUN

419

385

346

323

270
246
233

216
200

188
175

154
144
139
130
123

115
111
104
98
94

419
94
12,870

TO SEPTEM

JUN

104
101
93
88
84

79
75
75
127
95

83
76
76
74
79

69
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52

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48

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44

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46
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43

2,077
69.2
127
43

JUL

88
84
79

72

69

62
60
56

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48

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JER 1970

JUL

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IB

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25.2
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IB
1,550

AUG

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21.6
28
18
1,330

AUG

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423
13.6
18
11
839

9.4
9.4
9.2
9.2
9.6

445.5
14.9

SAN JOAQUIN RIVER BAS IX

11334300 SOUTH FORK COSUMNES RIVER NEAR RIVER PINES, CALIF.

DRAINAGE AREA.--64.3 sq mi.

PERIOD OF RECORD.--October 1957 to September 1970.

GAGE.--Water-stage recorder. Altitude of gage is 1,220 ft (from topographic map).

AVERAGE DISCHARGE.--13 years, 46.0 cfs (33,330 acre-ft per year); median of yearly mean discharges, 26 cfs (18,800 acre-ft per year).

29, 1965 0115

Dec.
Jan .
Jan .
Jan.
Mar.

Apr.
Apr.

6,
22,
29,
31,
16,
6,
18,

1966
1967
1967
1967
1967
1967
1967

1445
0015
0830
0930
1715
2330
0030

1966 Long periods
1967 do.
1968 do.

Period of recor

Disch. G.H. Date Time
*480 3.20 Feb. 20, 1968 0500

992 4.11

*2,540 6.67
1,060 4.14
1,210 4.37
1,840 5.35
1,760 5.20

Annual minimum daily discharge, water years 1966-70

Discharge Wtr yr Date
0 1969 Oct. 1-14, 1968
0 1970 Sept. 1, 1970

Feb. 28, 1969 1530
5, 1969 1445
an .
an .
an .

eb.
eb.
Feb.
Feb.

13,
21,
26,
6,
12,
15,
24,

1969
1969
1969
1969
1969
1969
1969

1800
0300
0515
1215
0615
1530
1300

1,020
*2,810
1,700
710
640
1,010
1,020

4.13
7.09
5.15
3.60
3.46
4.12
4.13

Jan .
Jan.
Jan.
Jan.
Feb.
Mar.

14,
16,
21,
24,
17,
1,

1970
1970
1970
1970
1970
1970

1445
1215
1415
0215
0145
1515

1,750
*1,830
1,640
768
724
1,650

charge, 5,540 cfs Feb. 1, 1963 (gage height, 10.90 ft), from
pe-area measurement at gage height, 9.90 ft; no flow a

REMARKS.--Mi abandoned.

COOPERATION.--Rec irds for water year 1970 furnished by Bureau of Reclamation and reviewed by Geolt

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

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31

MEAN
MAX
MIN

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1.7
1.5
1.5
1.5

1.5
1.6
1.5
1.6
1.5

1.5
1.6
1.6
2.0
4.9

4.5
3.4
3.1
3.0
2.8

2.8
2.7
2.4
2.4
2.3

2.2
2.3
2.2
2.4
2.4
2.3

2.28
4.9
1.5

2.5
2.5
2.5
2.7
2.8

3.0
3.2
3.1
3.4
3.7

3.7
4.3
5.7
17
16

11
16
66
42
21

15
13
21
46
50

33
24
19
16
15

16.1
66
2.5

14
13
12
12
11

10
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. 1

. 4
1
1
11
11

10
B.7
8.8
8.3
B.2

8.6
8.5
7.3
9.4
42

23
16
50
220
162
232

32.0
232
7.3

88
54
42
44
130

106
78
66
58
50

45
42
38
35
34

33
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28
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25
25
24
23
22

22
21
20
23
132
85

47.7
132
20

64
56
4B
50
62

254
136
94
72
60

52
48
44
41
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37
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33
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46
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58.1
254
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41
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19.0
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9.9
8.9
9.3
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11
11
9.9
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8.6
8.1
7.7
7.4
7.1

6.7
6.7
6.8
6.4
6.3

5.6
5.5
5.3
5.2
5.6
6.1

8.46
12
5.2

. 80
. 60
. 80
1.3
. 30

. 20
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80 .10
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90 .33
i.9 1.3
80 .10

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SAN JOAQUIN RIVER BASIN

11334300 SOUTH FORK COSUMNES RIVER NEAR RIVER PINES, CALIF.--CONTINUED

DISCHARGE! IN CUBIC FEET PER SECOND. MATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

1 0
2 0
3 0
4 0
5 0

6 0
7 0
8 .80
9 1.1
10 .70

11 .70
12 .70
13 .90
14 1.1
15 1.6

16 7.3
17 6.6
18 3.7
19 3.2
20 11

21 19
22 20
23 13
24 8.4
25 6.5

26 5.6
27 5.2

28 6.7 29 10

30 10 J! ______

TOTAL 0 143.80
MEAN 0 4.79
MAX 0 20
MIN 0 0
AC-FT 0 285

12
78
128
41
214

494
190
93
58
SO

40
34
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25
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9.7

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55.5
494
9.7

DISCHARGE. IN

DAY Of* " rtw rie("

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MAX
MIN 1

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3.2
3.2
3.2
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3.5
3.6
7.2
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9 6.1
8 5.4
8 6.2
B 34
8 17

B 10
7.9
7.2
6.8
6.6

6.4
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7.9
8.4
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34
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18
12
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31
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8.4
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66
B.4

9.4
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B.
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7.8

7.7
7.7
7.4
7.4
8.9

585
849
218
2 7
2 8

1 8
2 5
1 3
5 7

480

4,802.6
155
849
7.4

CUBIC FEET

13
12
10
ID
10

10
10
10
11
44

52
28
22
20
155

87
51
37
29
25

22
21
19
18
17

17
19
18
16
125
105

155
10

402
251
186
144
118

97
83
71
63
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42

40 1
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75.6
402 1
26

PER SECOND,

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82
87
67
60

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a

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47
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38
35

36
113
124
86
331

286
187
172
129
99

80
68
59
51
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331
35

25
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23
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36
193
318
209
160

. 220
806
412
285
224

188
158
15B
146
128

115
102
102
109
104

,580
180
. 220
19

WATER

45
41
37
34
31

30
30
83
81
61

50
44
82
129
95

147
203
143
113
92

80
71
65
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55

53
46
42
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203
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173 215
154 206
146 201
183 202
252 207

56B 219
906 212
433 216
313 220
282 300

330 248
289 215
257 189
232 165
245 151

219 142
255 133
513 121
425 110
334 101

385 92
377 84
391 79
456 73
366 6B

311 64
311 62
295 59
257 58
231 54
54

9,889 4,520
330 146
906 300
146 54

YEAR OCTOBER 1967

52 15
44 14
38 13
34 12
32 12

31 12
29 11
27 11
25 11
24 10

23 10
22 1
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22 1
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JUN JUL

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56 17
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35 11

33 10
33 ID
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26 8.7

26 8.5
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22 .5

21 .0
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1,084 336.0
36.1 10.8
67 17
18 5.9

TO SEPTEMBER 1968

JUN JUL

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. 5 .54
. 5 .49
. 5 .46
. 5 .39

. 9 .32
. 4 .22
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. 1 .17

. 0 .23
. 8 .18
. 6 .15
. 5 .12
. 2 .07

. 95 .03
. 80 0
. 75 0
. 63 0
. 60 3
0

108.63 5.56

8.0 .54
. 60 0

AUG

5.5
5.3
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3.8
3.9
3.8

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SAN JOAQUIN RIVER BASIN

11334300 SOUTH FORK COSUMNES RIVER NEAR RIVER PINES, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TD SEPTEMBER 1969

1 0 2.2
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> IB
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10 0 2.9

11 0 2.5
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) 7.4
) 9.8
) 7.9
1.6 12

L.4 12
L.2 8.9
1.0 B.I
. 84 14
. 69 7.4

. 62 6.7
. 56 6.2
. 62 5.9
. 62 6.6
. 65 8.4

. 62 7.6
. 62 6.8
28 .72 6.3

30

L.I J . -7

>.0 6.1

MEAN
MAX
MIN
AC-FT

DAY

. 55 7.87
2.3 19
0 2.2
34 468

DISCHARGE

OCT NOV

I 1.0 4.3
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17 1
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. 70 4.3
. 80 4.3
. 80 4.3
. 80 12

. 90 65
. 0 28
. 0 15
. 3 11

. 9 8.8
. 8 7.9
. 5 7.5
. 4 7.4
. 5 7.2

7.8
B.I
. 5 7.5
. 4 7.2
. 3 7.0

. 6 6.9

. 1 6.9
. 1 6.9
. 2 6.9

. 3 6.9
. 3 6.9
. 2 6.7
. 1 6.6

. 2 6.4
. 3 ------

MEAN 3.93 10. I

MIN
AC-FT

. 70 4.3
241 600

. 3
. 5
. 2
. 6
. 1

. 7
. 4
. 7
. 2
. 5

26
18
14
34
6B

81
32
22
19
16 I

12 2
13 1
12
24
144

104 I
53
47
46
35
29

29.7
144 2
6.2

25
22
20
19
18

17
17
16
15
15

16
25
420
431
162

100
72
82
952
,370

. 110
. 020
456
390
861

,060
595
428

239
195

370
,110
15

, IN CUBIC

DEC

. 3
. 3
. 3
. 3
. 3

. 3
. 3
. 6
. 5
8.3

11
13
13
11
9.8

9.2 1
8.7
8.3
13
103

197 1
133
59
337
224

134
81
57
43
35
30

51.5

6.3
3,170 18

FEET

JAN

26
24
22
20
19

17
18
18
23
131

85
75
100
814
407

,140
738
439
272
245

,130
676
365
539
368

274
356
261
211
180
155

295

17

191
175
156
146
272

484
300
222
191
173

216
465
303
278
682

570
391
378
362
326

283
242
274
548
455

414
327
422

330
682
146

PER SECOND

FEB

13B
122
107

91

84
78
74
69
65

64
75
131
251
135

153
389
214
173
150

132
119
108
100
91

85
81
83

124

64

471
356
331
279
247

227
209
191
180
177

160
157
149
138
132

129
133
139
141
156

220
170
15B
154
151

148
148
151
151
151
149

189
471
129

MIN 0

, HATER

MAR

809
471
272

228

189
166
248
183

161
146
132
123
115

108
101
95
88
84

81
78
75
71
68

65
61
58
57
55
52

4,874
157

52

MIN .
MIN .

