Surface Water Supply of the United States 1959

Part 10. The Great Basin

Prepared under the direction of J. V. B. WELLS, *Chief, Surface Water Branch*

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1634

Prepared in cooperation with the States of California, Idaho, Nevada, Oregon, Utah, and Wyoming, and with other agencies

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FRED A. SEATON, *Secretary*

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PREFACE

This report was prepared by the Geological Survey in cooperation with the States of California, Idaho, Nevada, Oregon, Utah, and Wyoming, and with other agencies, by personnel of the Water Resources Division, L. B. Leopold, chief, under the general direction of J. V. B. Wells, chief, Surface Water Branch, succeeded by E. L. Hendricks, and F. J. Flynn, chief, Basic Records Section.

The data were collected and computed under supervision of district and project engineers, Surface Water Branch, as follows:

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T. R. Newell, succeeded by W. I. Travis..... Boise, Idaho
K. N. Phillips..... Portland, Oreg.
M. T. Wilson..... Salt Lake City, Utah
W. N. Jibson (project engineer)..... Logan, Utah

CALENDAR FOR WATER YEAR 1959

OCTOBER 1958

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JUNE 1959

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AUGUST 1959

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SEPTEMBER 1959

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SURFACE WATER SUPPLY OF THE GREAT BASIN, 1959

SCOPE OF WORK

This volume is one of a series of 20 reports presenting records of stage, discharge, and content of streams, lakes, and reservoirs in the United States during the 1959 water year. Since 1888, when the United States Geological Survey first studied streamflow in relation to problems of irrigation, similar records have been obtained at more than 15,200 gaging stations in the 50 States. On September 30, 1959, the Geological Survey and cooperating organizations were maintaining 7,110 gaging stations. Partial-record stations for low flow or for flood flow have been operated at many other points. In addition, discharge measurements are made at miscellaneous sites. The records for the 1959 water year at gaging stations, partial-record stations, and miscellaneous sites in The Great Basin are given in this report.

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 supplied data are acknowledged in station descriptions, and organizations that assisted in the collection of data through cooperative agreements with the Survey are:

California: State Department of Water Resources, H. O. Banks, director.

Idaho: State Department of Reclamation, G. N. Carter, State reclamation engineer.

Nevada: Department of Conservation and Natural Resources, H. A. Shamberger, director; Office of State Engineer, Edmund Muth.

Oregon: Office of State Engineer, L. A. Stanley.

Utah: Office of State Engineer, W. D. Criddle, and Utah Water & Power Board, Charles Redd, chairman, and J. R. Bingham, director.

Wyoming: Office of State Engineer, Earl Lloyd.

Work in the Bear River basin (exclusive of Malad Valley) was done under cooperative agreement with the Bear River Commission, E. O. Larson, chairman.

Assistance in the form of funds or services was given by the Corps of Engineers, Department of the Army, in collecting records published herein for 2 gaging stations in Utah and 5 in Nevada.

Assistance was also furnished by the Forest Service and the Soil Conservation Service of the Department of Agriculture; the Fish and Wildlife Service and the Bureau of Reclamation of the United States Department of the Interior.

The following organizations aided in collecting records:

California: Truckee-Carson Irrigation District and Walker River Irrigation District.

Idaho: Utah Power & Light Co.

Oregon: Harney and Lake Counties.

Utah: Utah Power & Light Co.

Nevada: Truckee-Carson Irrigation District and Walker River Irrigation District.

DIVISION OF WORK

The stream-gaging work was done by the Water Resources Division of the Geological Survey under the direction of personnel shown in the preface. The data for stations in the several States were collected and prepared for publication in the district offices listed below.

State or river basin	District office	Address
California a/	Menlo Park	345 Middlefield Road.
Nevada	Salt Lake City, Utah	463 Federal Building.
Oregon b/	Portland	1001 NE. Lloyd Foulevard.
Utah c/	Salt Lake City	463 Federal Building.
Bear River basin d/	Logan, Utah (project office)	170 N. Main Street.
Malad River basin, Idaho	Boise	914 Jefferson Street.

a/ Except for stations in Walker Lake, Carson River, and Truckee River basins.
b/ The work in Oregon was done in collaboration with L. A. Stanley, State engineer.
c/ Including stations in Walker Lake, Carson River, and Truckee River basins and stations in the Bear River basin in Idaho operated in connection with Federal Power Commission projects.
d/ Except stations in Malad River basins and stations operated in connection with Federal Power Commission projects.

Information of a more detailed nature than that published for most of the gaging stations given in this report is on file in the district offices listed above. Some gaging-station records for California have been analyzed by electronic computer to give: (1) the number of days in each year that the daily discharge was between selected limits (duration tables); (2) the lowest mean discharge for periods of 7, 15, 30, 60, 120, and 183 consecutive days in each year; and (3) the highest mean discharge for periods of 3, 7, 15, 30, and 120 consecutive days in each year. Provisional records of discharge, information on the availability of electronic computer results, and other unpublished data concerning the gaging-station records may generally be obtained from the district offices.

DEFINITION OF TERMS AND ABBREVIATIONS

The terms of streamflow and other hydrologic data, as used in this report, are defined as follows:

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 obtained.

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

Cubic foot per second (cfs) is the rate of discharge of a stream whose channel is 1 square foot in cross-sectional area and whose average velocity is 1 foot per second.

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.

Runoff in inches (in) shows the depth to which the drainage area would be covered if all the runoff for a given time period were uniformly distributed on it.

Acre-foot (ac-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.

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, 1.983471 acre-feet, or 646,317 gallons, and represents a runoff of 0.0372 inch for 1 square mile.

Stage-discharge relation is the relation between gage height and the amount of water flowing in a channel, expressed as volume per unit of time.

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, a long reach of the channel, or an artificial structure.

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

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

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

DOWNSTREAM ORDER AND STATION NUMBERS

Beginning with the series of reports for the water year ending September 30, 1951, the order of listing gaging-station records was changed. In this report, in a downstream direction along the main stem, all stations on a tributary entering above a main-stem station are listed before that station. If a tributary enters between two main-stem stations, it is listed between them. A similar order is followed in listing stations on first rank, second rank, and other ranks of tributaries. To indicate the rank of any tributary on which a gaging station is situated and the stream to which it is immediately tributary, each indention in the listing of gaging stations in the table of contents of this report represents one rank. This downstream order and system of indention show which gaging stations are on tributaries between any two stations on a main stem 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 uppermost 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. The numbers have been assigned in the same downstream order used in this report. In assigning station numbers, no distinction is made between partial-record stations and regular gaging stations, so that 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 numbers to allow for new stations that may be established; hence the numbers are not consecutive. The complete number for each station includes the part number, but the station number shown in this report, just to the left of the station name, consists of only the essential digits of the complete number. For example, for a station with the complete number 10-0115.00, the station number shown in this report is 115. The notation to the left of the hyphen is the part number; it is 10 for all stations in this report, with one exception, and is therefore omitted. The exception is the transmountain diversions from Colorado River basin which were numbered as part 9 stations. For those stations the "9-" is shown in the station number.

The base data collected at gaging stations consist of records of stage and measurements of discharge. In addition, observations of factors affecting the stage-discharge relation, weather records, and other information are used to supplement base data in determining the daily flow. The records of stage are obtained either from direct readings on a nonrecording gage or from a water-stage recorder that gives a continuous record of fluctuations. Measurements of discharge are made with a current meter by the general methods adopted by the Geological Survey on the basis of experience in stream gaging since 1888. These methods are described in Water-Supply Paper 888 and are also outlined in standard textbooks on the measurement of stream discharge.

Rating tables giving the discharge for any stage are prepared from stage-discharge relation curves defined by discharge measurements. If extensions to the rating curves are necessary to define the extremes of discharge, they are made on the basis of indirect determinations of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs, and by other methods), velocity-area studies, and logarithmic plotting. The application of the daily mean gage height to those rating tables gives the daily mean discharge, from which the monthly and the yearly mean discharge are computed. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is essentially the shifting-control method.

At some gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in determining discharge. Information requisite for determining 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. If so, the rate of change in stage is used as a factor in the determination of discharge.

At most gaging stations in the northern part of the United States and at some in the mountainous regions of other parts the stage-discharge relation is affected by ice during the winter, and it becomes impossible to compute the discharge in the usual manner. Discharge for periods of ice effect is computed on the basis of the gage-height record and occasional winter discharge measurements, consideration being given to the available information on temperature and precipitation, notes by gage observers and engineers, and comparable records of discharge for other stations in the same or nearby basins. If the stage-discharge relation is affected by ice, this information is given in a note to the table. No mention is made of occasional days of ice effect if the degree of accuracy of daily records is not changed.

The data herein presented generally comprise a description of the station, a skeleton rating table, and a table showing the daily discharge and monthly and yearly discharge of the stream. Records are published for the water year which begins on October 1 and ends on September 30. A calendar for the water year 1959 is shown on page IV for the purpose of finding the day of the week for any date.

EXPLANATION OF DATA

The description of the station gives the location, drainage area, records available, type and history of gages, average discharge, extremes of discharge, general remarks, and notations of revisions of the previously published record. 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 Corps of Engineers unless otherwise noted. Under "Records available" are given the periods for which there are published records generally equivalent to those at the present site. Under "Gage" are given the type of gage currently in use and 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 records available. Under "Average discharge" is given the average discharge for the number of years indicated. It is not given for stations having fewer than five complete years of record or for stations where changes in water development during the period of record cause the figure to have little significance. Under "Extremes" are given the maximum discharge and gage height; the minimum discharge if there is little or no regulation; the minimum daily discharge if there is extensive regulation (also the minimum discharge if useful); and the minimum gage height (unless it is of no importance). In the first paragraph, the data given are for the complete current water year unless otherwise specified. In the second paragraph, the data given are for the periods of record within the calendar year dates in the heading (not necessarily those for the complete years indicated by the heading dates). Reliable information concerning major floods that have occurred outside the period of record are given in the third or last paragraph under "Extremes." Unless otherwise qualified, the maximum discharge corresponds to the crest stage obtained by use of a water-stage recorder, a crest-stage indicator, or a nonrecording gage read at the time of the crest. If the maximum gage height did not occur at the same time as the maximum discharge, it is given separately. Information pertaining to the accuracy of the records and conditions which affect the natural flow at gaging station 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 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, 1933 stands for the water year October 1, 1932, to September 30, 1933. If no daily, monthly, or annual figures of discharge are concerned in the revision, that fact is brought out by notations after the year dates as follows: "(M)" means that only the instantaneous maximum discharge was revised; "(m)" that only the instantaneous minimum was revised; and "(P)" that only 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 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.

Skeleton rating tables are generally published for all stations except those at which the daily discharge for the greater part of the open-water period was determined by the shifting-control method, the slope method, or other special methods involving an equivalent adjustment to the gage height of more than one-tenth foot. Skeleton rating tables are generally not published for stations on canals.

For stations equipped with water-stage recorder, except those on streams subject to sudden or rapid fluctuation, the daily table gives the discharge corresponding to the daily mean gage height. For stations subject to such fluctuation the daily mean gage height may not indicate the true daily mean discharge, which must be obtained by averaging the discharge for parts of the day or by using the discharge integrator, an instrument for obtaining the daily mean discharge from a continuous gage-height graph and containing, as an essential element, a curve representing the stage-discharge relation at the station. For stations equipped with nonrecording gages, the table of daily discharge gives the discharge corresponding to once-daily readings of the gage, or to the mean of twice-daily readings, or to the mean gage height determined from gage-height graphs based on gage readings. For periods of rapidly changing stage, the daily mean discharge is determined from gage-height graphs based on gage readings, the frequency of which is stated in the station description.

In the table of daily discharge, the figures for the maximum day and the minimum day for each month are underlined. If the figure is repeated, it is underlined only on the first day of its occurrence.

In the monthly summary below the daily table, the line headed "Total" gives the sum of the daily figures; it is the total cfs-days for the month. The line headed "Mean" gives the average flow in cubic feet per second during the month. Discharge for the month 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 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 of maximum are the maximum daily discharges, not the momentary discharges when the water was at crest stage. Likewise, the minimums in this summary are the minimum daily discharges.

Peak discharges and the times of their occurrence and corresponding gage heights of most stations are listed below the table of daily and monthly discharge. All independent peaks above the selected base are given. The base discharge, which is given in parentheses, is selected so that an average of about three peaks a year will be presented. Peak discharges are not published for canals, ditches, drains, or for any stream for which the peaks are subject to substantial control by man.

Footnotes to the table of daily discharge indicate periods when discharge was computed or estimated by unusual or special methods during periods of no gage-height record and ice effect, or by other effects that reduce the degree of accuracy of the records. Days on which discharge measurements were made are indicated by asterisk and footnote unless they were made at frequent regular intervals, in which instance the general frequency of discharge measurements is given under "Remarks" in the station description.

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 each year for all reservoirs for which records are published on a daily basis, but it is not published for reservoirs for which only monthly data are given.

At many gaging stations water samples are collected from the streams for the purpose of making chemical analyses, computing dissolved solids, suspended sediment loads, and particle-size distribution, or measuring water temperatures. For most of these samples the results are published in an annual series of water-supply papers entitled "Quality of Surface Waters of the United States" which is issued in four volumes. In this report under "Remarks" a reference is made to quality-of-water records collected at gaging stations on a regular basis and published in the quality-of-water reports. At many other gaging stations quality-of-water data are obtained at irregular intervals and published as "miscellaneous analyses" in quality-of-water reports; such records are not referred to in "Remarks" paragraph in this report. At many gaging stations water temperature is obtained also at the time a discharge measurement is made; such temperature readings are not reported in the quality-of-water annual reports.

Data collected at partial-record stations and at miscellaneous sites are given at the end of each report. 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. Discharge measurements at miscellaneous sites are given in a third table. 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 after the list of measurements at miscellaneous sites.

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 measurements, and (2) the accuracy of observations of stage, measurements of discharge, and interpretation of records.

The station description states the degree of accuracy of the records. "Excellent" indicates that, in general, the error in the daily records is believed to be less than 5 percent; "good," less than 10 percent; "fair," less than 15 percent; and "poor," probably more than 15 percent. The records of monthly and yearly mean discharge and runoff are, in general, more nearly accurate than the daily records.

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

Many gaging stations on streams in the irrigated areas of the United States are situated above most of the diversions from those streams, and therefore the discharge recorded does not actually show the water supply available at the stations for further development, because water must first be supplied to existing irrigation systems.

PUBLICATIONS

Basic data for gaging stations are published in an annual series of reports consisting of 20 volumes, including one each for the States of Alaska and Hawaii. The area of the other 48 States is divided into 14 parts whose boundaries coincide with certain natural drainage lines. Formerly, the annual series of reports on surface-water supply consisted of 14 volumes, one for each of the 14 parts. Beginning with the reports for 1951, the records for the 48 States were published in 18 volumes, there being 2 volumes each for Parts 1, 2, 3, and 6. The boundaries of the various parts are indicated by the following list and the map in figure 1.

Part 1. North Atlantic slope basins, in two volumes:
  A, North Atlantic slope basins, Maine to Connecticut.
  B, North Atlantic slope basins, New York to York River.
2. South Atlantic slope and eastern Gulf of Mexico basins, in two volumes:
  A, South Atlantic slope basins, James River to Savannah River.
  B, South Atlantic slope and eastern Gulf of Mexico basins, Ogeechee River to Pearl River.
3. Ohio River basin, in two volumes:
  A, Ohio River basin except Cumberland and Tennessee River basins.
  B, Cumberland and Tennessee River basins.
4. St. Lawrence River basin.
5. Hudson Bay and upper Mississippi River basins.
6. Missouri River basin, in two volumes:
  A, Missouri River basin above Sioux City, Iowa.
  B, Missouri River basin below Sioux City, Iowa.
7. Lower Mississippi River basin.
8. Western Gulf of Mexico basins.
9. Colorado River basin.
10. The Great Basin.
11. Pacific slope basins in California.
12. Pacific slope basins in Washington and upper Columbia River basin.
13. Snake River basin.
14. Pacific slope basins in Oregon and lower Columbia River basin.

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 Superintendent of Documents, Government Printing Office, Washington 25, D. C., who will, on application, furnish lists giving prices. A list of Geological Survey publications may be obtained by applying to the Director, Geological Survey, Washington, D. C.

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 2.

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.

Streamflow data for the years 1884-1901, in reports of the Geological Survey

(A = Annual Reports; B = Bulletin)

Report	Character of data	Year
10th A, pt. 2	Descriptive information only.	
11th A, pt. 2	Monthly discharge and descriptive information.....	1884 to September 1890.
12th A, pt. 2	....do.....	1884 to June 30, 1891.
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 monthly discharge.	1895.
WSP 11.....	Gage heights.....	1896.
18th A, pt. 4	Descriptions, measurements, rating, and monthly discharge...	1895-96.

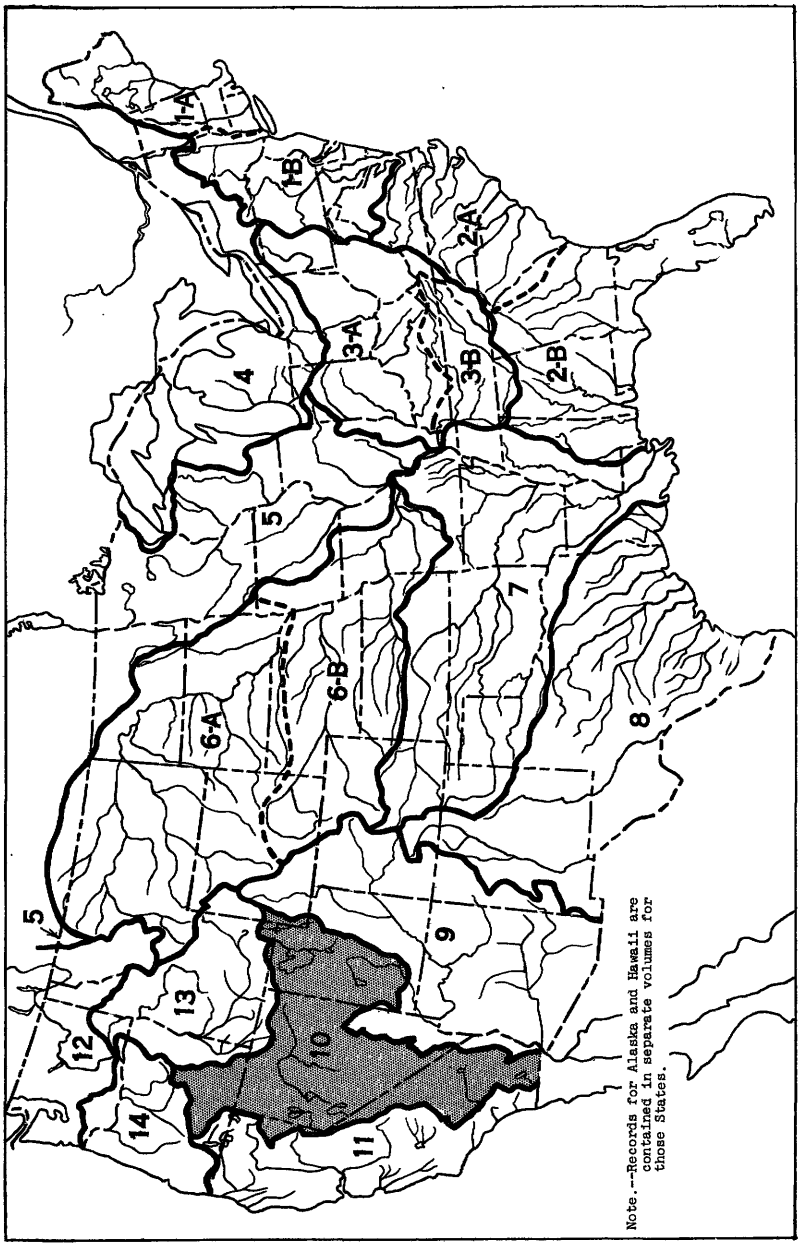

Figure 1.--Map of conterminous United States showing areas covered by 18 of the 20 volumes on surface water supply. The area covered by this report is shaded.

Streamflow data for the years 1884-1901, in reports of the Geological Survey--Continued

(A = Annual Reports; B = Bulletin)

Report	Character of data	Year
WSP 15.....	Descriptions, measurements, and gage heights of streams east of the Mississippi River, and Missouri River and tributaries above Kansas River.	1897.
WSP 16.....	Descriptions, measurements, and gage heights of streams west of the Mississippi River, except Missouri River and tributaries above Kansas River.	1897.
19th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge..	1897.
WSP 27.....	Measurements, ratings, and gage heights of streams east of the Mississippi River, and Missouri River and tributaries.	1898.
WSP 28.....	Measurements, ratings, and gage heights of streams west of the Mississippi River, except Missouri River and tributaries.	1898.
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.
22d A, pt. 4.	Monthly discharge.....	1900.
WSP 65, 66...	Descriptions, measurements, gage heights, and ratings.....	1901.
WSP 75.....	Monthly discharge.....	1901.

Note.--Records for all stations in Oregon from the beginning of record through September 1910 have been republished in WSP 370 with some revisions, superseding all earlier reports for these stations. Also, records for all stations in California from the beginning of record through September 1910 have been republished in WSP 300 with some revisions, superseding all earlier reports for those stations.

Reports on surface-water supply containing records from 1899 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.

Numbers of water-supply papers containing results of stream measurements in The Great Basin, 1899-1959

Year	WSP	Year	WSP	Year	WSP	Year	WSP	Year	WSP
1899	38	1912	330	1925	610	1937	830	1949	1150
1900	51	1913	360	1926	630	1938	860	1950	1180
1901	66,75	1914	390	1927	650	1939	880	1951	1214
1902	85	1915	410	1928	670	1940	900	1952	1244
1903	100	1916	440	1929	690	1941	930	1953	1284
1904	133	1917	460	1930	705	1942	960	1954	1344
1905	176	1918	480	1931	720	1943	980	1955	1394
1906	212	1919-20	510	1932	735	1944	1010	1956	1444
1907-8	250	1921	530	1933	750	1945	1040	1957	1514
1909	270	1922	550	1934	765	1946	1060	1958	1564
1910	290	1923	570	1935	790	1947	1090	1959	1634
1911	310	1924	590	1936	810	1948	1120		

Note.--Records for all stations in Oregon from the beginning of record through September 1910 have been republished in WSP 370 with some revisions, superseding all earlier reports for these stations. Also, records for all stations in California from the beginning of record through September 1910 have been republished in WSP 300 with some revisions, superseding all earlier reports for those stations.

A compilation of records for the area covered by this report through September 1950 has been published in Water-Supply Paper 1314. That report contains a summary of monthly and 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 whenever 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 or other agencies. 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 is a list of numbers and titles of these reports:

WSP — Report

771: Floods in the United States, magnitude and frequency.
843: Floods of December 1937 in northern California.
844: Floods of March 1938 in southern California.
847: Maximum discharges at stream-measurement stations through September 1938.
994: Cloudburst floods in Utah, 1850 to 1938.
1137-H: Floods of November-December 1950 in western Nevada.
1227-D: Summary of floods in the United States during 1951.
1260-E: Floods of 1952 in Nevada and Utah.
1260-F: Summary of floods in the United States during 1952.
1320-E: Summary of floods in the United States during 1953.

RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

The table below contains a list of gaging stations for the area covered by this report, at which records of discharge were collected during the water year October 1958 to September 1959 by agencies other than the Geological Survey. The records of these stations are not contained in publications of the Geological Survey. Records for many canals and ditches and occasional records for several natural streams, none of which are here listed, have also been collected, and some of them have been published in the reports of irrigation projects or of the water commissioner of the drainage basin in which the streams are situated.

Records of discharge collected by agencies other than the Geological Survey

Stream	Location	Period	Collected by
Blackwood Creek...	Near Tahoe, Calif.....	1957-59	California Department of Water Resources.
Big Cottonwood Creek.	Salt Lake City, Utah, near mouth of canyon.	1898-1959a/	Salt Lake City.
City Creek.....	....do.....	1898-1959a/	Do.
Donner Creek.....	Above Gold Creek near Truckee, Calif.....	1929-59	Sierra Pacific Power Co.
Emigration Creek..	Salt Lake City, Utah, near mouth of canyon..	1898-1959a/	Salt Lake City.
Ephraim Creek.....	Near Ephraim, Utah.....	1914-59	Intermountain Forest & Range Experiment Station.
Little Cottonwood Creek.	Salt Lake City, Utah, near mouth of canyon.	1898-1959a/	Salt Lake City.
Mill Creek.....	....do.....	1898-1959a/	Do.
Otter Creek Outlet.	Antimony, Utah, at former Geological Survey gaging station, near Coyote.	1920-59b	Sevier River water commissioner.
Parleys Creek.....	Salt Lake City, Utah, near mouth of canyon.	1898-1959a/	Salt Lake City.
Santiago Creek....	Near Little Rock, Calif.....	1954-59	Los Angeles County Flood Control District.
Sevier River.....	Delta, Utah, at former Geological Survey gaging station.	1920-59b/	Sevier River water commissioner.
Sheep Creek.....	At mouth, near Salina, Utah, at former Geological Survey gaging station.	1957-58c/, 1959	Forest Service Sheep Creek Evaluation project.
Do.....	Near Salina, Utah, at former Geological Survey gaging station.	1957-58c/, 1959	Do.
Sheep Creek, West Fork.....	....do.....	1957-58c/, 1959	Do.
Trout Creek.....	Near Tahoe Valley, Calif.....	1957-59	California Department of Water Resources.
Truckee River.....	Near Myers, Calif.....	1957-59	Do.
Walker River.....	Near Wabuska, Nev.....	1902-8c/, 1920-34c/, 1940-59	Walker River Irrigation District.

a/ Records prior to 1913 are contained in water-supply papers published by the Geological Survey.
b/ Published in the annual reports of Sevier River water commissioner.
c/ Published in water-supply papers by the Geological Survey.

HYDROLOGIC CONDITIONS

Streamflow was generally below median to deficient over the area most of the time. Runoff was slightly excessive only for one or two months in scattered areas of Nevada and California. On August 17 a damaging flash flood occurred in the vicinity of Needles, Calif. On August 18 a cloudburst-type storm developed high rates of runoff and erosion from Millville and Providence Canyons, tributary to Little Bear River, Utah. Field estimates indicated rates of runoff exceeding 5,000 cubic feet per second per square mile for small drainage areas.

Figure 2 on page 12, for which records of three long-term gaging stations were used, shows a comparison of the monthly and yearly mean discharges for the 1959 water year with the median discharge for the period 1921-45.

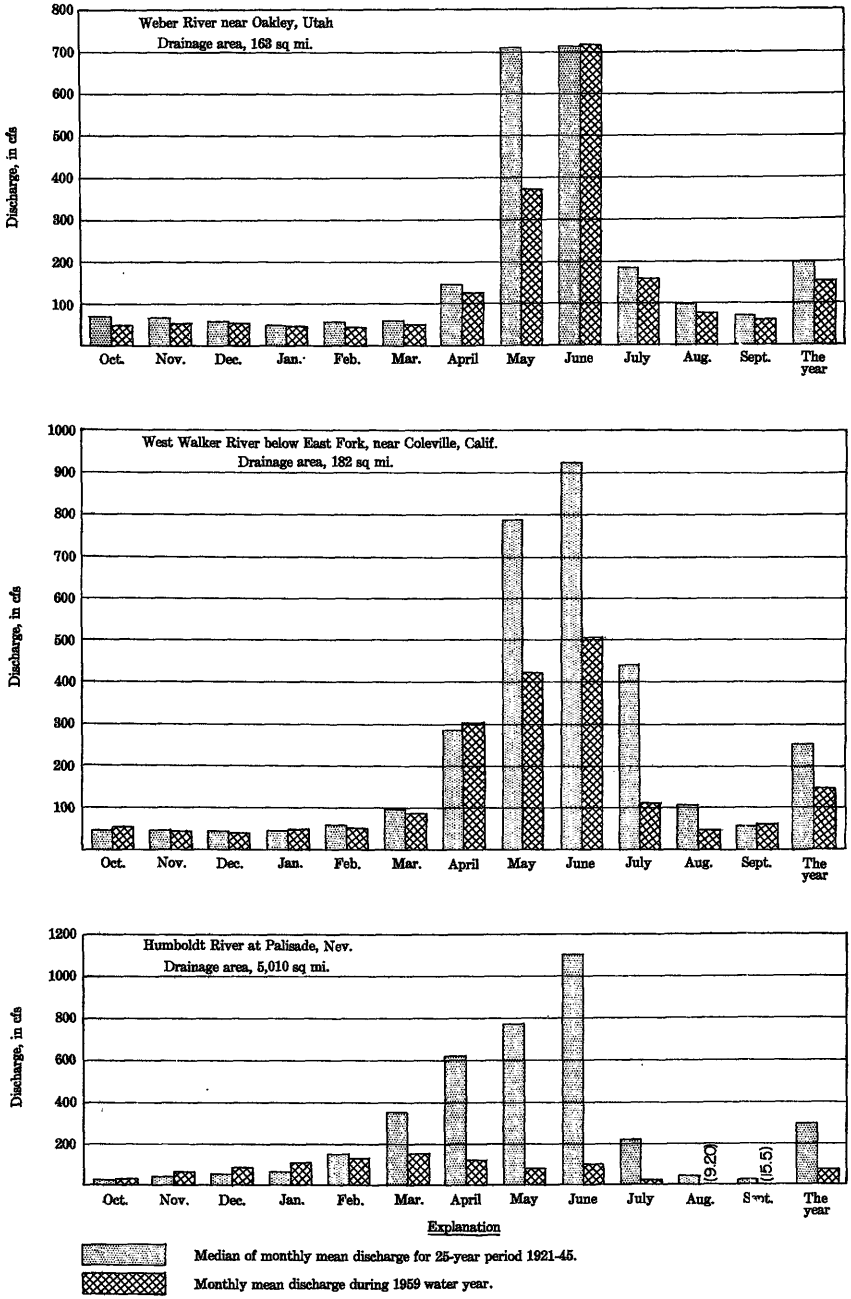

Figure 3. Comparison of discharge at three key gaging stations during 1959 water year with median discharge for 25-year period.

GREAT SALT LAKE BASIN

100. Great Salt Lake, Utah

Location.--Lat 40°44'15", long 112°12'30", in NW¼ sec.17, T.1 S., R.3 W., at Salt Lake County Boat Harbor on southeast shore of lake, 17 miles west of Salt Lake City.

Records available.--September 1875 to December 1899, March to July 1904, and October 1912 to September 1959 in reports of Geological Survey. July 1903 to December 1934 in reports of U. S. Weather Bureau. Diagram showing fluctuations of lake from 1851-1940 is published in WSP 880.

Gage.--Water-stage recorder at Boat Harbor since October 1938 at datum 4,186.9 ft above mean sea level, datum of 1929. Prior to October 1938, staff gages at sites and datums as follows: September 1875 to October 1877 at Black Rock at datum 4,208.4 ft above mean sea level, November 1877 to November 1879 at Farmington Bay at datum 4,206.9 ft above mean sea level, November 1879 to April 1881 near Black Rock at datum 4,203.1 ft above mean sea level, April 1881 to December 1899 at Garfield Landing at datum 4,198.5 ft above mean sea level, and July 1903 to October 1938 at Saltair at datum 4,196.9 ft above mean sea level. Staff gage at Midlake October 1902 to September 1956 at datum 4,197.9 ft above mean sea level, datum of 1929.

Extremes.--Maximum elevation during year, 4,196.05 ft May 1, 15; minimum, 4,194.6 ft Sept. 15.

1875-99, 1903-59: Maximum elevation observed, 4,210.9 ft June 30, 1876; minimum, 4,193.7 ft Oct. 15, Nov. 1, 1940.

Maximum elevation since 1851, 4,211.6 ft in 1873, computed from traditional data by E. C. LaRue.

Remarks.--To compensate for wind effect, elevations given for the gage are taken from a mean slope line defined by several days' gage-height graph preceding and following 12:01 a.m. for the first and fifteenth of each month. Wind effects may cause substantial changes in elevation which are not shown in the published elevations.

Gage height and elevation, in feet, water year October 1958 to September 1959

Day	Gage height	Elevation
Oct. 1	8.60	4,195.5
15	8.45	4,195.35
Nov. 1	8.35	4,195.25
15	8.35	4,195.25
Dec. 1	8.40	4,195.3
15	8.45	4,195.35
Jan. 1	8.60	4,195.5
15	8.70	4,195.6
Feb. 1	8.85	4,195.75
15	8.90	4,195.8
Mar. 1	9.05	4,195.95
15	9.10	4,196.0
Apr. 1	9.10	4,196.0
15	9.10	4,196.0
May 1	9.15	4,196.05
15	9.15	4,196.05
June 1	9.05	4,195.95
15	8.90	4,195.8
July 1	8.80	4,195.7
15	8.60	4,195.5
Aug. 1	8.40	4,195.3
15	8.30	4,195.2
Sept. 1	7.90	4,194.8
15	7.70	4,194.6

105. Hilliard-East Fork Canal near State line, near Evanston, Wyo.

Location.--Lat 40°55', long 110°49', in NW¼ sec.16, T.2 N., R.10 E., in Utah, on left bank 300 ft downstream from road bridge, three-quarters of a mile downstream from head, and 25 miles southeast of Evanston.