143
138
ISO
128
355

309
240
204
181
165

153
144
135
130
121

111
103
99
93
87

82
79
106
109
92

81
73
71
68
65

134
355
65

AC-FT 16

62
60
59
58
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38.3
62
23

,260

YEAR OCTOBER 1969

APR

49
47
46

42

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36

35
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57
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45
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36
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31

31
36
35
33
31

1,180
39.3

31

41 AC-FT
10 AC-FT

MAY

30
28
27

26

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24
24
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21
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20
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18
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661
21.3

14

68,520
43,310

23 11
20 10
21 10
21 9.9
20 9.4

20 9.4
19 9.1
20 8.6
20 8.1
21 7.7

21 7.3
22 6.8
20 6.1
18 6.1
17 5.9

17 5.6
18 5.4
17 5.0
16 4.5
15 4.2

15 4.0
15 3.6
14 3.4
14 3.3
13 3.0

13 3.0
13 2.8
13 2.7
13 2.5
12 2.3
2.0

17.4 5.89
23 11
12 2.0
1,030 362

TO SEPTEMBER 1970

JUN JUL

13 B.8
13
12

11

11
11
12
24
21

17
15
16
15
15

13
12
12
12
11

10

9.0
8.3
8.0

8.8
10
10
10
9.6

370.2 10
12.3

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. 0

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B 4
. 3
. 3

. 9
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. 3
. 9

. 8
. 0

. I.1
. 8

. 7

. 4
. 4
. 4

. 2
. 2
. 1
. 0
. 0
. 90

. 30
. 24

8.0 .90

. 0
. B
. 8
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. 3
. 3
. 2
. 2
. 1

. 3
. 3
. 97
. 89
. 77

. 67
. 66
. 63
. 67
. 66

. 72
. 66
. 64
. 57
. 62

. 67
. 62
. 61
. 61
. 57
. 60

. 97
2.0
. 57
60

AUG

. 90
. 90
. 80
. 80
. 80

. 70
. 70
. 60
. 60
. 60

. 50
. 4C
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12.60
. 41

. 20

. 53
. 52
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. 41

. 42
. 44
. 79
1.3
. 82

. 83
. 67
. 65
. 80
. 66

. 75
. 80
. 82
. 91
. 93

1.0
1.0
. 97
. 84
. 90

. 86
. 81
. 75

^71

. 75
1.3
. 41
45

SEP

. 10
. 20
. 20
. 20
. 23

. 30
. 30
. 60
. 30
. 20

. 20
. 20
. 23
. 3
. 0

. 0
. 3
. 0
. 40
. 40

. 60

. 53
. 50
. 53

. 0
. 0
. 0
. 0
. 0

10.10
. 34

. 10
20

SAN JOAQUIN RIVER BASIN

11335000 COSUMNES RIVER AT MICHIGAN BAR, CALIF.

LOCATION. --Lat 38°30'01'

DRAINAGE AREA. --536 sq m

PERIOD OF RECORD. --Octob
WSP 1315-A.

recording gage at pre

AVERAGE DISCHARGE. --63 y

, Ion g 121°

e of North

i .

er 1907 to

sen

Annual maximum dis

Date Time Disch.
Dec. 29, 1965 0500 *2,880

Dec. 6, 196 1900 6,190
Jan. 22, 196 0200 *15,900
Jan. 24, 196 2400 4,450
Jan. 29, 196 1200 6,760
Jan. 31, 196 1330 7,670
Mar. 16, 196 2400 8,980
Apr. 7, 1967 0400 8,510
Apr. 18, 1967 0400 4,920

Wtr yr Date
1966 Sept. 17, 1966
1967 Oct. 2, 1966
19b8 Sept. 23, 30, 1968

Period of record: Maxi

Flood in March 1907 rea

REMARKS. --Records good. Sine

REVISIONS (WATER YEARS) .--WSP

DISCHARGE,

DAY OCT NUV

1 28 32
2 26 32
3 26 31
4 23 32
5 23 32

6 22 32
7 22 32
8 21 33
9 20 33
10 20 33

11 20 34
12 21 35
13 22 40
14 24 68
15 27 184

16 39 132
17 50 145
18 43 505
19 39 660
20 35 298

21 35 187

24 29 312
25 30 474

26 34 302
27 32 224
28 32 181
29 32 159

31 32

MAX 50 660
MIN 20 31

I,

I,

1,

site a

485 c

charge

G.H.
5.82

7.30
9.56
6.65
7.45
7.72
8.07
7.95
6.83

ched a

02'39", in NW!»SE!»

and Middle Forks.

September 1970.

nd datum

fs (351, 400 acre-

(*) and peak dis

Date

Feb. 20, 1968

Jan. 14, 1969
Jan. 21, 1969
Jan. 26, 1969
Feb. 6, 1969
Feb. 15, 1969
Feb. 24, 1969
Mar. 1, 1969
Apr. 5, 1969

al minimum daily

Discharg
5.
5.
7.

scharge, 42,000 c

stage of 16.3 ft

ary 1955, flow pa

331: 1911-12

IN CUBIC FEET

DEC JAN

134 B90
124 478
119 345
116 318
116 896

116 788
114 550
111 425
111 365
109 318

109 282

165
137
121

109
100
87
89
89

89
731

316
200
492
790

970

970
87

240
226
218

208
201
194
187
180

168
161

155
155
149
210

896

1,520
149

. WSP 13

PER SECON

FEB

620
508
395
380
468

1.820
1,090
706
538
442

375

306
282
270

254

240
240
240

306
410

46D
365
322

1.820
232

232 MAX 1.970

sec. 36,

Monthly

ft per y

feet pe

charges

0900

0300
1500
0700
1400
2000
1900
0900
1830

discharg

2
5
0

fs Dec.

(discha

rtly reg

T.8 N., R.

discharge o

ear,.

8 E. , Sacra

nly for som e periods

n downstr

, published in

ly 10, 1930, no

above base (4,000 cfs), water years 1966-70

Disch. G.H. Date Time Disch.
*4,220 6.56 Dec. 24, 1969 1300 4,400
Jan. 14, 1970 1700 9,140
7,060 7.54 an. 16, 1970 1800 14,700
*22,500 10.88 an. 21, 1970 2200 *16,800
16,700 9.72 an. 24, 1970 0900 7,540
4,790 6.78 an. 27, 1970 1630 5,250
4,080 6.50 eb. 17, 1970 0600 5,450
4,370 6.62 Mar. 1, 1970 1900 8,600
4,350 6.61
6,100 7.24

e, water years 1966-70

Wtr yr Date Di 1969 Oct. 1, 1968
1970 Sept. 26, 27, 1970

23, 1955 (gage height, 14.59 ft); no flow at t

rge unknown) .

ulated by Jenklnson Lake (usable capacity,

15-A: 1908-9, 1911(M). WSP 1930: Dra

D, WATER YEAR OCTOBER 1965 TO SEPTEMBER

MAR APR MAY JUN

306 1,000 314 75

278
258
250

250
258
278
302
425

620

606
683
655

634

520
508
520

454
484

508
557
606
714

860

489
860
250
30,080

HIN

869
851
833

797

722
683
788

905

833
746
690

662

634
620
544

410
405

410
400
385
345

650
1,000
330
38,660

5.2 AC-FT

294
286
2B2

278

258
246
258

218
201
187

174

149
136
133

126
123

105
97

88
82
79
77

75

184
314
75
11,340 3

167,900

68
62
61

59

57
59
54

42
41
39

47

71
66
61

50
49

49
53

47
31
27
28

52.2
75
27
,100 3

inage

1966

JUL

64

62
46
43

42

41
42
47

59
59
59

56

50
49
49

51
46

51
56

56
56
54
53

62

52.1
66
41
,210

AUG

70

64
54
44

43

36
36
36

42
50
51

53
51
44
43
42

42
41

42
42

42
44
47
46

46

45.6
70
32
2.800

G.H.
6.63
8.11
9.32
9.71
7.50
6.76
6.83
7.80

scharge
7.6
20

SEP

46

44
44
44

43

38
23
11

8.8
7.0
6.2
5.5
5.5

5.8
5.2
6.0
6.5
6.5

6.8
6.2
7.3
7.3
7.0

7.0
6.8
6.2
6.0
6.2

509.8
17.0
46
5.2
1,010

SAN JOAQUIN RIVER BASIN

11335000 COSUMNES RIVER AT MICHIGAN BAR, CAL IF. - -CONTINUED

DISCHARGE, IN CUBIC FEET PER SECONDi WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

1
2
3
4
5

6
7
8
9
n

11
12
13

15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

CAL Yd

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN

OCT

6.2
5.5
6.2
6.2
6.8

7.0
9.1
11
8.8
8.2

8.2
8.2
8.2
7.9
7.0

7.9
8.2
8.5
8.5
8.B

8.5
8.8
8.8
8.8
9.7

. 1
. 7
. 7
. 7
. 7

258.0 2,
8.32
11
5.5
512

1966 TOTAL

OCT

29
32
76
155
90

62
57
53
49

46
42
40
40
40

39
38
36
36
36

36
38
36
38
38

36
36
36

35
36

155
29

9.
9.
9. 1
9.
9. 1

13 3
17 2
20 1

23

21
20
19
19
19

35
134
93
6B
120

267
240
161
95
68

54
47
61
129
252

071.1 18
69.0
267 3
9.1
4,110 36

89,826. 9

DISCHARGE,

NOV

35
35
36
38

36
34
35
35

34
35
36
41
61

71
54
SO

206

110
75
62
59

53
53
56

90

34

DEC

201

,310
576
,410

,750
,490
,170

538
442
390

318

290
274
258
243
236

215

184

177
168

155
155

,209
587
,750

. 120

MEAN

139

128
123
123

126
113
113

105
105

100
97

93
102

2.550

1,610
2,390

4.520
4.220

39,124
1,262
6,860

3,380

1,650
1,320
1,100

970
887
824

714
706

655
578

514
47B

425

420
370

______

23,403
836
3,380

77,600 46,420

246 MAX 3,750

IN CUBIC FEET

DEC JAN

97
82
116
385

204
240
171
136

120
105
90
66
53

66
86
98

113

100
93
88
93

100
113
113

107
100

53

93
88

75

79
84
86
133

350
208
155

788
448
306

212

194
177
171
168

155
174
184

1.200
1,470

75

PER SECO

FEB

472
557

390

340
322
318
390

345
306
286

258
556
928

3,290

3,150
2,120
1,660
1,510

970
833
738

258

335

322
340
345

340
335
330

5,000
6,700

3,040
2.440

1,760

1.580
1,450

1,550
1.360

51,930
1,675
6,700

103,000

MIN 5.2

ND, MATER

613
557
526

472

442

797
606

508
466

887
1,330
932

648

606
606
592
585

634
627
606

676

20,523

442

1,830 1.260

1,320 1,230
1,280 1,280
1,600 1,360

2,190 1,480
5,630 1,530
2,770 1,800

1.980 3,140

1*770 2*090

1,630 2,300
1,590 2,690

2,890 2,870
2,280 2,800

2,250 2,480

1,860 2,180
1,770 1,980

1,520 1,650
1,380 1,510

64,560 65,980
2,152 2,128
5.630 3.140

128.100 130,900

AC-FT 178.200

YEAR OCTOBER 1967

738 282
860 278
738 270

634 258

564 229

526 208
514 198

520 190
514 187

448 215
420 194
390 177

350 168

335 164
318 164
302 155
294 146

286 141
286 133
282 126
286 118
290 113

13,807 5,988

282 107

,320

,070
,020
,180

,270
,140
,090

,070

990
950

887

896
960

932
887

851

698

690
648

571
544

27,729 7
924
1,320

55,000 13

TO SEPTEMBER

102
100
95

88

86
95

95
77

73
66

51
51
51
46
42

42
41
39
70
68

59
44
46
39
38

1,973 1

38

JUL

550

490
425
390

355
322
302

266

229
215

187

177
174

158
149

139

113

110
105

95
95
90

,017
226
550

,920

1968

39
39
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44

43
42

46
44

SO
53

77
77
70
54
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51
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51
53
53

54
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53
53
53

,625

39

84

77
75
75

73
68
68

64

61
59

56

53
SO

47
46

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44

43
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47
44
42

1,765
56.9
84

3,500

49
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51

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66
44
32
27
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1,169

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39

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33

34
31
31
30
3D

1,079
36.0
50

2,140

14
12
12
12
12

11
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9.7
10
10

9.4
ID
11
10
10

10
9.7
8.8
9.1
9.1

8.
8.

8.
7.

7.
8.
8.
7.

288.8

14
7.0

SAN JOAQUIN RIVER BASIN

11335000 COSUMNES RIVER AT MICHIGAN BAR, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER L969

2
3
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6

8
9
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11
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13

15

IT
18
19
20

21
22
23
24
25

26
2T

29
30

TOTAL

MAX
MIN
AC-FT

CAL YR

1
2

4
5

6

a
9

11
12
13

15

16
IT

19
20

21
22
23
24
25

2T

29
30

MAX
MIN

OCT

8.
8.
T.
T.

8.5

9.L
9.1
9.4

10
11
12

26

26
22
19
18

IT
16
16
16
16

15
14

15
16

452. T

T.6
898

1968 TOTAL

22
21

21

22
23
24
2T

31
31
33

34

106
243

10T

66
5T
51
53

50

47
4T

?43
21

NOV

31
183
456
164

50
49
43

42
53
126

93

90
82
T9
102

86
T3
68
66
T3

88

62
62

2,T61 T

31
5,480 14

89,120.5

DISCHARGE,

41

255
256
139
100

68
64

62

64
68

68

59 1
5T 1
56
54 2

51

50
50

256 2
41

DEC JAN

86 198
90 184
71 1T4
68 1T1

62 ITT
84 1TI

222 222
240 326
144 3,280

400 1,590

322 T54
226 8T3
190 T.OTO
180 13,200

136 18,800
110 10,200
128 4,420
184 3,660
692 T.540

903 11, TOO

298 2.T30

,502 109, TOO

59 1T1
,880 217,600

MEAN 243

!N CUBIC FEET

53 198
54 229

102 824

86 3,620

T5 8,810

,440 11,300
,500 11,100
5T5 5.5TO
,610 6,500

T79 4,280

4T2 2.T20
395 2,280

,610 11,330

FEB

1,800
1.560
1,420
2.040

1,520
1,360

1.620
3,160
2,090

3,160

2,320
2,460
2.410
2.180

1,880
1,590
2,350
2.960
3.040

2,980

63,510

1.360
126,000

MAX 3,290

PER SECOND

88T
842

1.170

1.200

L.03C

1,280

1.160
1,070
980

806

iiini

3.220

X 18,800

2,440
2,280
1,830
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1.200
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1,080
1.020
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8T8

8T8
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1.480
1.150
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1.130

1.180

1.800

42.8T6

860
85,040

MIN T.

, MATER

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608

3,610

MIN 21

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1.800
3,600

1,900
1,740

1.T30
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11,807 2

171
23,420 5

TO SEPTEMBER

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211

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126
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115
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1970

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SAN JOAQUIN RIVER BASIN

11335700 DEER CREEK NEAR SLOUGHHOUSE, CALIF.

DRAINAGE AREA.--46.0 sq mi.

PERIOD OF RECORD.--November 1959 to September 1966, October 1967 to September 1970.

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

AVERAGE DISCHARGE.--9 years (1960-66, 1967-70), 26.5 cfs (19,200 acre-ft per year).

EXTREMES.--Maximums and minimums (discharge in cubic feet per second, gage height in
1966, 1968-70 are contained in the following table:

Wtr yr Dare Discharge G.H. Date Discharge
1966 Dec. 29, 1965 1,480 9.16 Long periods 0
1968 Feb. 20, 1968 1,720 9.46 do. 0
1969 Jan. 20, 1969 3,740 11.12 do. 0
1970 Jan. 14, 1970 2,800 10.75 ' do. 0

Period of record: Maximum discharge, 6,560 cfs Oct. 13, 1963 (gage height, 12.86 ft, from f loodmarks) , from rating curve extended above 2,200 cfs; no flow for several months in each year.

REVISIONS. --WSP 1930: Drainage area.

DISCHARGE, IN

DAY DCT NOV DE(

1 0 2.
2 0 2.
3 02.
4 02.
5 02.

6 02.
7 0 Z.

g 02.
9 01.
10 0 2.

11 0 2.
12 0 4.
13 9 B.
14 0 5.
15 0 3.

16 0 3.
17 0 2.
18 3.7 2.
19 19 2.
20 7.4 1.

21 3.7 1.
22 2.4 1.
23 2.8 1.
24 56 2.
25 29 381

CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

B6 92 IB
3B 62 16
26 39 14
27 41 13
268 78 13

74 351 13
41 97 13
30 56 12
24 39 11
20 31 12

18 25 13
16 22 11
14 19 11
13 IB 11
12 16 10

11 15 10
10 14 9.
10 13 9.
10 13 8.
B.8 13 9.

8.2 12 8.
8.1 12 8.
J 8.1 13 7.
L 8.0 14 7.
7.5 17 7.

26 11 48 7.0 56 6.
27 6.7 17 6.9 28 6.
28 4.4 216 6.8 20 6.
29 3.5 454 18 6.
30 3.1 189 620 5.

TOTAL 0 152.7 1,800.
MEAN 0 5.09 58.
MAX 0 56 45
MIN 0 01.
AC-FT 0 303 3,57

. 9 1.1
. 8 .90
. 4 .70
. 4 .60
. 4 .50

. 4 .40
. 4 .30
. 4 .30
. 4 .20
. 1 .80

. 4 1.0
. 7 1.8
. 3 1.2
. 0 .60
. 7 .50

. 1 .20
. 3 .10
. 0 0
. 0 0
. 8 0

. 6 0
. 3 0
. 2 0
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. 1 0
. B 0
. 1 0
. 7 0
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5 1,614.4 1,226 313. 127.5 11.20 0 0 0 0
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b 6.8 12 5.3 1.3 0 0 0 0 0

SAN JOAQUIN RIVER BASIN

1133S700 DEER CREEK NEAR SLOUGHHOUSE, CALIF.--CONTINUED

DISCHARGE. IN CUBIC F?ET PER SECOND. HATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

DAY

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19
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24
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26
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28
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30
31

TOTAL
MEAN
MAX
H1N
AC-FT

DAY

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4
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9
10

11
12
13
14
15

16
17
IB
19
20

21
22
23
24
25

26
27
2B
29
30
31

TOTAL
MEAN
MAX
HIM
AC-FT

CAL YR

OCT NOV

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6.3
4.3

3.4
3.D

2.2
2.2

2.2
2.2
2.6
3.6
4.5

3.3
2.7
2.5
2.2
2.2

2.2
2.2
2.1
1.9
1.9
1.9

164.5
5.31
41
1.9

DISCHARGE, IN CUB

0
0
3.4
24
7.5

3.5
2.2
1.6
1.2
1.0

1.0
1.5

4.1
5.1

11
5.1
4.2
5.1
6.1

3.9
3.D
2.6
2.6
2.5

3.0
2.6
2.2
2.2
2.6

0 3.99
0 24
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0 237

1966 TOTAL 5,085.

2.7
3.2
3.0
2.8
2.6

2.8
2.8
3.2
3.2
4.2

48
22
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93
105

64
31
21
17
16

15
13
12
37
226

107
46
44
40
29
25

34.7
226
2.7

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1.9
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125

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9.7
6.1

7.2
6.3
5.7
5.2
4.9

4.9
4.5
4.4
4.1
340
246

957.4
30.9
340
1.6

tC FEET

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18
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83
112

597
115

70
51
204
1,360
2,160

675
595
138
240
902

793
174
199
123
106

343
2,160
15
2.130 21,100

50 MEAN 13.9

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6.9
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62
52
92
654

321
85
68
45
28

20
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12

1,711.1
59.0
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5.5

PER SECOND

76
68
60
57
145

737

114

89

230
251

51
1ST

71
31
149
182
144

113
91
530
501
671

469
167
357

210
737
31
11,660

MAX 654

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9.9
6.6
7.6
7.9

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YEAR OCTOBER 1966 TO SEPTEMBER 1969

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AC-FT

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SAN JOAQUIN RIVER BASIN

11335700 DEER CREEK NEAR SLOUGHHOUSE, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

31

TOTAL MEAN
MAX
MIN
AC-FT

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12,230.

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1. 1

. 90
1.0
1.5
1.6
1.9

2.6
3.7
4.0
2.8 1,
2.6

2.1 1,
1.8
1.6
3.6
78

343 1.
79
69
628
140

61
34
24
19
15
12

539.90 7,
49.7
628
. 90

70 MEAN
60 MEAN

11

8.7
8.4
8.0

7.4
6.9
7.0
16
145

50
45
72
200
185

030
989
170
114
175

560
403
164
403
170

103
332
115
76
59

690.9
248
1,560
6.9

60.5
33.5

42

33
31
28

25
24
23
22
21

21
23
48
72
38

41
269
123
64
49

41
35
32
29
27

26
23
23

______

1,270
45.4
269
21

MAX 2,160
MAX 1,560

104

45
138
109

57
46
149
72
114

64
51
44
39
35

32
29
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1,438
46.4
149
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MIN 0

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AC-FT
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. 70

. 80
. 90
. 70
. 50
. 30

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. 10
. 10
. 10
0
0

49.80
1.61
3.3
0

43,810
24,260

SAN JOAQUIN RIVER BASIN

11336000 COSUMNES RIVER AT McCONNELL, CALIF.

LOCATION.--Lat 38°21'29", long 121°
bridge on U.S. Highway 99, 0.2
of Gait.

DRAINAGE AREA.--724 sq mi.

PERIOD OF RECORD.--October 1941 to Septembi WSP 1315-A. Gage heights only during h: Resources.

ell, 1 mile dow

r 1970. Monthly figures only for some periods, published
gh-water periods 1931-40, in reports of California Departit

orth

AVERAGE DISCHARGE.--29

(312,000 acre-ft per

555 cfs (402,100 acre-ft per year); raedi of yearly charge

EXTREMES. --Ma (discharge cubic feet per second, gage height in feet).

Date
Feb.

Dec.
Jan.
Jan.
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Mar.
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May

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1400 6
1400 4
2100 3

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Date

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Jan. 14,
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Jan. 26,
Feb. 7,
Feb. 12,
Feb. 16,
Feb. 26,
Mar . 1 ,
Apr. 6,

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14,900
6,120
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5,150
6,980
7,120
6,330

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57 Dec.
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76 Jan.
96 Jan.
35 Jan.
13 Jan.
22 Feb.
52 Mar.
70
79
28

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unknown).

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15,
17,
22,
24,
27,
17,
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1969
1970
1970
1970
1970
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1970
1970

26 ft)

ars 1966-70

Time
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1045
0815
0615
2345
2300
1500
0400

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Disch.
3,970
8,940
14,600
16,700
7,140
5,270
4,270
6,820

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of 2,100 ;

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43.
45.
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41.
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38.
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jrve

H.
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42
07
56
46
84
57
60

REVISIONS (WATER YEARS).--WSP 1315-A: 1947(M). WSP 1930: Drainage

DAY

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14
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17
18
19
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21
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26
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28
29
3D
31

TOTAL
MEAN
MAX
MIN
AC-FT

DISCHARGE,

0
0
0
0
0

0
0
0
0
D

2.0
6.0
10
25
68

147
108
78
10
01

24
54
30
83
78

34
47
86

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0 610 2
0 C
0 7,300 18

IN CUBIC

124 I,
113
104
98

96 I,
94
93
91

88
106
148

118

108
98
88
81
84

84
88
94
87
380

303
219
,711

,010 2.

307
,31C 2,
81
,89; 29,

FEET

910
759
476
383

250
735
528
434

331
293
259

240

230
221
213
202
197

188
180
1B2
180
177

164
158

120

482
120
158
650

988
796
560
452

1,710
2,139
1,030
692

446
383
358

305

290
278
264
264

259
254
257
281
383

389

546
2.130
254
30,320

342
323
308
281

262
259
274
288

535
574
549

640

619
574
510
479

461
437
431
437
461

556
626

804

468
804
259
28,790

844
867
B54
812
788

768
732
700
652

858
867
849

672

644
619
605
605

482
535
413
389
369

349
326
300

619
867
300
36,830

286
269
254
247
240

238
230
221
210

230
226
197

148

134
122
109
102
90

84
77
75
75
57

38
30
22
19

145
286
19
8.930

JUN

20
18
16
14
12

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4.7
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14