Records available.--October 1949 to September 1959 in reports of Geological Survey. April 1944 to September 1949 (irrigation season only) in reports of Bear River Hydrometric Data (Geological Survey open-file report).

Gage.--Water-stage recorder. Altitude of gage is 8,500 ft (from topographic map).

Average discharge.--10 years (1949-59), 6.10 cfs (4,420 acre-ft per year).

Extremes.--1949-59: Maximum daily discharge, 42 cfs June 15, 1956; no flow during winter and at other times each year except 1958.

Remarks.--Records good except those for periods of ice effect, which are fair. Canal diverts from East Fork Bear River for irrigation of about 2,600 acres in Hilliard Flat area in Wyoming.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.1	b6.0					0	8.8	23	32	6.7	7.6
2	*6.1	5.0					0	11	24	31	6.7	7.6
3	6.1	5.9					0	15	26	31	6.5	7.6
4	5.9	*5.4					0	14	26	32	6.5	7.6
5	5.8	5.6					0	12	26	31	6.3	7.4
6	5.8	b5.5					0	13	28	30	6.3	8.0
7	5.6	5.6					0	*12	29	30	6.1	8.4
8	5.6	5.6					0	12	29	30	5.9	8.4
9	5.6	5.6					0	13	*28	28	5.9	8.2
10	5.6	3.3					0	14	29	29	5.1	8.2
11	5.8	0					0	14	29	32	3.9	8.2
12	6.3	0					0	14	30	30	3.9	8.4
13	7.0	0		(*)			0	12	30	30	3.2	8.2
14	7.0	0					0	8.4	30	*29	2.4	8.2
15	7.0	0					b2.0	5.3	31	30	1.4	*8.4
16	6.8	0					b3.6	13	31	32	2.4	8.8
17	6.7	0					b3.6	12	30	*30	6.8	9.0
18	6.8	0					b3.6	16	30	28	*5.8	9.0
19	6.7	0					b3.6	22	29	27	5.8	9.0
20	7.6	0					b3.6	21	29	11	5.8	9.0
21	b7.0	0					b3.6	21	29	.8	2.3	9.0
22	b7.0	0					b3.6	21	32	1.8	3.4	8.0
23	b6.5	0					3.6	21	33	5.4	2.3	8.0
24	b6.5	0					3.8	21	33	5.4	4.2	7.8
25	6.5	0					3.8	21	33	5.4	2.0	7.6
26	6.5	0					3.9	21	32	5.2	1.6	8.0
27	6.5	0					5.4	20	32	5.2	1.5	8.2
28	6.5	0					8.4	20	32	5.2	4.0	8.0
29	b6.5	0					8.6	21	33	5.4	10	7.2
30	b6.5	0			-------		8.8	22	33	6.5	10	7.4
31	b6.5	-------			-------		-------	22	-------	6.7	9.4	-------
Total	198.4	53.5	0	0	0	0	73.5	493.5	889	636.0	154.1	244.4
Mean	6.40	1.78	0	0	0	0	2.45	15.9	29.6	20.5	4.97	8.15
Ac-ft	394	106	0	0	0	0	146	979	1,760	1,260	306	485

Calendar year 1958: Max 36 Min 0 Mean 5.56 Ac-ft 4,030
Water year 1958-59: Max 33 Min 0 Mean 7.51 Ac-ft 5,440

* Discharge measurement or observation of no flow made on this day.
b Stage-discharge relation affected by ice.

115. Bear River near Utah-Wyoming State line

Location.--Lat 40°58', long 110°51', in SE¼ sec.30, T.3 N., R.10 E., on left bank just downstream from West Fork, 2.8 miles upstream from Utah-Wyoming State line.

Drainage area.--176 sq mi.

Records available.--July 1942 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 7,965 ft (from river-profile map).

Average discharge.--17 years, 187 cfs (135,400 acre-ft per year).

Extremes.--Maximum discharge during year, 1,830 cfs June 16 (gage height, 3.53 ft); minimum, 23 cfs Nov. 1, but may have been less during periods of ice effect.
1942-59: Maximum discharge, 2,800 cfs June 6, 1957 (gage height, 4.27 ft); minimum determined, 16 cfs Apr. 11, 1951, Nov. 5, 1954, Nov. 1, 1955, Oct. 30, 1956.

Remarks.--Records good except those for periods of ice effect, which are fair. Two diversions above station for irrigation of about 200 acres above and 2,600 acres below station.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.6	22	1.8	312
.8	36	2.2	550
1.0	59	2.7	945
1.2	96	3.2	1,450
1.5	183		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	31	b38			b37	40	265	458	510	98	30
2	*31	32	b38			38	44	317	644	410	92	30
3	30	34	*38				48	256	800	421	80	29
4	30	*34	40				59	199	884	387	76	28
5	30	35	b39				76	169	*1,000	343	71	27
						b36						
6	30	34	38				101	156	1,200	317	69	27
7	30	38	40				96	*140	1,360	288	69	26
8	29	36	40	b38	b35		*84	156	1,320	270	61	25
9	28	36	40			36	76	210	*1,290	252	58	24
10	28	36	40			38	68	256	1,190	226	55	25
11	27	42	42			b38	68	298	1,190	218	55	24
12	27	42				b38	66	404	1,220	210	58	24
13	27	40		(*)		36	74	564	1,180	202	55	24
14	27	42				b36	82	696	1,220	*195	52	24
15	27	36				b36	73	743	1,340	183	50	*25
16	27	b35		36	36	b36	64	696	1,410	166	47	33
17	27	b36		36	*35	b36	58	644	*1,140	149	42	38
18	30	b37		36	b36	*36	58	*564	992	146	*42	36
19	31	b39		36	b36	36	56	421	867	140	54	36
20	33	42		b36	b36	b36	55	338	783	134	59	42
21	33	42	b40	b36	b36	b36	48	307	783	140	52	40
22	34	40		b36	38	38	55	298	712	132	44	40
23	36	40		36	38	36	68	279	*658	120	42	42
24	38	38		38	38	36	96	317	621	113	40	51
25	36	38		36	b38	36	126	404	586	108	42	54
26	36			38	38	38	143	348	537	106	44	69
27	36			b36	38	36	113	328	496	101	42	82
28	36	b38		38	36	40	94	307	490	92	38	66
29	33			b36	-	38	106	364	720	84	31	62
30	30			b36		36	169	458	712	82	30	56
31	31			b35		38		410		88	29	
Total	956	1,125	1,233	1,151	1,002	1,137	2,364	11,312	27,803	6,333	1,677	1,139
Mean	30.8	37.5	39.8	37.1	35.8	36.7	78.8	365	927	204	54.1	38.0
Ac-ft	1,900	2,230	2,450	2,280	1,990	2,260	4,690	22,440	55,150	12,560	3,330	2,260

Calendar year 1958 : Max 1,650 Min 27 Mean 158 Ac-ft 114,500
Water year 1958-59 : Max 1,410 Min 24 Mean 157 Ac-ft 113,500

Peak discharge (base, 1,100 cfs).--June 16 (3 a.m.) 1,830 cfs (3.53 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

120. Mill Creek at Utah-Wyoming State line

Location.--Lat 40°59'30", long 110°50'30", in W½ sec.17, T.3 N., R.10 E., in Utah, on right bank 2,000 ft upstream from State line and 19½ miles southeast of Evanston, Wyo.

Drainage area.--59 sq mi, approximately.

Records available.--October 1949 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 7,860 ft (from river-profile map).

Average discharge.--10 years, 33.5 cfs (24,250 acre-ft per year).

Extremes.--Maximum discharge during year, 363 cfs June 7 (gage height, 3.13 ft); minimum, 2.4 cfs Dec. 25.
1949-59: Maximum discharge, 690 cfs June 7, 1957 (gage height, 4.39 ft); minimum, 0.9 cfs Nov. 11, 1951, result of freezeup.

Remarks.--Records good except those for periods of ice effect, which are fair. Three small diversions for irrigation of hay meadows above station.

Rating table, water year 1958-59 except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.4	2.6	1.3	50
.5	4.1	1.6	86
.6	6.2	2.0	143
.8	13	2.4	213
1.0	24	2.7	270

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.4	5.6	6.5	7.3		8.4	8.4	112	116	124	12	4.5
2	*5.4	6.0	6.5	7.3		8.7	11	118	157	76	12	4.9
3	5.4	6.5	*6.8	7.3		8.4	13	85	164	61	10	5.2
4	5.4	*6.5	7.0			9.0	17	58	178	54	8.4	4.3
5	5.4	6.8	6.5			9.4	23	42	190	44	8.4	4.1
6	5.6	6.8	6.8			8.7	33	40	222	38	7.9	4.1
7	5.8	7.3	6.2	b6.0		8.4	36	*34	268	34	9.4	4.1
8	5.8	7.3	7.0		b7.0	8.4	b22	39	259	30	7.6	4.1
9	5.8	7.3	7.3			7.9	*b18	54	*245	27	6.8	4.0
10	5.8	7.3	7.3			7.9	b18	68	222	25	6.8	4.0
11	5.8	7.9	7.3	b8.0		7.9	18	77	207	23	6.8	4.1
12	5.8	8.7	8.7	7.9		8.7	15	112	192	20	7.3	4.7
13	5.8	7.9	7.3	*7.3		7.9	20	149	204	18	7.6	4.9
14	5.6	7.9	6.0	7.6		8.2	24	151	226	*18	6.2	4.9
15	5.6	8.2	6.2	8.2		7.9	22	149	202	19	6.0	*5.4
16	5.6	7.3	6.5	7.9	b8.0	8.2	20	131	183	20	4.9	7.0
17	5.6	7.6	6.5	7.6	*b8.0	7.6	16	107	122	15	4.5	8.2
18	5.6	8.4	6.2	7.3	b8.0	*8.4	15	*110	98	15	*4.7	7.9
19	5.6	8.4	6.5	7.0		9.0	15	82	83	16	6.8	9.0
20	6.2	7.9	6.5	7.9	b10	8.2	13	61	74	12	7.0	10
21	6.2	7.6	6.2	8.4		8.2	12	54	68	11	6.8	11
22	6.2	7.3	6.0	8.4		8.4	15	52	58	12	5.2	11
23	6.2	7.3	6.8	7.9		9.0	23	46	49	11	4.7	11
24	6.8	7.0	6.2	7.9	10	8.2	36	74	44	11	5.2	14
25	6.8	6.8	6.8	7.6	9.8	8.7	51	100	37	11	6.5	14
26	6.8	6.0	6.8	7.0	10	11	58	80	36	10	6.2	16
27	6.8	6.0	6.8	7.0	9.4	10	39	80	50	10	6.2	19
28	6.8	7.0	6.8	7.3	9.0	9.0	28	63	76	8.7	5.6	15
29	6.2	6.8	6.8	7.6	-	8.2	36	87	149	7.9	5.4	13
30	5.4	6.5	8.2	b6.0	-------	9.4	68	107	159	8.7	5.4	12
31	5.4	-------	8.2	b6.0	-------	8.2	-------	91	-------	10	5.4	-------
Total	182.6	215.9	211.2	221.7	227.2	265.5	743.4	2,613	4,338	800.3	213.7	245.4
Mean	5.89	7.20	6.81	7.15	8.11	8.56	24.8	84.3	145	25.8	6.89	8.18
Ac-ft	362	428	419	440	451	527	1,470	5,180	8,600	1,590	424	487

Calendar year 1958: Max 304 Min 1.9 Mean 25.8 Ac-ft 18,680
Water year 1958-59: Max 268 Min 4.0 Mean 28.2 Ac-ft 20,380

Peak discharge (base, 250 cfs).--June 7 (9 p.m.) 363 cfs (3.13 ft); June 30 (10:30 p.m.) 260 cfs (2.63 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

157. Sulphur Creek above reservoir, near Evanston, Wyo.

Location.--Lat 41°09', long 110°48', in SW¼ sec.35, T.14 N., R.119 W., on right bank 1¼ miles downstream from Willow Creek, 2 miles upstream from Sulphur Creek, 2 miles upstream from Sulphur Creek Dam, and 11½ miles southeast of Evanston.

Drainage area.--64 sq mi, approximately.

Records available.--December 1957 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 7,170 ft (from river-profile map).

Extremes.--Maximum discharge during year, 436 cfs Apr. 5 (gage height, 4.67 ft); no flow for many days.
1957-59: Maximum discharge, 560 cfs Apr. 18, 1958 (gage height, 5.07 ft), from rating curve extended above 100 cfs by logarithmic plotting; no flow at times each year.

Remarks.--Records good except those for periods of ice effect, which are fair.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	0.3					*3.5	17	16	29	0.2	0
2	.2	.3					10	13	14	20	.1	0
3	**.2	.3	(**)				25	9.8	17	20	.1	0
4	.2	**.3					75	14	20	16	.1	0
5	.1	.3					160	14	19	15	.1	0
6	.1	.4					148	14	20	12	.1	0
7	.1	.4					45	*19	18	8.1	0	0
8	.1	.3	0.6		0.9	2.0	20	12	16	6.7	0	0
9	.2	.3					*21	8.9	18	4.8	0	0
10	.2	.2					16	7.2	14	3.1	0	0
11	.2	.3					19	7.2	12	2.6	0	0
12	.2	.5					24	9.5	13	2.6	0	0
13	.2	.5		(*)			*21	15	40	3.6	0	0
14	.2	.5					17	19	12	*4.8	0	0
15	.3	1.2					15	21	19	6.4	0	*0
16	.3	1.0		0.8			12	16	40	6.2	0	0
17	.3	.8					11	12	20	6.4	0	0
18	.3				1.2	*3.0	12	15	14	5.0	0	0
19	.2						11	*15	11	5.4	.1	.1
20	.4						15	12	13	4.5	.1	.1
21	.4						22	9.8	11	3.6	.1	.4
22	.4						23	11	9.8	1.9	0	.1
23	.3						17	12	6.7	1.6	0	.1
24	.3	0.6	.7				14	9.5	5.9	1.3	0	.6
25	.3				1.5		14	12	6.2	1.0	0	.6
26	.3					3.2	17	19	6.7	.8	0	.7
27	.3						16	44	49	.7	0	1.2
28	.3						14	*29	85	.7	0	.5
29	.3				-		11	20	235	.4	0	.5
30	.3				-------		13	22	75	.2	0	.4
31	.3	-------			-------		-------	22	-------	.2	0	-------
Total	7.7	15.7	20.2	24.8	31.5	80.2	841.5	480.9	856.3	194.6	1.0	5.3
Mean	0.25	0.52	0.65	0.8	1.12	2.59	28.0	15.5	28.5	6.28	0.03	0.18
Ac-ft	15	31	40	49	62	159	1,670	954	1,700	386	2.0	11

Calendar year 1958: Max 292 Min 0 Mean 7.35 Ac-ft 5,310
Water year 1958-59: Max 235 Min 0 Mean 7.01 Ac-ft 5,080

* Discharge measurement or observation of no flow made on this day.
** Field estimate made on this day.
Note.--Stage-discharge relation affected by ice Nov. 18 to Apr. 4, Apr. 8, 9.

159. Sulphur Creek below reservoir, near Evanston, Wyo.

Location.--Lat 41°09', long 110°49', in SE¼SE¼ sec.28, T.14 N., R.119 W., on left bank 6.3 miles upstream from mouth and 10½ miles southeast of Evanston.

Drainage area.--68 sq mi, approximately.

Records available.--March 1958 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 7,110 ft (from river-profile map).

Extremes.--Maximum discharge during year, 164 cfs June 29 (gage height, 3.67 ft); no flow Jan. 9 to May 27, July 2-12.
1958-59: Maximum discharge, that of June 29, 1959; no flow at times each year.

Remarks.--Records good. Flow regulated by Sulphur Creek Reservoir (capacity, 4,600 acre-ft) completed December 1957.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.3	0.3	0.6	0.4				0	27	12	38	17
2	1.1	.4	.6	.4				0	27	0	40	16
3	*1.0	.4	*.6	.3				0	26	0	40	14
4	.9	*.5	.6	.4				0	26	0	39	15
5	.8	.6	.6	.3				0	26	0	39	16
6	.9	.6	.6	.3				0	27	0	39	16
7	.9	.7	.6	.3				0	29	0	40	16
8	.8	.6	.6	.1				0	29	0	42	15
9	.8	.6	.8	0				0	*29	0	42	15
10	.8	.6	.6	0				0	29	0	42	15
11	.8	.6	.6	0				0	29	0	40	15
12	.8	.7	.8	0				0	29	0	40	15
13	.6	.8	.6	0				0	22	11	40	15
14	.3	.8	.6	0				0	5.0	*34	40	14
15	.3	.8	.6	0				0	12	28	40	*14
16	.3	.8	.6	0				0	38	12	40	13
17	.4	.8	.6	0				0	46	8.4	36	13
18	.3	.9	.6	0				0	46	4.7	*31	17
19	.3	.8	.8	0				0	46	4.7	24	24
20	.4	.6	.6	0				0	42	5.0	19	23
21	.3	.6	.6	0				0	26	5.2	17	23
22	.3	.6	.6	0				0	17	10	15	21
23	.3	.6	.6	0				0	5.0	16	15	17
24	.3	.6	.6	0				0	5.2	16	15	16
25	.3	.6	.6	0				0	5.4	16	15	15
26	.3	.6	.6	0				0	5.4	16	15	15
27	.4	.6	.6	0				0	11	29	15	15
28	.4	.6	.6	0				19	50	*40	15	7.2
29	.3	.6	.5	0	-			49	140	38	15	.5
30	.4	.6	.5	0	-------			49	102	38	15	.3
31	.4	-------	.4	0	-------		-------	38	-------	37	16	-------
Total	17.5	18.9	18.2	2.5	0	0	0	155	957.0	379.0	919	448.0
Mean	0.56	0.63	0.59	0.08	0	0	0	5.0	31.9	12.2	29.6	14.9
Ac-ft	35	37	36	5.0	0	0	0	307	1,900	752	1,820	889

Calendar year 1958: Max - Min - Mean - Ac-ft -
Water year 1958-59: Max 140 Min 0 Mean 7.99 Ac-ft 5,780

* Discharge measurement made on this day.

160. Sulphur Creek near Evanston, Wyo.

Location.--Lat 41°10', long 110°52', in SE¼ sec.29, T.14 N., R.119 W., on left bank 4.8 miles upstream from mouth and 9 miles southeast of Evanston.

Drainage area.--80.5 sq mi.

Records available.--April 1942 to September 1959 (discontinued). Fragmentary prior to July 1942.

Gage.--Water-stage recorder. Altitude of gage is 7,070 ft (from river-profile map). Prior to June 16, 1948, at datum 2.00 ft higher. June 16, 1948, to Aug. 21, 1952, at datum 1.00 ft higher.

Extremes.--Maximum discharge during year, 617 cfs June 29 (gage height, 4.71 ft); minimum, 0.4 cfs Oct. 25.
1942-59: Maximum discharge, 1,220 cfs Apr. 23, 1952; maximum gage height, 6.01 ft, Apr. 21, 1948, present datum; no flow Sept. 10, 1949.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Natural flow of stream affected by diversions for irrigation, return flow from irrigated areas, and regulation by Sulphur Creek Reservoir (capacity, 4,600 acre-ft) completed December 1957.

Revisions (water years).--WSP 1040: 1943-44.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.4	0.2	2.7	72
1.5	1.2	3.0	114
1.6	3.2	3.5	212
1.8	8.9	4.0	346
2.0	17	4.4	486
2.3	35		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.2	1.0				1.2	*b4.5	1.6	33	52	40	20
2	1.2	1.0				1.4	b25	1.6	32	40	41	18
3	*1.4	1.2	(*)			1.4	b40	2.0	32	34	41	15
4	1.4	*1.2				1.2	27	3.4	34	35	41	15
5	1.4	1.8		b1.2		1.2	13	2.8	31	35	41	17
6	1.4	1.6				1.2	11	3.4	32	35	40	17
7	1.4	1.4				1.2	7.0	*4.9	33	22	41	17
8	1.4	1.2				1.2	4.4	3.0	32	17	43	16
9	1.4	1.2				1.2	*3.4	2.4	*32	12	43	16
10	1.6	1.2			1.2	1.2	3.4	2.2	32	11	42	16
11	1.6	1.4				1.2	5.6	2.0	32	10	41	16
12	1.6	1.6				1.2	7.6	2.0	34	9.3	42	16
13	1.2	1.4		(*)		1.4	*6.0	2.0	24	16	42	15
14	.6	1.6				1.4	4.2	2.0	9.6	*37	42	15
15	.6	1.6		b1.3		1.2	4.4	2.0	34	27	42	*15
16	.6					1.2	3.0	3.0	95	16	42	14
17	.6					2.0	2.8	2.4	70	13	38	14
18	.6				*1.2	*4.4	3.0	4.9	68	10	*32	18
19	.6				1.2	3.9	2.0	4.9	54	11	28	26
20	.8			1.2	1.2	2.2	2.8	5.2	50	8.6	22	25
21	.8				1.2	1.6	5.4	4.6	33	7.3	20	25
22	.8				1.2	2.2	7.6	6.0	23	11	18	24
23	.8	b1.5			1.2	3.4	4.2	6.6	10	18	18	19
24	.8				1.2	3.9	2.8	5.4	11	18	18	17
25	.8				1.2	3.4	2.4	6.3	12	18	18	16
26	.8				1.2	3.9	2.8	8.6	12	18	18	16
27	1.0				1.2	3.2	3.0	23	60	28	18	16
28	1.2				1.2	3.2	2.6	71	206	40	18	8.0
29	1.0				-	2.8	2.0	62	486	39	17	1.0
30	1.0				-------	3.4	2.0	54	188	40	17	.8
31	1.0	-------			-------	3.6	-------	44	-------	40	18	-------
Total	32.6	42.9	40.3	37.2	33.6	67.1	214.9	349.2	1,834.6	728.2	982	483.8
Mean	1.05	1.43	1.3	1.2	1.2	2.16	7.16	11.3	61.2	23.5	31.7	16.1
Ac-ft	65	85	80	74	67	133	426	693	3,640	1,440	1,950	960

Calendar year 1958: Max 94 Min 0.6 Mean 13.6 Ac-ft 9,870
Water year 1958-59: Max 486 Min 0.6 Mean 13.3 Ac-ft 9,610

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Jan. 10 to Feb. 17, Sept. 16-30; discharge estimated on basis of 1 discharge measurement, weather records, and records for Sulphur Creek below reservoir.

170. Yellow Creek near Evanston, Wyo.

Location.--Lat 41°09', long 111°03', in SW¼ sec.21, T.5 N., R.8 E., in Utah, on left bank 600 ft downstream from Sage Creek, 1½ miles upstream from Coyote Creek, and 9¾ miles southwest of Evanston.

Drainage area.--80 sq mi, approximately.

Records available.--October 1944 to September 1945, October 1949 to September 1959. Records for February 1943 to September 1944 at site 1¼ miles downstream not equivalent, but would be equivalent by adding flow of Wright No. 2 and Cook Canals, ir reports on Bear River Hydrometric Data, 1944 (Geological Survey open-file report).

Gage.--Water-stage recorder. Altitude of gage is 6,920 ft (from river-profile map). Prior to Oct. 1, 1944, staff gage at site 1¼ miles downstream and Oct. 1, 1944, to Sept. 30, 1945, water-stage recorder at site 500 ft upstream, at different datums.

Average discharge.--11 years (1944-45, 1949-59), 9.68 cfs (7,010 acre-ft year).

Extremes.--Maximum discharge during year, 110 cfs Apr. 5 (gage height, 4.60 ft); no flow for most of year.
1944-45, 1949-59: Maximum discharge, 477 cfs Apr. 28, 1952 (gage height, 7.04 ft); no flow at times.

Remarks.--Records good. One small diversion for irrigation of hay meadows above station.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.2	0	0.9	11
.3	.1	1.1	22
.4	.3	1.5	32
.5	.8	2.0	42
.6	2.1	3.1	67
.8	7.2		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						0	3.4	7.6	11	6.6		
2						0	22	11	10	3.6		
3	(*)					0	52	18	9.9	2.0		
4						0	64	18	9.1	.9		
5						0	66	14	8.0	.6		
6						0	57	9.9	6.9	.3		
7						0	43	*11	4.8	.1		
8						0	22	9.1	4.2	.1		
9						0	*16	7.2	3.4	0		
10						0	15	10	*2.9	.9		
11						0	8.3	15	2.1	.4		
12						0	6.9	18	1.7	.1		
13						0	*6.9	23	.8	.1		
14						0	10	33	.7	*0		
15						0	9.9	32	.6	0		
16						0	8.0	30	.6	0		
17						0	6.3	27	.2	0		
18						.1	5.7	25	.2	0		
19						**.2	4.8	24	.2	0		
20						.3	8.0	18	1.4	0		
21						.4	5.1	13	1.3	0		
22						.6	4.8	12	1.2	0		
23						3.2	5.1	12	1.1	0		
24						6.0	7.6	9.9	1.4	0		
25						5.1	8.7	12	1.8	0		
26						4.5	9.1	16	2.0	0		
27						4.0	12	21	2.0	0		
28						3.2	9.9	23	1.6	0		
29					-	2.1	7.2	16	1.6	0		
30					-------	2.5	5.7	15	8.3	0		
31		-------			-------	2.1	-------	15	-------	0		-------
Total	0	0	0	0	0	34.3	510.4	525.7	101.0	15.7	0	0
Mean	0	0	0	0	0	1.11	17.0	17.0	3.37	0.51	0	0
Ac-ft	0	0	0	0	0	68	1,010	1,040	200	31	0	0

Calendar year 1958: Max 42 Min 0 Mean 3.71 Ac-ft 2,690
Water year 1958-59: Max 66 Min 0 Mean 3.25 Ac-ft 2,350

* Discharge measurement or observation of no flow made on this day.
** Field estimate made on this day.

195. Chapman Canal at State line, near Evanston, Wyo.

Location.--Lat 41°24', long 111°02', in SE¼ sec.36, T.17 N., R.121 W., on right bank at highway bridge, 6½ miles downstream from headgates and 10 miles northwest of Evanston.

Records available.--October 1945 to September 1959 in reports of Geological Survey. April to September 1942 and May to September 1943 in upper Bear River Water Commissioner's reports, Utah; April 1944 to September 1948 in upper Bear River Water Commissioner's reports, Utah; and reports of Bear River Hydrometric Data (Geological Survey open-file report).

Gage.--Water-stage recorder. Altitude of gage is 6,570 ft (from river-profile map). Prior to Oct. 11, 1946, staff gage at same site and datum.

Average discharge.--14 years (1945-59), 17.5 cfs (12,670 acre-ft per year).

Extremes.--1942-59: Maximum daily discharge observed, 129 cfs Apr. 14, 1946; no flow at times each year.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Canal diverts water from Bear River in NW¼ sec.36, T.16 N., R.121 W. Many diversions above station for irrigation in Wyoming. Flow at station is for storage in Neponset Reservoir, Utah, and irrigation in Saleratus basin, Utah.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	(*)	0				0	*45	88	95	75	0.4	a4.5
2		0				0	61	a40	86	75	2.2	a3.5
3		0		a10		0	84	a38	89	74	5.0	a3.0
4		.1	(*)			0	90	a36	101	70	5.0	a2.5
5		**.6				0	88	a34	98	65	5.0	a2.0
6		2.2		0		0	82	*32	99	58	4.5	a1.5
7		5.8		0		0	80	31	87	50	3.0	a1.0
8		8.0		0		0	67	29	*84	46	1.6	a.5
9		7.7		0		0	*65	28	87	40	.6	a0
10		8.0		0		0	74	30	88	25	0	a0
11		11		0		0	76	32	85	18	0	a0
12		12		0		0	76	32	85	9.4	0	a0
13		14	b25	0		0	75	36	89	5.0	.6	a0
14		25		*0		b3.0	78	36	91	2.2	3.0	a0
15				0		b6.8	77	30	98	*5.0	4.5	a0
16				0		b6.8	73	48	104	3.6	3.4	a0
17				0		6.8	69	89	94	1.2	**2.2	**.5
18				0		11	69	100	82	.1	1.9	.9
19				0		*8.8	72	95	78	0	11	1.8
20				0		8.0	69	94	80	0	32	5.8
21				0		9.4	72	90	88	0	31	15
22		b25		0		7.7	75	93	93	0	17	18
23				0		8.0	77	92	81	0	8.8	17
24				0		13	78	90	69	0	8.2	15
25				0		25	84	85	58	0	9.1	34
26				0		25	88	85	54	0	10	39
27				0		29	88	88	63	0	a9.5	61
28			b10	0		30	83	90	100	0	a8.0	74
29				0	-	47	78	92	100	0	a7.0	74
30				0	-------	46	80	93	75	0	a6.0	66
31		-------		0	-------	46	-------	95	-------	0	a5.0	-------
Total	0	494.4	685	50	0	337.3	2,273	1,971	2,581	622.5	205.5	440.5
Mean	0	16.5	22.1	1.6	0	10.9	75.8	63.6	86.0	20.1	6.63	14.7
Ac-ft	0	981	1,360	99	0	669	4,510	3,910	5,120	1,230	408	874

Calendar year 1958: Max 123 Min 0 Mean 17.6 Ac-ft 12,730
Water year 1958-59: Max 104 Min 0 Mean 26.5 Ac-ft 19,160

* Discharge measurement or observation of no flow made on this day.
** Field estimate made on this day.
a No gage-height record; discharge estimated on basis of weather records, records for Bear River near Woodruff, Utah, engineers' notes, and information from watermaster.
b Stage-discharge relation affected by ice.

205. Bear River near Woodruff, Utah

Location.--Lat 41°31'25", long 111°01'00", in SW¼ sec.20, T.18 N., R.120 W., in Wyoming, on left bank 2.8 miles upstream from Wyoming-Utah State line and 7.6 miles east of Woodruff.

Drainage area.--870 sq mi, approximately.

Records available.--April 1942 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,360 ft (from river-profile map).

Average discharge.--17 years, 209 cfs (151,300 acre-ft per year).

Extremes.--Maximum discharge during year, 1,550 cfs June 30 (gage height, 4.03 ft); no flow Oct. 1-6.
1942-59: Maximum discharge, 3,010 cfs Apr. 28, 1952 (gage height, 5.32 ft); maximum gage height, 5.98 ft Mar. 21, 1951 (ice jam); no flow at times in each year 1942-49, 1954-59.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Diversions for irrigation of about 45,000 acres above station.

Rating table, water year 1958-59, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.5	0	1.5	80
.6	.2	1.8	158
.7	1.6	2.2	299
.8	3.4	2.7	542
1.0	13	3.3	935
1.2	30	4.0	1,520

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*0	3.2					67	138	268	1,000	5.9	2.9
2	0	3.4					119	276	253	542	8.1	2.5
3	0	3.4		15			268	382	316	303	5.9	2.3
4	0	3.8	(*)				410	350	415	227	5.1	2.1
5	0	*3.8					481	299	503	196	6.3	2.1
6	0	4.7			35		486	238	628	161	5.5	2.0
7	1.6	4.7					492	234	790	132	5.5	1.8
8	1.6	3.8				50	307	*209	1,010	89	4.7	1.6
9	1.3	3.8					213	186	972	70	4.2	1.3
10	1.0	3.8		25			*152	213	*935	52	3.4	1.2
11	1.2	3.2					124	264	885	41	3.2	.9
12	1.2	2.9					124	291	830	35	3.2	.8
13	1.2	2.9	7				126	391	844	28	2.5	.6
14	1.2	3.0		(*)			141	572	817	24	2.3	.5
15	1.0	3.0					141	698	830	*33	3.0	.5
16	.9	2.0			40		113	731	1,080	24	3.4	1.8
17	.8	2.0				60	82	647	1,190	22	4.2	**2.5
18	.8	2.0			(*)	80	78	*590	885	18	3.4	2.7
19	1.2					*90	82	531	718	15	*18	7.6
20	1.0					105	67	405	602	13	22	15
21	.8	4.0		30		115	76	316	486	11	13	33
22	.8					125	85	253	439	9.2	12	19
23	.9					135	96	209	*350	6.8	9.8	19
24	1.0					140	92	177	272	5.1	8.1	30
25	1.0				50	145	108	161	234	3.8	6.8	30
26	1.5					130	149	234	203	3.0	6.3	51
27	2.3					115	189	280	206	3.0	5.5	49
28	2.5	6.0				100	158	280	346	2.7	5.5	52
29	2.7		15	35	-	80	116	234	892	2.1	4.7	49
30	2.9				-------	61	98	230	1,470	2.3	4.2	35
31	3.0	-------			-------	56	------	307	-------	2.9	3.4	-------
Total	35.4	117.4	265	835	1,150	2,357	5,240	10,326	19,669	3,076.9	199.1	419.7
Mean	1.14	3.91	8.5	26.9	41.1	76.0	175	333	656	99.3	6.42	14.0
Ac-ft	70	233	526	1,660	2,280	4,680	10,390	20,480	39,010	6,100	395	832

Calendar year 1958: Max 1,400 Min 0 Mean 132 Ac-ft 95,320
Water year 1958-59: Max 1,470 Min 0 Mean 120 Ac-ft 86,660

Peak discharge (base, 1,300 cfs).--June 17 (8:30 a.m.) 1,300 cfs (3.77 ft); June 30 (1:30 p.m.) 1,550 cfs (4.03 ft).

* Discharge measurement or observation of no flow made on this day.
** Field estimate made on this day.
Note.--Stage-discharge relation affected by ice Nov. 14 to Mar. 29 (no gage-height record Jan.6 to Mar. 20; discharge estimated on basis of 3 discharge measurements, weather records, and records for nearby Bear River stations).

210. Woodruff Creek near Woodruff, Utah

Location.--Lat 41°29', long 111°16', in SE¼SE¼ sec.28, T.9 N., R.6 E., on left bank 1¼ miles upstream from Birch Creek and 6 miles southwest of Woodruff.

Drainage area.--65 sq mi, approximately.

Records available.--October 1949 to September 1959 in reports of Geological Survey. October 1937 to September 1943 records for site 1½ miles upstream available in files of Logan project office, Geological Survey, under name of South Fork Woodruff Creek near Woodruff.

Gage.--Water-stage recorder. Altitude of gage is 6,600 ft (from topographic map). Prior to June 21, 1939, staff gage half a mile downstream at different datum. June 22, 1939, to Sept. 30, 1943, water-stage recorder at site 1½ miles upstream at different datum.

Average discharge.--10 years (1949-59),32.8 cfs (23,750 acre-ft per year).

Extremes.--Maximum discharge during year, 126 cfs May 14 (gage height, 2.81 ft); maximum gage height, 3.47 ft (beaverdam); minimum discharge, 4.4 cfs Mar. 4.
1949-59: Maximum discharge, 528 cfs May 25, 1950 (gage height, 5.72 ft); minimum, 1.9 cfs Feb. 26, 1957, result of freezeup.

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

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 5-13, July 29 to Sept. 30)

1.3	4.4	2.0	53
1.4	8.7	2.5	96
1.6	20	3.0	140
1.8	36		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*8.3	8.7	8.7	8.7	8.3	9.8	*17	53	60	16	7.8	8.7
2	7.8	8.7	*8.7	9.2	8.3	11	28	61	64	16	7.4	8.7
3	7.8	8.7	9.2	8.3	7.8	10	31	50	61	16	7.4	9.2
4	7.8	8.7	9.8	9.2	7.8	11	36	45	52	16	7.4	8.7
5	7.8	*9.2	9.2	9.2	8.3	13	41	38	49	14	7.4	8.7
6	7.8	10	9.2	9.0	8.3	11	42	*32	46	14	7.4	8.7
7	7.8	10	9.2	8.9	8.3	10	38	36	42	13	7.0	9.2
8	7.8	10	9.8	8.8	8.7	9.8	*29	36	*40	13	7.0	8.7
9	7.8	9.8	10	8.7	8.7	9.8	24	41	37	12	7.0	8.7
10	8.3	9.8	9.8	8.6	8.7	10	22	58	34	11	7.0	8.7
11	8.7	10	10	8.5	9.2	10	21	63	32	11	6.6	8.7
12	8.3	10	16	*8.3	9.2	10	21	76	30	10	6.6	8.7
13	8.3	10	11	8.3	9.2	11	23	97	28	*10	6.6	8.7
14	7.8	12	7.8	8.3	9.2	11	26	112	27	10	6.6	8.7
15	7.8	11	8.7	8.3	9.2	11	24	99	26	11	6.1	8.7
16	7.8	9.2	9.2	7.8	*9.2	12	22	99	27	11	6.1	8.7
17	7.4	9.2	9.2	8.3	9.2	11	20	75	24	9.8	*6.1	*8.7
18	7.8	9.2	8.7	8.3	9.2	14	20	67	21	9.8	7.8	7.4
19	8.3	9.2	8.7	8.3	9.8	*14	19	61	20	9.2	14	6.6
20	8.7	8.7	8.7	8.3	9.8	13	17	50	19	9.2	16	9.2
21	8.7	8.7	8.3	8.7	9.8	14	17	43	19	9.2	9.8	10
22	8.7	8.7	8.7	8.3	9.8	17	18	41	18	9.2	8.7	6.1
23	8.7	8.7	8.7	8.3	9.8	19	19	40	17	8.7	8.7	7.4
24	8.7	8.7	8.7	8.3	9.8	19	23	35	17	8.3	8.7	11
25	8.7	8.7	7.8	8.3	9.2	16	29	45	17	8.3	8.7	14
26	8.3	8.3	8.3	8.3	9.8	16	51	42	17	8.3	8.7	21
27	8.3	8.7	8.3	8.3	9.8	16	48	57	20	8.7	8.7	21
28	8.3	7.8	8.7	8.3	9.8	16	40	51	19	8.3	8.7	9.8
29	8.3	8.7	7.8	8.3	-	16	38	48	19	8.3	8.7	8.7
30	8.3	8.7	8.7	8.3	-------	15	42	65	17	7.8	8.7	9.2
31	8.3	-------	8.7	7.8	-------	16	-------	61	-------	7.8	8.7	-------
Total	253.2	277.8	284.3	262.5	254.2	402.4	846	1,777	919	334.9	252.1	290.3
Mean	8.17	9.26	9.17	8.47	9.08	13.0	28.2	57.3	30.6	10.8	8.13	9.68
Ac-ft	502	551	564	521	504	798	1,680	3,520	1,820	664	500	576

Calendar year 1958: Max 309 Min 7.4 Mean 25.8 Ac-ft 18,700
Water year 1958-59: Max 112 Min 6.1 Mean 16.9 Ac-ft 12,200

* Discharge measurement made on this day.
Note.--No gage-height record Jan. 6-11; discharge interpolated on basis of recorded range in stage.

230. Big Creek near Randolph, Utah

Location.--Lat 41°37', long 111°15', in SE¼ sec.10, T.10 N., R.6 E., on left bank 3½ miles downstream from main forks and 4¾ miles southwest of Randolph.

Drainage area.--52.2 sq mi.

Records available.--October 1949 to September 1959. March 1939 to September 1944 (fragmentary), at site a quarter of a mile downstream, records equivalent except during a few short periods each irrigation season.

Gage.--Water-stage recorder. Altitude of gage is 6,390 ft (from topographic map). March 1939 to September 1944 at site a quarter of a mile downstream and Oct. 1, 1949, to Sept. 9, 1959, at site 100 ft downstream at different datums.

Average discharge.--10 years (1949-59), 20.2 cfs (14,620 acre-ft per year).

Extremes.--Maximum discharge during year, 54 cfs Apr. 2 (gage height, 0.90 ft); minimum recorded, 6.7 cfs Aug. 17.
1949-59: Maximum discharge, 337 cfs July 11, 1957 (gage height, 3.75 ft); minimum, 1.6 cfs Mar. 12, 1951 (ice jam upstream).

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. No diversion above station.

Rating tables, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 21 to Apr. 23)

Oct. 1 to Sept. 9				Sept. 10-30	
0.1	5.5	0.5	16	1.7	6.1
.2	7.5	.8	35	1.8	8.3
.3	10			2.0	14

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*12	13	a11				*16	19	13	12	9.2	7.1
2	12	13	*a11				30	20	13	12	9.0	7.1
3	12	11		a11	a10		25	19	13	12	8.2	7.1
4	12	11					23	19	13	12	8.0	7.1
5	12	*12					24	17	13	11	8.0	7.1
			b11									
6	12	12					23	*17	13	11	8.0	7.1
7	12	12		(*)			21	16	13	11	8.0	7.1
8	11	11				a12	19	15	*13	11	7.3	6.9
9	11	11					18	15	12	11	7.5	a7.2
10	12	11	11				17	16	12	11	7.3	*7.4
11	12	12	9.2				16	15	12	10	7.5	7.4
12	12	12	13				15	15	12	10	7.8	7.6
13	12	12	10		a11		16	15	12	*10	7.3	7.6
14	12	13	b11				15	16	12	10	7.3	7.6
15	12		b11			a14	16	16	12	11	7.3	8.1
16	12		a11		(*)	a15	15	16	13	10	7.1	9.1
17	12	b12	a11			a14	15	15	12	10	*6.9	8.8
18	12		a11	a10		a14	15	15	12	9.8	7.5	8.3
19	12					a14	15	15	12	9.5	9.5	8.3
20	12					*a14	14	14	12	9.2	9.8	9.1
21	12	b11				15	14	14	12	9.2	8.0	9.6
22	12	b11				24	13	15	12	9.2	7.5	8.3
23	12	b11	b11			21	13	15	12	9.0	7.5	8.3
24	12	b11				14	14	14	12	8.8	7.5	9.6
25	11				a12	13	14	13	12	8.8	7.5	9.9
26	12					14	19	15	12	9.5	7.5	12
27	12	a11				13	20	15	13	9.5	7.5	12
28	12					12	18	14	13	9.0	7.1	9.6
29	12		a11		-	12	17	13	13	8.5	7.1	9.6
30	12				-------	12	18	13	12	8.5	7.1	8.8
31	13	-------			-------	12	-------	13	-------	8.8	7.1	-------
Total	370	348	340.2	315	311	415	528	479	372	312.3	239.9	250.8
Mean	11.9	11.6	11.0	10.2	11.1	13.4	17.6	15.5	12.4	10.1	7.74	8.36
Ac-ft	734	690	675	625	617	823	1,050	950	738	619	476	497

Calendar year 1958: Max 54 Min - Mean 16.0 Ac-ft 11,600
Water year 1958-59: Max 30 Min 6.9 Mean 11.7 Ac-ft 8,490

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of 4 discharge measurements, weather records, and records for nearby stations.
b Stage-discharge relation affected by ice.

265. Bear River near Randolph, Utah

Location.--Lat 41°48', long 111°06', in SE¼NE¼ sec.7, T.12 N., R.8 E., on left bank 3.5 miles upstream from Twin Creek, 4.8 miles upstream from Utah-Wyoming State line, and 11 miles northeast of Randolph.

Drainage area.--1,640 sq mi, approximately.

Records available.--December 1943 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,205 ft (from river-profile map).

Average discharge.--15 years (1944-59), 193 cfs (139,700 acre-ft per year).

Extremes.--Maximum discharge during year, 535 cfs July 2 (gage height, 4.32 ft); minimum, 4.8 cfs Oct. 1.
1943-59: Maximum discharge, 2,360 cfs May 3, 1952 (gage height, 3.80 ft); minimum, that of Oct. 1, 1959.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Diversions for irrigation of about 96,000 acres above station.

Rating table, water year 1958-59, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 5-22, June 10 to July 7)

1.2	3	2.2	88
1.3	6	2.8	188
1.5	16	3.6	337
1.8	40	4.5	532

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*5.4	12					170	70	84	263	51	36
2	5.1	12	(*)				200	53	87	484	52	29
3	5.1	*13					220	48	78	434	49	26
4	8.8	11			27		250	50	68	324	47	25
5	7.2	14					293	68	64	238	45	22
						45						
6	6.8	14					305	*74	53	201	20	22
7	6.4	15					310	53	36	168	17	20
8	6.4	16				70	*301	38	33	134	16	12
9	6.4	16					301	33	49	110	21	11
10	6.8	16					272	29	*150	106	22	13
11	6.8	17		*35			237	28	195	96	25	12
12	6.8	19					202	26	222	78	25	11
13	6.4	22	20				170	24	224	*70	24	11
14	6.4	21					160	22	231	71	22	12
15	6.4	19					150	23	240	62	20	13
					55							
16	6.4					85	146	29	257	52	20	15
17	6.8					*95	141	44	284	45	*20	*21
18	7.2					110	139	57	421	40	22	15
19	7.6				(*)	125	133	39	484	36	25	14
20	7.8					140	126	37	428	59	31	15
				40								
21	8.0					155	122	41	337	60	29	27
22	8.0					170	120	41	303	58	28	22
23	8.0	20				190	112	46	282	56	22	15
24	9.6					205	99	52	224	57	25	18
25	11				70	220	82	57	179	56	27	22
26	11					225	93	71	141	53	28	25
27	12					215	109	85	128	51	27	40
28	13		27	45		195	104	91	117	50	27	31
29	13				-	175	90	102	126	50	29	32
30	12				-------	165	80	107	139	49	28	34
31	13	-------			-------	160	-------	91	-------	52	31	-------
Total	251.4	537	662	1,139	1,560	3,680	5,237	1,629	5,664	3,663	875	621
Mean	8.11	17.9	21.4	36.7	55.7	119	175	52.5	189	118	28.2	20.7
Ac-ft	499	1,070	1,310	2,260	3,090	7,300	10,390	3,230	11,230	7,270	1,740	1,230

Calendar year 1958: Max 676 Min 5.1 Mean 94.3 Ac-ft 68,270
Water year 1958-59: Max 484 Min 5.1 Mean 69.9 Ac-ft 50,620

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 16 to Mar. 26 (no gage-height record Feb. 3-18, Mar. 7-17, Mar. 27 to Apr. 4; discharge estimated on basis of 1 discharge measurement, weather records, and records for nearby Bear River stations.

270. Twin Creek at Sage, Wyo.

Location.-- Lat 41°49', long 110°58', in SE¼ sec.7, T.21 N., R.119 W., on left bank half a mile southwest of Sage and 5 miles upstream from mouth.

Drainage area.--248 sq mi.

Records available.--April 1943 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,330 ft (from highway map). Prior to Oct. 1, 1945, staff gage at site 0.6 mile upstream at different datum.

Average discharge.--16 years, 19.1 cfs (13,830 acre-ft per year).

Extremes.--Maximum discharge during year, 275 cfs Apr. 3 (gage height, 4.12 ft); minimum, 1.6 cfs Nov. 2.
1943-59: Maximum discharge, 649 cfs Mar. 18, 1947 (gage height, 6.08 ft); minimum, 0.6 cfs Mar. 18, 1953, result of freezeup.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Diversions for irrigation of about 1,100 acres above station.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 1-28)

1.7	3.3	2.5	52
1.8	5.5	3.0	103
1.9	9.2	3.5	168
2.0	15	4.0	252
2.2	28		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*6.2	7.4	a7.6	b7.5			40	23	8.8	6.6	4.0	6.2
2	6.2	7.4	a7.6	b7.5			172	21	8.8	5.9	4.0	6.2
3	5.9	8.1	a7.6				*221	21	8.5	5.5	4.0	6.2
4	5.9	7.7	*b7.6				209	21	8.5	5.3	3.5	5.9
5	5.9	7.7	b7.6				*165	21	6.2	5.3	3.5	5.9
					b7.0							
6	6.2	7.7	b7.6	a7.5			113	*19	6.2	5.1	3.7	5.9
7	6.2	*7.7					72	19	5.9	5.3	5.1	5.9
8	5.3	7.4					*34	18	5.9	5.1	5.5	5.5
9	5.1	7.7					20	19	5.9	5.3	6.2	5.3
10	5.1	7.7	a7.6			a8.0	19	20	*6.6	5.3	5.9	5.5
11	5.3	8.1		a7.0			19	18	6.2	5.5	5.5	5.5
12	5.5	8.1	b12	a7.0			20	12	6.2	5.5	5.9	5.5
13	5.3	8.1	b8.0	a7.0			24	10	6.2	5.5	5.9	5.5
14	5.3	9.2	b7.0	(*)			28	10	7.7	4.6	5.3	5.5
15	5.3	9.2			b7.5		22	10	7.7	*4.8	5.5	6.2
16	5.9	8.1	a7.5				18	11	7.4	4.8	5.3	7.4
17	6.2	7.7				(*)	15	11	6.2	4.8	5.3	8.8
18	6.2	a7.7				b10	16	10	5.3	4.8	5.5	*7.0
19	6.6	a7.7			(*)	b10	18	10	5.1	5.1	*7.0	6.6
20	7.0	a7.7			a7.5	b10	19	11	5.1	5.3	26	8.8
21	7.0					b11	20	10	5.1	5.3	12	21
22	7.4			b7.0		13	26	10	4.8	5.1	7.4	12
23	7.4	a7.5				35	26	13	4.6	5.1	6.2	7.7
24	7.0					57	26	13	4.6	5.1	6.2	17
25	7.0		b7.5		a8.0	67	25	10	4.6	4.6	5.9	21
26	7.4	b7.5				44	35	12	4.6	4.4	5.9	21
27	7.4	b6.8				37	44	31	5.1	4.0	6.2	56
28	7.4	b6.3				36	30	40	5.9	3.7	5.9	17
29	7.4	b7.4			-	44	21	21	7.0	3.7	5.9	12
30	7.4	b7.6			-------	28	21	17	7.0	3.7	5.9	9.2
31	7.7	-------			-------	*27	-------	13	-------	4.0	6.2	-------
Total	197.1	231.2	238.1	222.0	209.0	565.0	1,538	505	187.7	154.1	196.3	319.2
Mean	6.36	7.71	7.68	7.16	7.46	18.2	51.3	16.3	6.26	4.97	6.33	10.6
Ac-ft	391	459	472	440	415	1,120	3,050	1,000	372	306	389	633

Calendar year 1958: Max 198 Min 4.4 Mean 14.1 Ac-ft 10,240
Water year 1958-59: Max 221 Min 3.5 Mean 12.5 Ac-ft 9,050

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of 1 discharge measurement, weather records, and records for nearby stations.
b Stage-discharge relation affected by ice.

285. Bear River below Pixley Dam, near Cokeville, Wyo.

Location.--Lat 41°56'20", long 110°59'05", in SE¼SE¼ sec.25, T.23 N., R.120 W., 800 ft downstream from Pixley Dam, 11 miles south of Cokeville, and 17.5 miles downstream from Twin Creek.

Drainage area.--2,040 sq mi, approximately.

Records available.--October 1941 to November 1943 (published as Bear River near Cokeville), October 1952 to September 1956, May 1958 to September 1959 (irrigation seasons only).

Gage.--Water-stage recorder. Altitude of gage is 6,185 ft (from river-profile map). Oct. 31, 1941, to Nov. 30, 1943, at site 200 ft downstream at different datum.

Extremes.--Maximum daily discharge during year, 377 cfs July 7; minimum daily recorded, 8.6 cfs May 28-30.
1941-43, 1952-56, 1959: Maximum daily discharge, 2,300 cfs Mar. 25, 1956; minimum daily recorded, 2.8 cfs Sept. 2, 1958.

Remarks.--Records good. Natural flow of stream affected by diversions for irrigation and return flow from irrigated areas. No diversion between station and Collett Creek Branch of Smiths Fork.

Discharge, in cubic feet per second, May to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								*42	11	44	59	31
2								27	13	47	76	32
3								27	14	274	64	38
4								26	13	352	88	34
5								26	12	301	71	33
6								17	12	282	60	31
7								13	11	377	42	31
8								13	10	265	30	27
9								12	10	222	28	24
10								10	10	193	31	21
11								11	10	174	32	21
12								11	11	164	36	21
13								12	11	148	37	21
14								16	12	150	36	20
15								14	12	155	34	21
16								14	14	*134	32	26
17								12	20	116	31	30
18								11	34	122	27	28
19								11	66	99	31	28
20								*11	119	88	*55	28
21								12	266	103	57	38
22								12	272	103	44	43
23								10	176	103	42	40
24								9.0	151	91	37	40
25								9.0	98	86	39	46
26								9.0	55	82	41	59
27								9.0	56	80	40	80
28								8.6	54	61	39	65
29								8.6	52	57	39	74
30					-------			8.6	*48	49	26	74
31		-------			-------		-------	9.0	-------	51	26	-------
Total								440.8	1,653	4,573	1,330	1,105
Mean								14.2	55.1	148	42.9	36.8
Ac-ft								874	3,280	9,070	2,640	2,190

Calendar year	: Max	Min	Mean	Ac-ft
Water year	: Max	Min	Mean	Ac-ft

* Discharge measurement on this day.

320. Smiths Fork near Border, Wyo.

Location.--Lat 42°17', long 110°52', in NW¼ sec.33, T.27 N., R.118 W., on left bank 4½ miles upstream from Howland Creek, 6 miles downstream from Hobble Creek, and 12 miles northeast of Border.

Drainage area.--165 sq mi.

Records available.--May 1942 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,650 ft (from topographic map). Prior to Oct. 16, 1945, at site 0.8 mile downstream at different datum.

Average discharge.--17 years, 196 cfs (141,900 acre-ft per year).

Extremes.--Maximum discharge during year, 697 cfs June 16 (gage height, 3.49 ft); minimum, 51 cfs Mar. 21, but may have been less during periods of ice effect.
1942-59: Maximum discharge, 1,500 cfs June 7, 1957 (gage height, 4.56 ft); minimum recorded, 35 cfs Mar. 21, 1955, result of freezeup.

Remarks.--Records good except those for periods of ice effect, which are fair. One diversion for irrigation of about 200 acres above station.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 28 to June 7)

1.5	49	2.7	345
1.8	83	3.3	621
2.2	169		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	93	76	b66	b67	b58	58	63	250	279	314	161	99
2	93	76	b66	b65	b57	57	*68	302	314	295	153	97
3	91	80	b67	b63	b57	58	71	254	366	291	147	96
4	91	85	*b67	b63	b61	b57	80	232	394	283	140	94
5	89	85	b68	b68	b60	b59	93	209	*432	272	140	94
6	88	85	b68	b70	b62	b61	105	199	503	264	137	94
7	88	*86	b68	b70	b64	63	105	199	578	250	133	94
8	88	83	b68	b68	b64	65	101	*229	583	250	128	93
9	88	83	b68	b70	b64	63	91	261	578	250	124	93
10	88	82	b68	b70	b64	59	85	276	572	243	124	93
11	86	82	b76	b70	b64	62	85	261	*537	232	124	91
12	85	80	b90	b70	b64	59	88	298	527	229	128	91
13	83	79	b78	b70	b64	59	97	366	542	229	124	91
14	82	83	b73	b70	b60	b59	105	411	552	232	124	91
15	80	79	b73	*b68	b66	b59	105	411	599	*246	121	94
16	80	b75	b73	b70	b66	b60	99	462	621	236	117	96
17	79	b75	b73	b70	b64	60	94	403	583	222	115	97
18	76	b75	b70	68	62	60	93	366	552	209	121	*94
19	76	b80	b70	66	62	59	91	337	527	202	*130	94
20	78	80	b70	b65	*60	58	88	310	503	196	145	96
21	78	78	b70	b64	59	58	88	287	489	190	130	96
22	78	79	70	b67	60	60	93	276	471	187	121	93
23	79	78	70	b70	60	63	105	268	450	178	117	93
24	78	76	69	b68	58	62	121	272	428	175	113	96
25	79	75	b67	65	63	60	156	291	411	169	113	103
26	79	b70	b67	63	60	60	243	306	407	169	113	115
27	78	b67	b66	69	59	64	209	326	399	169	113	105
28	78	b66	b68	65	58	62	169	298	370	161	107	99
29	76	b66	b64	65	-	63	153	283	349	158	105	97
30	76	b68	b66	b63	-------	62	181	287	337	156	103	99
31	75	-------	b70	b60	-------	62	-------	276	-------	156	103	-------
Total	2,556	2,332	2,167	2,080	1,720	1,871	3,325	9,206	14,253	6,813	3,874	2,878
Mean	82.5	77.7	69.9	67.1	61.4	60.4	111	297	475	220	125	95.9
Ac-ft	5,070	4,630	4,300	4,130	3,410	3,710	6,600	18,260	28,270	13,510	7,680	5,710

Calendar year 1958: Max 1,110 Min - Mean 191 Ac-ft 138,500
Water year 1958-59: Max 621 Min 57 Mean 145 Ac-ft 105,300

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

380. Bear River below Smiths Fork, near Cokeville, Wyo.

Location.--Lat 42°07'30", long 110°58'20", in SE¼NE¼ sec.28, T.25 N., R.119 W., 1.1 miles upstream from Wyman Dam, 2.8 miles northwest of Cokeville, and 3.8 miles downstream from Smiths Fork.

Drainage area.--2,460 sq mi, approximately.

Records available.--April 1954 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,140 ft (from river-profile map).

Average discharge.--5 years, 355 cfs (257,000 acre-ft per year).

Extremes.--Maximum discharge during year, 931 cfs Apr. 6 (gage height, 4.21 ft); minimum, 86 cfs Oct. 3.
1954-59: Maximum discharge, 3,780 cfs Mar. 26, 1956 (gage height, 7.54 ft); minimum, 68 cfs Sept. 12, 1954.

Remarks.--Records excellent except those for periods of ice effect, which are good. Natural flow of stream affected by diversions for irrigation and return flow from irrigated areas.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.2	72	3.1	325
2.4	106	3.9	732
2.6	157	4.2	910

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*95	116	135	154	b165	183	398	371	240	389	160	123
2	89	116	128	b150	b160	b190	474	398	250	354	174	128
3	91	120	144	b140	b160	b195	653	380	274	398	169	138
4	93	128	152	b130	b160	b205	820	350	305	636	169	133
5	91	146	*141	b120	b155	b210	874	338	321	597	180	125
6	93	*141	154	b115	b150	b205	862	313	359	526	163	125
7	93	141	154	b125	b150	b195	767	282	416	564	149	123
8	96	149	160	b130	160	b205	669	*268	464	597	123	120
9	135	160	160	b135	160	b200	586	278	479	479	113	116
10	144	152	160	b130	169	195	*537	301	479	435	111	111
11	123	152	169	130	157	204	500	293	464	389	108	102
12	120	149	204	141	157	214	459	297	459	359	120	100
13	118	149	174	b145	b155	198	416	321	464	342	120	98
14	118	166	*b143	b155	224	309	359	469	321	125	93
15	116	172	b160	b140	b155	217	346	367	761	338	123	91
16	113	135	149	b140	157	234	346	407	*559	*317	120	98
17	116	128	149	133	163	*214	317	393	521	301	118	104
18	120	144	b150	146	169	211	257	354	526	274	120	*102
19	116	152	b152	160	163	217	271	321	500	268	133	104
20	118	169	152	b150	*163	250	271	282	510	240	*146	108
21	125	166	157	b150	163	264	264	254	619	230	172	128
22	125	163	157	b150	b168	274	264	234	761	237	160	128
23	123	157	160	b150	b170	297	271	230	641	230	154	149
24	125	163	157	149	b172	338	274	224	532	217	152	163
25	130	157	177	160	172	385	293	230	484	207	144	169
26	130	135	163	157	180	416	350	237	421	201	144	201
27	128	141	b145	154	186	484	402	257	411	191	146	224
28	128	138	b138	163	180	500	376	257	407	183	146	227
29	128	123	b137	b160	-	474	342	247	430	166	141	220
30	128	135	b135	b170	-------	440	363	243	425	163	138	207
31	125	-------	133	b170	-------	393	-------	240	-------	157	130	-------
Total	3,593	4,363	4,772	4,490	4,574	8,431	13,331	9,326	13,951	10,306	4,371	4,058
Mean	116	145	154	145	163	272	444	301	465	332	141	135
Ac-ft	7,130	8,650	9,470	8,910	9,070	16,720	26,440	18,500	27,670	20,440	8,670	8,050

Calendar year 1958: Max 1,600 Min 87 Mean 314 Ac-ft 227,500
Water year 1958-59: Max 874 Min 89 Mean 234 Ac-ft 169,700

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

395. Bear River at Border, Wyo.

Location.--Lat 42°11', long 111°03', in NE¼NE¼ sec.15, T.14 S., R.46 E., in Idaho, on left bank a quarter of a mile west of Wyoming-Idaho State line, half a mile west of Border, and 2.1 miles upstream from Thomas Fork.

Drainage area.--2,490 sq mi, approximately.

Records available.--October 1937 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 6,051.63 ft above mean sea level, unadjusted.

Average discharge.--22 years, 402 cfs (291,000 acre-ft per year).

Extremes.--Maximum discharge during year, 924 cfs Apr. 6 (gage height, 4.13 ft); minimum, 86 cfs Oct. 5.
1937-59: Maximum discharge, 3,680 cfs May 11, 1952 (gage height, 8.89 ft); minimum daily, 30 cfs Aug. 18-22, 1940.

Remarks.--Records good except those for period of ice effect, which are fair. Diversions for irrigation of about 124,000 acres above station.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	96	129	145	160	170	195	374	372	166	357	153	134
2	95	129	140	155	170	205	427	397	180	333	164	136
3	*89	129	150	145	165	205	558	400	210	350	162	139
4	89	134	160	140	165	210	743	372	220	533	157	146
5	88	149	*150	130	165	215	832	355	234	545	190	142
6	89	*155	160	125	155	210	876	333	266	496	176	137
7	90	151	165	130	155	205	787	312	312	458	167	125
8	92	155	165	135	165	210	697	*285	362	558	146	122
9	121	166	170	145	170	210	616	290	416	461	132	121
10	124	162	170	140	175	210	*548	310	408	424	127	117
11	113	160	185	145	170	220	511	312	*408	382	129	108
12	113	158	205	150	165	220	470	301	392	355	129	99
13	111	158	190	150	160	220	444	285	403	343	124	98
14	113	171	175	150	160	230	350	303	400	319	127	*95
15	113	190	165	145	160	225	360	328	416	343	127	95
16	111	160	160	*145	170	*245	367	345	*470	*322	122	93
17	117	140	150	140	175	230	348	357	452	301	119	98
18	119	150	155	155	170	225	301	328	447	283	122	95
19	121	165	160	155	*170	245	294	305	427	272	137	96
20	119	170	160	155	175	250	299	285	424	251	*153	99
21	125	170	165	155	175	260	292	261	461	240	175	108
22	130	170	165	155	180	270	285	236	596	236	188	113
23	139	165	170	155	180	280	290	232	530	228	176	132
24	141	170	170	155	180	303	292	222	*430	218	176	151
25	142	165	175	170	180	345	301	218	416	201	167	162
26	142	155	165	165	185	382	340	182	377	193	167	180
27	139	150	155	170	190	416	408	175	367	190	160	220
28	141	145	145	175	190	458	400	184	367	180	153	212
29	141	135	140	175	-	430	367	175	379	162	146	236
30	139	140	140	180	-------	419	364	167	387	158	142	218
31	137	-------	145	175	-------	377	-------	166	-------	148	146	-------
Total	3,639	4,648	5,015	4,725	4,790	8,325	13,541	8,793	11,323	9,840	4,659	4,027
Mean	117	155	162	152	171	269	451	284	377	317	150	134
Ac-ft	7,220	9,220	9,950	9,370	9,500	16,510	26,860	17,440	22,460	19,520	9,240	7,990

Calendar year 1958: Max 1,500 Min 85 Mean 316 Ac-ft 229,100
Water year 1958-59: Max 876 Min 88 Mean 228 Ac-ft 165,300

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 16 to Mar. 23.

410. Thomas Fork near Wyoming-Idaho State line

Location.--Lat 42°24'10", long 111°01'30", in SE¼NW¼ sec.19, T.28 N., R.119 W., in Wyoming, on right bank 1.3 miles upstream from State line, 1.5 miles downstream from Giraffe Creek, and 3½ miles northeast of Geneva, Idaho.

Drainage area.--113 sq mi.

Records available.--October 1949 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,280 ft (from topographic map). Prior to Aug. 23, 1957, at site 0.2 mile upstream at different datum.

Average discharge.--10 years, 54.2 cfs (39,240 acre-ft per year).

Extremes.--Maximum discharge during year, 157 cfs May 2 (gage height, 2.38 ft); maximum gage height, 3.96 ft Feb. 21 (ice jam); minimum discharge, 5.6 cfs Mar. 14.
1949-59: Maximum discharge, 869 cfs May 18, 1950 (gage height, 5.55 ft, site and datum then in use); minimum, 2.6 cfs Mar. 2, 1956, result of freezeup.