SAN JOAQUIN RIVER BASIN

11336000 COSUMNES RIVER AT McCONNELL, CALIF.--CONTINUED

DISCHARGE. IN CUBIC FEET PER SECOND. MATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR MAY JUN JUL

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30

TOTAL 0
MEAN D

MIN 0

1 0
2 0
3 0
4 52
5 91

6 53
7 40
8 32
9 26
10 24

11 28
12 15
L3 12
14 l"i
15 9.4

16 11
17 11

19 6.6
20 6.6

21 5.8
22 8.0
23 8.4
24 fl.O

26 7.1
27 9.4

29 8.4

MAX 91
MIN D

0 25
0 33

0 1.12
D 99

0 5.04
0 1,79
0 96
0 70

0 60
0 49

0 37
0 34

0 30
5.5 28

87 25

188 23

206 20
132 19

75 17
69 15
80 15
212 15

2,175.5 22,26
72.5 71

0 15

DISCHARGE, IN

1.8 7E
3.3 9'
9.4 7
8.0 8
9.8 12

11 40
9.8 21
9.4 18
8.0 17
T.2 12

6.6 9
5.8 8
9.8 8
12 7
17 4

33 4
40 6

28 8
135 9

125 8<
70 7'
46 6E
35 6«

32 7
30 7«

35 8

1.8 4

3 142 6 060 355 1,940 ,360 1,320 456 30
t 132 3 000 345 1,400 .280 1,180 459 25

) 123 1 510 342 974 ,300 938 382 20
? 115 1 240 355 1,240 .370 978 360 18

) 115 946 340 5.100 ,530 1,060 292 14) 104 878 335 3,580 ,770 1,000 260 12 5 107 822 330 2.050 ,190 974 240 10
J 102 782 325 1,600 ,970 966 225 8.0

b 100 746 408 2,970 ,110 946 200 6.0
<i 99 710 852 2,920 ,540 914 181 5.0

» 97 690 3,880 1,570 ,960 834 154 3.0
3 93 680 2,070 1,530 ,910 814 144 2.0

5 93 610 3,260 1,690 .120 806 137 l.C
5 91 567 10.100 1,360 .510 834 120 0

» 88 504 3.280 3,640 ,830 850 105 0

5 843 441 1,780 2.580 ,900 742 100 0

i 4,360 411 1,410 2,830 ,560 596 61 0

3 2 190 380 982 1,930 ,840 531 44 0
1 4 120 1,140 1,670 ,670 501 40 0
<> 6 510 1,000 1,470 ,500 465 40 0

9 52 765 27,781 53,765 68,884 6 ,260 25,295 5.462 198.0 0
3 1 702 992 1,734 2,296 ,137 843 176 6.39 0

MEAN 890 MAX 14,300 MIN 0 AC-FT 64 ,300

CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 1968

68 1,060 630 633 235 53 C
65 532 580 792 232 49 0
65 507 524 704 228 45 5
60 462 482 630 216 25 0
53 375 450 580 209 28 0

50 321 429 546 200 28 0
53 302 408 510 190 32 0
52 282 737 479 179 36 0
58 261 1,080 459 169 32 0
65 276 712 450 159 25 D

190 308 535 447 155 17 0

118 223 840 417 200 14 0 249 209 860 408 240 10 0

934 207 772 399 192 8.5 0 566 264 1,850 381 167 7.0 5.0

244 792 87Z 318 138 0 4.0
198 3,000 704 305 131 0 1.0

173 310 605 297 120 0 3.0 155 250 580 282 116 0 2.C
146 920 566 266 113 0 3
138 850 549 252 99 0 0

127 1,080 566 237 87 0 D
125 904 574 232 86 0 0

140 708 546 232 73 0 0

50 207 408 232 59 0 0 0 0

SAN JOAQUIN RIVER BASIN

11336000 COSUMNES RIVER AT McCONNELL, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND. MUTER YEAR OCTOBER 1968 TO SEPTEMBER 1969

DAY

I
2
3
4
5

6
7
8
9
1C

11
12
13
1".
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
KIN
AC-FT

CAL YR 196
WTR YR 196

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17 I
18 1
19
20

21
22
23
24
25

26
27
28
29
30
31 2

MAX
HIN

OCT NOV

C
0

110
66

28

24

87
66

61
69
58

52

52

38

46
52
43
38
36

0 1,932
0 64.4
0 296
o o

8 TOTAL 82,479
9 TOTAL 378,750

DISCHARGE

0 20
0 19

0 22

0 39
0 235
0 140
0 84
0 64

0 51

0 40
0 37
0 36

2.9 35

2 50

6 33
8 33
0 33
7 35

4 30
3 28
3 28
2 28
1 27

140 235
0 19

CAL YR 1969 TOTAL 384.172.

DEC

38

40
37

36

79

183
285

570
305

186

122

300

1,370
796
441

373

7,812
252
1,370
33

211

161
159

158

158

3,370

916
702

12,600

18,300

6,980

12,200
10,600
5,920

3,010

128,734
4,153
18,300
158

50 MEAN 225
85 MEAN 1,038

, IN CUBIC FEET

27

27

27
26
28

31

47

70
69
66

49

800
1.790

1,650

1,940
919
619
467
377

2,610
26

284

201

185
176
184

526

1,080

702
3.010

3,800

5,330
14.100

6,180

3,850
3.860
4,390
2,870
2,330

14,100
176

75 MEAN 1,053

1,710

4,380
4,940

1,380

1,303

3,170

2.780
2,580

2,700

1,620

5,450

6,410
3.860
2,560

80.400
2,871
6,410
1,200

4,420

1,800

1,350

1,380

1,120

817

780
805

840

1,150

995

1,030
1,100
1,230

1,640

47,007
1,516
6,010
776

2,170

2,550

3,420

1,890

1,760

1,860

1,580
1,610

1,680

1,950

1.940

1.630
1,450
1,380

1,510

61,520

5,340
1,380

1.530

1,270

1,400
1.550

1,820

1,800
1,750

1,420

1,230
1,240

1.110

959

912

865
821
782

714

38,577

1,820
701

MAX 4,310 MIN 0 AC-FT 163.600 MAX 18,300 MIN 0 »C-FT 751,300

PER SECOND, HATER YEAR OCTOBER 1969 1

1,690

1,080

973
895
827

715

685

899
1.670

1,750

1,280
1,140

956

840
804
773

2,860
677

MAX 18

1,580

2.620

1,830
1,500
1,970

1,900

1,790

1,350
1.270

1.100
1,010
946

892
847

785

737
705
669
654
636

4,720
604

300 MIN

560
524

475

462
452
437

411

411

400
538

408
411
446

414
390

359
348

349
386
392
362
338

560
338

0 AC-FT

342
362

381
396

398
411
398
389
381

380

341
323

326

369
385
376

341
313
295
286
276

254
248
239
223
206
19*

411
194

762,000

JUN

669
634

574

511
473
428
396

379
358

318

308
362
321

282

253

209

193
179
173
162
146

10,892

691
146

JUL

132
130

113

89
93
88
84

78
68

59

58
51
46

34

31
28

23

20
13
8.0
20
1.0

1,874.3

139
1.0

0 SEPTEMBER 1973

JUN JUL

183 31
167 25

148
136

118
108
104
122
217

190

126
125
115

121
112
101
84
80

74
66
55
59
48

56
35
46
56
35

106
217
35

22
17

16
34
24
1.7
3.9

0
0
0
0
0

0
0
0
5.0
11

7.8
23
32
4.4
5.6

33
10
0
0
0
0

10.7
34
0

AUG

0
. 20
. 40
2.0
. 23

. 05
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

2.85

2.0
0
5.7

AUG

0
0
0
0
0

0
0
0
0
0

0
0
0
0
0

0
0
1.0
3.0
25

22
12
7.0
3.0
0

0
0
0
0
0
0

2.35
25
0

SEP

0
0
0
0
0

SEP

0
0
3
0
0

0
0
0
0
0

0
0
. 21
28
20

4.4
0
. 21
0
0

0
0
0
0
0

0
0
0
0
0

1.76
28
0
135

650 SAN JOAQUIN RIVER BASIN

11336580 MORRISON CREEK NEAR SACRAMENTO, CALIF.

LOCATION.--Lat 38°29'55", long 121°27'06", in SW!sSE!s sec.32, T.8 N., R.5 E., Sacramento County, on right bank 750 ft upstream from Florin Road, 1.6 miles upstream from Elder Creek, and 2 miles south of Sacramento city limits.

DRAINAGE AREA.--53.4 sq mi (revised).

PERIOD OF RECORD.--July 1959 to September 1970.

650 ft downstream at datum 1.55 ft highe
datum 2.71 ft higher.

June 29, 1960, to Sept. 12, 1965, at site 475 ft upstream at

AVERAGE DISCH/

(12,300 aci

EXTREMES.

Date
Nov.

Nov.
Nov.
Dec.
Dec.
Jan .
Jan .
Jan.
Mar.

17,

16,
20,
2,
5,
21,
24,
31,
16,

. - -Ma)

Annu;

1965

1966
1966
1966
1966
1967
1967
1967
1967

:e-ft pi

(imums i

il maxi,

Time
2000

0245
2115
1645
1730
2145
0545
0130
0815

11 years,
;r year) .

ind minimums (discharg

num dischi

Disch. *298

312
458
350
540

*1,500
695
704
540

irge (*)

G.H.
3.74

3.51
4.19
3.69
4.52
7.36
5.20
5.24
4.68

and

Dat
Jan
Feb
Feb

Nov
Jan
Jan
Jan
Jan
Jan

e in

peak

e
. 30
. 19
. 21

. 3
. 13
. 18
. 20
. 25
. 26

cubic

disch

, 1968
, 1968
, 1968

, 1968
, 1969
, 1969
, 1969
, 1969
, 1969

ft per year) ; mec

feet per second,

arges :

Time
0700
2345
0415

0545
0215
1745
0015
1315
0230

ibove base

Disch.
374

302 *394

330
610
324
1,420
781
1,610

X

, gage he

(300 cfs

G.H.
3.81
3.45
3.90

4.11
5.50
4.08
8.05
6.17
8.53

early

ight i

, revi

Date
Feb.
Feb.
Feb.
Mar.

Dec.
Dec.
Dec.
Jan .
Jan .
Jan .

n fe

sed)

6,
12,
25,
1,

19,
20,
21,
14,
16,
21,

et).

, wat

1969
1969
1969
1969

1969
1969
1969
1970
1970
1970

harges,

er years

Time
1700
0445
1845
0045

1445
0715
1045
1100
2130
1145

1966-71

Disch.
542
942
846
710

302
655
316
877
1,110
886

ily discharge

Wtr yr
1966
1967
1968

P
1960

REMARKS

Date
Oct. 6
Aug. 27
Nov. 26

, 1962,

, 1965
, 1967
, 1967

record: Maxin
1965.

Discharge
1.7
1.2
. 65

mm discharge, 1,610 cfs Jan.

Wtr yr
1969
1970

26, 1969

Date
Oct. 27,
Nov. 4,

(gage hei

1968
1969

ght, i

Discharge
1.7
2.5

i.53 ft); no flow at times in

DISCHARGE, IN CUBIC FEET PER SECOND,

MOV DEC JAN FEB

HATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

31

TOTAL
MEAN
MAX
MIN
AC-FT

5.0 6.0
4.4 5.2
3.5 5.4

4.4 6.3

1.7 3.8

6.2 13
7.7 B.4
7.B 7.8

6.0 6.B
4.0 12
5.3 28

6.7 25

5.6 21
6.0 74
5.2 55
5.6 24
5.8 12

5.4 9.0

4.4 51
3.6 16

4.8 7.D
6.2 4.4
6.0 3.6
6.0 6.3

5.26 17.2
7.B 74

324 1,020

. B
. 8
. 7

. 0

. 4

. 6
. B
. 0

19
30
15

6.8

6.3
5.6
5.6

6.B

15
63

14
8.7
98
110

19.0
110

1,170

30
20
15

50

30

15
12
10

9.0
8.6
B.I

6.8
7.0
6.8

B.7

6.2

6.4
6.0
6.3
67

20. 1
140

1,240

B2
47
2B

37

62

22
16
14

12
9.B
8.9

4.2
15
B.9

4.2

16

17
13
9.8

19.5
82

1,080

7.8
7.6

7.6

7.6

7.6
7.1
7.3

7.0
6.B

6.3
6.0
6.0

6.1

6.1

6.3
6.2
5.9
6.0

6.75
9.2

415

5.7
5.7

5.6

5.4

4.2
6.9
7.3

8.4
11

5.B
5.6
6.1

6.1

5.3

5.0
5.B
7.0
6.9

6.26
11

372

6.9
6.5

6.5

6.7

5.8
6.0
10

6.1
6.6

6.4
6.8
6.2

5.5

5.7

5.4
5.4
5.4
5.4

6.32
10

3B8

6.4
7.0

6.9

6.B

7.B
7.1
6.1

6.3
6.4

5.B
6.1
5.8

5.6

5.3

4.9
5.3
5.1
5.3

6.15
7.8

366

5.2
2.9
2.3

3.0

3.5

3.0
3.2
3.3

5.9
6.4

10
12
12

11
11

8.7

11
13
13
12

7.52
13

462

14
15
16

13

7.2

16
17
14

11
9.5

10
11
9.3
7.9
3.8

2.3
3.5

4.9

5.2
5.1
2.1
2.3

B.33
17

512

3.5
4.3
4.0

2.1

4.1

5.6
5.B
5.6

6.1
5.0

5.7
4.8
4.6
4.2
3.B

3.5
3.5

6.0

6.0
5.0
4.0
4.0

4.69
6.5

279

SAN JOAQUIN RIVER BASIN

11336580 MORRISON CREEK NEAR SACRAMENTO, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, MATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

DAY

I
2
3
4
5

6
7
8
9
10

11
12
13
1*
15

16
17
18
19
20

21
22
23
24
25

26
27
28
29
30
31

TOTAL
MEAN
MAX
MIN
AC-FT

DAY

1
2
3
4
5

6
7
8
9
10

11
12
13
14
15

16
17
18
19
20

21
22
23
24
25

26
27
2B
29
30
31

MEAN
MAX
MIN
AC-FT

4.5
4.1
3.8
4.0
3.9

4.5
5.4
3.0
1.3
5.8

9.5
7.5
6.8
7.6
6.3

5.0
4.4
9.9
7.6
5.9

6.B
5.9
3.6
5.6
7.9

7.4
7.4
7.6
7.9
8.2
8.5

6.05
9.9
1.3
372

OCT

6. 1

12

6.1
5.2
4.0
5.2
5.4

5.6
5.8
3.8
7.4
3.6

5.8
5.8
5.6
6.1
5.2

4.2
3.6
4.2
37
149

131
25
11
7.8
B.I
7.8

149

985

7.6
7.4
7.9
6.8
3.2

6B
43
17
9.3
7.9

6.8
3.4
2.6
5.2
23

76
23
8.B
67
173

132
63
27
12
7.9

5.2
4.1
50
49
20

31.2
173
2.6
1,860

DISCHARGE

NOV

5.0

3.4

12
15
9.0
5.0

1.2
. 95
2.4
11
2.8

2.1
1.7
. 79
. 95
3.3

3.1
3.0
1.2
. 79
. 79

. 65

21
25

25

318

26
112
106
76
256

326
118
51
39
37

24
20
18
15
13

12
B.5

9.3
9.6

9.1
8.8
5.7
4.9
4.8

4.3
7.0
7.1
7.5
7.0

43.7
326
4.1
2,690

3.1
3.0
5.8
6.0
6.2

5.9
3.2
2.9
5.4
6.0

6.2
6.6
6.5
4.0
3.4

5.5
6.1

5.9
47

656
991
16B
510
231

115
106
184
430
398

141
991
2.9
8,680

, IN CUBIC FEET

DEC JAN

1.3

38

25
15
6.1
4.2

6.1
5.8
5.2
5.2
5.6

4.4
4.0
14
7.6
6.3

6.3
4.2
3.3
3.0
2.8

5.6

5.8
8.1
5.6

38

49B

5.2

2.4
5.6
6.8
80

23
9.3
4.8
39
71

22
10
7.6
7.3
4.4

3.3
5.2
5.8
5.6
5.6

5.6

8.4
219

219

1,310

198
119
79
41
22

17
13
11
7.9
6.2

5.2
4.4
4.6
4.6
4.4

4.2
4.4

3.8
3.8

4.4
4.2
3.6
4.0
8.2

12
5.6
4.6

21.6
198
3.6
1,200

PER SECO

FEB

17

6.5
6.1
5.8

5.8
6.1
6.4
6.1

28
47
IB
37
121

125
45
28
18
11

11

125

1,250

4.6
4.6
4.4
3.8
3.2

3.0
3.6
6.8
6.6
6.7

42
61
99
79
47

317
268

29
20

15
11
16
9.3
7.8

6.8
7.3
8.6
8.9
39

39.8
317
3.0
2,450

MIN 1.2

ND, MATER

MAR

8.4
6.2

25
44
19

39
78
42
23

45
35
17
11
9.7

8.1

5.5

5.8

6.2

78

1.010

29
17
14
11
11

93
103
47
IB
48

110
53

27ia
33

17
33

43
26

82
53
45
52
33

20
15
12
B.2
6.6

38. 0
110
6.6
2,260

AC-FT 21

YEAR OCTQ

APR

20
10

2.B

5.8

2.7
1.8
1.9
4.3

4.3
4.9

2.4

1.6

5.6

4.7

4.2

20

7.3
6.B
6.6
6.2
6.2

4.7
3.8
5.1
5.5
7.B

B.2
7.3
6.6
6.4
7.0

7.0
7.3
7.6
7.3
6.2

5.4
6.6
7.9
B.2
8.5

B.5
. 0
. 8
. 3
. 2

6.79
B.5
3.B
418

,030
,410

8ER 1967

MAY

6.4
6.6

6.7

5.9

2.5
9.7
12
6.2

5.5
3.8

4.B

5.9

S.B

3.9

3.9

12

JUN

12
9.4
S.B
5.2
7.6

7.3
6.8
6.4
6.0
5.8

S.B
21
11
6.6
5.6

4. B
3.4
2.7
3.6
4.6

5.0
S.O
4.B
4.6
4.6

4.4
4.6
4.4
4.4
4.6

JUL AU

3.6 B.
2.7 7.
2.3 10
2.7 10
2.3 4.

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4.B 12
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5.0 17
4.B 16
6.6 14
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21 B.I 1 6.2
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373 297 518 296

TO SEPTEMBER 1968

JUN JUL AUG SEP

3.8 5.6 3.7 .85
2.3 5.3 4.2 .91

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SAN JOAQUIN RIVER BASIN

11336580 MORRISON CREEK NEAR SACRAMENTO, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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TOTAL
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TOTAL
MEAN
MAX
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16
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7.S
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4.1
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2.9
2.S

4.5
6.1
6.0
4.9
S.4

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367

1968 TOTAL

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8.S
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242.9
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. 4 12 26
. 9 11 60
. 0 17 39

. 8 17 21
. 2 12 14
. 1 9.7 41
. 0 6.9 473
. 2 7.9 247

. 8 8.1 392
. 1 8.0 S69
. 9 12 161
. 8 96 75
. 7 217 98

. 1 122 609
. 3 41 314
. 9 28 117
. 6 53 140
. 0 39 80

. 8 15 52
. 2 7.9 112
. 0 5.7 47

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MAX 219

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7.39 26.0 123

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188.0 193.6 189.7
6.06 6.2S 6.32
7.6 8.3 8.5

11337000 CONTRA COSTA CANAL NEAR OAKLEY, CALIF.

LOCATION.--Lat 37°S9'44", long 121°42'03", in NE'-a sec.25, T.2 N., R.2 E., Contra Costa County, at pumping plant No. 1, 0.7 mile east of Oakley and 2.6 miles northwest of Knightsen.

PERIOD OF RECORD.--February 19SO to September 1970.

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SAN JOAQUIN RIVER BASIN

11337000 CONTRA COSTA CANAL NEAR OAKLEY, CALIF.--CONTINUED

OISCHARGEt IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

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MEAN
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1966 TOTAL

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123
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DISCHARGE,

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1968 TOTAL

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B9

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Bl
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B3
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BB

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B6
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BB
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PER SECOND,

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YEAR OCTOBER

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TO SEPTEMBER

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AUG SEP

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AUG SEP

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214 166
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SAN JOAQUIN RIVER BASIN

11337000 CONTRA COSTA CANAL NEAR OAKLEY, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, HATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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DISCHARGE

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60.4
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, IN CUBIC FEET

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84
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73.7
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YEAR OCTOBER

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TO SEPTEMBER

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JUL

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SEP

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8,320

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143
142
139

139

149
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140
141
143

161
193
128

SAN JOAQUIN RIVER BASIN

11337500 MARSH CREEK NEAR BYRON, CALIF.

LOCATION.--Lat 37°52'24", Ion
stream from highway bridge
of Byron.

DRAINAGE AREA.--42.6 sq mi.

PERIOD OF RECORD.--February 1

ek Road, 1.2 miles upstr

AVERAGE DISCHARGE.--17 years, 8.65 (1,400 acre-ft per year).

EXTREMES

Date
Dec. 28,

Jan. 21,
Jan. 24,
Jan. 30,
Mar. 12,
Mar. 16,
Mar. 30,
Apr. 10,
Apr. 17,

No fit

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*1,640
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658
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253

charge (*)

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an. 26
eb. 6
eb. 11
eb. 15
eb. 18

cubic feet

ak discharge

Time
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, 1969 0400
, 1969 0445
, 1969 0530
, 1969 1700
, 1969 0630
, 1969 0130

per second, g

s above base

Disch. G
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424 5

"1,660 8
614 5
305 4
258 4
165 4

age nei

(140 cf

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an. 16,
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an. 24,
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1969

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1970

rs 1966

Time
0530
1300

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1200
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Disch.
322
646

836

*1,620
534
171
308

Jan. 31, 1963 (gage height, 11.62 ft), from
. rement at gage height 10.90 ft; maximum gage height,
each year.

iod of record: Maximum discharge, 3,880 extended above 880 cfs on basis of slope-area m
12.98 ft Dec. 23, 1955; no flow for long period

REVISIONS (WATER YEARS).--WSP 1635: 1955. WSP 1930: Drainage area.

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1965 TO SEPTEMBER 1966

DAY OCT NOV DEC JAN FEB MAR APR MAY JUN JUL

I 0 2
2 0 I
3 0
4 0
5 0

6 0
7 0
a o
9 0
13 0

11 0
12 0
13 0
14 0
15 0

16 0
17 0
18 0
19 0
20 0

21 0
22 0
23 0
24 0
25 5.5

26 3.4
27 2.0
28 0
29 2
30 22
31 7 I

TOTAL 0 0 1 1.9 16

MEAN o o .58 %
MAX 0 0 52
MIN
AC-FT

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4.9
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5.5
5.3

4.5
4.3
4.1
4.1
4.3

6.3
4.9
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B 2
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. 90

. 70
. 0
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1.2
. 80
. 70

245.6 71.50
8.77 2.31
32 4.1
4.1 .70
487 142

. 40
. 30
. 10
0
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. 10
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1.2
. 70
. 40
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3.60
. 12

1.20 '

7.1

WTR YR 1966 TOTAL 623.70 MEAN 1.71 MAX 52 MIN 0 AC-FT 1,240

SAN JOAQUIN RIVER BASIN

11337500 MARSH CREEK NEAR BYRON, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1966 TO SEPTEMBER 1967

NOV DEC JAN FEB MAR APR MAY JUN JUL

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S 1

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30

. 60 112 6. 41
. 60 69 6. 30
. 60 49 6. 25
. 60 38 6. 23
. 60 30 5. 22

. 50 25 5. 50
. 50 22 5. 64
. 40 20 5. 51
. 0 .40 18 4. 39
. 50 16 5.1 58

. 9 .50 14 IB 74
. 3 .50 13 82 47
. 5 .50 13 97 40
. 7 .40 11 55 36
. 1 .40 11 29 48

. 7 .40 11 192 40
. 2 .40 10 72 69
. 8 .30 9.4 46 99
. 7 .30 9.0 35 87
. 6 .60 8.3 28 60

. 5 679 B.O 25 14B
. 2 348 7.7 22 175
. 1 70 7.7 21 126
. 0 250 B.O 18 104
. 0 116 8.3 16 77

. 90 56 7.7 15 66
. 70 42 6.9 14 60
. 60 57 6.9 13 53

. 70 364 45 43

OTAL 0 0 176.50 2,478.60 569.9 982.4 1,904
FAN 0 0
AX 00
IN 00
C-FT 0 0

DISCHARGE,

AY OCT NOV

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9
0
I ______

TAL 0 0
AN 0 0
X 00
N 00
- FT 0 0

AL YR 1967 TOTAL 6,552.20

>.69 80.0 20.4 31.7 63.5 59 679 112 192 175 5 .30 6.9 4.7 22

39 5.5
36 5.5
32 6.3
30 6.3
27 6.3

26 6.1
23 6.1
23 6.3
22 5.3
21 5.5

20 4.9
20 4.9
19 5.3
16 4.5
13 3.9

13 3.9
12 3.4
11 2.8
10 3.1
10 3.1

9. 2.9
8. 2.7
B. 1.8
7. 1.1
6. 1.6

6. 1.3
6. 1.3
5. 1.2
5. .90
5. .60
5.