Remarks.--Records good except those for periods of ice effect, which are fair. No diversion above station.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.1	7.2	1.7	48
1.2	10	2.0	85
1.3	15	2.4	161
1.4	20		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	b17	b15	b15	b12	14	23	*108	61	31	17	10
2	*17	b17	b15	b13	b13	13	35	132	58	29	18	10
3	16	17	b15	b13	b14	14	44	103	57	29	18	10
4	16	17	b16	b13	b16	b14	60	93	54	27	16	10
5	16	18	*b15	b16	b13	b14	69	85	53	26	16	9.8
6	16	*18	16	b16	b15	14	70	82	51	25	15	9.8
7	16	20	16	b16	16	b15	61	81	52	24	14	9.4
8	16	19	16	b16	14	b15	50	90	51	24	14	9.1
9	16	19	16	b15	15	b15	40	98	49	24	13	8.8
10	16	19	16	b15	14	14	*34	99	46	23	13	9.1
11	16	18	19	b15	14	15	33	90	45	21	13	9.1
12	16	18	24	b15	13	b15	39	98	45	21	13	9.1
13	16	18	b22	15	b13	14	48	105	44	20	12	9.4
14	16	21	b18	15	b12	12	51	105	43	20	12	*9.8
15	16	19	b18	b16	b15	b14	48	99	51	26	11	11
16	16	b17	b18	*b15	16	*b15	39	116	60	*23	11	11
17	16	b16	b16	b15	14	b15	37	96	44	20	11	12
18	16	b16	b16	14	13	15	37	91	40	19	12	12
19	16	b16	b16	16	14	14	38	90	38	19	16	12
20	17	b16	16	b14	*13	14	36	84	37	18	*22	13
21	17	b16	b16	b14	b14	b14	33	77	35	18	18	14
22	17	15	16	b14	b14	15	38	74	35	18	15	12
23	16	16	15	14	14	18	46	72	33	16	14	12
24	17	16	15	14	b14	17	54	70	32	16	14	14
25	17	b16	b14	13	b14	18	67	67	31	15	14	16
26	17	b14	b14	13	13	20	91	72	32	15	14	30
27	17	b15	b14	13	14	20	87	*81	40	16	14	26
28	17	b13	b15	14	14	19	69	72	38	15	13	20
29	17	b14	b13	b13	--	19	63	66	38	14	12	18
30	b17	b14	b16	b12	-------	18	72	66	36	14	12	16
31	b17	-------	b16	b12	-------	18	-------	64	-------	15	11	-------
Total	509	505	502	444	390	481	1,512	2,726	1,329	641	438	382.4
Mean	16.4	16.8	16.2	14.3	13.9	15.5	50.4	87.9	44.3	20.7	14.1	12.7
Ac-ft	1,010	1,000	996	881	774	954	3,000	5,410	2,640	1,270	869	758

Calendar year 1958: Max 389 Min 13 Mean 49.8 Ac-ft 36,080
Water year 1958-59: Max 132 Min 8.8 Mean 27.0 Ac-ft 19,560

Peak discharge (base, 150 cfs).--May 2 (3 a.m.) 157 cfs (2.38 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

440. Bear River at Harer, Idaho

Location.--Lat 42°11'50", long 111°10'05", in NW¼ sec.23, T.14 S., R.45 E., on right bank 400 ft downstream from Sheep Creek, three-quarters of a mile north of Harer siding on Union Pacific (Oregon Short Line) Railroad, and 5 miles southeast of Dingle.

Drainage area.--2,780 sq mi, approximately.

Records available.--June 1913 to September 1916, January 1919 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,000 ft (from topographic map). Prior to Aug. 24, 1914, staff gage at site 1,500 ft downstream at different datum.

Average discharge.--43 years, 509 cfs (368,500 acre-ft per year).

Extremes.--Maximum discharge during year, 1,100 cfs Apr. 6 (gage height, 5.46 ft); minimum daily, 112 cfs Sept. 14.
1913-16, 1919-59: Maximum discharge, 4,440 cfs May 7, 1952 (gage height, 11.04 ft); minimum daily, 26 cfs Aug. 21-27, 1934.

Remarks.--Records good except those for periods of ice effect, which are fair. Many diversions above station for irrigation.

Cooperation.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.6	106	4.0	523
3.0	191	5.0	936
3.5	336	6.0	1,310

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	129	167	180	170	185	215	439	470	216	439	191	145
2	127	163	180	170	180	215	482	494	201	406	204	139
3	125	163	180	160	175	225	619	*527	221	399	208	139
4	123	167	185	150	175	230	623	519	227	474	*206	143
5	121	174	185	140	170	235	966	482	240	663	*201	145
6	121	191	185	135	165	230	1,060	466	246	632	227	143
7	119	189	*190	145	165	225	1,020	439	272	527	216	139
8	121	181	195	150	170	225	913	402	320	570	196	131
9	121	194	200	155	175	225	808	392	392	570	169	127
10	149	206	200	150	180	225	*706	399	417	494	163	129
11	149	208	214	150	180	230	636	395	443	455	163	125
12	143	206	215	155	175	230	601	374	447	413	163	119
13	145	204	200	160	175	230	553	356	421	388	152	114
14	143	214	195	160	175	230	498	339	417	363	145	112
15	141	215	165	160	175	230	436	374	432	370	149	*114
16	141	205	165	155	175	220	462	399	*466	413	145	114
17	141	160	175	*153	180	225	447	402	515	360	145	114
18	147	160	180	155	190	260	428	*384	478	333	149	116
19	147	185	190	170	195	270	381	353	478	320	160	114
20	143	230	190	170	200	285	388	326	455	303	179	114
21	143	230	190	170	200	300	381	350	466	281	179	116
22	152	225	195	165	205	310	370	306	579	260	206	117
23	160	220	195	165	205	325	363	303	672	258	201	129
24	167	225	198	170	205	370	370	284	562	252	194	147
25	169	225	200	175	205	415	377	*291	466	246	191	177
26	172	200	170	175	*210	475	406	275	462	235	181	196
27	169	200	165	180	215	520	494	243	413	230	174	227
28	167	185	165	180	215	550	532	240	410	219	156	246
29	*169	175	160	185	-	519	498	235	*413	208	147	255
30	169	180	160	190	-------	498	462	224	459	196	147	258
31	169	-------	165	185	-------	466	-------	216	-------	189	147	-------
Total	4,502	5,847	5,732	5,053	5,220	9,408	16,719	11,259	12,206	11,466	5,454	4,404
Mean	145	195	185	163	186	303	557	363	407	370	176	147
Ac-ft	8,930	11,600	11,370	10,020	10,350	18,660	33,160	22,330	24,200	22,740	10,820	8,740

Calendar year 1958: Max 1,660 Min 106 Mean 389 Ac-ft 281,400
Water year 1958-59: Max 1,060 Min 112 Mean 266 Ac-ft 192,900

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 15 to Dec. 10, Dec. 12-23, Dec. 25 to Mar. 28.

460. Rainbow inlet canal near Dingle, Idaho

Location.--Lat 42°13'00", long 111°17'30", in SE¼ sec.3, T.14 S., R.44 E., on left bank 1½ miles west of Dingle and 1¾ miles downstream from headworks at Stewart Dam.

Records available.--October 1945 to September 1959 in reports of Geological Survey. January 1922 to September 1945 in files of Salt Lake City district office, Geological Survey.

Gage.--Water-stage recorder. Altitude of gage is 5,950 ft (from topographic map). Prior to Oct. 1, 1923, at site 300 ft downstream at different datum. Oct. 1, 1923, to Oct. 27, 1944, at site half a mile downstream at different datum.

Average discharge.--37 years, 302 cfs (218,600 acre-ft per year).

Extremes.--Maximum discharge during year, 1,040 cfs Apr. 6 (gage height, 4.00 ft); minimum daily, 12 cfs May 26.
1945-59: Maximum discharge, 4,180 cfs May 7, 1952 (gage height, 8.62 ft); minimum daily, 6.5 cfs Sept. 24, 1956.

Remarks.--Records good except those for periods of ice effect or backwater from Mud Lake, which are fair. Discharge measurements generally made three times a week. Canal diverts from Bear River at Stewart Dam in NE¼ sec.34, T.13 S., R.44 E., for storage in Bear Lake. At times flow in canal is augmented by surplus water from Black Otter Slough entering at the station and by seepage and wastage from irrigation lands on both sides of canal.

Cooperation.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project.

Rating table, water year 1958-59, except periods of ice effect or backwater from Mud Lake (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 17-21, Nov. 17, 29, 30, Dec. 1, 26, 28, 31, Jan. 5-14, 16-19, 22-30, Feb. 6-9, 12, 16, 17, Mar. 27 to Apr. 1, Apr. 3-8, 27, May 1, 2, 5-7-18, July 6 to Aug. 25, Aug. 27 to Sept. 7)

0.4	11	2.0	301
.7	41	3.0	606
1.0	85	4.0	1,000
1.5	181		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	113	104	b100	b125	151	417	396	17	34	49	74
2	42	118	107	b110	120	153	417	391	17	44	57	69
3	64	118	111	b95	b115	161	504	432	16	44	69	57
4	68	116	113	b85	b115	165	668	444	14	44	83	46
5	60	118	113	71	b110	172	831	411	15	130	95	40
6	62	130	115	75	107	159	938	391	15	205	102	39
7	69	133	120	83	104	151	975	351	15	217	102	40
8	63	130	122	87	106	170	894	280	15	243	95	36
9	63	116	130	97	118	157	773	217	34	317	83	30
10	71	116	130	92	b115	139	672	219	52	260	74	29
11	90	131	137	87	b115	153	613	196	25	270	71	28
12	83	130	141	92	115	170	571	155	22	260	71	29
13	82	130	b126	100	b115	143	527	113	22	238	68	28
14	83	139	b120	104	b110	185	504	66	23	212	60	28
15	82	159	b89	b100	b110	163	408	42	23	199	54	28
16	74	b130	b100	95	109	139	423	40	30	201	57	25
17	69	83	b110	95	115	149	423	42	49	185	62	25
18	71	b80	b115	97	126	177	396	45	49	177	69	24
19	75	b108	126	111	131	205	360	37	37	188	75	24
20	71	b150	128	b110	131	221	346	16	24	183	87	20
21	72	b152	122	b110	137	240	340	15	24	153	75	17
22	75	149	128	109	139	250	324	14	24	124	75	30
23	82	143	131	102	139	268	314	13	104	104	85	30
24	90	145	128	104	139	301	322	13	108	102	92	25
25	94	b150	b125	113	139	330	330	12	47	92	100	53
26	95	b128	99	118	141	399	338	12	37	85	109	118
27	97	124	b95	122	153	447	394	13	27	75	95	159
28	97	b110	92	115	149	485	463	13	26	66	82	201
29	104	100	b90	115		494	450	14	25	56	83	203
30	111	106	b90	131	-------	469	414	15	24	45	74	221
31	102	-------	94	b125	-------	447	-------	16	-------	37	72	-------
Total	2,377	3,733	3,551	3,150	3,448	7,413	15,349	4,434	960	4,590	2,425	1,776
Mean	76.7	124	115	102	123	239	512	143	32.0	148	78.2	59.2
Ac-ft	4,710	7,400	7,040	6,250	6,840	14,700	30,440	8,790	1,900	9,100	4,810	3,520

Calendar year 1958: Max 1,180 Min 13 Mean 202 Ac-ft 189,600
Water year 1958-59: Max 975 Min 12 Mean 146 Ac-ft 105,500

b Stage-discharge relation affected by ice.
Note.--Stage-discharge relation affected by backwater from Mud Lake Oct. 1, May 19 to July 5; discharge computed on basis of 17 discharge measurements and engineers' notes.

465. Bear River below Stewart Dam, near Montpelier, Idaho

Location.--Lat 42°15'30", long 111°17'30", in NE¼ sec.34, T.13 S., R.44 E., on right bank 300 ft downstream from Stewart Dam and 4½ miles south of Montpelier.

Records available.--October 1945 to September 1959 in reports of Geological Survey. January 1922 to September 1945 in files of Salt Lake City district office, Geological Survey.

Gage.--Water-stage recorder. Altitude of gage is 5,950 ft (from topographic map).

Average discharge.--37 years, 65.4 cfs (47,350 acre-ft per year).

Extremes.--Maximum daily discharge during year, 35 cfs Mar. 11; minimum daily, 4.7 cfs Apr. 24, 25.
1922-59: Maximum daily discharge, 3,050 cfs June 3, 1923; no flow July 15, 1956.

Remarks.--Records good. Discharge measurements generally made once a week. Water diverted at Stewart Dam through Rainbow inlet canal for storage and regulation in Bear Lake. Many diversions above station for irrigation.

Cooperation.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-10, Oct. 18 to Nov. 4, Dec. 30 to Jan. 5, Aug. 23-30, Sept. 4-30)

0.9	4.3
1.1	12
1.3	22
1.5	33

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	16	18	17	18	21	18	7.3	11	23	24	20
2	17	16	17	17	18	18	18	7.3	10	23	24	20
3	16	16	17	17	18	19	20	7.7	8.9	22	25	19
4	16	16	18	17	17	21	22	8.9	9.8	24	26	19
5	16	17	18	17	17	21	23	8.9	9.8	25	26	18
6	16	17	18	16	17	21	21	8.5	10	26	25	18
7	16	18	18	16	17	20	10	8.9	11	26	26	17
8	16	18	19	16	17	19	5.4	10	14	29	26	16
9	15	22	19	17	18	23	5.4	13	19	33	25	16
10	15	28	19	17	18	33	5.8	13	20	32	25	15
11	16	29	19	17	18	33	5.8	15	19	32	25	15
12	15	26	19	18	18	27	6.2	17	18	31	26	15
13	15	26	20	18	18	25	6.2	17	18	31	26	14
14	15	26	21	18	18	25	5.4	16	18	31	26	14
15	15	26	19	18	18	24	5.4	17	18	30	26	14
16	15	26	20	18	18	23	5.4	18	19	30	26	14
17	16	23	20	17	18	22	5.4	18	22	29	26	14
18	15	23	20	17	18	24	5.4	18	23	28	26	14
19	15	23	20	18	19	19	5.1	16	22	29	25	14
20	15	24	20	18	19	13	5.1	16	21	28	24	14
21	15	22	21	18	19	10	4.7	16	21	28	24	14
22	15	22	21	18	19	11	5.1	16	21	28	24	14
23	15	21	21	17	19	15	5.1	15	26	29	24	12
24	15	22	21	18	20	11	4.7	13	26	29	24	12
25	16	22	20	19	20	11	4.7	11	23	28	24	13
26	16	20	19	19	20	12	5.4	11	23	28	25	14
27	15	20	19	19	21	14	6.2	11	22	27	24	14
28	16	19	18	19	21	14	6.2	11	20	26	24	13
29	16	18	18	18	-	20	6.6	11	20	26	22	12
30	16	18	17	19	------	19	6.2	11	21	25	20	12
31	16	------	17	19	------	19	------	11	------	23	20	------
Total	482	640	591	547	516	607	258.9	398.5	544.5	867	763	450
Mean	15.5	21.3	19.1	17.6	18.4	19.6	8.63	12.9	18.2	28.0	24.6	15.0
Ac-ft	956	1,270	1,170	1,080	1,020	1,200	514	790	1,080	1,720	1,510	893

Calendar year 1958: Max 31 Min 6.2 Mean 16.5 Ac-ft 11,960
Water year 1958-59: Max 33 Min 4.7 Mean 18.3 Ac-ft 13,200

475. Montpelier Creek at irrigators weir, near Montpelier, Idaho

Location.--Lat 42°20', long 111°14', in SE¼ sec.31, T.12 S., R.45 E., on right bank 3 miles east of Montpelier and 3½ miles downstream from South Fork.

Drainage area.--50.9 sq mi.

Records available.--December 1942 to September 1959.

Gage.--Water-stage recorder and sharp-crested weir. Altitude of gage is 6,210 ft (from topographic map).

Average discharge.--16 years (1943-59), 21.7 cfs (15,710 acre-ft per year).

Extremes.--Maximum discharge during year, 44 cfs Apr. 27 (gage height, 0.87 ft); minimum, 2.6 cfs Feb. 14.
1942-59: Maximum discharge, 224 cfs May 18, 1950 (gage height, 2.91 ft); minimum, 1.4 cfs Feb. 22, 1951, result of freezeup.

Remarks.--Records excellent. One small diversion above station for irrigation.

Rating tables, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 3 to Mar. 31		Oct. 1, 2, Apr. 1 to Sept. 30	
0.8	5.1	0.1	4.8
.9	6.6	.2	7.7
1.1	9.8	.4	16
1.4	15	.6	26
1.6	20	.9	47

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	9.5	9.2	8.5	7.4	7.4	11	*35	22	17	10	8.4
2	*11	9.8	9.3	7.4	7.2	7.4	16	36	21	16	9.1	8.4
3	11	10	9.5	6.8	7.5	7.4	18	34	21	16	9.1	8.4
4	11	10	9.7	7.5	7.8	6.8	21	32	22	16	9.1	8.1
5	11	11	*9.0	8.8	6.9	6.8	25	31	22	16	8.8	8.1
6	11	*11	9.2	9.0	8.2	7.0	28	30	22	15	8.4	8.1
7	11	12	9.2	8.8	7.8	7.5	27	29	22	14	8.4	8.1
8	10	11	9.3	7.4	7.7	7.4	24	29	22	14	8.1	7.7
9	10	11	9.3	7.7	7.4	7.2	22	29	22	14	7.4	7.7
10	10	11	9.2	8.2	7.2	7.5	22	29	22	14	8.1	7.7
11	11	10	12	8.2	7.2	7.2	22	28	*22	13	8.1	7.7
12	11	10	18	7.8	7.0	7.2	22	27	22	13	8.4	7.7
13	11	10	12	7.7	6.8	7.7	24	27	22	13	8.4	7.7
14	10	11	9.3	7.5	6.1	7.0	25	28	22	13	8.4	*7.7
15	10	11	8.8	6.3	7.7	6.9	26	28	24	14	8.4	8.8
16	10	7.8	11	8.5	7.5	*7.0	23	29	26	*13	7.7	8.8
17	10	7.5	9.8	7.8	7.4	7.7	23	28	20	12	7.7	9.1
18	10	8.2	9.2	7.8	7.0	8.0	23	28	20	12	8.4	9.1
19	10	10	9.7	7.7	7.0	7.8	22	28	22	11	11	9.1
20	10	10	9.3	7.2	*6.9	7.5	20	26	20	11	*12	9.5
21	10	10	8.7	6.6	6.9	7.4	20	24	19	11	11	9.9
22	10	9.8	9.2	8.8	6.9	8.3	21	24	19	10	9.9	9.1
23	10	9.8	9.0	8.0	7.0	9.0	24	24	18	10	9.5	9.9
24	10	10	9.0	7.7	6.9	9.2	28	23	18	10	9.5	9.9
25	10	9.8	8.5	7.7	6.9	9.3	29	23	18	8.4	9.1	11
26	10	8.3	7.5	7.5	7.2	9.8	39	24	18	8.8	9.5	17
27	10	9.3	8.2	7.5	7.0	10	39	26	20	10	9.9	16
28	10	7.4	8.7	7.7	7.0	9.8	33	24	19	9.9	8.8	12
29	9.8	8.7	6.3	7.4	-	10	32	22	18	9.5	8.4	12
30	9.7	8.5	8.0	6.6	-------	10	34	22	18	9.1	8.4	11
31	9.5	-------	9.3	7.0	-------	10	-------	22	-------	9.5	8.4	-------
Total	319.0	293.4	294.4	239.1	201.5	249.2	743	849	623	383.2	277.4	283.7
Mean	10.3	9.78	9.50	7.71	7.20	8.04	24.8	27.4	20.8	12.4	8.95	9.46
Ac-ft	633	582	584	474	400	494	1,470	1,680	1,240	760	550	563

Calendar year 1958: Max 104 Min - Mean 21.2 Ac-ft 15,350
Water year 1958-59: Max 39 Min 6.1 Mean 13.0 Ac-ft 9,430

* Discharge measurement made on this day.

555. Bear Lake at Lifton, near St. Charles, Idaho

Location.--Lat 42°07'20", long 111°19'30", in NE¼ sec.16, T.15 S., R.44 E., ir Lifton pumping plant of Utah Power & Light Co., 3½ miles east of St. Charles.

Records available.--October 1903 to June 1906 (gage heights only), October 1945 to September 1959. January 1921 to September 1945 (elevations only) in files of Salt Lake City district office, Geological Survey. Published as Bear Lake at Fish Haven 1903-6.

Gage.--Water-stage recorder. Datum of gage is 5,900 ft above mean sea level, unadjusted (levels by Utah Power & Light Co.). October 1903 to June 1906 staff gage at different site and datum.

Extremes.--Maximum contents during year, 1,090,000 acre-ft June 1-2 (gage height, 18.78 ft); minimum, 907,100 acre-ft Sept. 30 (gage height, 16.27 ft).
1921-59: Maximum contents, 1,423,000 acre-ft June 10, 1923 (gage height, 23.68 ft); no usable contents Nov. 9-19, 1935 (gage height, 2.00 ft, lower limit of pumps).

Remarks.--Outflow regulated by gates and pumps at Bear Lake and by gates in dike at north end of Mud Lake. Inflow to lake augmented by water diverted from Bear River through Rainbow inlet canal and Dingle inlet canal, which empty into Mud Lake (see p. 33). Water from Mud Lake reaches Bear Lake by a sluice at pumping plant or by gates in causeway at south end of Mud Lake. Capacity, 1,421,000 acre-ft between gage height 2.00 (lower limit of pumps) and 23.65 ft (present feasible upper limit of storage with existing facilities). Storage water used for irrigation and power development.

Cooperation.--Gage heights furnished by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project. Contents computed by Geological Survey from capacity table based on data furnished by Utah Power & Light Co.

Capacity table, water year 1958-59 (gage height, in feet, and contents, in thousands of acre-feet)

16.0	888.6
17.0	956.9
18.0	1,026
19.0	1,095

Contents in thousands of acre-feet, at 7 a.m. water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	981.0	959.7	963.1	977.5	988.5	1,004	1,027	1,067	1,080	1,055	987.2	943.9
2	979.6	959.7	963.1	977.5	989.2	1,004	1,029	1,069	1,080	1,054	985.1	940.5
3	978.2	959.0	963.1	977.5	989.9	1,005	1,031	1,070	1,079	1,052	983.0	938.4
4	976.8	959.0	963.1	978.2	989.9	1,005	1,033	1,071	1,078	1,051	980.3	936.4
5	976.1	959.0	963.8	978.2	990.6	1,006	1,035	1,072	1,078	1,050	976.8	934.4
6	975.4	959.0	963.8	978.9	991.3	1,006	1,037	1,073	1,078	1,049	974.7	932.3
7	974.7	959.0	964.5	978.9	991.3	1,007	1,038	1,074	1,078	1,047	972.7	930.3
8	973.4	958.3	964.5	979.6	992.0	1,008	1,040	1,075	1,078	1,045	969.9	928.9
9	972.0	959.0	965.2	979.6	992.7	1,008	1,041	1,075	1,077	1,044	967.9	926.8
10	970.6	959.0	965.8	979.6	993.4	1,009	1,042	1,076	1,076	1,042	965.2	924.8
11	969.9	959.0	966.5	980.3	994.1	1,009	1,044	1,076	1,076	1,041	963.1	922.7
12	968.6	959.0	967.2	980.3	995.4	1,009	1,044	1,077	1,075	1,040	961.0	920.7
13	967.2	959.0	967.9	981.0	995.4	1,009	1,046	1,078	1,074	1,038	959.0	918.6
14	967.2	959.7	968.6	981.0	996.1	1,010	1,047	1,078	1,073	1,036	957.6	916.6
15	967.2	959.7	969.9	981.6	996.8	1,010	1,048	1,078	1,072	1,035	956.2	915.9
16	967.2	959.7	970.6	981.6	997.5	1,010	1,049	1,078	1,072	1,033	954.9	913.9
17	966.5	959.7	970.6	981.6	998.9	1,011	1,049	1,078	1,071	1,031	952.1	913.2
18	966.5	959.7	971.3	982.3	999.6	1,011	1,051	1,078	1,070	1,028	950.1	912.5
19	965.8	959.7	972.0	982.3	1,000	1,011	1,052	1,075	1,069	1,025	948.0	912.5
20	965.2	960.4	972.7	982.3	1,001	1,012	1,054	1,074	1,069	1,023	953.5	911.8
21	964.5	961.0	972.7	982.3	1,001	1,013	1,056	1,074	1,068	1,021	953.5	911.1
22	963.1	961.0	973.4	982.3	1,002	1,013	1,056	1,074	1,067	1,018	952.8	909.8
23	961.7	961.0	974.7	982.3	1,002	1,014	1,058	1,074	1,067	1,015	952.1	909.8
24	960.4	961.7	975.4	982.3	1,002	1,015	1,058	1,076	1,065	1,012	951.5	909.8
25	960.4	961.7	975.4	983.0	1,002	1,017	1,059	1,076	1,064	1,009	951.5	909.8
26	960.4	962.4	976.1	984.4	1,003	1,018	1,060	1,077	1,062	1,005	951.5	909.1
27	960.4	962.4	976.1	985.1	1,003	1,018	1,063	1,078	1,061	1,002	951.5	908.4
28	960.4	962.4	976.1	985.8	1,004	1,020	1,065	1,079	1,060	999.6	951.5	907.7
29	960.4	962.4	976.8	986.5	-	1,022	1,066	1,079	1,058	996.1	949.4	907.7
30	960.4	962.4	976.8	987.2	-------	1,023	1,067	1,079	1,057	992.7	948.0	907.1
31	960.4	-------	976.8	987.8	-------	1,025	-------	1,079	-------	989.9	946.0	-------
(†)	5,917.05	5,917.08	5,917.29	5,917.45	5,917.68	5,917.99	5,918.60	5,918.77	5,918.45	5,917.48	5,916.84	5,916.27
(‡)	-21.9	+2.0	+14.4	+11.0	+16.2	+21	+42	+12	-22	-67.1	-43.9	-38.9

Calendar year 1958..... ‡ -1.4
Water year 1958-59..... ‡ -75.2

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

595. Bear Lake outlet canal near Paris, Idaho

Location.--Lat 42°13'00", long 111°20'30", in SW¼ sec.8, T.14 S., R.44 E., on right bank 2,000 ft downstream from headgates (at dike) and 3 miles southeast of Paris.

Records available.--October 1945 to September 1959 in reports of Geological Survey. January 1922 to September 1945 in files of Salt Lake City district office, Geological Survey.

Gage.--Water-stage recorder. Altitude of gage is 5,920 ft (from topographic map).

Average discharge.--37 years, 340 cfs (246,100 acre-ft per year).

Extremes.--Maximum discharge during year, 1,350 cfs July 27 (gage height, 18.39 ft); minimum daily, 1 cfs Dec. 20.
1922-59: Maximum daily discharge, 1,870 cfs Aug. 8, 1924; minimum daily, 1 cfs for many days in 1937, 1954, 1959.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Discharge measurements generally made six times a week during period of release from Bear Lake.

Cooperation.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 3, 17, 18, 23, 29, May 11-16, 21-27, 29, June 1-3, 23, June 29 to July 11, July 17, Aug. 20, 21, Sept. 22)

12.6	8	15.0	339
13.0	38	17.0	871
13.5	89	19.0	1,580
14.0	155		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	263	48	40	2	2	2	2	2	114	604	1,020	359
2	267	49	40	2	2	2	2	2	353	379	1,020	517
3	273	50	40	2	2	2	2	2	439	308	1,100	510
4	271	49	39	2	2	2	2	2	364	220	1,210	502
5	269	48	38	2	2	2	2	2	248	225	1,190	548
6	265	48	39	2	2	2	2	2	203	291	1,200	610
7	259	48	40	2	2	2	2	2	212	385	1,210	610
8	251	47	42	2	2	2	2	2	252	516	1,170	613
9	261	47	43	2	2	2	2	2	350	712	1,150	680
10	271	47	42	2	2	2	2	2	390	727	1,070	689
11	271	48	40	2	2	2	2	109	397	704	877	698
12	275	49	38	2	2	2	2	330	401	706	657	695
13	244	48	37	2	2	2	2	522	411	804	621	701
14	194	48	36	2	2	2	2	594	413	947	618	698
15	200	47	36	2	2	2	2	572	415	1,010	607	712
16	188	46	35	2	2	2	2	466	443	1,160	556	511
17	178	45	34	2	2	2	2	348	475	1,240	545	297
18	181	45	27	2	2	2	2	262	535	1,190	550	225
19	183	44	13	2	2	2	2	167	524	1,180	345	149
20	183	44	1	2	2	2	2	139	535	1,170	41	155
21	184	45	2	2	2	2	2	144	527	1,210	185	161
22	186	45	2	2	2	2	2	150	585	1,300	454	126
23	151	44	2	2	2	2	2	161	692	1,320	569	79
24	93	44	2	2	2	2	2	155	738	1,330	459	50
25	79	42	2	2	2	2	2	150	807	1,340	352	12
26	77	41	2	2	2	2	2	162	792	1,340	318	12
27	77	41	2	2	2	2	2	137	801	1,320	289	12
28	74	41	2	2	2	2	2	61	801	1,340	271	12
29	55	40	2	2	-	2	2	17	795	1,300	267	12
30	45	40	2	2	-------	2	2	10	807	1,310	269	12
31	46	-------	2	2	-------	2	-------	10	-------	1,200	259	-------
Total	5,814	1,368	722	62	56	62	60	4,686	14,819	28,788	20,449	10,967
Mean	188	45.6	23.3	2.0	2.0	2.0	2.0	151	494	929	660	366
Ac-ft	11,530	2,710	1,430	123	111	123	119	9,290	29,390	57,100	40,560	21,750

Calendar year 1958: Max 1,330 Min 1 Mean 306 Ac-ft 221,500
Water year 1958-59: Max 1,340 Min 1 Mean 241 Ac-ft 174,200

Note.--Stage-discharge relation affected by ice Nov. 1-15, Nov. 18 to Dec. 19 (no gage-height record Nov. 16, 17, Dec. 20 to May 10, Sept. 26-30; discharge estimated on basis of 2 discharge measurements and engineers' notes of seepage flow.

750. Bear River at Soda Springs, Idaho

Location.--Lat 42°36'50", long 111°35'00", in NW¼ sec.29, T.9 S., R.42 E., on left bank 800 ft upstream from Bailey Creek road bridge and 2 miles south of Soda Springs.

Records available.--May to September 1896, May, June 1898, October 1953 to September 1959. Irrigation season only during 1944-49, 1950-53 in reports of Bear River Hydrometric Data (Geological Survey open-file report).

Gage.--Water-stage recorder. Altitude of gage is 5,760 ft (from topographic map). May 25 to Oct. 2, 1896, May 22 to July 1, 1898, staff gage at different datum. During irrigation season 1944-49, 1950-53, water-stage recorder at site 800 ft downstream at different datum.

Average discharge.--6 years (1953-59), 488 cfs (353,300 acre-ft per year).

Extremes.--Maximum daily discharge during year, 1,400 cfs July 27 (gage height, 4.70 ft); minimum daily, 100 cfs Dec. 27.
1896, 1898, 1944-49, 1950-59: Maximum discharge, 6,380 cfs June 9, 15, 1896 (gage height, 8.40 ft, datum then in use); minimum daily, 80 cfs Nov. 13, 14, 1955.

Remarks.--Records good except those for periods of ice effect, which are fair. Many diversions for irrigation above station. Flow regulated by storage in Bear Lake.

Cooperation.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.2	95	3.5	530
2.5	154	4.0	841
3.0	304	5.0	1,630

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	390	206	210	160	130	*170	421	304	252	1,090	1,260	331
2	381	203	215	150	130	170	580	290	259	935	1,130	385
3	385	201	*220	140	130	170	639	297	499	740	1,120	547
4	390	198	220	140	130	170	586	297	580	627	*1,170	569
5	385	198	225	140	140	165	541	290	536	520	1,240	564
6	390	192	233	150	140	165	525	283	440	494	1,240	604
7	394	209	227	150	145	165	499	262	385	525	1,260	670
8	385	206	233	155	145	165	*488	252	377	633	1,270	682
9	377	212	230	155	145	165	440	227	398	786	1,240	695
10	377	215	233	160	140	165	421	215	468	928	1,220	733
11	377	224	259	160	135	170	403	212	525	943	1,150	752
12	390	233	324	160	130	170	381	233	536	920	957	759
13	394	239	312	160	130	190	364	449	541	884	752	759
14	372	266	256	*155	130	160	347	657	547	950	695	759
15	347	249	224	155	140	170	331	752	564	1,060	688	766
16	331	141	276	155	150	190	320	786	586	1,120	670	779
17	320	180	269	155	155	218	324	707	580	1,240	627	633
18	304	220	266	155	160	218	316	610	592	*1,280	627	421
19	300	230	259	155	160	215	316	575	633	1,280	639	*360
20	304	245	239	150	160	190	304	464	645	1,250	514	276
21	304	250	218	150	160	209	297	*416	657	1,240	233	266
22	308	260	201	150	165	233	276	408	670	1,280	176	266
23	312	260	203	155	165	259	252	408	733	1,360	468	262
24	304	235	198	155	170	290	246	394	806	1,390	621	215
25	256	215	187	155	170	331	243	390	*877	1,390	552	215
26	236	180	120	155	170	394	272	398	950	1,390	454	209
27	227	200	100	150	170	444	335	473	972	1,400	416	201
28	224	140	205	150	170	416	356	473	1,010	1,380	385	198
29	224	190	140	145	-	428	*331	398	1,020	1,370	360	195
30	212	230	135	140	-------	416	316	286	1,030	1,370	343	190
31	*212	-------	170	130	-------	398	-------	272	-------	1,370	339	-------
Total	10,112	6,427	6,807	4,695	4,165	7,377	11,470	12,478	18,668	33,145	23,816	14,261
Mean	326	214	220	151	149	238	382	403	622	1,069	768	475
Ac-ft	20,060	12,750	13,500	9,310	8,260	14,630	22,750	24,750	37,030	65,740	47,240	28,290

Calendar year 1958: Max 1,360 Min 100 Mean 554 Ac-ft 400,900
Water year 1958-59: Max 1,400 Min 100 Mean 420 Ac-ft 304,300

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 17 to Dec. 5, Dec. 26 to Mar. 16.