498. 114.40
16. 3.B1
3 6.3
5. .60

310

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IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1967 TO SEPTEMBER 196

DEC JAN FEB MAR APR

0 0 18 2.9 .7
0 0 11 2.7 .5
0 0 8.3 2.1 .5
2.5 0 6.6 2.0 .9
1.5 0 5.5 1.9 .4

0 0 4.9 2.0 .5 0 0 4.5 2.3 .5 0 0 3.9 4.8 .8 0 0 3.2 2.9 .0 0 1.5 3.2 1.9 .8

0 1.8 2.9 1.7 .7 0 .84 2.9 2.4 .6
0 .67 2.5 11 .2
D .76 2.1 7.2 .4 0 3.0 2.0 5.8 .2

0 2.0 3.1 8.8 .2
0 1.1 6.3 10 .1
0 .84 6.6 7.5 .0 0 .78 5.8 6.3 .0 0 .78 9.8 5.3 .91

0 .78 11 5.1 .91
0 .84 9.7 4.9 .84 0 .98 7.7 4.5 .78 0 .2 6.6 4.1 .91 0 .6 5.8 2.7 .84

0 .6 4.7 3.4 .72 0 .7 4.1 3.5 .53 0 .9 3.7 3.2 .26 0 .9 3.2 2.9 .02
0 68 2.9 0
0 48 3.4

4. 142.57 169.6 132.1 45.72
. 1 4.60 5.85 4.26 1.52
2. 68 IB 11 4.5 0 2.0 1.7 0
7. 283 336 262 91

MEAN 18.0 MAX 679 HIN 0 AC-FT 13,

MAY JUN

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JUL

SAN JOAQUIN RIVER BASIN

11337500 MARSH CREEK NEAR BYRON, CALIF.--CONTINUED

DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1968 TO SEPTEMBER 1969

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31

TOTAL
MEAN
MAX
MIN
AC-FT

WTR YR

OCT NOV DEC

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1969 TOTAL 7,150.85 MEAN

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. 26
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0
6.8
9.8
5.4

4.1
3.4
13
236
330

234
101
50
69
303

534
144
176

100
59

,469.74
79.7
534
0
4,900

19.6

50
46
43
38
108

346
112
75
57

132
108
67
63
187

95
78
119
78

56
58
127
138
132

115
90
260

2,888
103
346
38

MAX 534

221
132
105
85
72

63
57
51
46

37
39
37
31
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15
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13

1,358
43.8
221
13

MIN 0

MIN 0

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13
16
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27
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11
10

9.7
9.5
9.3
8.4

7.5
7.1
9.1
8.4
7.2

6.5
6.3
6.0
5.6
5.6

330.0
11.0
27
5.6

AC-FT
AC-FT 14,

5.8
5.3
5.1
5.3
4.8

4.2
4.1
4.0
3.9

3.2
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2.0
2.1
1.6
1.9
1.9

1.8
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1.4
1.2
.91

88.11
2.84
5.8
.91

973
180

. 71
. 59
. 76
.80
. 79

.91
.97
.84
1.3
1.3

1.1
1.3
.83
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.66

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DISCHARGE, IN CUBIC FEET PER SECOND, WATER YEAR OCTOBER 1969 TO SEPTEMBER 1970

NOV DEC JAN FES MAR APR MAY JUN JUL

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TOTAL 0
MEAN 0
MAX 0
MIN 0
AC-FT 0

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18

40
24
7.4
42
50

25
13
8.1

4.0
3.2

0 240.5
0 7.76
0 50
0 0
0 477

2.7
2.2
1.8
1.5
1.3

1.1
1.2
2.1
6.1
26

17
14
11
220
85

319
154
80
55
55

814
240
109
234
102

72
92
57
48
46
43

2,913.0
94.0
814
1.1
5.780

38
35
31
28
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22
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17
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30
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617
22.0
53
12
1.220

27
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105
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9.6
9.2
8.8
8.2
7.3

6.6
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. 9
. 0
. 9
. 3

541.4
17.5
105
5.3
1,070

4.9
4.7
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4.3

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4.7
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4.1
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4.2
3.6

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3.5
3.5
3.3
3.4

3.6
4.0
4.7
3.7
2.6

127.1
4.24
5.5
2.6
252

2.6
2.8
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1.9
1.6

1.8
2.3
2.9
2.9
2.9

2.8
2.8
2.5
2.3
1.8

1.4
1.3
. 91
. 82
1.3

1.1
. 95
. 67
. 41
. 28

. 05
. 01
. 01
0
0
0

45.81
1.48
2.9
0
91

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0

DISCHARGE AT PARTIAL-RECORD STATIONS 659

As the number of streams on which streamflow information is likely to be desired far exceeds the numbe

period
record
depend
Rec

at ere

of years for use in hydrologic an; station. Data collected at these
ing on the type of data collected.

st-stage stations.

ilyses, the site at which the
partial-record stations are i

Nations, and the second is a

data are collected is calli
asable in low-flow or flood

table of annual maximum st.

3d a partial-
- flow analyses,

LOW-FLOW PARTIAL-RECORD STATIONS

Measurements of streamflow in the area covered by thi given in the following table. Most of these measurement is primarily from ground-water storage. These measureme a nearby stream where continuous records are available,

or practically the same, site.

; report made at low-flow partial-record stations are
; were made during periods of base flow when streamflow its, when correlated with the simultaneous discharge of fill give a picture of the low-flow potentiality of

Static
number

Station name Location Drainage
area

(sq mi)

Period
of
record

s 1966-70

Measi
Date

irei
]

EAST FORK KAWEAH RIVER BELOW EAGLE
MONO,'CALIF.

TULARE LAKE BASIN

NWkSYIk sec. 15, T.17 S. , R.31 E., Tulare County, 0.5 mile downstream from Eagle Creek and 15.5 miles east of Hammond.

9.92 1968-70

EAST FORK KAWEAH
RIVER ABOVE MON-
ARCH CREEK, NEAR
HAMMOND, CALIF.

EAST FORK KAWEAH
RIVER BELOW MON-
ARCH CREEK, NEAR
HAMMOND, CALIF.

ATWELL CREEK ABOVE
MINERAL KING HIGH-
WAY, NEAR HAMMOND,
CALIF.

REDWOOD CREEK ABOVE
MINERAL KING HIGH-
WAY, NEAR HAMMOND,
CALIF.

ec.15, T.17 S., R.31 E. , 1
County, at bridge at Mineral Kir
1,000 ft upstream from Monarch C
and 14.9 miles east of Hammond.

-im'-i sec.15, T.17 S., R.31 E., Tulare County, 250 ft downstream from Monarc} Creek and 14.6 miles east of Hammond.

10.2 1968-70

12.1 1968-70

EINE'S sec.ll, T.17 S., R. 30 E., Tulare

Ranger'station and 10.4 miles east

. 66 1968-70

sec. 15, T.17 S. , R. 30 E. , Tula
County, 50 ft upstream from Mineral King Highway and 8.9 miles east of Hammond.

1.38 1968-70

10- 1-68
6-18-69
7-29-69
8-25-69
10-14-69
5-20-70
6-29-70
8- 3-70
8-29-70
9-21-70

8-27-68
7-29-69
10-14-69
5-20-70
6-29-70
8- 3-70
8-29-70
9-21-70

7-25-68
8-27-68
9-30-68
10-15-68
6-17-69
7-29-69
8-25-69
10-14-69
5-20-70
6-29-70
8- 3-70
8-29-70
9-21-70

7-25-68
8-28-68
9-30-68
5- 5-69
6-19-69
7-29-69
8-28-69
10-15-69
4-21-70
5-20-70
6-30-70
8- 4-70
8-28-70
9-22-70

7-25-68
8-28-68
9-30-68
5- 5-69
6-19-69
7-30-69
8-26-69
10-15-69
12- 9-69
4-21-70
5-19-70
6-30-70
8- 4-70
8-28-70
9-22-70

Lscharge
(cfs)

8.0
3.0
140
85
27
5.4
121

5.2

. 10
. 08
. 04
3.4
5.6
1.4

. 41
. 32
. 15

LOW-FLOW PARTIAL-RECORD STATIONS

Dis<

Station
number

11208680

11208715

11264700

11265700

11266700

11279400

Station name

SQUIRREL CREEK BELOW
MINERAL KING HIGH-
WAY, NEAR HAMMOND,
CALIF.

CRUNIGEN CREEK BELOW
MINERAL KING HIGH-
WAY, NEAR HAMMOND,
CALIF.

PORCUPINE CREEK AT
PORCUPINE FLAT
CAMPGROUNDS, NEAR
YOSEMITE VILLAGE,
CALIF.
YOSEMITE CREEK AT
YOSEMITE CREEK
CAMPGROUNDS, NEAR
YOSEMITE VILLAGE,
CALIF.
TAMARACK CREEK AT
TAMARACK FLAT
CAMPGROUND, NEAR
EL PORTAL, CALIF.

SMOKY JACK CREEK AT
SMOKY JACK CAMP-
GROUND, NEAR YOSE-
MITE VILLAGE,
CALIF.

Location Drainage Period Mea area of Date
(sq mi) record

TULARE LAKE BASIN- -CONTINUED

SE%SE% sec. 13, T.17 S., R. 29 E., Tulare
County, at Sequoia National Park
boundary, 300 ft upstream from Mineral King Highway and 5.4 miles east of Hammond.

SW>sNE% sec. 13, T.17 S., R.29 E., Tulare County, 100 ft downstream from Mineral King Highway and 5.0 miles east of Hammond.

SAN JOAQUIN RIVER BASIN

NE'-sSW'* sec. 33, T.I S., R.22 E., Mariposa County, at Porcupine Flat Campgrounds, 1,500 ft downstream from highway
bridge and 4.1 miles northeast of Yosemite Village.
SWsNEJs sec. 30, T.I S., R.22 E., Mariposa

5.6 miles north of Yosemite Village.

NE%NW% sec. 23, T. 2 S., R. 20 E., Mariposa County, at culvert on Big Oak Flat
Road at Tamarack Flat Campground, 5.7 miles northeast of El Portal and 8.2 miles west of Yosemite Village.
mWVk sec. 31, T.I S. , R.21 E., Tuolumne

on Tioga Road, 8.5 miles northeast of

east of El Portal.

5.80 1968-70 7-25-
8-28-
9-30-
12-11-
5- 5-
6-19-
7-30-
8-26-
10-15-
12- 9-
4-21-
5-19-
7- 1-
8- 4-
8-28-
9-22-

1.58 1968-70 12-11-
5- 5-
5-29-
6-19-
7-30-
8-26-
10-15-
12- 9-
4-22-
5-19-
7- 1-

3.60 1970 8-19-
9- 2-
9-16-

18.5 1970 8-19-
9- 2-
9-16-

4.31 1970 8-18-
9- 2-
9-16-

4.15 1970 8-18-
9- 2-
9-16-

surements

Discharge
(cfs)

68
68
68
68
69
69
69
69
69
69
70
70
70
70
70
70

68
69
69
69
69
69
69
69
70
70
70

70
70
70

70
70
70

70
70
70

70
70
70

. 12
. 14
. 07
1.4
19
13
3.6
1.4
. 98
1.6
3.8
3.8
1.6
. 47
. 31
. 12

. 21
1.2
. 83
. 95
. 16
. 23
. 13
. 22
. 34
. 30
. 08

. 16
. 02
. 03

. 55
. 06
. 002

. 41
. 21
. 17

. 15

!04

CREST-STAGE PARTIAL-RECORD STATIONS

for each gage is developed from
meter. The date of the maximum
nearby continuous-record statior
year is given. Information on ;

Station
number

11187200

11191800

11194050

11194100

11194500

11194800

11195000

11195150

11195300

11197350

11197370

11198050

11199300

Annual maximum dische

Station name

SHIRLEY CREEK TRIB-
UTARY NEAR ALTA
SIERRA, CALIF.