795. Bear River at Alexander, Idaho

Location.--Lat 42°38'45", long 111°41'55", in NW¼ sec.17, T.9 S., R. 41 E., on right bank 600 ft downstream from Soda hydroelectric plant of Utah Power & Light Co., half a mile southeast of Alexander, and 5 miles downstream from Soda Creek.

Drainage area.--3,840 sq mi, approximately.

Records available.--March 1911 to September 1916, April 1919 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,650 ft (from topographic map).

Average discharge.--44 years (1911-16, 1919-20, 1921-59), 743 cfs (537,900 acre-ft per year).

Extremes.--Maximum discharge during year, 2,170 cfs Nov. 16 (gage height, 3.27 ft); minimum daily, 147 cfs Dec. 25.
1911-16, 1919-59: Maximum discharge, 4,590 cfs May 9, 1922; maximum gage height, 15.95 ft Dec. 11, 1919; minimum discharge, 28 cfs at times when reservoir gates are closed.

Remarks.--Records good. Many diversions for irrigation above station. Flow regulated by Bear Lake Reservoir and Soda hydroelectric plant.

Cooperation.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.5	124
1.0	310
1.5	579
2.0	945
3.0	1,900

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	549	*245	312	233	177	205	610	383	476	563	1,330	514
2	488	319	*258	235	254	278	628	330	453	703	1,330	570
3	303	228	257	194	272	275	800	272	453	788	1,240	573
4	337	264	308	169	257	287	842	301	464	694	*1,280	671
5	298	236	303	213	292	277	737	228	464	590	1,290	661
6	467	266	299	213	251	296	611	230	464	712	1,210	625
7	437	325	302	262	273	202	*629	278	464	766	1,180	734
8	371	336	327	258	231	248	602	305	458	716	1,160	785
9	284	281	350	306	216	252	568	344	476	794	1,110	803
10	429	344	274	238	229	257	532	408	505	990	1,060	806
11	331	325	329	193	272	267	499	380	523	1,080	1,040	800
12	316	281	459	232	261	262	499	464	488	1,090	1,040	813
13	332	341	399	*287	265	344	349	529	578	1,200	755	764
14	324	394	360	263	268	313	357	600	529	1,310	713	697
15	296	438	458	267	231	186	378	499	590	1,300	700	668
16	355	264	420	258	253	309	405	481	634	1,290	766	713
17	351	238	361	229	267	281	408	447	712	1,300	890	577
18	354	282	336	165	278	325	393	464	689	1,290	769	471
19	348	235	346	260	336	354	313	509	650	1,280	410	448
20	431	284	404	262	334	352	402	*447	637	1,300	521	*297
21	376	316	247	247	294	354	351	453	641	1,300	370	271
22	408	302	363	249	294	353	354	520	712	1,280	410	297
23	303	251	314	230	289	457	344	482	759	1,290	370	284
24	303	286	204	248	275	409	346	549	820	1,280	532	301
25	368	333	147	201	252	489	288	587	*926	1,300	613	301
26	305	382	236	227	270	560	288	470	1,090	1,290	481	293
27	346	317	296	209	254	626	377	491	1,130	1,280	456	297
28	312	336	233	219	*237	558	386	572	1,120	1,290	478	301
29	286	357	250	230	-	578	378	453	1,070	1,330	443	297
30	335	227	231	229	-------	603	390	453	870	1,330	436	267
31	243	-------	189	206	-------	615	-------	453	-------	1,270	446	-------
Total	10,986	9,033	9,572	7,232	7,382	11,172	14,064	13,382	19,845	33,996	24,829	15,899
Mean	354	301	309	233	264	360	469	432	662	1,097	801	530
Ac-ft	21,790	17,920	18,990	14,340	14,640	22,160	27,900	26,540	39,360	67,430	49,250	31,540

Calendar year 1958: Max 1,390 Min 147 Mean 639 Ac-ft 462,800
Water year 1958-59: Max 1,330 Min 147 Mean 486 Ac-ft 351,900

* Discharge measurement made on this day.

845. Cottonwood Creek near Cleveland, Idaho

Location.--Lat 42°20', long 111°46', in SW¼ sec.34, T.12 S., R.40 E , on right bank 500 ft upstream from Cleveland irrigation canal, 2½ miles west of Cleveland, and 4 miles downstream from proposed Cottonwood Dam.

Drainage area.--61.7 sq mi.

Records available.--November 1938 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,150 ft (from topographic map). Prior to Dec. 29, 1944, staff gage at same site and datum.

Average discharge.--20 years (1939-59), 29.9 cfs (21,650 acre-ft per year).

Extremes.--Maximum discharge during year, 406 cfs Apr. 5 (gage height, 2.96 ft); minimum, 1.5 cfs Aug. 17.
1938-59: Maximum discharge, 773 cfs Apr. 27, 1952 (gage height, 3.83 ft); minimum observed, 0.5 cfs Aug. 17, 1940.

Remarks.--Records good except those for periods of ice effect, which are fair. A few small diversions for irrigation of meadowland in Cottonwood Valley above station. Treasureton Canal diverts from Cottonwood Creek above station in SE¼ sec.8, T.12 S., R.39 E., for irrigation in Battle Creek basin in vicinity of Treasureton.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.4	1.2	1.3	30
.6	2.7	1.8	77
.8	6.2	2.3	185
1.0	13	2.5	252

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.8	3.6	7.5	9.5	b10	12	40	82	14	9.2	2.1	2.1
2	5.2	3.4	7.8	b10	b10	12	76	86	12	8.5	2.1	2.2
3	5.2	3.4	9.2	10	b10	12	114	65	10	8.2	2.0	2.4
4	5.2	3.3	9.9	10	b10	11	188	54	9.9	6.2	1.9	2.4
5	3.8	3.6	7.5	10	b10	14	*224	48	9.2	6.0	1.8	2.3
6	3.4	4.6	10	10	11	13	211	45	8.2	5.6	1.8	2.4
7	4.4	5.2	9.9	*9.9	10	12	140	41	8.2	5.4	1.8	2.2
8	5.0	5.8	11	9.9	9.9	11	105	41	8.2	5.4	1.7	2.0
9	5.0	6.2	10	9.9	12	12	80	42	7.5	5.2	1.7	2.1
10	3.6	6.5	11	10	10	12	69	40	6.9	4.8	1.7	2.1
11	3.4	7.5	18	11	9.5	12	70	35	6.2	4.0	1.7	2.1
12	3.4	7.2	b20	11	9.9	12	80	31	6.2	3.6	1.8	2.1
13	3.4	7.5	b14	12	b10	12	92	30	5.8	3.6	1.7	2.1
14	3.9	8.8	13	10	b11	13	92	*30	5.6	3.6	1.7	2.1
15	4.4	7.2	11	b10	11	14	88	29	5.8	3.8	1.7	3.2
16	3.6	5.8	b13	11	11	13	72	30	5.6	3.8	1.7	3.6
17	3.4	7.8	12	11	12	13	65	28	5.0	3.4	1.6	3.6
18	3.4	7.5	11	11	11	14	62	31	5.0	3.4	1.7	4.2
19	3.4	6.0	13	11	11	14	56	28	6.9	3.3	2.4	4.8
20	4.4	8.8	11	10	11	13	51	25	9.9	2.8	2.7	5.6
21	5.6	9.5	10	b10	11	14	46	23	8.8	2.7	2.6	5.0
22	6.2	10	12	10	11	21	50	17	*8.2	*2.8	2.2	5.6
23	6.2	10	11	11	11	29	*62	15	7.8	2.8	2.2	5.4
24	6.2	*11	11	10	11	29	75	14	7.2	2.8	2.2	5.2
25	4.4	9.5	11	11	11	*34	86	13	6.9	2.5	2.2	11
26	3.9	6.2	6.9	9.9	*11	42	150	22	10	2.3	*2.3	23
27	3.8	9.2	9.2	*10	11	44	*126	34	12	2.2	2.4	20
28	3.8	11	b10	11	11	38	84	27	11	2.2	2.2	*15
29	3.8	6.2	b10	9.2	-	38	70	22	10	2.0	2.2	13
30	*3.8	7.2	b10	b10	-------	34	75	21	11	1.9	2.1	11
31	3.8	-------	10	b10	-------	30	-------	18	-------	2.0	2.1	-------
Total	133.8	209.5	340.9	319.3	298.3	604	2,799	1,067	249.0	126.0	62.0	169.8
Mean	4.32	6.98	11.0	10.3	10.7	19.5	93.3	34.4	8.30	4.06	2.00	5.66
Ac-ft	265	416	676	633	592	1,200	5,550	2,120	494	250	123	337

Calendar year 1958: Max 449 Min 2.8 Mean 32.7 Ac-ft 23,660
Water year 1958-59: Max 224 Min 1.6 Mean 17.5 Ac-ft 12,660

Peak discharge (base, 150 cfs).--Apr. 5 (9:30 p.m.) 406 cfs (2.96 ft); Apr. 26 (9 a.m.) 179 cfs (2.27 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

865. Bear River below Utah Power & Light Co.'s tailrace, at Oneida, Idaho

Location.--Lat 42°16', long 111°45', in sec.26, T.13 S., R.40 E., on right bank 200 ft below tailrace of Oneida plant and 6 miles south of Cleveland.

Records available.--October 1945 to September 1959 in reports of Geological Survey. January 1922 to September 1945 in files of Salt Lake City district office, Geological Survey.

Gage.--Water-stage recorder. Altitude of gage is 4,800 ft (from topographic map).

Average discharge.--37 years, 773 cfs (559,600 acre-ft per year).

Extremes.--Maximum discharge during year, 3,120 cfs Mar. 7 (gage height, 6.43 ft); minimum daily, 185 cfs Sept. 20.
1922-59: Maximum daily discharge, 5,480 cfs May 8, 1922; minimum daily, 15 cfs May 3, 4, 1925.

Remarks.--Records good. Many diversions above station. Flow regulated by Bear Lake and Soda, Grace, and Oneida hydroelectric plants.

Cooperation.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 4 to Sept. 22)

Oct. 1 to Dec. 31		Jan. 1 to Sept. 30			
2.2	324	1.7	185	3.0	647
3.0	647	2.0	263	4.0	1,170
4.0	1,170	2.5	432	5.0	1,860

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	611	359	358	459	394	409	927	675	454	201	a1,060	472
2	688	369	566	460	459	463	890	508	382	275	a1,100	540
3	713	372	509	261	494	589	982	386	330	595	*a905	530
4	354	528	504	375	507	618	1,110	483	347	544	1,220	554
5	465	437	516	360	482	610	1,350	400	320	545	1,140	666
6	737	414	549	449	500	595	931	300	312	575	1,200	608
7	404	491	452	543	488	342	889	387	320	603	1,070	878
8	585	525	612	562	484	541	924	271	318	594	a1,060	714
9	557	464	665	678	340	352	868	414	317	665	a985	*731
10	568	534	674	219	*441	466	814	337	324	948	a980	818
11	546	501	621	419	474	499	779	383	333	738	a890	834
12	512	639	687	344	504	465	697	*354	391	825	a970	870
13	431	449	747	486	490	541	832	325	361	635	a800	715
14	460	669	*404	533	461	601	650	295	388	1,000	a580	964
15	545	716	749	511	467	378	706	311	461	929	648	844
16	578	526	542	479	359	423	597	331	427	1,020	627	810
17	516	492	551	479	564	475	767	283	418	890	858	850
18	484	*486	636	283	591	596	626	379	561	967	622	729
19	561	434	555	408	634	646	721	376	426	875	585	337
20	617	483	663	521	461	650	526	404	379	918	407	185
21	616	476	415	469	662	680	588	394	352	924	435	396
22	649	568	605	394	499	495	600	348	*537	922	329	405
23	527	403	472	461	683	585	578	405	717	949	540	384
24	491	349	606	472	432	665	623	378	787	983	344	417
25	334	589	352	480	429	775	511	426	1,000	931	492	436
26	530	826	331	469	491	723	621	455	850	891	608	447
27	519	477	456	469	531	880	597	452	1,160	985	486	537
28	583	645	457	396	456	*917	717	456	846	1,020	402	522
29	506	682	448	471	-	837	706	443	524	928	462	486
30	539	356	515	416	-------	925	631	356	355	a1,010	446	414
31	453	-------	433	450	-------	958	-------	342	-------	a1,070	509	-------
Total	16,679	15,259	16,652	13,776	13,777	18,699	22,758	12,057	14,697	24,955	22,760	18,093
Mean	538	509	537	444	492	603	759	389	490	805	734	603
Ac-ft	33,080	30,270	33,030	27,320	27,330	37,090	45,140	23,910	29,150	49,500	45,140	35,890

Calendar year 1958: Max 2,160 Min 29 Mean 776 Ac-ft 561,800
Water year 1958-59: Max 1,350 Min 185 Mean 576 Ac-ft 416,800

* Discharge measurement made on this day.
a No gage-height record; discharge estimated from powerplant load.

875. Mink Creek below Dry Fork, near Mink Creek, Idaho

Location.--Lat 42°15'30", long 111°40'30", in NE¼NW¼ sec.33, T.13 S., R.41 E., on right bank 500 ft downstream from Dry Fork and 3 miles northeast of town of Mink Creek.

Drainage area.--19.3 sq mi.

Records available.--April 1947 to September 1952, October 1955 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,300 ft (from topographic map).

Average discharge.--9 years, 79.1 cfs (57,270 acre-ft per year).

Extremes.--Maximum discharge during year, 245 cfs June 7 (gage height, 3.06 ft); minimum, 9.6 cfs Sept. 29.
1947-52, 1955-59: Maximum discharge, 600 cfs May 29, 1948; maximum gage height, 3.97 ft June 7, 1957; minimum discharge, that of Sept. 29, 1959.

Remarks.--Records good. Mink Creek Canal began diverting above station in Jure 1950. Diversion is routed through Glendale Reservoir in Worm Creek basin for irrigation near Preston. Two other diversions above station for irrigation of about 1,000 acres above and below station.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

1.4	12	2.4	101
1.5	16	2.9	200
1.7	27	3.1	257
2.0	52		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	40	36	33	30	31	38	94	121	58	23	*15
2	43	40	36	33	30	31	40	100	143	57	22	16
3	44	40	36	33	30	32	44	101	169	53	20	15
4	42	40	36	32	30	32	54	100	190	51	20	16
5	41	40	36	32	30	32	61	101	208	47	18	16
6	41	40	36	32	30	31	64	94	230	44	18	16
7	41	39	36	*32	30	31	64	81	242	43	18	16
8	41	39	36	32	30	31	61	89	222	41	20	16
9	40	39	36	32	30	30	58	100	*208	39	18	16
10	40	39	36	32	30	30	54	106	205	36	18	16
11	40	39	38	32	30	30	49	115	185	36	18	17
12	40	39	40	32	30	30	46	114	175	34	18	16
13	40	39	36	32	30	30	48	144	171	30	21	15
14	40	40	36	32	30	30	51	*188	167	30	20	15
15	40	39	35	32	30	30	54	200	167	28	20	16
16	40	39	35	32	30	30	56	205	160	28	20	16
17	40	38	34	32	30	30	56	180	152	30	20	16
18	40	37	34	31	30	32	55	152	141	26	21	15
19	40	37	34	31	31	33	53	135	130	22	20	15
20	40	37	34	31	31	33	50	119	115	26	20	15
21	40	36	34	31	31	33	49	104	107	28	19	14
22	40	36	34	30	31	36	49	95	103	*25	19	14
23	40	36	34	30	31	39	*53	88	96	25	19	14
24	40	*36	34	30	31	38	58	94	86	24	19	14
25	40	37	34	30	31	*38	60	124	78	24	18	14
26	40	37	33	30	*31	40	73	131	74	24	*20	16
27	40	36	33	*30	30	40	86	150	71	24	18	14
28	40	36	33	30	30	39	89	154	68	23	18	*14
29	40	36	33	30	-	39	86	148	64	23	16	14
30	*40	36	33	30	-------	39	86	146	61	22	14	13
31	40	-------	33	30	-------	38	-------	133	-------	22	14	-------
Total	1,249	1,142	1,084	971	848	1,038	1,745	3,885	4,309	1,023	587	455
Mean	40.3	38.1	35.0	31.3	30.3	33.5	58.2	125	144	33.0	18.9	15.2
Ac-ft	2,480	2,270	2,150	1,930	1,680	2,060	3,460	7,710	8,550	2,030	1,160	902

Calendar year 1958: Max 495 Min - Mean 71.9 Ac-ft 52,100
Water year 1958-59: Max 242 Min 13 Mean 50.2 Ac-ft 36,380

* Discharge measurement made on this day.

905. Bear River near Preston, Idaho

Location.--Lat 42°10', long 111°51', in NW¼ sec.36, T.14 S., R.39 E., on left bank 600 ft downstream from headgates of West Cache Canal, 5 miles downstream from Mirk Creek, 5 miles north of Preston, and 5½ miles upstream from Battle Creek.

Drainage area.--4,500 sq mi (corrected), approximately.

Records available.--October 1889 to September 1917 (gage heights only, January to September 1917), January 1944 to September 1959. Prior to 1903, published as "at Battle-creek."

Gage.--Water-stage recorder. Altitude of gage is 4,540 ft (from topographic map). October 1889 to September 1917 staff or wire-weight gages at several sites within 5 miles downstream at different datums.

Average discharge.--15 years (1944-59), 855 cfs (619,000 acre-ft per year).

Extremes.--Maximum recorded discharge during year, 2,710 cfs Apr. 4, 5 (gage height, 4.41 ft); minimum, 2.4 cfs Apr. 15 (gage height, 0.22 ft); minimum daily, 105 cfs July 2.

1889-1917: Maximum discharge, about 8,500 cfs June 9, 10, 1907, estimated on basis of records for station near Collinston, Utah; maximum gage height observed, 9.04 ft Jan. 17, 18, 1917 (backwater from ice), site and datum then in use; minimum not determined.

1944-59: Maximum discharge, 4,420 cfs Apr. 17, 1950 (gage height, 5.61 ft); minimum, 0.6 cfs June 14, 1949; minimum daily, 9.5 cfs July 6, 1957.

Remarks.--Records good. Station is below all irrigation diversions from Bear River in Idaho except Cub River pumps in SE¼ sec.20, T.16 S., R.39 E. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation, and return flow from irrigated areas.

Revisions (water years).--WSP 250: 1905-7.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	588	404	405	462	398	531	946	673	a400	168	816	354
2	587	320	600	507	449	388	909	554	a300	105	881	432
3	626	393	553	a380	543	530	937	323	a280	427	688	418
4	340	502	581	a420	497	576	1,120	439	a230	428	984	392
5	426	429	546	a450	462	737	1,410	336	a160	389	987	541
6	611	404	579	a500	502	510	1,000	282	a170	366	1,060	460
7	456	452	527	*a550	490	403	859	333	a180	335	943	702
8	515	411	633	576	380	471	979	270	a150	470	864	594
9	547	530	580	613	366	352	836	a350	a160	468	816	580
10	500	547	708	359	*495	460	834	a300	a160	734	a800	684
11	545	500	652	413	449	450	734	a325	a170	514	a760	641
12	479	559	737	426	491	447	612	*a280	a200	610	a800	708
13	423	459	804	494	465	532	677	174	a180	554	a600	581
14	453	662	564	549	508	617	463	215	a200	768	a475	842
15	520	693	623	555	423	404	549	173	a270	677	389	728
16	546	489	660	500	389	340	623	157	a225	972	514	728
17	434	529	616	472	510	524	733	138	a210	686	633	751
18	471	575	633	396	542	480	653	216	a350	741	588	742
19	607	426	565	399	560	697	542	236	247	801	510	325
20	558	457	747	546	426	615	641	225	246	670	400	153
21	646	543	477	487	687	580	570	240	161	785	244	314
22	648	559	657	423	610	504	600	121	367	791	194	342
23	467	432	549	423	682	646	*562	249	424	670	445	319
24	456	360	644	532	314	564	582	251	573	768	235	432
25	407	522	422	459	489	*866	582	223	855	724	376	418
26	430	707	366	442	516	739	546	282	715	784	*407	493
27	508	575	471	325	468	904	662	446	822	735	422	500
28	551	567	498	516	466	848	694	a460	765	874	274	a470
29	455	711	451	370	-	897	640	a450	365	779	341	a430
30	*511	418	530	465	-------	927	597	a400	225	780	296	a375
31	466	-------	483	417	-------	985	-------	a330	-------	875	343	-------
Total	15,777	15,135	17,861	14,426	13,577	18,524	22,092	9,451	9,760	19,448	18,085	15,449
Mean	509	504	576	465	485	598	736	305	325	627	583	515
Ac-ft	31,290	30,020	35,430	28,610	26,930	36,740	43,820	18,750	19,360	38,570	35,870	30,640

Calendar year 1958: Max 2,300 Min 128 Mean 753 Ac-ft 545,300
Water year 1958-59: Max 1,410 Min 105 Mean 519 Ac-ft 376,000

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of records for West Cache Canal, Mink Creek below Dry Fork, and powerplant output at Oneida.

930. Cub River near Preston, Idaho

Location.--Lat 42°08', long 111°41', in SW¼ sec.5, T.15 S., R.41 E., on right bank 0.2 mile upstream from headgates of Cub River-Worm Creek Canal, 0.7 mile upstream from forest boundary, and 10 miles east of Preston.

Drainage area.--19.4 sq mi.

Records available.--March 1940 to September 1952, October 1955 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,320 ft (from topographic map).

Average discharge.--16 years, 86.2 cfs (62,410 acre-ft per year).

Extremes.--Maximum discharge during year, 415 cfs June 7 (gage height, 2.57 ft); minimum, 18 cfs for many days.
1940-52, 1955-59: Maximum discharge, 715 cfs June 7, 1957 (gage height, 3.39 ft); maximum gage height, 3.83 ft June 2, 1943; minimum discharge, 11 cfs Jan. 22, 1951.

Remarks.--Records excellent. No diversion above station.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.5	16	1.9	178
.8	28	2.5	368
1.0	41	3.0	593
1.3	71		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	24	23	20	19	18	28	115	192	114	47	32
2	29	24	22	20	19	19	32	146	235	108	47	32
3	28	24	22	20	18	19	36	138	280	105	46	32
4	28	24	22	20	19	19	44	132	320	101	46	32
5	28	25	22	20	20	19	53	123	348	95	44	32
6	28	25	22	20	18	19	58	121	381	91	43	31
7	28	24	22	*20	18	19	57	121	411	88	43	31
8	28	24	23	19	18	19	49	136	390	85	42	31
9	28	24	22	19	18	19	43	172	*364	82	41	31
10	28	25	22	19	18	19	39	185	372	79	40	30
11	28	24	24	19	18	19	37	174	343	77	40	30
12	28	24	26	19	18	19	37	205	327	75	39	30
13	28	24	25	19	18	19	41	287	327	74	39	30
14	28	26	22	19	18	19	43	*364	331	71	38	30
15	27	24	22	19	18	19	47	356	331	70	38	30
16	26	24	22	19	18	19	47	352	331	67	37	30
17	26	26	21	19	19	19	43	277	308	64	37	30
18	26	24	21	19	18	20	43	246	277	63	38	30
19	26	24	21	19	19	21	40	207	252	61	39	30
20	26	24	21	19	18	21	40	176	232	59	38	30
21	26	24	21	19	18	22	42	153	218	57	37	29
22	26	24	21	19	18	25	45	149	*207	*57	36	29
23	26	24	21	18	19	28	*49	144	195	56	35	29
24	26	*24	21	18	18	28	54	170	178	55	35	28
25	26	23	20	19	19	*28	59	221	168	53	35	31
26	26	23	20	19	*18	32	88	221	155	52	*34	31
27	26	23	20	*19	18	31	110	207	148	51	33	30
28	26	23	20	19	18	28	103	185	138	51	33	*29
29	26	23	20	19	-	28	91	180	128	50	32	28
30	*25	23	20	19	-------	26	90	185	121	49	32	28
31	24	-------	20	19	-------	25	-------	178	-------	49	32	-------
Total	834	721	669	594	513	685	1,588	6,026	8,008	2,209	1,196	906
Mean	26.9	24.0	21.6	19.2	18.3	22.1	52.9	194	267	71.3	38.6	30.2
Ac-ft	1,650	1,430	1,330	1,180	1,020	1,360	3,150	11,950	15,880	4,380	2,370	1,800

Calendar year 1958: Max 667 Min 19 Mean 83.5 Ac-ft 60,410
Water year 1958-59: Max 411 Min 18 Mean 65.6 Ac-ft 47,500

* Discharge measurement made on this day.

1060. Little Bear River near Paradise, Utah

Location.--Lat 41°35'25", long 111°51'10", in SE¼ sec.20, T.10 N., R.1 E., on right bank 1 mile upstream from backwater of Hyrum Reservoir, 2 miles northwest of Paradise, and 5 miles downstream from East Fork.

Drainage area.--203 sq mi.

Records available.--October 1938 to September 1959 in reports of Geological Survey. January 1937 to September 1938 (fragmentary) in reports of Little Bear River water commissioner.

Gage.--Water-stage recorder. Altitude of gage is 4,680 ft (from topographic map). Prior to Nov. 28, 1945, at site 150 ft upstream at different datum. Nov. 28, 1945, to May 19, 1952, at present site at datum 1.50 ft higher.

Average discharge.--21 years (1938-59), 86.3 cfs (62,480 acre-ft per year).

Extremes.--Maximum discharge during year, 438 cfs Apr. 27 (gage height, 4.44 ft); minimum, 10 cfs Aug. 6, 9, Sept. 3.
1938-59: Maximum discharge, 1,830 cfs Dec. 23, 1955 (gage height, 6.03 ft); minimum, 4 cfs Aug. 14, 1940.

Remarks.--Records good. Diversions above station for irrigation of about 400 acres above and 2,400 acres below station. No diversion between station and Hyrum Reservoir.

Cooperation.--Five discharge measurements furnished by Little Bear River water commissioner.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 4 to Sept. 11)

3.0	10	3.8	140
3.1	15	4.2	290
3.3	29	4.3	340
3.5	60		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	34	53	55	49	55	100	206	36	22	13	12
2	24	34	53	55	51	58	137	210	32	20	12	12
3	23	36	55	52	49	58	171	192	27	19	12	12
4	23	37	55	51	49	55	206	178	26	18	12	12
5	23	39	53	52	49	53	*229	159	27	17	12	12
6	23	44	53	54	49	53	244	137	29	16	12	12
7	23	39	53	53	51	53	206	123	30	14	12	12
8	23	38	56	51	51	53	165	106	30	14	12	13
9	23	38	58	51	51	56	137	89	28	14	12	14
10	24	41	58	51	51	58	123	84	27	14	12	14
11	24	41	60	51	53	55	117	82	*27	15	12	14
12	24	41	67	53	53	56	128	33	27	16	13	15
13	26	41	60	55	51	74	143	36	27	17	*13	15
14	24	70	55	53	55	67	149	*51	27	17	14	16
15	24	62	53	53	53	56	140	58	28	*16	14	*17
16	23	56	53	53	53	62	128	67	26	16	14	17
17	23	53	53	55	62	74	117	51	26	14	14	17
18	23	55	53	55	58	89	120	46	26	14	15	17
19	22	55	53	55	58	92	114	38	27	14	16	23
20	23	56	53	55	58	72	111	38	26	14	14	27
21	24	56	53	53	58	72	111	37	25	13	14	32
22	26	56	53	53	58	89	108	*37	25	13	14	28
23	33	56	53	55	58	120	111	37	24	12	14	29
24	37	56	53	53	55	114	128	34	23	12	14	30
25	37	56	53	56	55	108	137	30	20	12	14	36
26	37	*56	53	58	55	120	253	32	22	12	13	46
27	39	58	53	56	*55	120	*320	46	25	12	14	55
28	37	51	53	58	53	98	240	60	25	12	13	44
29	36	53	47	*55	-	106	206	*62	*25	13	12	*36
30	36	51	47	53	-------	103	206	65	24	*12	12	34
31	*34	-------	*53	47	-------	*98	-------	58	-------	12	*13	-------
Total	845	1,459	1,678	1,660	1,501	2,397	4,805	2,462	797	456	407	673
Mean	27.3	48.6	54.1	53.5	53.6	77.3	160	79.4	26.6	14.7	13.1	22.4
Ac-ft	1,680	2,890	3,330	3,290	2,980	4,750	9,530	4,880	1,580	904	807	1,330

Calendar year 1958: Max 546 Min 17 Mean 87.8 Ac-ft 63,550
Water year 1958-59: Max 320 Min 12 Mean 52.4 Ac-ft 37,950

Peak discharge (base, 400 cfs).--Apr. 27 (11 p.m.) 438 cfs (4.44 ft).

* Discharge measurement made on this day.

1070. Hyrum Reservoir near Hyrum, Utah

Location.--Lat 41°37'30", long 111°52'30", in SE¼NE¼ sec.7, T.10 N., R.1 E., at Hyrum Dam on Little Bear River, 1 mile southwest of Hyrum.

Drainage area.--220 sq mi.

Records available.--October 1938 to September 1959.

Gage.--Mercury indicating gage. Datum of gage is at mean sea level.

Extremes.--Maximum contents observed during year, 15,710 acre-ft Apr. 30 (elevation, 4,672.9 ft); minimum observed, 2,780 acre-ft Sept. 21 (elevation, 4,640.7 ft).
1938-59: Maximum contents observed, 16,100 acre-ft June 12, 13, 1953 (elevation, 4,673.7 ft); no contents Oct. 16 to about Dec. 12, 1957.

Remarks.--Reservoir is formed by earth-fill dam; storage began in 1935. Usable capacity, 15,280 acre-ft between elevations 4,629.6 (sill of outlet canal) and 4,672 ft (top of spillway gates). Dead storage, 3,405 acre-ft (below elevation 4,629.6 ft, sill of outlet canal). Elevation of spillway crest, 4,660 ft. Water used for irrigation on Hyrum project. Figures given herein represent usable contents; those published in annual reports prior to 1946 represent total contents.

Cooperation.--Capacity table furnished by Bureau of Reclamation. Elevations furnished by superintendent of Hyrum Dam.

Revisions (water years).--WSP 1060: 1946(m).

Capacity table, water year 1958-59 (elevation, in feet, and contents, in acre-feet)

4,640	2,570	4,660	9,840
4,645	4,130	4,665	12,030
4,650	5,860	4,670	14,340
4,655	7,780	4,674	16,240

Contents, in acre-feet, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	-	-	-	-	-	14,720	10,520	6,910	3,640
2	-	-	-	-	-	-	-	-	14,720	10,350	6,760	3,510
3	-	-	-	-	-	-	-	-	14,620	10,180	6,610	3,450
4	-	-	-	-	-	-	-	-	14,720	10,050	6,490	3,390
5	-	-	-	-	-	-	-	-	14,580	9,880	6,380	3,290
6	-	-	-	-	-	-	-	-	14,430	9,790	6,230	3,200
7	-	-	-	-	-	-	-	-	14,340	9,790	6,120	3,140
8	-	-	-	-	-	-	-	-	14,200	9,750	6,010	3,140
9	-	-	-	-	-	-	-	-	14,010	9,710	5,860	3,140
10	3,640	4,490	7,380	10,090	10,610	10,790	15,280	15,660	13,820	9,670	5,720	3,110
11	-	-	-	-	-	-	-	-	13,680	9,620	5,540	3,110
12	-	-	-	-	-	-	-	-	13,540	9,540	5,400	3,080
13	-	-	-	-	-	-	-	-	13,400	9,410	5,180	3,080
14	-	-	-	-	-	-	-	-	13,270	9,250	4,900	3,050
15	-	-	-	-	-	-	15,280	15,280	13,080	9,160	4,770	2,990
16	-	-	-	-	-	-	15,280	15,280	12,940	9,040	4,600	2,960
17	-	-	-	-	-	-	15,280	15,280	12,800	8,910	4,460	2,900
18	-	-	-	-	-	-	15,280	15,280	12,620	8,790	4,330	2,870
19	-	-	-	-	-	-	-	15,190	12,440	8,670	4,260	2,870
20	3,580	5,500	9,580	10,220	10,610	11,090	-	15,040	12,260	8,580	4,190	2,810
21	-	-	-	-	-	-	-	14,810	12,080	8,500	4,130	2,780
22	-	-	-	-	-	-	-	14,760	11,940	8,420	4,100	2,840
23	-	-	-	-	-	-	-	14,670	11,760	8,340	4,100	2,870
24	-	-	-	-	-	-	-	14,580	11,580	8,260	4,060	2,900
25	-	-	-	-	-	-	-	14,480	11,450	8,100	4,060	2,930
26	-	-	-	-	-	-	-	14,390	11,310	7,940	4,060	2,990
27	-	-	-	-	-	-	-	14,340	11,180	7,780	4,060	3,080
28	-	-	-	-	10,650	-	-	14,390	11,050	7,580	4,030	3,170
29	-	-	-	-	-	-	-	14,480	10,870	7,420	3,900	3,290
30	-	5,860	-	-	-	-	15,710	14,580	10,700	7,220	3,800	3,420
31	4,000	------	9,840	10,480	------	12,900	------	14,670	------	7,030	3,740	------
(†)	4,644.6	4,650.0	4,660.0	4,661.5	4,661.9	4,666.9	4,672.9	4,670.7	4,662.0	4,653.1	4,643.8	4,642.8
(‡)	+200	+1,860	+3,980	+640	+170	+2,250	+2,810	-1,040	-3,970	-3,670	-3,290	-320

Calendar year 1958..... ‡ +7,730
Water year 1958-59..... ‡ -380

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

1075. Little Bear River near Hyrum, Utah

Location.--Lat 41°38'00", long 111°53'00". in NE¼SW¼ sec.6, T.10 N., R.1 E., on left bank 2,000 ft upstream from road bridge, 1 mile downstream from Hyrum Dam, and 1½ miles west of Hyrum.

Drainage area.--222 sq mi.

Records available.--October 1938 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,520 ft (from topographic map). Prior to Nov. 9, 1949, at site 1,200 ft downstream at different datum.

Average discharge.--21 years, 62.0 cfs (44,890 acre-ft per year).

Extremes.--Maximum discharge during year, 280 cfs Apr. 27 (gage height, 2.26 ft); minimum daily, 0.4 cfs Sept. 23-27.
1938-59: Maximum discharge, 986 cfs Apr. 30, 1952 (gage height, 4.54 ft); minimum daily, 0.2 cfs Oct. 9-11, 26-30, 1955.

Remarks.--Records good except those for period of no gage-height record, which are fair. Diversions above station for irrigation of about 2,800 acres above and about 7,600 acres below station. Flow regulated by Hyrum Reservoir (see preceding page).

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 30 to Sept. 30)

-0.1	0.2	0.3	8.1	1.3	105
0.0	.9	.4	12	1.8	199
.1	2.3	.6	24	2.1	264
.2	4.7	.9	50		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8		1.9	17	53	58	3.3	183	2.8	1.2	1.2	0.9
2	.8		1.9	25	52	58	3.3	177	1.9	1.2	1.5	.9
3	.8		1.9	34	51	58	3.5	175	1.6	1.2	2.8	1.0
4	.8		1.7	35	51	58	3.7	163	1.3	1.3	1.9	1.2
5	.8		1.9	38	52	57	4.5	146	1.3	1.6	2.0	.8
6	.8	1.3	1.9	44	52	57	68	124	1.5	1.5	2.2	.8
7	.8		1.9	48	53	57	165	107	1.6	1.3	1.7	.7
8	.8		2.0	50	56	56	167	86	1.6	1.3	1.5	.7
9	.9		2.0	53	56	56	150	63	1.6	1.3	1.3	.7
10	.9		1.9	39	55	58	127	45	1.3	1.3	1.3	.7
11	.9		1.9	31	55	39	112	38	1.2	1.2	1.2	.6
12	.8		1.9	37	55	3.5	110	21	1.2	1.2	1.0	.6
13	.8		1.9	42	54	3.0	117	12	1.0	1.2	1.2	.6
14	.8		1.9	46	51	3.0	127	*6.1	1.2	1.0	1.0	.6
15	.8		1.9	47	51	2.8	127	3.3	1.0	1.0	1.0	.6
16	1.0		2.0	48	53	2.8	119	2.5	1.0	1.0	1.0	.6
17	1.0		2.0	49	56	2.5	107	2.8	1.3	1.5	1.0	.6
18	1.2	1.8	2.0	50	59	2.5	107	2.3	*1.3	1.6	1.6	.6
19	1.5		2.0	51	64	2.8	105	2.2	1.3	1.5	3.5	.6
20	1.5		2.0	54	59	2.8	100	2.2	1.3	3.5	6.4	.6
21	1.3		2.0	53	65	2.8	95	2.2	1.3	2.2	4.5	.5
22	1.2		2.2	53	64	2.8	90	2.0	1.3	2.3	1.7	.5
23	1.0		2.2	53	64	2.8	88	2.8	1.2	4.2	1.6	.4
24	1.0		2.2	53	63	2.8	96	2.0	1.2	1.3	1.3	.4
25	1.0		2.2	52	61	2.8	108	1.9	1.2	1.6	1.3	.4
26	1.2	*2.0	2.2	54	60	2.8	157	2.2	1.2	1.5	1.0	.4
27	1.2	2.0	2.3	55	*59	3.0	264	2.2	1.0	1.3	.9	.4
28	1.2	1.9	2.3	56	58	3.0	257	2.2	1.2	1.2	.8	.5
29	1.2	1.9	2.3	*57	-	3.3	218	2.2	1.2	1.2	.8	**.5
30	1.2	1.9	2.3	56	-------	*3.3	*189	3.3	1.2	*1.2	.8	.5
31	*1.2	-------	*4.0	54	-------	3.3	-------	3.5	-------	1.2	.8	-------
Total	31.2	49.7	64.7	1,434	1,582	670.4	3,388.3	1,387.9	40.3	47.1	51.8	18.9
Mean	1.01	1.66	2.09	46.3	56.5	21.6	113	44.8	1.34	1.52	1.67	0.63
Ac-ft	62	99	128	2,840	3,140	1,330	6,720	2,750	80	93	103	37

Calendar year 1958: Max 483 Min 0.8 Mean 44.6 Ac-ft 32,260
Water year 1958-59: Max 264 Min 0.4 Mean 24.0 Ac-ft 17,380

* Discharge measurement made on this day.
** Field estimate made on this day.
Note.--No gage-height record Nov. 1-25; discharge estimated on basis of fairly steady flow and no release from reservoir.

1000. Utah Power & Light Co.'s tailrace near Logan, Utah

Location.--Lat 41°44'40", long 111°47'00", in NE¼ sec.36, T.12 N., R.1 E., on right bank 100 ft downstream from powerhouse of Utah Power & Light Co. and 2½ miles east of Logan.

Records available.--May 1913 to September 1959.

Gage.--Water-stage recorder and timber control. Altitude of gage is 4,680 ft (from topographic map). Prior to Oct. 1, 1938, at datum 0.61 ft higher.

Average discharge.--46 years, 112 cfs (81,080 acre-ft per year).

Extremes.--1913-59: Maximum daily discharge, 206 cfs Apr. 24, 1956; no flow for periods in several years.

Remarks.--Records excellent. Flow regulated by powerplant above station. Power canal diverts water from right bank of Logan River in SE¼SW¼ sec.29, T.12 N., R.2 E. Water returned to river 125 ft below gaging station on Logan River above State dam.

Cooperation.--Records collected in collaboration with Utah Power & Light Co. in connection with a Federal Power Commission project.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.75	0	1.6	60
.9	7.0	2.1	120
1.0	12	2.7	207
1.2	26		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	114	107	95	90	71	81	49	199	163	180	101	99
2	110	107	94	83	74	*82	31	197	172	180	135	99
3	111	108	97	75	74	*83	0	199	176	179	121	98
4	111	107	99	67	84	76	118	197	179	179	106	97
5	114	111	99	79	92	78	176	196	180	182	116	97
6	114	*115	97	82	84	79	188	*196	182	184	116	95
7	114	115	97	86	89	80	131	190	182	*182	116	94
8	112	114	98	82	88	80	191	193	182	184	116	95
9	111	114	102	80	88	80	182	194	179	185	111	94
10	111	114	100	82	*81	62	168	196	180	185	110	*93
11	111	114	100	86	86	76	159	191	180	184	111	92
12	111	111	102	86	81	80	165	191	180	182	111	92
13	111	114	*100	86	80	86	188	*190	179	182	111	90
14	108	115	99	86	55	82	193	190	179	179	111	92
15	107	112	94	78	74	81	193	186	178	182	111	93
16	107	112	92	79	86	81	186	185	179	179	111	92
17	107	104	94	88	90	82	180	182	179	176	111	92
18	107	*97	95	86	84	86	173	180	179	175	110	89
19	106	104	95	84	86	86	172	178	178	172	111	89
20	107	107	97	81	82	82	161	176	176	166	111	92
21	108	106	95	78	83	83	154	175	178	162	110	89
22	107	106	95	78	83	88	155	173	*178	159	111	88
23	107	103	95	84	83	98	*168	172	178	158	110	86
24	107	104	93	84	81	106	191	170	178	155	110	93
25	107	106	92	83	80	103	196	169	179	152	110	106
26	106	100	92	84	82	*106	194	168	180	151	107	108
27	106	100	92	82	81	*108	194	168	180	148	107	108
28	107	98	89	80	80	99	199	166	179	147	104	110
29	107	95	86	82	-	106	197	168	178	147	102	112
30	107	97	*80	80	-------	34	197	168	179	144	100	112
31	107	-------	84	69	-------	0	-------	168	-------	*141	99	-------
Total	3,380	3,217	2,939	2,530	2,282	2,534	4,849	5,671	5,349	5,261	3,427	2,886
Mean	109	107	94.8	81.6	81.5	81.7	162	183	178	170	111	96.2
Ac-ft	6,700	6,380	5,830	5,020	4,530	5,030	9,620	11,250	10,610	10,440	6,800	5,720

Calendar year 1958: Max 205 Min 0 Mean 127 Ac-ft 92,150
Water year 1958-59: Max 199 Min 0 Mean 121 Ac-ft 87,930

* Discharge measurements made on this day.

1035. Logan, Hyde Park & Smithfield Canal near Logan, Utah

Location.--Lat 41°44'45", long 111°47'05", in SE¼ sec.25, T.12 N., R.1 E., on right bank 1¼ miles downstream from head of canal and 2½ miles east of Logan.

Records available.--June 1904 to December 1907, January 1909 to September 1959 (fragmentary prior to October 1923).

Gage.--Water-stage recorder in flume. Prior to May 29, 1924, water-stage recorder or staff gages at several sites within 1 mile of present site at different datums.

Average discharge.--36 years (1923-59), 28.6 cfs (20,710 acre-ft per year).

Extremes.--1906, 1924-59: Maximum daily discharge, 136 cfs May 30, 31, 1930; no flow at times in most years.

Remarks.--Records good except those below 10 cfs and those for no gage-height record, which are fair. No diversion above station. Canal diverts from Logan River in NE¼NE¼ sec.31, T.12 N., R.2 E., for irrigation and domestic supply north of Logan.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

-0.04	0	0.5	20
0.0	.2	.8	36
.1	1.5	1.2	58
.2	4.7	1.8	93
.3	8.9	2.1	111

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	8.5	4.4	4.4	3.1	3.1	1.2	57		60	37	29
2	22	8.5	4.4	4.2	3.4	3.7	.6	34		59	36	29
3	22	8.9	4.1	3.7	3.7	3.7	.5	32		70	35	29
4	20	8.9	4.1	23	4.1	3.7	.7	32		88	35	29
5	18	15	4.1	3.7	4.1	4.1	.7	31	110	86	34	28
6	14	*12	4.1	5.5	3.7	4.1	.3	*31		82	*34	28
7	15	11	4.1	4.4	3.7	3.7	0	41		*78	34	28
8	14	8.9	4.1	3.4	3.4	3.7	.3	59		67	33	28
9	14	7.2	4.1	3.4	3.4	3.7	.2	64		59	33	28
10	14	7.2	3.7	3.4	3.7	3.7	.2	66	*110	55	32	27
11	14	7.2	3.7	3.7	3.4	3.4	.2	66	109	52	33	27
12	15	7.2	3.7	3.7	3.4	3.4	.2	68	107	48	33	28
13	15	7.2	3.4	3.4	3.1	1.8	.2	86	107	45	33	28
14	12	17	3.1	2.8	3.1	.6	5.0	89	93	42	32	28
15	13	11	3.4	2.8	3.4	.6	11	88	86	*44	32	28
16	13	8.1	3.4	2.8	3.7	.7	8.5	98	86	40	32	28
17	12	6.8	3.1	2.8	3.4	.7	6.8	90	85	38	33	28
18	11	5.5	2.8	2.8	3.1	.7	6.4	88	83	36	35	28
19	12	6.4	2.8	2.5	2.8	.8	6.0	103	82	39	42	29
20	13	6.0	2.8	2.5	3.1	.8	2.1	96	88	39	37	29
21	12	5.5	2.8	2.5	3.1	1.2	.2	89	98	39	33	29
22	13	5.1	2.8	2.5	3.1	.8	.2	89	97	38	31	28
23	11	4.7	3.7	2.5	3.1	1.2	1.5	89	102	38	30	28
24	9.4	4.4	4.4	2.8	3.1	1.5	10	89	109	37	31	23
25	22	4.2	4.4	2.8	3.1	3.7	13	75	103	38	30	16
26	10	4.1	4.4	*2.8	3.1	6.8	24		103	37	30	.6
27	10	4.1	4.1	2.5	*3.1	8.1	20		99	37	30	.2
28	10	4.1	4.4	2.8	3.1	7.6	39	105	82	35	30	.3
29	9.4	4.7	4.4	2.8	-	6.0	38		62	36	30	.3
30	9.4	4.7	4.4	2.8	-------	1.2	45		61	35	30	.2
31	8.9	-------	*4.0	3.1	-------	1.2	-------		-------	35	*30	-------
Total	426.1	222.1	117.2	118.8	93.6	90.0	241.8	2,380	2,942	1,532	1,020	689.6
Mean	13.7	7.40	3.78	3.83	3.34	2.90	8.06	76.8	98.1	49.4	32.9	23.0
Ac-ft	845	441	232	236	186	179	480	4,720	5,840	3,040	2,020	1,370

Calendar year 1958: Max 115 Min 0 Mean 28.6 Ac-ft 20,730
Water year 1958-59: Max - Min 0 Mean 27.0 Ac-ft 19,590

* Discharge measurement made on this day.

Note.--No gage-height record May 23 to June 9; discharge estimated on basis of recorded range in stage, weather records, and records for Logan River above State dam and Utah Power & Light tailrace near Logan.

1090. Logan River above State dam, near Logan, Utah

Location.--Lat 41°44'40", long 111°47'00", in NE¼ sec.36, T.12 N., R.1 E., on right bank at Logan plant of Utah Power & Light Co., 125 ft upstream from tailrace, half a mile upstream from State dam, and 2½ miles east of Logan.

Drainage area.--218 sq mi.

Records available.--June 1896 to September 1959. Published as Logan River near Logan prior to 1913. Records since May 1913 equivalent to earlier records if records for Utah Power & Light Co.'s tailrace near Logan are added.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 4,680 ft (from topographic map). Prior to May 7, 1913, staff gage at various sites within half a mile downstream, below confluence of tailrace, at different datums. May 7 to Sept. 30, 1913, water-stage recorder at present site at different datums and Oct. 1, 1913, to Sept. 3, 1938, at datum about 2.3 ft lower than present datum.

Average discharge.--46 years (1913-59), 106 cfs (76,740 acre-ft per year). Average combined discharge of Logan River above State dam, Utah Power & Light Co.'s tailrace, and Logan, Hyde Park & Smithfield Canal, 36 years (1923-59), 233 cfs (168,700 acre-ft per year).

Extremes.--Maximum discharge during year, 512 cfs June 9 (gage height, 2.64 ft); minimum daily, 12 cfs for many days.

Maximum combined discharge during year (Logan River above State dam, Utah Power & Light Co.'s tailrace, and Logan, Hyde Park & Smithfield Canal), 801 cfs June 9; minimum daily, 72 cfs Feb. 14.

1913-59: Maximum discharge, 2,000 cfs Mar. 21, 1916 (gage height, 5.6 ft, datum then in use), from rating curve extended above 1,000 cfs; minimum daily, 6 cfs Nov. 7, 1940.

1934-59: Maximum combined daily discharge (Logan River above State dam, Utah Power & Light Co.'s tailrace, and Logan, Hyde Park & Smithfield Canal), 1,400 cfs May 24, 30, 1950; minimum daily, 50 cfs Jan. 21, 1935.

Remarks.--Records excellent above 20 cfs and good below. Water diverted from river and springs above station for power, irrigation, and municipal supply. Flow regulated by powerplants above station. For records of combined flow of Logan River, Utah Power & Light Co.'s tailrace, and Logan, Hyde Park & Smithfield Canal, see following page. Combined flow record excludes that in Logan City culinary pipe lines and one small irrigation diversion from power flume that siphons canyon 400 ft upstream from station.

Cooperation.--Records collected in collaboration with Utah Power & Light Co. in connection with a Federal Power Commission project.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.9	12	1.7	158
1.0	22	2.2	315
1.3	67	2.3	356

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	12	15	17	15	12	69	57	138	83	61	19
2	15	13	16	18	16	*12	84	146	158	73	20	18
3	14	14	15	16	16	12	143	126	200	58	31	18
4	15	13	15	16	18	12	92	114	236	34	47	18
5	15	15	15	18	20	13	62	102	262	27	32	19
6	15	*14	14	21	18	15	69	107	304	23	32	19
7	17	14	14	21	17	14	120	94	352	*20	32	20
8	17	14	16	20	17	13	48	100	*331	20	26	19
9	18	12	16	17	16	14	21	161	327	21	28	18
10	18	13	15	16	*16	28	18	177	327	18	31	*17
11	16	13	16	16	15	15	18	153	296	18	28	17
12	16	14	36	16	15	15	18	194	275	18	28	18
13	15	14	*25	16	14	17	26	*245	282	18	26	19
14	18	14	19	16	14	19	18	323	300	20	25	19
15	18	15	16	16	15	17	12	282	319	17	23	20
16	18	14	16	16	16	18	12	278	331	17	21	19
17	18	13	16	16	23	18	12	230	300	17	18	19
18	18	*15	16	16	16	18	13	205	268	16	25	18
19	19	21	16	16	14	19	12	163	245	15	32	19
20	19	18	16	16	14	18	13	138	217	16	27	19
21	19	17	15	18	14	18	16	123	185	16	23	18
22	20	16	15	16	14	19	16	119	*180	16	21	18
23	19	15	15	18	13	22	*14	116	158	16	19	19
24	19	16	15	16	13	21	12	116	131	16	18	18
25	21	15	14	16	14	14	12	143	121	16	18	25
26	12	15	14	16	13	*12	69	146	116	16	19	48
27	12	14	14	16	12	*13	121	161	114	17	18	53
28	15	14	14	16	12	13	57	153	114	16	19	32
29	16	15	15	15	-	14	42	140	116	16	20	27
30	16	15	*15	15	-------	75	26	146	102	15	19	27
31	15	-------	16	14	-------	114	-------	146	-------	*17	19	-------
Total	519	437	505	516	430	654	1,265	4,904	6,805	726	806	657
Mean	16.7	14.6	16.3	16.6	15.4	21.1	42.2	158	227	23.4	26.0	21.9
Ac-ft	1,030	867	1,000	1,020	853	1,300	2,510	9,730	13,500	1,440	1,600	1,300

Calendar year 1958: Max 912 Min 12 Mean 95.5 Ac-ft 69,140
Water year 1958-59: Max 352 Min 12 Mean 49.9 Ac-ft 36,150

* Discharge measurement made on this day.

1090. Logan River above State dam, near Logan, Utah--Continued

Combined discharge, in cubic feet per second, of Logan River above State dam, Utah Power & Light Co.'s tailrace, and Logan, Hyde Park & Smithfield Canal near Logan, Utah, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	148	128	114	111	89	96	119	313	411	323	199	147
2	147	128	114	105	93	98	116	377	440	312	191	146
3	147	131	116	95	94	99	143	357	486	307	187	145
4	146	129	118	106	106	92	211	343	525	301	188	144
5	147	139	118	101	116	95	239	329	552	295	182	144
6	143	141	115	108	106	98	257	334	596	289	182	142
7	146	140	115	111	110	98	251	325	644	280	182	142
8	143	137	118	105	108	97	239	352	623	271	175	142
9	143	133	122	100	107	98	203	419	616	265	172	140
10	143	134	119	101	101	94	186	439	617	258	173	137
11	141	134	120	106	104	94	177	410	585	254	172	136
12	142	132	142	106	99	98	183	453	562	248	172	138
13	141	135	128	105	97	105	214	521	568	245	170	137
14	138	146	121	105	72	102	216	602	572	241	168	139
15	138	138	113	97	92	99	216	556	583	243	166	141
16	138	134	111	98	106	100	206	561	596	236	164	139
17	137	124	113	107	116	101	199	502	564	231	162	139
18	136	118	114	105	103	105	192	473	530	227	170	136
19	137	131	114	102	103	106	190	444	505	226	185	137
20	139	131	116	100	99	101	176	410	481	221	175	140
21	139	128	113	98	100	102	170	387	461	217	166	136
22	140	127	113	96	100	108	171	381	455	213	163	134
23	137	123	114	104	99	121	184	377	438	212	159	133
24	135	124	112	103	97	128	213	375	418	208	159	134
25	150	125	110	101	97	121	221	387	403	206	158	148
26	128	119	110	103	98	125	287	419	399	204	156	157
27	128	118	110	100	96	129	335	434	393	202	155	161
28	132	116	107	99	95	120	295	424	375	198	153	142
29	132	115	105	100	-	126	277	413	356	197	152	139
30	132	117	99	98	-------	110	268	419	342	194	149	139
31	131	-------	104	86	-------	115	-------	419	-------	193	148	-------
Total	4,324	3,875	3,558	3,162	2,803	3,281	6,354	12,955	15,096	7,517	5,253	4,233
Mean	139	129	115	102	100	106	212	418	503	242	169	141
Ac-ft	8,580	7,690	7,060	6,270	5,560	6,510	12,600	25,700	29,940	14,910	10,420	8,400

Calendar year 1958: Max 1,210 Min 99 Mean 251 Ac-ft 182,000
Water year 1958-59: Max 644 Min 72 Mean 198 Ac-ft 143,600

1135. Blacksmith Fork above Utah Power & Light Co.'s dam, near Hyrum, Utah

Location.--Lat 41°37'20", long 111°44'25", in NE¼ sec.3, T.10 N., R.2 E., on right bank three-quarters of a mile upstream from diversion dam, 3¼ miles upstream from powerplant of Utah Power & Light Co., and 6 miles east of Hyrum.

Drainage area.--260 sq mi.

Records available.--November 1913 to September 1959.

Gage.-- Water-stage recorder. Altitude of gage is 5,000 ft (from topographic map). Prior to Oct. 2, 1934, at site 1,000 ft upstream at different datum.

Average discharge.--45 years (1914-59), 125 cfs (90,500 acre-ft per year).

Extremes.--Maximum discharge during year, 281 cfs Apr. 26 (gage height, 3.09 ft); minimum daily, 71 cfs Sept. 11-13.
1913-59: Maximum discharge, 1,620 cfs May 15, 1917 (gage height, 6.5 ft, from floodmarks, site and datum then in use), from rating curve extended above 800 cfs; minimum daily, 29 cfs Jan. 3, 1935.

Remarks.--Records good. A few small diversions for irrigation of about 200 acres above station. Low flow may be slightly regulated by powerplant above station.

Revisions (water years).--WSP 1514: 1925.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 28 to May 5)

2.1	58
2.3	100
2.5	145
3.0	271

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	96	100	90	79	79	79	102	169	109	90	81	79
2	96	98	90	79	79	79	122	176	*107	87	81	79
3	96	96	87	77	79	81	134	162	104	87	79	79
4	96	96	87	75	79	79	157	152	104	87	79	77
5	96	96	87	80	81	79	174	140	102	85	77	75
6	96	96	85	81	79	77	188	134	104	87	77	73
7	98	90	85	81	74	77	191	124	104	87	79	77
8	100	98	83	77	81	79	162	122	109	85	79	75
9	100	96	87	85	81	79	138	127	107	83	79	75
10	100	96	87	81	81	79	122	134	102	83	79	73
11	100	96	92	85	79	79	122	131	102	83	79	71
12	98	94	96	83	79	77	131	127	102	83	79	71
13	98	96	92	83	79	87	145	131	100	83	77	71
14	98	104	87	83	79	98	152	*136	100	79	75	73
15	98	100	87	79	79	87	143	136	100	83	77	77
16	100	96	85	81	79	85	129	134	102	85	75	79
17	100	94	85	83	81	96	124	131	100	83	75	77
18	100	94	85	83	81	109	127	122	*96	81	75	79
19	98	94	85	83	81	107	120	115	96	81	83	79
20	100	94	85	83	79	94	115	113	92	81	92	79
21	94	94	85	83	79	83	113	111	96	81	83	77
22	102	94	85	83	77	109	111	111	92	81	81	75
23	100	94	85	83	79	129	120	113	87	79	81	75
24	100	92	83	81	79	118	134	111	87	79	81	77
25	100	92	83	83	79	85	138	118	87	79	81	79
26	100	*75	83	85	79	107	218	122	92	79	81	83
27	100	92	83	85	*77	109	239	124	92	79	81	85
28	100	90	83	83	77	98	179	118	92	79	81	79
29	94	90	79	*83	-	104	155	115	92	79	81	*77
30	98	90	75	81	-------	*100	*157	111	90	*79	81	79
31	*96	-------	*79	79	-------	100	-------	111	-------	79	*79	-------
Total	3,048	2,827	2,650	2,530	2,215	2,849	4,362	3,979	2,949	2,556	2,468	2,304
Mean	98.3	94.2	85.5	81.6	79.1	91.9	145	128	98.3	82.5	79.6	76.8
Ac-ft	6,050	5,610	5,260	5,020	4,390	5,650	8,650	7,890	5,850	5,070	4,900	4,570

Calendar year 1958: Max 460 Min 75 Mean 131 Ac-ft 95,140
Water year 1958-59: Max 239 Min 71 Mean 95.2 Ac-ft 68,910

Peak discharge (base, 140 cfs).--Apr. 7 (2 a.m.) 223 cfs (2.82 ft); Apr. 26 (5 p.m.) 281 cfs (3.09 ft).

* Discharge measurement made on this day.

1170. Hammond (East Side) Canal near Collinston, Utah

Location.--Lat 41°50', long 112°03', in SE¼ sec.27, T.13 N., R.2 W., on right bank 3,600 ft downstream from Cutler Dam and 4 miles north of Collinston.

Records available.--June 1912 to September 1959.

Gage.--Water-stage recorder. Prior to May 22, 1914, staff gage at same site and datum.

Average discharge.--42 years (1917-59), 52.5 cfs (38,010 acre-ft per year).

Extremes.--1912-59: Maximum daily discharge, 182 cfs June 28, July 1, 1932, June 27, 28, 1933; no flow at times each year.

Remarks.--Records good. Canal diverts from east side of Bear River in NW¼SW¼ sec.26, T.13 N., R.2 W., at dam at which West Side Canal and intake of Cutler powerplant also divert. Water from this canal and West Side Canal used for irrigation of about 58,000 acres below station in eastern Box Elder County.

Cooperation.--Gage-height record and five discharge measurements furnished by Utah Power & Light Co. Four discharge measurements furnished by Utah-Idaho Sugar Co.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	94	17						0	108	129	155	137
2	84	18				(*)		0	116	134	155	136
3	74	18						0	143	138	155	*137
4	64	19						70	*155	142	156	137
5	63	19						71	149	143	155	136
6	63	20						71	148	*163	150	136
7	63	20						71	147	168	*146	136
8	63	20						100	146	167	147	*128
9	63	19						116	144	166	147	118
10	63	15						115	147	*165	148	116
11	66	14						*115	*147	167	146	116
12	72	14						121	*158	167	144	119
13	72	14						129	163	166	146	119
14	71	14						150	165	166	154	116
15	59	14						163	170	164	158	104
16	45	14						*164	168	164	158	90
17	57	5.6						165	165	161	155	83
18	57	0						164	163	160	155	81
19	57	0						164	163	158	142	74
20	44	0						167	160	158	128	63
21	28	0						174	*163	157	128	62
22	34	0						*173	163	157	129	62
23	34	0						173	*164	156	128	54
24	34	0						173	164	157	130	46
25	33	*0						173	159	157	132	36
26	33	0				(*)		163	155	156	128	30
27	*33	0						134	152	154	123	27
28	21	0						106	147	155	121	23
29	12	0			-			100	136	155	125	17
30	9.5	0	(*)		-------			103	128	155	135	21
31	13	-------			-------		-------	106	-------	*147	136	-------
Total	1,578.5	274.6	0	0	0	0	0	3,694	4,556	4,852	4,415	2,660
Mean	50.9	9.15	0	0	0	0	0	119	152	157	142	88.7
Ac-ft	3,130	545	0	0	0	0	0	7,330	9,040	9,620	8,760	5,280

Calendar year 1958: Max 175 Min 0 Mean 63.6 Ac-ft 46,020
Water year 1958-59: Max 174 Min 0 Mean 60.4 Ac-ft 43,700

* Discharge measurement made on this day.

1175. West Side Canal near Collinston, Utah

Location.--Lat 41°50', long 112°04, in SW¼ sec.27, T.13 N., R.2 W., on left bank 4,200 ft downstream from Cutler Dam and 4 miles north of Collinston.

Records available.--June 1912 to September 1959.

Gage.--Water-stage recorder. Prior to May 22, 1914, staff gage at same site and datum.

Average discharge.--47 years, 233 cfs (168,700 acre-ft per year).

Extremes.--1912-59: Maximum daily discharge, 751 cfs June 24, 25, 1959; no flow for periods in every year except 1914.

Remarks.--Records good except those for period of no gage-height record, which are fair. Canal diverts from west side of Bear River in NW¼SW¼ sec.26, T.13 N., R.2 W., at dam at which Hammond (East Side) Canal and intake of Cutler powerplant also divert. Water from this canal and Hammond (East Side) Canal used for irrigation of about 58,000 acres below stations in eastern Box Elder County.

Cooperation.--Gage-height record and 11 discharge measurements furnished by Utah Power & Light Co. Four discharge measurements furnished by Utah-Idaho Sugar Co.

Rating tables, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-19)

Oct. 1 to May 3				May 4 to Sept. 30			
1.2	11	3.0	127	2.0	70	5.0	480
1.5	20	4.0	249	2.5	115	6.4	755
2.0	46	5.0	415	3.0	173		
2.5	81						

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	379	136	55			18		0	438	493	624	604
2	357	135	30	13		*11		0	531	574	632	612
3	345	135				0		0	600	596	630	*612
4	348	136				0		288	634	596	626	610
5	350	136			24	0		335	684	610	602	610
6	350	135				0		335	717	*650	604	608
7	342	136		(*)		0		329	713	671	*608	610
8	331	136				0		382	717	692	642	*610
9	325	134		15	*24	0		423	715	688	650	614
10	306	128			24	0		426	*713	696	650	612
11	308	120			24	0		*432	*709	715	650	604
12	333	120			23	0		*506	*694	717	646	594
13	345	114			22	0		610	705	713	658	590
14	342	101		19	26	0		671	707	709	675	578
15	318	99			20	0		711	713	673	673	515
16	276	98	12		20	0		*707	665	660	671	490
17	274	*77			21	0		709	675	642	669	466
18	274				21	0		717	663	640	671	441
19	273				21	0		717	688	636	630	400
20	251				21	0		719	707	636	557	316
21	211				20	0		721	*726	636	566	324
22	217	75		23	21	0		*719	749	638	586	337
23	202				20	0		717	*749	638	588	313
24	199				19	0		717	751	638	586	266
25	198	(*)			19	0		713	*751	638	584	193
26	195			(*)	19	*0		644	671	642	566	138
27	*193				18	0		523	648	648	552	116
28	160	70			18	0		402	606	642	566	110
29	138				-	0		370	538	616	586	80
30	136		(*)		-------	0		374	475	596	584	84
31	135	-------			-------	0	-------	392	-------	*604	584	-------
Total	8,411	3,031	433	597	613	29	0	15,309	20,052	19,943	19,116	13,057
Mean	271	101	14.0	19.3	21.9	0.9	0	494	668	643	617	435
Ac-ft	16,680	6,010	859	1,180	1,220	58	0	30,360	39,770	39,560	37,920	25,900

Calendar year 1958: Max 732 Min 0 Mean 282 Ac-ft 204,100
Water year 1958-59: Max 751 Min 0 Mean 276 Ac-ft 199,500

* Discharge measurement or observation of no flow made on this day.
Note.--No gage-height record Nov. 17 to Feb. 8; discharge estimated on basis of 5 discharge measurements and records of gate changes by employees of Utah Power & Light Co.