KERN RIVER TRIBU-
TARY NEAR MIRACLE
HOT SPRINGS,
CALIF.

TUMBLEWEED CREEK
NEAR OILDALE,
CALIF.

CULVERT CREEK NEAR
OILDALE, CALIF.

tinued).

SAND CREEK NEAR
MCKITTRICK,
CALIF, (station
discontinued) .

SHALE CREEK NEAR
FELLOWS, CALIF.

OIL CREEK NEAR TAFT,
CALIF, (station
discontinued) .

BITTERWATER CREEK
NEAR MARICOPA,
CALIF.

SANTIAGO CREEK NEAR
MARICOPA, CALIF.

STOKER CANYON CREEK
NEAR DEVILS DEN,
CALIF.

BITTERWATER CREEK
NEAR LOST HILLS,
CALIF.

MON CANYON CREEK
NEAR OILDALE,
CALIF.

COHO CREEK NEAR
WHITE RIVER,
CALIF, (station
discontinued) .

discharge measurements made by indirect measurements of peak flow or by discharge is not always certain but is usually determined by comparison

current
with

>ome lower floods may have been obtained but is not published herein. The years

Location Drainage
area

(sq mi)

BUENA VISTA LAKE BASIN

Lat 35°43'15", long 118°29'SS", .27
in SW!j sec. 25, T.25 S. ,
R.32 E., Kern County, Sequoia

on Evans road, 3 miles east
of Alta Sierra.
Lat 35°33'15", long 118°34'45", 1.24
in SE>sNW!j sec. 30, T.27 S. ,
R.32 E., Kern County, Sequoia

on State Highway 178, 3.5
miles southwest of Miracle
Hot Springs.
Lat 35°27'5S", long 119°01'30", 2.40
in NWJj sec. 25, T.28 S. ,
R.27 E. , Kern County, at cul-
vert on county road, 3.2
miles north of Oildale.

Lat 35°29'50", long 119°04'30", .006
in NW>s sec. 16, T.28 S. ,

vert on State Highway 65,
6 miles northwest of Oildale.
Lat 35°19'25", long 119°37 1 35", .32
in NESsNEij sec. 17, T.30 S. ,
R.22 E., Kern County, at cul-
vert on State Highway 33,
1.2 miles north of McKittrick.
Lat 3S°13'1S", long 119°34'05", 5.86
in t!V-i sec. 24, T.31 S. ,
R.22 E., Kern County, at cul-
vert on State Highway 33,
3.2 miles northwest of Fel-
lows.
Lat 35°09'40", long 119°29'45", .35
in NWs sec. 10, T.32 S. ,
R.23 E., Kern County, at cul-
vert on State Highway 33,

Lat 35°03'18", long 119°25'00", 18.5 in W4 sec. 11, T.ll N. ,
R.24 W. , Kern County, 1.0 mile
southwest of Maricopa.

Lat 34°59'55", long 119°17'20", 34.8 in m'-t sec. 36, T.ll N. ,
R.23 W. , Kern County, 8 miles
southeast of Maricopa.

TULARE LAKE BASIN

Lat 35°46'20", long 120°10'1S", 7.51
in sec. 7, T.25 S. , R.17 E. ,
Kern County, at culvert on
State Highway 41, 11.5 miles
west of Devils Den.

Lat 35°33'40", long 120 (> 02'25", 76.4 in NWsSEJj sec. 21, T.27 S. ,
R.18 E. , Kern County, 0.2
mile downstream from Cedar

Lost Hills.

Lat 35°31'4S", long 118°S8'25", 2.38
in NWSjNWJj sec. 4, T.28 S. ,
R.28 E. , Kern County, at cul-
vert on county road, 8 miles
northeast of Oildale.

Lat 35°49'50", long 118°51'3S", dlO.8 in NEWNESS sec. 20, T.24 S. ,
R.29 E., Tulare County, at
culvert on county road, 1.6

Period
of
record

1960-70

1960-70

1959-70

1959-69

1959-68

1959-70

1959-69

1962-69

1962-70

1959-70

1962-70

1959-70

1960-69

Ann
Date

1966 12- 6-66

11-21-67 1-25-69
1-16-70

1966 12- 6-66
4- 1-68
1-25-69
1-16-70

1966 12- 6-66

1968 2-24-69
1970

1966
12- 6-66
1968
1969

12-29-65
4- 7-67
1968

2- 5-66
1-24-67
2-14-68
2-24-69
1970

2- 5-66
4- 7-67
11-22-67
1-26-69

2- 9-62
3-16-63
11-21-63
4- 4-65

1966 2-25-67
2-14-68
2-24-69

2-10-62
6-10-63
11-15-63
4- 4-65
11-24-65
12- 6-66
8- 7-68
2-24-69
3- 4-70

1966 12- 6-66
4- 1-68
1-25-69
1970

2- 1-62
1963
1964
4- 9-65

1966 12- 6-66
11- 4-67
2-24-69
3- 4-70

12- 6-65
12- 6-66
11-19-67
1969
1970

1966 12- 6-66
11-19-67
2-24-69

1966-70

Gage
height
(feet)

13.70

12.24
11.33

-

13.10
6.12
8.74
6.77

-

2.25

2.47
-

2.76

6.12

8.05
6.85
6.95
7.61
-

4.11
3.82
3.85
4.28

14.86
13.58
13.52
13.70

-

13.23

15.4
17.45
15.27
15.42
-

15.86
16.49
17.51
15.7

14.78
5.20
9.86
-

1.86
-
-
-

1.55
-

4.90 -.60

3.90

.

7.72

15.0

urn

Discharge
(cfs)

(a)
60
b.02
27
11

b.Ol
593
b.6
32
4.7

(a)
bl
(a)
bl
-

(a)
. 6

(a)
(a)

b.l
35

(a)

37
11
13
29
-

3.5
1.4
1.6
3.4

c!89
c6
cS
clO
(a)
b.S
2.5
71

C290
cl.100
clOl
c!42
42
139
186
948
200

(a)
517
. 07
288

(a)

c!80

(ac)
(ac)
c.2

(a)
133
. 4
3,190
65

. 03
b9
b.08
(a)
(a)

(a)
221
b.15
564

NOTE.--See footnotes at end of table.

CREST-STAGE PARTIAL-RECORD STATIONS

Annua

number

11202450

11203300

11204950

*11208630

11209000

11209500

11212000

11212450

11212500

11222600

11225050

11225075

11225100

11225130

11235300

NOTE.--S.

il maximum discharge a

WINDING CREEK NEAR
CAMP NELSON,
CALIF.

WARDLOW CREEK NEAR
SPRINGVILLE,
CALIF.

TULE RIVER TRIBU-

TARY NEAR SUCCESS,
CALIF, (station
discontinued) .

ATWELL CREEK NEAR
HAMMOND, CALIF.
DORST CREEK NEAR
KAWEAH CAMP,
CALIF.

NORTH FORK KAWEAH
RIVER AT KAWEAH,
CALIF, (station
discontinued) .

SAND CREEK NEAR
ORANGE COVE,
CALIF. (station
discontinued) .

GRIZZLY CREEK NEAR
CEDAR GROVE,
CALIF.

SOUTH FORK KINGS
RIVER NEAR CEDAR
GROVE, CALIF.

tinued) .

BEAR MOUNTAIN CREEK
NEAR SQUAW VALLEY,
CALIF.

WARTHAN CREEK TRIB-
UTARY NO. 1 NEAR
COALINGA, CALIF.

WARTHAN CREEK TRIB-
UTARY NO. 2 NEAR
COALINGA, CALIF.
(station discon-
tinued) .

LOS GATOS CREEK
BELOW JACALITOS
CREEK, NEAR
COALINGA, CALIF.
(station discon-
tinued) .

ZAPATO CHINO CREEK
NEAR AVENAL,
CALIF.

RANCHERIA CREEK
TRIBUTARY NEAR

LAKESHORE ,
CALIF.

t crest-stage partial-record stations duri Location Drainage
area

(sq mi)

TULARE LAKE BASIN- -CONTINUED

Lat 36°09'35", long 118°40'30", .30
in sec. 25, T.20 S. , R.30 E.
(unsurveyed) , Tulare County,

culvert on State Highway 190,
4 miles northwest of Camp
Nelson.
Lat 36°05'29", long 118°52'58", .46
in NW!«NE% sec. 19, T.21 S. ,
R.29 E., Tulare County, at
culvert on State Highway 190,
4.2 miles southwest of Spring-
ville.
Lat 36°03'27", long 118°54'48", 1.13
in NE'-iSEk sec. 35, T.21 S. ,
R.28 E., Tulare County, at
culvert on State Highway 190,

See previous table. .66

Lat 36°38'45", long 118°48'15", 6.11
in SE'-sSV't sec. 2, T.15 S. ,
R.29 E., Tulare County, in
Sequoia National Park, at
culvert on Generals Highway,

Camp.
Lat 36°29'24", long 118°55'11", d!29 in SEis sec. 34, T.16 S. ,
R.28 E., Tulare County, 1.2
miles upstream from Manniken
Creek, 1.5 miles north of
Kaweah, and 3 miles upstream
from mouth.
Lat 36°37'36", long 119°14'48", d31.6 in NWij sec. 15, T.15 S. ,
R.25 E., Tulare County, 3.8
miles east of Orange Cove.

Lat 36°48'10", long 118°44'35", 9.73
in W%SE% sec. 8, T.13 S. ,
R.30 E., Fresno County,
Sierra National Forest, at
culvert on State Highway 180,

Lat 36°48'25", long 118°44'55", 408 in NWis sec. 8, T.13 S. ,
R.30 E., Fresno County, 0.3

Creek and 4.5 miles west of
Cedar Grove.
Lat 36°43'52", long 119°16'53", .14
in NW%NW!« sec. 8, T.14 S. ,
R.25 E., Fresno County, at
culvert on State Highway 180,
1.0 mile west of Squaw Valley.

Lat 36°05'55", long 120°32'00", .13
in SE!« sec. 14, T.21 S. ,
R.13 E., Fresno County, at
culvert on State Highway 198,

linga.
Lat 36°05'30", long 120°28'50", .012
in N% sec. 20, T.21 S. ,
R.14 E., Fresno County, at
culvert on State Highway 198,
7.5 miles southwest of Coa-
llnga.
Lat 36°10'00", long 120»12'35", d407

23, 26, and 27, T.20 S. , R.16 E., Fresno County, at
bridge on El Dorado Ave.,
8 miles west of Coalinga.

Lat 36°04'04", long 120°13'48", 44.5 in SE^SWij sec. 34, T.21 S. ,
R.16 E., Fresno County, 6.6
miles northwest of Avenal.

SAN JOAQUIN RIVER BASIN

Lat 37°16'40", long 119°06'37", .68
in SEWJEis sec. 34, T.7 S. ,
R.26 E. , Fresno County,
Sierra National Forest, at
culvert on Florence Lake road,
3.2 miles northeast of Lake-
shore (revised) .

: table.

ng water ye

Period
of
record

1960-70

1969-70

1960-68

1970

1960-70

1910-60*,
1967

1944-54*,
1967,1969

1960-70

1950-571,
1959-62,
1965-67

1960-70

1959-70

1959-69

1959-67,
1969

1962-70

1960-70

:ars 1966-

Anni
Date

1966
12- 6-66

Ce) 1-25-69
1-16-70

2-24-69
1-16-70

1966
12- 6-66
1968

6- -70

11-25-65
12- 6-66
4-11-68
1-25-69
1-16-70

12- 6-66

12- 6-66
1-25-69

4- -66
6- -67
4-11-68
5- -69
1-16-70

5- 6-62
12-24-64
1966
12- 6-66

12-30-65
12- 6-66
1968
1-19-69
1-16-70

11-16-65
12- 6-66
1968
2-24-69
1-11-70

1966
1-24-67
1968
2-24-69

1961
2- 9-62
2- 1-63
11-20-63
4-19-65
11-15-65
12- 6-66
2-24-69

2- 9-62
2- 1-63
1- -64
4- 9-65
12-24-65
12- 6-66
10- 3-67
2-24-69
3- 4-70

5- -66
3-16-67
5- -68
5- -69
5- -70

70--Conti

ua maxm

height
(feet)

12.71

11.69
11.38

11.05
8.80

14.63

1.93

20.85
30.73
20.48
22.06
21.56

14.7

5.60
8.75

.