1180. Bear River near Collinston, Utah

Location.--Lat 41°50', long 112°03', in NW¼SE¼ sec.27, T.13 N., R.2 W., on right bank 800 ft downstream from Cutler plant of Utah Power & Light Co., 2,000 ft downstream from Cutler Dam, and 5½ miles north of Collinston.

Drainage area.--6,000 sq mi, approximately.

Records available.--July 1889 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 4,276.13 ft above mean sea level (levels by Bureau of Reclamation). Prior to Nov. 8, 1913, staff gage and Nov. 8, 1913, to Sept. 10, 1938, water-stage recorder, at site three-quarters of a mile downstream at different datums.

Extremes.--Maximum discharge during year, 3,640 cfs Apr. 16 (gage height, 4.67 ft); minimum daily, 20 cfs June 6.
1889-1959: Maximum discharge observed, 11,600 cfs June 7-10, 1909 (gage height, 7.70 ft, site and datum then in use); practically no flow at 12 p.m. Aug. 5, 1920.

Remarks.--Records excellent. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation, and return flow from irrigated areas.

Cooperation.--Seven discharge measurements furnished by Utah Power & Light Co.

Revisions (water years).--WSP 1564: 1902.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	510	842	1,040	828	963	1,150	1,610	829	516	394	25	25
2	481	845	1,050	1,070	837	1,080	1,750	840	380	56	27	25
3	657	700	907	921	988	1,210	1,610	1,160	133	22	25	*24
4	602	693	949	708	939	1,160	1,630	1,200	339	22	24	24
5	453	773	924	578	1,070	1,230	1,680	1,000	95	22	22	24
6	727	769	1,050	741	1,010	1,120	1,630	1,110	20	24	22	22
7	557	846	1,220	*977	1,190	1,280	1,890	1,030	21	22	22	22
8	439	995	1,160	1,050	1,110	1,380	1,920	364	22	24	22	*22
9	431	787	1,330	1,030	*1,040	972	1,940	22	22	26	24	22
10	498	1,060	1,140	1,080	1,080	1,120	1,960	284	22	24	24	22
11	669	924	1,180	1,220	1,260	1,060	1,970	*766	*24	22	30	22
12	569	971	1,310	1,220	1,160	1,080	1,960	261	24	22	30	22
13	583	821	1,330	1,290	1,240	1,020	1,800	22	22	22	35	22
14	666	1,460	1,370	1,210	1,620	1,060	1,620	140	24	22	21	22
15	554	1,410	1,420	1,070	1,550	1,070	1,630	22	22	22	22	24
16	668	1,110	1,260	1,260	1,330	1,160	1,360	22	22	21	22	24
17	548	*1,250	1,320	933	1,400	885	1,470	22	22	21	22	25
18	656	1,260	1,160	1,040	1,590	1,010	1,680	22	61	22	22	25
19	581	1,120	1,230	1,070	1,500	978	1,580	22	21	22	24	25
20	647	1,190	1,170	1,100	1,650	1,160	1,590	22	22	22	24	492
21	746	1,390	1,140	750	1,780	1,170	1,480	22	*22	22	24	831
22	762	1,330	1,020	988	1,600	1,220	1,450	22	22	22	25	162
23	1,210	1,140	1,260	881	1,540	1,100	1,270	22	22	22	25	605
24	1,110	1,240	1,150	1,060	1,490	1,150	*1,180	22	22	22	25	617
25	796	1,220	1,090	1,030	1,490	*1,280	1,340	22	22	21	25	573
26	776	1,230	998	1,060	1,220	1,220	1,470	22	22	22	25	1,020
27	761	1,010	1,040	1,340	1,160	1,450	1,600	21	22	22	25	1,430
28	684	1,060	921	1,490	1,280	1,420	2,140	215	22	22	27	764
29	986	1,230	1,180	1,600	-	1,470	2,050	926	22	22	24	963
30	1,000	*1,030	*1,060	1,590	-------	1,450	2,030	1,070	25	24	24	1,330
31	833	-------	1,020	1,190	-------	1,690	-------	907	-------	*24	25	-------
Total	21,160	31,706	35,399	33,375	36,087	36,765	50,290	12,431	2,057	1,099	763	9,230
Mean	683	1,057	1,142	1,077	1,289	1,186	1,676	401	68.6	35.5	24.6	308
Ac-ft	41,970	62,890	70,210	66,200	71,580	72,920	99,750	24,660	4,080	2,180	1,510	18,310

Calendar year 1958: Max 3,810 Min 20 Mean 1,137 Ac-ft 823,300
Water year 1958-59: Max 2,140 Min 20 Mean 741 Ac-ft 536,300

* Discharge measurement made on this day.

1190. Little Malad River above Elkhorn Reservoir, near Malad City, Idaho

Location.--Lat 42°20', long 112°26', on line between secs.35 and 36, T.12 S., R.34 E., on left bank three-quarters of a mile upstream from highway bridge, 2 miles downstream from Wright Creek, 2½ miles downstream from springs, 2½ miles upstream from Elkhorn Dam, and 14 miles northwest of Malad City.

Drainage area.--120 sq mi, approximately.

Records available.--August 1911 to August 1913 (published as "near Malad"), October 1931 to September 1932, November 1940 to September 1959.

Gage.--Water-stage recorder and Cippoletti weir. Prior to Dec. 5, 1940, staff gages at different datums.

Average discharge.--20 years (1911-12, 1931-32, 1941-59), 17.4 cfs (12,600 acre-ft per year).

Extremes.--Maximum discharge during year, 56 cfs Mar. 17 (gage height, 1.29 ft); minimum, 9.5 cfs Jan. 4; minimum gage height, 0.40 ft Aug. 9, 13.
1911-13, 1913-32, 1940-59: Maximum discharge, 351 cfs July 24, 1955 (gage height, 3.63 ft), from rating curve extended above 70 cfs on basis of computation of peak flow by weir formula; minimum, 6.8 cfs Aug. 19, 1948, Jan. 3, 1951; minimum gage height, 0.31 ft Aug. 19, 1948.

Remarks.--Records good except those computed on basis of partly estimated gage-height record and those for periods of no gage-height record, which are fair. Diversions for irrigation of about 400 acres above station.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.4	9.8
.6	18
.8	28
1.0	38
1.2	50

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	14	13	14	14	16	25	17	18	14	13	14
2	15	14	13	12	13	18	40	18	18	14	13	14
3	15	14	13	12	14	17	42	17	18	14	13	14
4	15	14	13	11	14	15	36	17	18	14	13	14
5	15	14	12	12	14	15	30	17	18	14	12	14
6	15	14	13	13	15	15	24	17	18	14	12	14
7	15	14	13	13	15	16	21	17	18	14	*12	14
8	15	14	*14	13	15	16	19	17	18	14	12	*14
9	15	14	14	13	15	16	18	18	18	14	12	14
10	15	14	14	13	14	16	18	18	17	14	12	14
11	15	14	16	13	14	15	18	17	17	14	12	14
12	15	14	17	13	14	17	18	17	17	14	12	14
13	15	14	14	14	15	20	18	17	17	14	12	14
14	14	15	13	*14	14	19	18	17	16	14	12	14
15	14	14	13	12	15	16	18	18	16	14	12	15
16	14	13	14	13	16	18	17	18	17	14	12	14
17	14	12	14	13	18	f33	17	18	16	13	12	15
18	14	13	14	14	*18	f39	17	18	15	13	12	14
19	14	14	14	14	18	f31	17	18	15	13	15	14
20	14	14	13	13	17	23	17	19	15	13	16	14
21	14	14	13	12	17	f29	16	18	15	14	15	14
22	14	14	13	13	16	f35	16	18	*15	13	14	14
23	14	14	14	14	16	f36	16	20	14	13	14	14
24	14	14	14	14	16	f32	16	*19	14	13	15	14
25	14	14	14	14	15	f31	16	19	14	13	15	15
26	14	13	13	14	15	*f33	17	19	14	13	15	18
27	14	13	13	14	15	29	18	21	14	14	15	17
28	*14	12	13	14	15	24	17	20	14	13	14	16
29	14	13	12	14	-	24	17	19	14	13	14	16
30	14	13	12	13	-------	22	*17	19	14	14	14	15
31	14	-------	13	14	-------	20	-------	19	-------	13	14	-------
Total	447	411	418	409	427	706	614	561	482	422	410	435
Mean	14.4	13.7	13.5	13.2	15.2	22.8	20.5	18.1	16.1	13.6	13.2	14.5
Ac-ft	887	815	829	811	847	1,400	1,220	1,110	956	837	813	863

Calendar year 1958: Max 63 Min 12 Mean 16.5 Ac-ft 11,920
Water year 1958-59: Max 42 Min 11 Mean 15.7 Ac-ft 11,390

* Discharge measurement made on this day.
f Fragmentary gage-height record; discharge computed from partly estimated gage heights.
Note.--No gage-height record Oct. 1-27; discharge estimated on basis of weather records, and records for Devil Creek above Campbell Creek near Malad City.

1225. Devil Creek above Campbell Creek, near Malad City, Idaho

Location.--Lat 42°18', long 112°12', in sec.12, T.31 S., R.36 E., on right bank 0.6 mile upstream from proposed dam, 1.3 miles upstream from highway crossing of Campbell Creek, 4.5 miles upstream from Evans dividers, and 7½ miles northeast of Malad City.

Drainage area.--13 sq mi, approximately.

Records available.--November 1938 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,150 ft (by barometer). Prior to Dec. 16, 1943, staff gage and Dec. 16, 1943, to Aug. 22, 1954, water-stage recorder at site 50 ft upstream at datum 1.84 ft higher.

Average discharge.--20 years (1939-59), 9.66 cfs (6,990 acre-ft per year).

Extremes.--Maximum discharge during year, 30 cfs Apr. 2 (gage height, 2.10 ft); minimum, 2.8 cfs Feb. 11 (gage height, 1.38 ft); minimum daily, 3.1 cfs Feb. 11.
1938-59: Maximum discharge observed, 160 cfs Apr. 2, 1943, from rating curve extended above 130 cfs on basis of logarithmic plotting; maximum gage height, 2.38 ft Apr. 19, 1952, site and datum then in use; minimum discharge recorded, 1.6 cfs Jan. 13, 1950 (gage height, 0.43 ft, site and datum then in use); minimum daily, 1.8 cfs Nov. 3-5, 1949.

Remarks.--Records good. Diversions above station for irrigation of 20 to 30 acres. Stream receives part of flow of Birch Creek above station. Malad powerplant and its small reservoir on Birch Creek cause slight diurnal fluctuations.

Revisions (water years).--WSP 1344: 1943(M). WSP 1514: 1942.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 6-30)

1.3	2.1
1.5	5.2
1.7	10
1.9	18

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.1	5.6	5.0	6.1	6.3	6.7	12	8.5	7.4	5.9	5.6	5.4
2	6.1	5.9	5.0	6.1	6.1	7.0	17	8.5	7.4	5.6	5.6	5.6
3	6.1	6.1	5.0	6.3	6.1	6.7	13	8.5	7.4	5.6	5.6	5.6
4	5.9	6.1	5.0	5.6	5.2	7.0	12	8.2	7.4	5.4	5.6	5.6
5	5.9	6.1	5.0	6.1	6.3	7.0	11	8.2	7.2	5.2	5.4	5.6
6	5.9	6.1	5.2	6.1	6.5	7.0	11	8.2	7.2	5.0	5.4	5.4
7	5.9	6.1	5.2	6.1	6.3	6.7	9.6	8.0	7.2	5.2	*5.6	5.4
8	5.9	5.9	*5.6	6.5	6.3	7.0	9.4	8.0	7.0	5.0	6.1	*5.4
9	5.9	5.9	5.9	7.0	6.1	7.0	9.1	8.0	7.0	5.0	6.1	5.6
10	5.9	5.4	6.1	7.2	4.7	7.0	8.8	8.0	6.7	5.0	5.9	5.4
11	5.9	5.4	6.5	7.0	3.1	7.0	8.8	8.0	6.7	4.9	6.3	5.6
12	5.9	5.4	6.5	7.0	3.5	7.0	9.1	8.0	6.7	4.9	6.3	5.4
13	5.9	5.4	6.3	7.0	6.1	7.4	8.2	7.7	6.7	4.9	6.1	5.4
14	5.6	5.9	6.3	*7.0	6.5	7.4	8.0	7.4	6.5	5.0	6.1	5.9
15	5.4	5.4	6.1	7.0	7.0	7.2	8.0	7.7	6.5	5.0	5.6	6.3
16	5.6	5.0	6.3	7.2	6.7	7.2	8.0	8.2	6.7	4.9	5.6	5.6
17	5.4	4.9	5.9	6.7	6.7	7.4	8.0	8.2	6.5	5.0	5.6	5.9
18	5.9	5.0	6.1	6.3	*6.5	8.5	8.2	8.2	6.3	5.2	6.1	5.9
19	5.6	5.2	5.9	6.5	6.7	8.2	8.0	8.2	6.5	5.2	6.3	6.1
20	5.6	5.4	6.3	6.3	6.5	8.0	7.7	8.0	6.5	5.0	6.5	6.3
21	5.6	5.2	6.3	6.1	6.7	8.5	7.7	8.0	6.5	5.2	6.1	5.9
22	5.6	5.4	6.3	6.3	6.5	9.4	7.7	8.0	*6.3	5.2	6.1	5.9
23	5.4	5.4	6.3	6.3	6.7	9.9	8.0	8.2	6.1	5.0	6.1	5.9
24	5.4	5.4	6.3	6.3	7.0	11	7.7	8.2	5.9	5.2	6.1	5.9
25	5.6	5.4	6.3	6.3	6.5	11	7.7	*8.0	6.1	5.2	6.1	5.9
26	5.6	5.2	6.3	6.3	7.4	10	8.5	8.2	6.3	5.2	6.1	5.9
27	5.6	5.4	6.3	6.1	7.0	*10	8.2	8.5	6.1	5.4	5.9	5.2
28	*5.9	4.9	6.3	6.3	6.7	9.9	8.0	8.2	6.1	5.4	5.9	5.0
29	5.6	5.0	6.1	6.5	-	9.6	8.0	8.0	6.1	5.4	5.6	5.0
30	5.9	5.0	6.1	6.1	-------	9.1	*8.8	8.0	5.9	5.4	5.6	5.0
31	5.6	-------	6.3	6.1	-------	8.5	-------	7.7	-------	5.6	5.9	-------
Total	178.2	164.5	184.1	199.8	173.7	251.3	275.2	250.7	198.9	161.1	182.9	169.0
Mean	5.75	5.48	5.94	6.45	6.20	8.11	9.17	8.09	6.63	5.20	5.90	5.63
Ac-ft	353	326	365	396	345	498	546	497	395	320	363	335

Calendar year 1958: Max 23 Min 4.9 Mean 8.52 Ac-ft 6,170
Water year 1958-59: Max 17 Min 3.1 Mean 6.55 Ac-ft 4,740

* Discharge measurement made on this day.

1255. Malad River at Woodruff, Idaho

Location.--Lat 42°02', long 112°14', in sec.15, T.16 S., R.36 E., on downstream left abutment of highway bridge at Woodruff, 2½ miles north of Idaho-Utah State line.

Drainage area.--485 sq mi, approximately.

Records available.--November 1938 to September 1959.

Gage.--Staff gage read once daily. Prior to Mar. 6, 1951, staff gage at site 300 ft downstream at datum 0.27 ft lower.

Extremes.--Maximum discharge observed during year, 172 cfs Feb. 23 (gage height, 4.40 ft); minimum observed, 17 cfs Aug. 29 to Sept. 1, Sept. 6-14; minimum gage height, 1.90 ft for many days in July, August, September.
1938-59: Maximum discharge, 650 cfs Jan. 22 or 23, 1943 (gage height, 8 ft, from information by observer), from rating curve extended above 370 cfs by logarithmic plotting; minimum observed, 15 cfs July 15, 16, 1940, Aug. 26, 1958; minimum gage height observed, 1.82 ft Aug. 26, 1958.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Flow regulated by several small reservoirs above station. Diversions above station for irrigation of 25,000 to 30,000 acres.

Revisions (water years).--WSP 1060: 1943(M).

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 31 to Feb. 21)

1.8	14	3.0	86
2.0	22	4.0	150
2.2	33	4.5	185
2.5	54		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	a29	39	44	a31	98	73	50	34	19	18	17
2	20	30	39	a36	28	a90	67	48	31	21	18	18
3	21	31	42	32	a35	85	63	50	29	20	18	18
4	21	32	46	a28	41	a74	59	48	26	19	18	18
5	21	37	45	29	a36	67	56	46	24	19	18	18
6	21	40	a44	a34	31	a67	55	44	24	19	18	17
7	20	39	*44	38	a40	67	54	43	22	19	*18	17
8	21	37	47	a38	47	a64	51	43	21	19	18	*17
9	21	37	52	39	a46	60	51	37	21	19	18	17
10	22	37	52	a40	48	a59	52	34	20	19	18	17
11	22	39	52	41	a50	59	51	31	20	19	18	17
12	22	36	a56	a44	34	a59	52	31	19	19	18	17
13	22	a36	59	*47	a34	59	48	27	18	19	18	17
14	23	39	a54	a48	41	a55	47	24	18	19	18	17
15	a23	60	48	49	a44	54	47	24	18	18	18	18
16	24	42	47	a47	46	a54	44	23	18	18	18	18
17	24	35	46	44	a65	55	44	24	18	18	18	18
18	24	35	a47	a52	*97	a56	46	23	19	18	18	18
19	26	a38	48	54	a115	57	56	23	18	18	19	18
20	25	41	49	a44	132	a55	54	24	19	18	19	18
21	a25	40	a49	35	167	54	52	25	19	18	19	18
22	26	43	50	a38	a170	a54	48	26	*19	18	21	18
23	a27	41	52	42	172	53	48	26	19	18	21	18
24	28	40	54	a44	a150	a52	47	*28	19	18	21	18
25	a28	46	54	46	128	52	46	31	19	18	19	18
26	29	46	54	a45	a120	a51	46	33	20	18	19	18
27	30	a40	53	44	111	*50	67	46	20	18	18	18
28	*29	34	a48	a44	a105	51	84	63	19	18	18	18
29	a28	29	41	44	-	a53	*63	61	19	18	17	19
30	26	36	34	a38	-------	56	56	48	19	18	17	19
31	28	-------	39	33	-------	72	-------	39	-------	18	17	-------
Total	747	1,145	1,484	1,281	2,164	1,892	1,627	1,123	629	575	569	532
Mean	24.1	38.2	47.9	41.3	77.3	61.0	54.2	36.2	21.0	18.5	18.4	17.7
Ac-ft	1,480	2,270	2,940	2,540	4,290	3,750	3,230	2,230	1,250	1,140	1,130	1,060

Calendar year 1958: Max 238 Min 15 Mean 49.0 Ac-ft 35,470
Water year 1958-59: Max 172 Min 17 Mean 37.7 Ac-ft 27,310

* Discharge measurement made on this day.
a No gage-height record; discharge estimated or interpolated on basis of weather records and records for nearby streams.

1285. Weber River near Oakley, Utah

Location.--Lat 40°44'10", long 111°14'45", in SE¼NE¼ sec.15, T.1 S., R.6 E., on right bank 1.4 miles downstream from South Fork, 2.6 miles upstream from Weber-Provo diversion canal, and 3½ miles northeast of Oakley.

Drainage area.--163 sq mi.

Records available.--October 1904 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,600 ft (from topographic map). Prior to Oct. 25, 1933, staff gage at site a quarter of a mile downstream at different datum. Oct. 25, 1933, to Aug. 29, 1955, water-stage recorder at present site at datum 0.5 ft higher.

Average discharge.--53 years (1906-59), 224 cfs (162,200 acre-ft per year).

Extremes.--Maximum discharge during year, 1,290 cfs June 16; maximum gage height, 3.22 ft June 8, 9; minimum discharge not determined, occurred during period of ice effect.
1904-59: Maximum discharge observed, 4,170 cfs June 13, 1921 (gage height, 9.0 ft, site and datum then in use), from rating curve extended above 2,000 cfs by logarithmic plotting; minimum recorded, 16 cfs Mar. 12, 1941.

Remarks.--Records good except those for periods of ice effect, which are fair. Several small diversions for irrigation above station. Flow slightly regulated by several small lakes on headwaters and a small reservoir on Smith and Morehouse Creek. Total capacity of all reservoirs, about 3,200 acre-ft.

Revisions (water years).--WSP 790: 1934. WSP 1394: 1907-9, 1911-12, 1921-22.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 16, 17)

0.2	32	1.6	370
.5	69	2.0	530
.8	125	2.5	780
1.2	235	3.1	1,150

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*46	*52	*b47	b55	b44	46	59	232	*503	310	85	56
2	47	51	b48	b50	b42	47	69	264	680	274	93	55
3	46	53	b50	b40	b43	46	80	248	810	267	*93	55
4	46	56	53	b35	b45	b43	98	232	815	248	91	53
5	48	59	60	b40	b46	b45	117	211	*920	229	89	52
6	48	59	51	b46	b47	b47	144	202	1,010	214	87	52
7	48	59	50	b45	b47	51	152	196	1,090	202	82	51
8	47	57	53	b45	b47	55	135	188	1,080	190	79	51
9	47	56	53	b45	b43	46	121	199	*1,050	179	79	51
10	46	55	52	b45	b35	47	110	223	986	173	79	50
11	47	56	56	b46	b40	55	112	241	974	162	75	48
12	45	59	72	b50	b44	53	119	280	998	154	80	47
13	47	57	59	b52	b43	50	132	394	950	152	75	47
14	47	56	b55	b50	b37	47	137	*570	902	152	72	47
15	47	b54	b52	b47	b40	57	135	700	986	149	69	50
16	48	b52	b50	b47	b47	62	125	710	1,040	142	74	53
17	48	b50	b50	53	b52	51	119	670	*860	137	70	57
18	48	b47	b50	51	56	53	121	580	715	125	75	53
19	50	b50	53	50	50	56	114	*477	605	121	93	57
20	59	b54	51	b48	47	56	110	405	545	112	83	60
21	57	59	53	b44	47	55	108	366	508	108	75	65
22	56	57	50	b45	45	57	110	346	465	142	72	62
23	56	57	50	b47	43	59	121	324	405	142	69	66
24	56	53	48	b50	43	60	132	318	370	137	69	69
25	56	53	b47	53	47	57	154	388	363	130	69	74
26	53	56	b47	53	*43	56	185	402	338	123	69	82
27	52	53	b48	b52	42	59	176	405	335	114	66	98
28	52	b50	b50	*52	43	60	157	380	328	106	63	82
29	51	b48	b48	53	-	60	157	409	402	98	60	77
30	51	b46	b52	b50	------	*56	*188	494	*394	91	59	74
31	52	------	*b55	b46	------	57	------	481	------	89	*56	------
Total	1,547	1,624	1,613	1,485	1,248	1,649	3,797	11,535	21,427	4,972	2,350	1,794
Mean	49.9	54.1	52.0	47.9	44.6	53.2	127	372	714	160	75.8	59.8
Ac-ft	3,070	3,220	3,200	2,950	2,480	3,270	7,530	22,880	42,500	9,860	4,660	3,560

Calendar year 1958: Max 1,600 Min - Mean 173 Ac-ft 125,400
Water year 1958-59: Max 1,090 Min 35 Mean 151 Ac-ft 109,200

Peak discharge (base, 1,200 cfs).--June 8 (2 a.m.), 9 (1 a.m.) 1,240 cfs (3.22 ft); June 16 (2 a.m.) 1,290 cfs (3.17 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

1290. Weber-Provo diversion canal at Oakley, Utah

Location.--Lat 40°42'30", long 111°16'30", in NW¼ sec.28, T.1 S., R.6 E., on right bank 1,400 ft downstream from head and three-quarters of a mile east of Oakley.

Records available.--October 1945 to September 1959 in reports of Geological Survey. October 1938 to September 1945, collected by Bureau of Reclamation, available in files of Salt Lake City district office, Geological Survey. October 1932 to September 1939 in reports of Weber River water commissioner.

Gage.--Water-stage recorder and Parshall flume. Altitude of gage is 6,500 ft (from topographic map).

Extremes.--1945-59: Maximum daily discharge, 913 cfs May 21, 1956; no water diverted from Weber River for several months each year.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Canal diverts water from Weber River in SW¼SW¼ sec.21, T.1 S., R.6 E., for irrigation and water supply in Jordan River basin. Figures given herein represent water diverted from main stem of Weber River, some of which may return to Weber River through seepage. For records at outlet of canal see page 95.

Revisions (water years).--WSP 1284: 1949.

Rating tables, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Nov. 2, Apr. 9 to Sept. 30				Nov. 3 to Apr. 9	
0.0	0	1.0	80	2.0	9.2
.1	2.8	1.5	149	2.3	19
.2	7.0	2.0	235	2.7	35
.4	20	3.0	459	3.0	49
.7	46	4.0	723	4.1	112

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	*27	32	20	29	38	170	235			
2		0	28	28	27	31	48	209	396			
3		14	30	18	23	29	52	193	556			
4		*24	29	11	28	23	52	176	556			
5		24	27	23	26	19	53	152	366			
6		24	28	32	28	34	54	144	310			
7		25	26	32	36	30	93	136	284			
8		24	29	27	33	29	113	130	327			
9		22	29	28	31	32	115	134	216			
10		21	28	29	22	30	99	155	103			
11		22	30	32	32	29	99	165	102			
12		24	43	29	30	29	98	153	102			
13		23	35	31	30	33	103	105	72			
14		22	20	24	21	29	103	258	a50			
15		31	20	20	33	27	a80	433	a50			
16		18	30	30	35	35	a70	459	a25			
17		14	31	32	38	33	69	418	*0			
18		19	29	30	37	35	68	350	0			
19		33	29	28	32	37	68	278	0			
20		36	28	23	33	32	65	207	0			
21		33	27	20	30	33	64	165	0			
22		31	27	28	32	38	68	134	0			
23		31	27	33	31	40	75	117	0			
24		29	27	27	30	41	91	113	0			
25		28	24	32	29	38	111	165	0			
26		26	19	31	30	37	127	178	0			
27		29	22	26	29	40	122	179	0			
28		14	26	*33	29	36	106	159	0			
29		22	14	27	-	40	103	176	0			
30		24	11	24	-------	*36	127	243	0			
31		-------	29	16	-------	37	-------	228	-------		(*)	-------
Total		697	829	836	835	1,021	2,534	6,280	3,750			
Mean	0	22.9	26.7	27.0	29.8	32.9	84.5	203	125	0	0	0
Ac-ft	0	1,360	1,640	1,660	1,660	2,030	5,030	12,460	7,440	0	0	0

Calendar year 1958: Max 822 Min 0 Mean 69.2 Ac-ft 50,110
Water year 1958-59: Max 556 Min 0 Mean 46.0 Ac-ft 33,280

* Discharge measurement or observation of no flow made on this day.
a No gage-height record; discharge estimated on basis of trend of flow and records for station near Woodland.

1293. Weber River near Peoa, Utah

Location.--Lat 40°45'10", long 111°22'20", in SE¼NW¼ sec.10, T.1 S., R.5 E., on left bank 60 ft downstream from bridge on U. S. Highway 189, 2.4 miles north of Peoa, and 3.2 miles upstream from Wanship Dam.

Records available.--May 1957 to September 1959.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 6,050 ft (from Bureau of Reclamation Rockport Reservoir map).

Extremes.--Maximum discharge during year, 1,250 cfs June 16 (gage height, 3.18 ft); minimum, 30 cfs Feb. 4.
1957-59: Maximum discharge, 2,110 cfs June 7, 1957 (gage height, 3.37 ft); minimum, that of Feb. 4, 1959.

Remarks.--Records good except those for periods of ice effect, which are fair. Many diversions above station for irrigation. No diversion between station and Rockport Reservoir. Records do not include water diverted from Weber River basin through Weber-Provo diversion canal (see p. 60). Flow slightly regulated by several small reservoirs above station.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.6	38	2.4	386
1.8	68	2.6	579
2.0	128	3.0	1,040
2.2	233		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	61	*66	*b64	59	b50	63	156	96	180	337	83	66
2	58	68	66	58	45	68	180	104	186	268	83	63
3	54	73	66	46	b48	70	142	110	221	261	*75	59
4	54	70	68	b43	49	61	124	110	221	227	75	58
5	54	75	66	b50	51	58	128	104	*438	215	75	58
6	54	73	70	b55	54	61	151	107	611	198	78	56
7	59	75	66	b55	52	59	142	100	813	180	80	58
8	58	73	90	b54	53	59	100	93	813	*165	80	53
9	58	70	93	b55	53	63	85	93	*849	142	78	52
10	61	68	90	56	51	63	80	90	896	133	75	52
11	59	73	96	58	42	61	78	90	884	124	75	56
12	58	78	142	63	51	61	83	85	884	114	78	56
13	58	73	80	63	b48	75	78	186	860	107	73	56
14	58	70	b64	56	b43	75	80	*198	790	100	70	54
15	58	78	b60	b55	b47	75	88	198	908	90	68	58
16	58	b75	63	54	58	75	83	165	1,020	80	59	61
17	59	b70	63	58	70	104	80	165	*813	78	56	70
18	59	b75	63	63	66	156	88	165	655	78	59	61
19	58	75	63	61	68	160	93	160	528	80	96	75
20	59	75	68	56	63	110	93	146	460	78	83	70
21	63	73	63	53	61	110	83	142	423	78	75	80
22	66	70	63	51	61	180	80	165	414	78	78	75
23	63	68	66	54	59	233	80	160	361	85	78	90
24	63	68	63	58	58	165	80	146	320	83	80	100
25	66	73	58	83	58	114	83	151	312	78	78	107
26	66	68	b56	68	*59	133	88	174	290	73	80	133
27	66	70	56	61	59	137	124	233	329	73	80	186
28	61	b60	58	*59	61	121	107	180	337	70	78	118
29	59	b60	b54	54	-	124	96	165	549	66	73	114
30	61	b62	b56	53	-------	*118	*93	169	460	66	70	*107
31	63	-------	*b58	b52	-------	142	-------	192	-------	75	*70	-------
Total	1,852	2,125	2,152	1,764	1,538	3,154	3,046	4,442	16,825	3,880	2,339	2,302
Mean	59.7	70.8	69.4	56.9	54.9	102	102	143	561	125	75.5	76.7
Ac-ft	3,670	4,210	4,270	3,500	3,050	6,260	6,040	8,810	33,370	7,700	4,640	4,570

Calendar year 1958: Max 1,010 Min - Mean 137 Ac-ft 99,530
Water year 1958-59: Max 1,020 Min 42 Mean 124 Ac-ft 90,090

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

1305. Weber River near Coalville, Utah

Location.--Lat 40°53'40", long 111°24'00", in SE¼NE¼ sec.20, T.2 N., R.5 E., on left bank 1½ miles upstream from high-water line of Echo Reservoir, 1½ miles south of Coalville, and 6 miles downstream from Silver Creek.

Drainage area.--438 sq mi.

Records available.--April 1927 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,600 ft (from topographic map). Prior to Mar. 22, 1931, staff gage and Mar. 22, 1931, to Sept. 30, 1952, water-stage recorder, at same site at datum 1 ft higher.

Average discharge.--28 years (1931-59), 200 cfs (144,800 acre-ft per year), since completion of Weber-Provo diversion canal.

Extremes.--Maximum discharge during year, 708 cfs June 28 (gage height, 2.80 ft); minimum not determined, probably occurred May 19.
1927-59: Maximum discharge, 2,190 cfs May 6, 1952; maximum gage height, 5.08 ft (present datum) May 29, 1951; minimum discharge, 6 cfs Sept. 20, 1934.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Many diversions above station for irrigation. No diversion between station and Echo Reservoir. Records do not include water diverted from Weber River basin through Weber-Provo diversion canal (see p. 60). Flow slightly regulated by several small reservoirs above station, and since Apr. 1, 1957, by Rockport Reservoir (usable capacity, 60,000 acre-ft).