14.21
11.54
13.16
12.33

11.5
11.28
10.0
14.94

-

8.11

7.42
6.58

5.82
7.24

7.91
4.67

14.21

14.92

12.44
12.72
10.62
13.13
7.59
11.59
14.27

11.05
9.98
8.32
9.31
9.06
10.65
9.04

4.29

2.45
4.97
2.43
4.31
2.81

. nued

Discharge
(cfs)

. 01
48
b.02
24
17

196
14

(a)
219

(a)

12.4

56
2,010
20
205
139

23,900

1,350
3,520

28
233
14
141
80

C5.600
C5.200
2,740
11,800

b.l
32

Ca)
17
4.2

8.9
34

(a)
51
. 1

Ca)
1

Ca)
6.5

(ac)
cl,500
cl.150
c!94
C7.68
745
4,760
20,200

C866
C500
c41
c296
214
720
208
3,290
96

6.5
98
6.1
83
15

Station
number

CREST-STAGE PARTIAL-RECORD STATIONS

Annual maximum discharge at crest-stage partial-record stations during water years 1966-70--Continued Station name Location Drainage Period Annual maximum

SOUTH FORK TAMARACK
CREEK TRIBUTARY

NEAR BIG CREEK,
CALIF.

LITTLE PANOCHE CREEK
TRIBUTARY NO. 1
NEAR PANOCHE,
CALIF.

LITTLE PANOCHE CREEK
TRIBUTARY NO. 2
NEAR PANOCHE,
CALIF.

LITTLE PANOCHE CREEK
NEAR PANOCHE,

CALIF, (station
discontinued) .

FRESNO RIVER TRIBU-

TARY NEAR RAYMOND,
CALIF, (station
discontinued) .

DEEP CREEK NEAR ORO
LOMA, CALIF.

tinued) .

BEAR CREEK TRIBU-
TARY NEAR CATHEYS
VALLEY, CALIF.

WOLF CREEK NEAR
VOLT A, CALIF.

tinued).

GARZAS CREEK NEAR
GUSTINE, CALIF.

STRAWBERRY CREEK
NEAR WAWONA,
CALIF.

NORTH FORK BLACKS
CREEK NEAR
COULTERVILLE,
CALIF, (station
discontinued) .

HAYWARD CREEK NEAR
LA GRANGE, CALIF.

DEL PUERTO CREEK
TRIBUTARY NO. 2
NEAR PATTERSON,
CALIF, (station
discontinued) .

WINDMILL CANYON
CREEK NEAR PAT-
TERSON, CALIF.

BUDD CREEK NEAR
TUOLUMNE MEADOWS,
CALIF.

area

(sq mi)

SAN JOAQUIN RIVER BASIN- -CONTINUED

Lat 37°10'40", long 119°12'10", 1.24
in SW^NW^ sec.l, T.9 S.,
R.25 E., Fresno County,

culvert on State Highway 168,
2.8 miles southeast of Big
Creek.
Lat 36°43'05", long 120°51'50", .33
in SW<sSE>s sec. 10, T.14 S.,
R.10 E., Fresno County, at
culvert on county road, 8.5
miles north of Panoche.

Lat 36°47'15", long 120°45'55", 14.8 in SEhNE'-i sec. 21, T.13 S. ,

culvert on county road, 15
miles northeast of Panoche.

Lat 36°43'05", long 120°51'50", dlOl
in mk sec. 22, T.13 S. ,
R.ll E., Fresno County, 100
ft downstream from road ford

Panoche.

Lat 37°09'00", long 119°51'05", .052
in NW% sec. 13, T.9 S. ,
R.19 E., Madera County, at
culvert on Fresno River road,

mond.
Lat 36°53'00", long 120°47'15", 6.96
in SE'-i sec. 17, T.12 S. ,

culvert on county road, 4.5

Lat 37°26'45", long 120°06 1 05", 1.23
in NWW-s sec. 3, T.6 S. ,
R.17 E., Mariposa County,

mile north of Catheys Valley.

Lat 37°04'05", long 121°09'40", 2.82
in San Luis Gonzaga Grant,

State Highway 152, 13 miles
west of Volta.
Lat 37°13'58", long 121°07'28", 51.2 in SW'-s sec. 18, T.8 S. ,
R.8 E., Merced County,
upstream from diversion weir

Lat 37°38'10", long 119°40'55", 1.05
in NVk sec. 33, T.3 S. ,
R.21 E., Mariposa County, in
Yosemite National Park, at
culvert on State Highway 41,
7.0 miles north of Wawona.
Lat 37°44'10", long 120°13'30", 2.27
in NEk sec. 29, T.2 S. ,
R.16 E., Mariposa County, at
culvert on State Highway 49,

Coulterville.
Lat 37°38'30", long 120°22'40", d3.88 in NW!sSE% sec. 25, T.3 S. ,
R.14 E., Mariposa County, at
culvert on State Highway 132,

Lat 37°25'25", long 121°20'30", .024
in NEisSW'-s sec. 8, T.6 S. ,
R.6 E., Stanislaus County, at
culvert on county road, 12

Lat 37°27'15", long 121°16'10", .99
in SEk sec. 35, T.5 S. ,
R.6 E., Stanislaus County, at
culvert on county road, 7.5

Lat 37°52'25", long 119°22'55", 2.94
in NW'-s sec. 7, T.I S. ,
R.24 E., Tuolumne County, in
Yosemite National Park, at
culvert on State Highway 120,
3.0 miles west of Tuolurane
Meadows High Sierra Camp.

of
reco

1960

1959
1965

1959

1959

rd

- 70

- 64t, -70

- 70

- 66

Da

5
5
5
5
5

11
12
11
2
3

11
1
11
2

1
2
2

te

- 23-
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NOTE.--See footnotes at end of table.

CREST-STAGE PARTIAL-RECORD STATIONS

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NOTE.--!

SMOKY JACK CREEK

TRIBUTARY (for-
merly Smoky Jack
Creek) NEAR
YOSEMITE VILLAGE,
CALIF.

SUGARPINE CREEK AT

LONG BARN (for-
merly near Long
Barn), CALIF.

CURTIS CREEK TRIB-
UTARY NEAR STAND-
ARD, CALIF.

CASCADE CREEK NEAR
PINECREST, CALIF.

NORTH FORK STANIS-
LAUS RIVER TRIB-
UTARY NEAR LAKE
ALPINE, CALIF.

SAN DOMINGO CREEK
NEAR SAN ANDREAS,
CALIF.

SAN ANTONIO CREEK
NEAR SAN ANDREAS,
CALIF.

ESPERANZA CREEK
NEAR MOKELUMNE
HILL, CALIF.

JESUS MARIA CREEK
NEAR MOKELUMNE
HILL, CALIF.

ELDORADO CREEK AT
MOUNTAIN RANCH,
CALIF.

MURRAY CREEK NEAR
SAN ANDREAS,
CALIF.

BEAR CREEK TRIBU-
TARY NEAR VALLEY
SPRINGS, CALIF.

MOUNTAIN HOUSE CREEK
NEAR MIDWAY,
CALIF.

Location Drainage

(sq mi)

SAN JOAQUIN RIVER BASIN- -CONTINUED

Lat 37°49'10", long 119°42'45", .68
in WkHVk sec. 31, T.I S. ,
R.21 E. , Tuolumne County, in
Yosemite National Park, at
culvert on State Highway 120,
8.5 miles northwest of Yosem-
ite Village.
Lat 38°05'45", long 120°07'22", 1.38
in SENSE'S sec. 20, T.3 N. ,
R.17 E., Tuolumne County,

Long Barn.
Lat 37°59'05", long 120°18'06", .26
in SVftNVft sec. 35, T.2 N.,
R.I 5 E., Tuolumne County, at
culvert on State Highway 108,

ard.

Lat 38°16'45", long 119°58'10", 4.97
in SWisSWi sec. 14, T.5 N. ,
R.18 E., Tuolumne County,

at culvert on State Highway
108, 6.4 miles northeast of
Pinecrest.
Lat 38°30'20", long 119°56'SO", .09
in SEyflfit sec. 36, T.8 N. ,
R.18 E., Alpine County, Stan-
islaus National Forest, on
culvert on State Highway 4,

Alpine.
Lat 38°06'55", long 120°37'00", d26.2 in NEk sec. 14, T.3 N. ,
R.12 E., 600 ft downstream
from bridge on State High-
way 49 and 6.5 miles south-
east of San Andreas.
Lat 38°07'50", long 120°38'10", d48.0 in NEk sec. 10, T.3 N. ,
R.12 E. , Calaveras County,
800 ft downstream from high-

from mouth, and 5 miles south-
east of San Andreas.

Lat 38°19'00", long 120°35'40", d!6.6 in NVft sec. 6, T.5 N. ,
R.13 E., Calaveras County,
600 ft upstream from mouth
and 6 miles east of Mokelumne
Hill.

Lat 38°17'00", long 120°39'00", d34.6 in SEk sec. 16, T.5 N. ,
R.12 E., Calaveras County,
0.6 mile upstream from mouth
and 3.2 miles southeast of
Mokelumne Hill.

Lat 38°13'38", long 120°32'37", 1.97
in SEk sec. 4, T.4 N. ,
R.13 E., Calaveras County, at
culvert on San Andreas-
Mountain Ranch road, 0.2 mile
southwest of Mountain Ranch.
Lat 38°12'4S", long 120°40'55", d23.6 in SWk sec. 8, T.4 N. ,
R.12 E., Calaveras County,

Andreas and 1.5 miles
upstream from mouth.

Lat 38°11'10", long 120°50'45", .15
in SEkWIk sec. 23, T.4 N. ,
R.10 E., Calaveras County, at
culvert on State Highway 12,

Springs.
Lat 37°44'45", long 121°35'00", 11.7 in SWkmk sec. 19, T.2 S.,
R.4 E., Alameda County, at
culvert on county road, 2.5
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Period

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CREST-STAGE PARTIAL-RECORD STATIONS

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ALTAMONT, CALIF.

KELLOGG CREEK TRIB-
UTARY NEAR BYRON,
CALIF.

ANTELOPE CREEK NEAR
WEST POINT, CALIF.

CLAY CREEK NEAR
IONE, CALIF.

DEER CREEK NEAR
SHINGLE SPRINGS,
CALIF.

a low flow partial recc

ated.
reviously published.

Location Drainage Period area of
(sq mi) record

SAN JOAQUIN RIVER BASIN- -CONTINUED

Lat 37°44'42", long 121°37'50", .27 1959-70 in SW'-sNE^ sec. 22, T.2 S. ,
R.3 E., Alameda County, at
culvert on old U.S. Highway
50, 1.8 miles east of Alta-
mont .

Lat 37°50'45", long 121°43'05", 1.09 1959-70
in SE'-s sec. 14, T.I S. ,
R.2 E., Contra Costa County,
at culvert on county road,
4.5 miles southwest of Byron.

Lat 38 0 29'29", long 120°30'09", 1.48 1963-70
in HE* sec. 2, T.7 N. ,
R.13 E., Amador County, at
culvert on Winton Lumber Co.

West Point.
Lat 38°19'05", long 120°56'20", 3.30 1960-70
in Arroyo Seco Land Grant,
Amador County, at culvert on
State Highway 88, 2.3 miles
south of lone.

Lat 38°39'30", long 120°59'25", 6.62 1963-70
in SV'-iSEk sec. 4, T.9 N. ,
R.9 E., El Dorado County, a.t
culvert on U.S. Highway 50,
3.5 miles west of Shingle
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