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.3	12	1.0	89
.4	17	1.5	204
.5	24	2.0	362
.7	44	2.8	681

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	69	84	89	b65	125	182	62	63	607	190	331
2	60	69	82	95	b65	86	174	60	56	607	188	331
3	60	68	75	b90	b65	b86	216	54	49	607	196	331
4	58	60	74	b87	b64	b86	210	66	48	594	199	282
5	53	69	69	b84	58	b84	199	63	44	594	188	104
6	47	75	68	b83	b57	82	188	56	49	*594	182	a84
7	36	79	68	84	56	79	185	54	50	586	180	a80
8	36	82	89	b90	57	74	174	52	*54	598	174	a74
9	52	86	75	b91	58	72	174	43	56	444	177	a69
10	49	87	77	b92	*b58	75	154	42	53	302	177	a66
11	53	87	82	97	b58	74	123	36	54	321	177	a62
12	53	84	98	100	57	*72	97	34	56	325	*182	a57
13	52	86	95	98	58	79	82	a28	119	331	182	58
14	53	87	93	*97	b58	91	82	*a23	218	315	182	58
15	53	82	*89	b94	b60	97	77	18	233	312	182	60
16	50	77	89	93	64	89	*80	17	227	308	182	62
17	43	*91	87	93	79	104	72	14	224	308	180	a62
18	42	b93	100	95	75	167	75	13	404	308	182	*63
19	41	98	110	97	66	199	74	a15	586	305	207	66
20	*50	97	108	93	a50	174	72	29	590	305	263	68
21	50	93	106	b92	36	174	70	28	590	305	331	68
22	50	97	104	93	36	188	69	37	611	248	331	72
23	52	95	106	93	36	210	69	37	607	180	331	84
24	52	95	106	95	42	196	69	41	607	177	335	87
25	53	93	104	116	80	174	70	47	607	177	348	98
26	56	95	b102	123	145	177	75	54	607	182	345	127
27	56	97	b100	129	147	177	77	77	628	185	345	157
28	50	b92	100	112	147	174	70	75	641	185	345	150
29	62	b87	b100	82	-	174	64	68	637	188	345	150
30	70	b83	b95	b66	-------	177	62	64	616	188	342	121
31	70	-------	b90	b65	-------	180	-------	66	-------	193	338	-------
Total	1,615	2,553	2,825	2,908	1,897	3,996	3,385	1,373	9,384	10,879	7,506	3,482
Mean	52.1	85.1	91.1	93.8	67.8	129	113	44.3	313	351	242	116
Ac-ft	3,200	5,060	5,600	5,770	3,760	7,930	6,710	2,720	18,610	21,580	14,890	6,910

Calendar year 1958: Max 835 Min 36 Mean 187 Ac-ft 135,000
Water year 1958-59: Max 641 Min 13 Mean 142 Ac-ft 102,700

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of 1 discharge measurement, trend of flow, and weather records.
b Stage-discharge relation affected by ice.

1310. Chalk Creek at Coalville, Utah

Location.--Lat 40°55'10", long 111°24'00", in NE¼SE¼ sec.8, T.2 N., R.5 E., on left bank 100 ft downstream from bridge on U. S. Highway 189 in Coalville and a third of a mile upstream from mouth.

Drainage area.--253 sq mi.

Records available.--October 1904 to December 1905 (gage heights only), April 1927 to September 1959.

Gage.--Water-stage recorder and concrete control. Datum of gage is 5,560.6 ft above mean sea level, datum of 1929. Prior to Feb. 13, 1931, staff gage at site 100 ft upstream at different datum. Feb. 13, 1931, to Oct. 15, 1941, water-stage recorder at site 300 ft upstream at different datum.

Average discharge.--32 years (1927-59), 58.9 cfs (42,640 acre-ft per year).

Extremes.--Maximum discharge during year, 277 cfs Apr. 4 (gage height, 1.61 ft); minimum, 3.6 cfs Mar. 11 (gage height, 0.18 ft).
1927-59: Maximum discharge, 1,540 cfs Apr. 28, 1952 (gage height, 4.67 ft); minimum, less than 1 cfs for several days in 1934.

Remarks.--Records good. Several diversions above station for irrigation, none below. Flow slightly affected by Chalk Creek Reservoir (capacity, 1,200 acre-ft).

Revisions (water years).--WSP 1564: 1929.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.1	1.5	0.6	41
.2	4.5	.9	95
.3	9.0	1.3	190
.4	17		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.0	11	14	15	11	15	26	97	87	71	9.8	15
2	5.0	12	15	13	12	19	36	133	97	59	13	15
3	5.0	12	15	9.0	11	15	133	122	108	55	11	15
4	5.0	12	17	8.6	14	9.0	164	106	108	49	9.0	15
5	5.0	12	13	11	12	13	162	83	91	44	8.6	14
6	4.5	12	17	12	13	16	133	75	99	*36	9.8	13
7	4.5	14	14	12	15	13	119	75	104	29	11	13
8	4.5	15	18	11	15	13	71	66	*93	27	9.0	12
9	5.4	15	18	9.8	12	16	51	73	85	27	7.6	12
10	6.3	15	17	11	*11	15	*43	93	73	22	7.6	12
11	5.4	15	18	11	15	11	41	106	68	21	6.8	13
12	4.5	15	25	12	15	*12	38	126	66	22	*5.4	13
13	4.5	15	18	13	11	24	43	*152	61	21	5.4	14
14	4.5	16	11	*12	11	18	51	172	55	19	5.0	12
15	4.5	18	*11	9.8	15	14	47	*169	57	18	5.4	11
16	4.2	12	15	12	17	14	38	150	64	15	5.0	16
17	4.2	*12	15	13	26	21	36	126	52	13	5.4	17
18	4.2	15	14	15	16	27	38	119	41	11	5.8	*19
19	4.2	17	15	14	20	26	37	108	40	11	11	21
20	*5.0	19	15	9.8	17	15	34	83	33	9.0	16	20
21	5.0	16	12	11	15	15	32	*68	28	7.2	12	22
22	5.8	15	15	14	17	25	34	66	28	6.8	11	22
23	7.2	15	15	14	17	27	37	59	32	5.8	8.6	21
24	7.6	15	14	13	15	25	43	61	29	6.8	11	22
25	7.2	*15	7.6	18	15	24	49	77	27	6.3	11	26
26	7.2	12	9.0	16	15	22	66	85	25	7.2	12	34
27	8.1	15	11	12	14	29	77	106	33	7.2	12	44
28	8.6	7.6	13	16	15	18	62	102	49	7.6	13	31
29	9.8	11	8.1	12	-	27	54	91	106	7.2	14	27
30	9.8	13	8.1	9.8	-------	22	64	102	97	7.6	14	25
31	11	-------	11	9.0	-------	27	-------	97	-------	8.1	15	-------
Total	182.7	418.6	438.8	378.8	412	587	1,859	3,148	1,936	656.8	301.2	566
Mean	5.89	14.0	14.2	12.2	14.7	18.9	62.0	102	64.5	21.2	9.72	18.9
Ac-ft	362	830	870	751	817	1,160	3,690	6,240	3,840	1,300	597	1,120

Calendar year 1958: Max 274 Min 4.2 Mean 36.1 Ac-ft 26,120
Water year 1958-59: Max 172 Min 4.2 Mean 29.8 Ac-ft 21,580

Peak discharge (base, 400 cfs).--No peak above base.

* Discharge measurement made on this day.

1315. Echo Reservoir at Echo, Utah

Location.--Lat 40°57'50", long 111°26'00", in NW¼SW¼ sec.30, T.3 N., R.5 E., near outlet works at left end of Echo Dam, 1 mile southeast of Echo.

Drainage area.--732 sq mi.

Records available.--October 1930 to September 1959.

Gage.--Staff gage read once daily. Datum of gage is at mean sea level (levels by Bureau of Reclamation). Prior to 1932, elevations obtained from mercury gage in valve house and staff gage.

Extremes.--Maximum contents during year, 51,350 acre-ft May 11 (elevation, 5,543.4 ft); minimum, 7,270 acre-ft Sept. 25, 26 (elevation, 5,491.2 ft).
1930-59: Maximum contents, 74,540 acre-ft June 16-20, 1956 (elevation, 5,560.4 ft); no storage Sept. 12 to Dec. 3, 1931, Sept. 24 to Nov. 2, 1934, Oct. 12 to Nov. 21, 1944, Oct. 1 to Nov. 15, 1954.

Remarks.--Reservoir is formed by earth-fill, rock-faced dam; storage began in October 1930; dam completed in 1931. Capacity, 73,940 acre-ft between elevations 5,540 (bottom of outlet tunnel) and 5,560 ft (top of radial gates in spillway) above mean sea level. Dead storage negligible. Figures given herein represent total contents. Water is used for irrigation on the Echo project.

Cooperation.--Capacity table furnished by Bureau of Reclamation.

Capacity table, water year 1958-59 (elevation, in feet, and contents, in acre-feet)

5,490	6,730	5,520	26,620
5,495	9,110	5,525	31,180
5,500	11,830	5,530	36,100
5,505	14,920	5,535	41,440
5,510	18,480	5,540	47,200
5,515	22,390	5,545	53,360

Contents, in acre-feet, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11,710	9,010	10,480	16,230	22,800	28,490	38,610	48,770	38,930	32,230	26,880	15,740
2	11,600	9,110	10,590	16,440	22,960	28,760	39,040	49,130	38,400	32,810	26,710	15,600
3	11,370	9,260	10,700	16,650	23,130	29,040	39,470	49,500	37,870	33,300	26,180	15,400
4	11,200	9,370	10,810	16,800	23,380	29,310	40,230	49,990	37,240	33,790	25,660	15,330
5	11,030	9,470	10,980	16,940	23,540	29,500	41,000	50,360	36,620	34,480	25,150	14,990
6	10,870	9,570	11,090	17,080	23,630	29,680	41,550	50,610	36,000	34,880	24,380	14,470
7	10,700	9,680	11,260	17,230	23,790	29,960	42,220	50,850	35,390	35,390	23,710	14,140
8	10,540	9,730	11,370	17,380	23,960	30,140	42,900	51,100	34,580	35,590	23,290	13,260
9	10,320	9,780	11,540	17,520	24,040	30,330	43,460	51,230	33,690	35,900	22,720	12,590
10	10,150	9,890	11,710	17,740	24,210	30,520	43,690	51,230	33,000	35,700	21,990	11,890
11	10,100	10,000	11,940	17,960	24,470	30,710	44,150	51,350	32,230	35,390	21,430	11,200
12	10,000	9,730	12,120	18,110	24,550	30,900	44,380	51,230	31,370	34,980	20,790	10,640
13	9,890	9,310	12,410	18,340	24,720	31,180	44,610	50,850	30,520	34,680	20,170	10,050
14	9,840	8,910	12,590	18,560	24,800	31,460	44,840	50,360	29,770	34,380	19,470	9,520
15	9,730	8,600	12,770	18,790	24,970	31,650	45,080	49,620	29,220	33,990	18,790	9,010
16	9,680	8,360	13,010	19,010	25,150	31,940	45,310	48,770	28,670	33,590	18,110	8,560
17	9,570	8,360	13,260	19,160	25,400	32,130	45,540	47,800	28,130	33,200	17,300	8,260
18	9,470	8,460	13,450	19,470	25,660	32,420	45,780	46,720	27,590	33,000	16,650	7,970
19	9,420	8,650	13,630	19,620	25,920	32,910	46,010	45,660	27,680	32,810	16,230	7,690
20	9,310	8,860	13,890	19,860	26,100	33,300	46,130	44,840	27,860	32,520	15,740	7,590
21	9,210	9,010	14,080	20,010	26,180	33,690	46,370	43,920	27,950	32,230	15,740	7,550
22	9,010	9,210	14,270	20,240	26,360	34,180	46,490	43,120	28,040	31,940	15,810	7,460
23	8,960	9,420	14,400	20,400	26,440	34,680	46,720	42,220	28,490	31,370	15,880	7,320
24	8,760	9,570	14,660	20,640	26,530	35,290	46,960	41,440	28,860	30,900	15,880	7,320
25	8,650	9,730	14,920	20,950	26,710	35,700	47,080	40,660	29,130	30,330	15,880	7,270
26	8,600	9,890	15,130	21,270	27,060	36,100	47,320	39,790	29,400	29,870	16,090	7,270
27	8,600	10,000	15,260	21,580	27,410	36,410	47,680	39,470	29,680	29,400	16,090	7,410
28	8,650	10,100	15,530	21,990	27,950	36,820	48,040	39,360	29,960	28,950	16,230	7,550
29	8,700	10,260	15,670	22,310	-	37,340	48,280	39,250	30,610	28,490	16,230	7,500
30	8,760	10,370	15,810	22,560	------	37,870	48,520	39,140	31,460	27,950	16,160	7,410
31	8,860	------	16,020	22,640	------	38,180	------	39,040	------	27,590	15,950	------
(†)	5,494.5	5,497.4	5,506.6	5,515.3	5,521.5	5,532.0	5,541.1	5,532.8	5,525.3	5,521.1	5,506.5	5,491.5
(‡)	-3,080	+1,510	+5,650	+6,620	+5,310	+10,230	+10,340	-9,480	-7,580	-3,870	-11,640	-8,540

Calendar year 1958..... ‡ -18,260
Water year 1958-59..... ‡ -4,530

† Elevation, in feet, at end of month.
‡ Change in contents, in acre-feet.
Note.--Gage read at about 6 a.m. during summer and at about 9 a.m. during winter.

1325. Lost Creek near Croydon, Utah

Location.--Lat 41°10'35", long 111°24'20", in SW¼SE¼ sec.8, T.5 N., R.5 E., on right bank 0.8 mile downstream from Francis Fork, 1.6 miles upstream from Hell Canyon, and 9½ miles northeast of Croydon.

Drainage area.--133 sq mi.

Records available.--February 1921 to December 1923, April 1941 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,820 ft (by barometer). Prior to Aug. 26, 1954, at several sites within 40 ft of present site at various datums.

Average discharge.--20 years, 35.1 cfs (25,410 acre-ft per year).

Extremes.--Maximum discharge during year, 80 cfs May 2 (gage height, 3.65 ft); minimum daily, 3.2 cfs Aug. 17.
1921-23, 1941-59: Maximum discharge, 770 cfs May 10, 11, 18, 1923 (gage height, 4.20 ft, site and datum then in use), from rating curve extended above 200 cfs; minimum, 3 cfs for several days in 1941-42.

Remarks.--Records good except those for periods of ice effect, which are fair.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.5	1.7	2.8	13
2.6	4.4	3.2	39
2.7	8.0	3.6	72

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.1	8.8	b8.5	b11	b6.5	9.6	17	68	27	11	4.4	4.7
2	6.1	8.4	b9.0	b11	b6.5	11	33	70	25	9.6	4.4	4.7
3	6.1	8.8	9.2	b8.0	b7.0	11	44	57	25	8.8	4.1	5.0
4	6.1	9.2	9.2	b6.0	b7.5	b10	43	55	23	8.0	3.8	4.7
5	6.1	9.2	b9.2	b5.0	b7.5	b8.0	42	49	23	7.2	3.5	4.7
6	6.1	11	9.2	b8.0	b8.0	b8.5	42	45	22	*7.2	3.8	4.7
7	6.1	9.6	9.2	b7.0	b8.0	9.6	38	44	20	6.8	3.8	4.7
8	6.1	10	9.2	b6.0	8.0	11	32	45	20	6.5	3.8	5.0
9	6.1	9.2	10	b6.0	8.0	9.6	27	49	*18	6.5	3.8	6.1
10	6.1	9.2	9.6	b7.0	b8.5	9.6	*23	53	17	6.1	3.5	5.0
11	6.5	9.6	10	b7.5	*b9.0	b9.5	23	52	17	5.7	*3.8	4.7
12	7.2	10	20	8.0	b9.0	*b10	23	52	16	5.7	4.1	5.0
13	6.5	10	14	8.0	b8.0	b10	26	*53	14	5.4	3.8	5.0
14	6.5	13	b12	*8.0	b7.0	b10	29	53	14	5.4	3.8	5.4
15	6.5	16	*b10	b7.0	b7.5	b11	28	50	14	6.1	3.8	6.1
16	6.8	b11	b10	b7.0	b8.0	b12	25	46	16	5.7	3.5	7.2
17	7.2	*b10	11	8.0	9.2	14	23	42	13	5.4	3.2	*6.8
18	6.8	b10	12	8.0	8.4	17	25	40	12	4.7	4.1	6.8
19	7.2	b11	10	8.0	8.8	17	23	37	12	4.7	7.2	6.8
20	7.6	11	10	b7.5	8.0	16	21	34	11	4.4	9.6	12
21	*8.0	11	10	b7.0	8.0	15	20	*31	11	4.1	7.2	12
22	7.6	11	9.2	b7.0	8.0	17	21	31	10	4.1	5.7	9.2
23	7.6	10	9.2	b7.5	8.0	20	23	32	10	3.8	5.4	8.0
24	7.2	10	8.8	b8.5	8.0	22	39	27	9.2	3.8	5.0	8.4
25	7.6	*9.6	b9.0	8.4	8.0	18	35	26	8.8	4.1	4.7	11
26	8.0	b9.5	b9.0	8.8	8.0	17	55	30	9.6	3.8	5.4	16
27	7.6	9.6	b10	8.0	8.0	18	*57	38	13	4.1	4.7	22
28	8.4	b8.0	11	8.0	8.4	16	45	35	16	3.8	4.7	14
29	8.8	b8.0	b9.0	8.0	-	18	46	31	18	3.6	4.7	12
30	8.4	b8.5	b10	b8.0	-------	17	55	30	13	3.5	5.0	10
31	8.4	-------	b10	b7.0	-------	17	-------	28	-------	3.8	4.7	-------
Total	217.4	300.2	316.5	238.2	222.8	419.4	983	1,333	477.6	173.3	143.0	237.7
Mean	7.01	10.0	10.2	7.68	7.96	13.5	32.8	43.0	15.9	5.59	4.61	7.92
Ac-ft	431	595	628	472	442	832	1,950	2,640	947	344	284	471

Calendar year 1958: Max 171 Min 4.4 Mean 23.7 Ac-ft 17,130
Water year 1958-59: Max 70 Min 3.2 Mean 13.9 Ac-ft 10,040

Peak discharge (base, 130 cfs).--No peak above base.

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

1340. East Canyon Reservoir near Morgan, Utah

Location.--Lat 40°55'20", long 111°35'50", in NE¼ sec.10, T.2 N., R.3 E., on upstream face of concrete dam, 9 miles southeast of Morgan.

Drainage area.--155 sq mi, approximately (revised).

Records available.--October 1937 to September 1959 in reports of Geological Survey. November 1931 to September 1959 in reports of Weber River water commissioner.

Gage.--Tape gage generally read weekly. Altitude of gage is 5,550 ft (from river-profile map). Prior to Oct. 1, 1953, staff gage at site 500 ft east of dam.

Extremes.--Maximum contents observed during year, 19,310 acre-ft June 7 (gage height, 120.5 ft); minimum observed, 7,280 acre-ft Oct. 26 (gage height, 76.9 ft).
1931-59: Maximum contents, 29,170 acre-ft June 2, 1943 (gage height, 141.67 ft); no contents at times in 1931, 1934, 1937, 1946, 1954.

Remarks.--Reservoir was formed in 1896 by a 58-foot rock-fill dam (capacity, 3,850 acre-ft), which was raised 25 ft in 1900 (capacity, 9,000 acre-ft), raised 12 ft more in 1902 (capacity, 14,000 acre-ft), and later replaced by present concrete dam, which formed a reservoir having a capacity of 28,730 acre-ft between gage heights 0.0 (bottom of outlet tunnel) and 140.8 ft (top of flashboards in spillway). Gage height of spillway crest is 135 ft. No dead storage. Figures given herein represent total contents. Water is used for irrigation in Davis and Weber counties.

Cooperation.--Capacity table furnished by Utah State Engineer.

Capacity table, water year 1958-59 (elevation, in feet, and contents, in acre-feet)

75	6,900	105	14,380
80	7,900	110	15,880
85	9,020	115	17,500
90	10,250	120	19,120
95	11,620	125	21,000
100	13,000		

Contents, in acre-feet, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10,500	-	-	-	11,490	12,700	-	-	-	-	-	-
2	-	7,520	-	-	-	-	-	-	-	-	13,800	-
3	-	-	-	-	-	-	-	17,560	-	-	-	-
4	-	-	-	10,220	-	-	-	-	-	-	-	-
5	9,820	-	-	-	-	-	15,580	-	-	17,530	-	-
6	-	-	-	-	-	-	-	-	-	-	-	e8,120
7	-	-	8,870	-	-	-	-	-	19,310	-	-	-
8	-	-	-	-	11,840	13,000	-	-	-	-	-	-
9	-	7,720	-	-	-	-	-	-	-	-	12,840	-
10	-	-	-	-	-	-	-	18,250	-	-	-	-
11	-	-	-	10,520	-	-	-	-	-	-	-	-
12	8,460	-	-	-	-	-	16,200	-	-	16,590	-	-
13	-	-	-	-	-	-	-	-	-	-	-	7,840
14	-	-	9,380	-	-	-	-	-	19,240	-	-	-
15	-	-	-	-	12,040	13,380	-	-	-	-	-	-
16	-	8,010	-	-	-	-	-	-	-	-	e11,350	-
17	-	-	-	-	-	-	-	18,670	-	-	-	-
18	-	-	-	10,800	-	-	-	-	-	-	-	-
19	7,560	-	-	-	-	-	16,620	-	-	15,660	-	-
20	-	-	-	-	-	-	-	-	-	-	-	7,520
21	-	-	9,680	-	-	-	-	-	19,060	-	-	-
22	-	-	-	-	12,400	14,040	-	-	-	-	-	-
23	-	8,330	-	-	-	-	-	-	-	-	e9,950	-
24	-	-	-	-	-	-	-	18,830	-	-	-	-
25	-	-	-	11,160	-	-	-	-	-	-	-	-
26	7,280	-	-	-	-	-	17,010	-	-	14,700	-	-
27	-	-	-	-	-	-	-	-	-	-	-	7,720
28	-	-	10,000	-	a12,660	-	-	-	18,220	-	-	-
29	-	-	-	-	-	14,740	-	-	-	-	-	-
30	-	8,580	-	-	-------	-	a17,320	19,090	a18,020	-	8,840	a7,840
31	a7,450	-------	a10,090	a11,440	-------	a14,980	-------	-	-------	a14,060	a8,740	-------
(†)	-	83.0	-	-	-	-	-	119.9	-	-	84.2	-
(‡)	-3,210	+1,130	+1,510	+1,350	+1,220	+2,320	+2,340	+1,770	-1,070	-3,960	-5,320	-900

Calendar year 1958..... ‡ -5,570
Water year 1958-59..... ‡ -2,820

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.
a No gage-height record; contents interpolated.
e Gage height determined by inflow-outflow study since previous visit.

1345. East Canyon Creek near Morgan, Utah

Location.--Lat 40°55'20", long 111°36'20", in NW¼ sec.10, T.2 N., R.3 E., on right bank 2,500 ft downstream from East Canyon Dam, 2½ miles upstream from Sheep Canyon, and 9 miles southeast of Morgan.

Drainage area.--155 sq mi, approximately (revised).

Records available.--October 1937 to September 1959 in reports of Geological Survey. October 1931 to September 1959 in reports of Weber River water commissioner.

Gage.--Water-stage recorder and Lyman rectangular weir. Altitude of gage is 5,460 ft (from river-profile map).

Average discharge.--28 years (1931-59), 51.5 cfs (37,280 acre-ft per year).

Extremes.--Maximum discharge during year, 140 cfs Aug. 9 (gage height, 1.00 ft); maximum gage height, 1.07 ft June 22; minimum discharge, 1.8 cfs Jan. 17, 18.
1931-59: Maximum discharge, 872 cfs May 4, 1952 (gage height, 3.49 ft); minimum daily, 1.4 cfs Dec. 18-20, 1954, Dec. 28, 1954, to Jan. 30, 1955.

Remarks.--Records good. No diversions between station and East Canyon Reservoir (see preceding page) which completely regulates flow.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 1-30)

0	0	0.3	18
.1	3.6	.6	53
.2	9.7	1.1	136

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	92	3.2	3.2	2.7	3.2	2.7	4.7	4.7	6.5	89	94	53
2	96	2.7	3.2	2.7	3.2	2.7	4.7	4.7	6.5	89	94	53
3	94	2.7	3.2	2.7	3.2	2.7	4.7	5.3	6.5	89	94	53
4	94	3.2	3.2	2.7	3.2	2.7	4.7	5.3	6.5	90	94	53
5	98	3.2	3.2	2.7	3.2	2.7	4.7	5.3	12	89	96	53
6	112	3.2	3.2	2.7	3.2	3.2	4.7	5.3	19	*87	94	53
7	112	3.2	3.2	2.7	3.2	3.2	4.7	5.3	19	87	94	53
8	110	2.7	2.7	2.7	3.2	3.2	4.7	5.3	19	90	94	46
9	108	2.7	2.7	2.7	3.2	3.2	4.7	5.3	20	89	112	54
10	106	2.7	2.7	2.7	3.2	*3.6	4.7	5.3	*20	87	123	53
11	104	2.7	2.7	2.7	*3.2	3.6	4.7	5.3	21	89	*117	53
12	92	2.7	2.7	2.7	3.2	3.6	5.3	5.9	23	87	119	53
13	89	2.7	2.7	*2.7	3.2	3.6	4.7	*5.9	31	87	119	52
14	89	2.7	2.7	2.2	3.2	3.6	4.7	5.9	29	87	119	56
15	81	2.7	2.7	2.2	3.2	3.6	4.7	5.9	29	89	117	56
16	82	2.7	*2.7	2.2	3.6	3.6	*4.7	9.0	31	87	113	56
17	80	2.7	2.7	1.8	3.6	3.6	4.7	17	29	89	112	*56
18	79	*2.7	2.7	1.8	3.6	3.6	4.7	19	40	89	112	30
19	58	2.7	2.7	2.2	3.6	3.6	4.7	19	44	87	112	9.0
20	52	2.7	2.7	2.7	3.2	3.6	5.3	19	44	89	112	9.0
21	*37	2.7	3.2	2.7	3.2	3.6	5.3	19	48	89	112	9.0
22	31	2.7	2.7	2.7	3.2	3.6	5.3	18	73	89	113	8.4
23	29	2.7	2.7	2.7	3.2	4.2	4.7	18	84	89	113	8.4
24	28	2.7	2.7	2.7	3.2	4.2	4.7	17	84	90	108	5.9
25	28	2.7	2.7	2.7	2.7	4.2	4.7	17	84	90	106	4.2
26	15	3.2	2.7	2.7	2.7	4.2	4.7	18	85	90	108	4.7
27	3.6	3.2	2.7	2.7	2.7	4.7	4.7	18	85	90	108	4.2
28	3.6	3.2	2.7	2.7	2.7	4.7	4.7	18	89	94	106	4.2
29	3.2	3.2	2.7	2.7	-	4.7	4.7	10	90	94	108	4.2
30	3.2	3.2	2.7	2.7	-------	4.7	4.7	6.5	89	94	72	4.2
31	3.2	-------	2.7	2.7	-------	4.7	-------	6.5	-------	92	53	-------
Total	2,012.8	86.0	87.7	79.9	89.2	113.4	143.4	329.7	1,267.0	2,767	3,248	1,011.4
Mean	64.9	2.87	2.83	2.58	3.19	3.66	4.78	10.6	42.2	89.3	105	33.7
Ac-ft	3,990	171	174	158	177	225	284	654	2,510	5,490	6,440	2,010

Calendar year 1958: Max 207 Min 2.7 Mean 64.2 Ac-ft 46,480
Water year 1958-59: Max 123 Min 1.8 Mean 30.8 Ac-ft 22,280

* Discharge measurement made on this day.

1350. Hardscrabble Creek near Porterville, Utah

Location.--Lat 40°57'10", long 111°43'00", in SW¼NW¼ sec.34, T.3 N., R.2 E., on right bank two-thirds of a mile upstream from Tucker Hollow and 2¾ miles southwest of Porterville.

Drainage area.--28.1 sq mi (revised).

Records available.--October 1941 to September 1959 in reports of Geological Survey. December 1937 to August 1940 (fragmentary) in files of State engineer's office.

Gage.--Water-stage recorder. Altitude of gage is 5,500 ft (from topographic map).

Average discharge.--18 years (1941-59), 31.5 cfs (22,810 acre-ft per year).

Extremes.--Maximum discharge during year, 79 cfs May 1 (gage height, 2.31 ft); minimum daily, 3.5 cfs Jan. 5.
1941-59: Maximum discharge, 464 cfs Aug. 20, 1945 (gage height, 3.60 ft); minimum recorded, 3.0 cfs Feb. 11, 1944.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. A small transbasin canal diverts water from Arthurs Fork, a tributary of Hardscrabble Creek, to Farmington Creek for irrigation in vicinity of Farmington.

Revisions (water years).--WSP 1244: 1945(M).

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.2	8.4	b8.5	7.3	a4.0	6.8	13	63	47	14	6.8	5.2
2	6.4	8.4	b9.0	7.3	a4.0	7.1	17	58	46	12	6.1	5.4
3	6.4	8.4	10	b6.5	a4.5	7.1	18	46	46	12	5.7	5.2
4	6.2	8.4	8.2	a4.5	a5.0	b6.5	21	41	46	12	5.4	5.0
5	6.2	8.9	8.4	a3.5	a5.5	b6.0	24	36	45	11	5.0	5.0
6	6.6	8.6	7.7	a7.0	a6.0	7.7	26	35	45	*10	5.0	4.9
7	6.8	8.9	8.2	a6.0	a6.5	7.1	24	32	45	10	4.7	4.9
8	7.1	8.4	8.6	a5.5	a7.0	7.1	20	33	43	10	5.0	4.6
9	7.5	8.2	8.6	a5.5	a7.5	7.1	17	37	40	9.8	4.9	4.6
10	7.7	8.2	8.2	a5.5	*a6.5	*7.3	*17	41	*37	9.8	5.0	4.6
11	7.9	8.4	10	a6.0	b6.5	7.9	17	44	32	9.8	*5.4	4.4
12	7.9	8.4	12	a6.5	6.8	8.6	18	50	30	9.5	6.4	4.7
13	7.9	8.4	7.5	*a6.5	b6.0	8.2	20	*82	28	9.5	6.1	a5.0
14	8.2	8.9	8.9	6.2	b5.0	8.2	21	68	25	9.8	5.6	a5.0
15	8.2	8.9	b6.5	b6.0	b5.5	8.6	20	68	26	10	5.2	a5.5
16	8.2	8.4	*b5.0	6.6	b6.5	9.5	20	68	24	9.2	5.0	a6.0
17	8.2	b9.5	b5.0	6.4	b6.5	8.4	19	62	22	8.9	4.9	*6.1
18	7.9	*b9.0	b5.0	6.2	b6.0	9.2	19	57	21	8.6	6.1	6.2
19	7.7	8.9	7.3	6.2	7.1	9.8	18	51	20	7.9	10	9.2
20	8.4	8.4	6.6	b6.0	6.8	9.5	17	44	20	7.7	10	8.2
21	*8.4	7.9	b6.5	b6.0	6.8	9.2	17	*39	18	7.5	7.1	7.9
22	8.4	8.4	6.8	6.6	6.8	9.8	18	38	17	7.3	6.4	6.8
23	8.4	8.4	6.6	6.2	6.8	11	21	36	16	6.8	6.2	6.8
24	8.4	7.9	6.4	5.9	6.6	11	27	37	15	6.8	6.1	6.8
25	8.6	7.9	b6.5	6.6	6.6	10	35	39	15	6.6	6.1	12
26	8.6	b7.5	b6.5	6.6	6.6	11	60	45	16	6.4	6.1	16
27	8.6	7.5	b6.5	6.4	6.4	11	*56	58	16	6.4	5.9	12
28	8.6	b7.0	7.3	5.9	6.6	10	45	51	19	6.1	5.4	9.8
29	8.4	b7.0	b6.0	b5.5	-	11	44	49	16	5.9	5.2	9.2
30	8.4	b8.0	b6.0	b5.0	-------	11	50	49	14	5.9	5.0	8.6
31	8.4	-------	7.7	a4.5	-------	12	-------	47	-------	6.4	5.0	-------
Total	240.8	249.5	232.0	186.4	172.4	274.7	759	1,484	850	273.6	182.8	205.6
Mean	7.77	8.32	7.48	6.01	6.16	8.86	25.3	47.9	28.3	8.83	5.90	6.85
Ac-ft	478	495	460	370	342	545	1,510	2,940	1,690	543	363	408

Calendar year 1958: Max 296 Min 5.0 Mean 35.7 Ac-ft 25,860
Water year 1958-59: Max 68 Min 3.5 Mean 14.0 Ac-ft 10,140

Peak discharge (base, 220 cfs).--No peak above base.

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of 2 discharge measurements, trend of flow, weather records, and records for nearby streams.
b Stage-discharge relation affected by ice.

1365. Weber River at Gateway, Utah

Location.--Lat 41°08'20", long 111°50'00", in NW¼SW¼ sec.27, T.5 N., R.1 E., on right bank 800 ft downstream from Union Pacific Railroad bridge, 2,500 ft downstream from Strawberry Creek, and 2,500 ft east of section house at Gateway.

Drainage area.--1,610 sq mi, approximately.

Records available.--October 1889 to October 1901, April to July 1903 (gage heights only), June 1919 to September 1959. Published as "near Uinta" 1889-1903.

Gage.--Water-stage recorder. Altitude of gage is 4,790 ft (by barometer). Oct. 13, 1889, to July 11, 1903, staff gage at site 1 mile downstream at different datum. June 22, 1919, to Oct. 22, 1929, water-stage recorder at site 2,200 ft upstream at different datum. Oct. 22, 1929, to Oct. 30, 1947, water-stage recorder at site 50 ft downstream at present datum.

Extremes.--Maximum discharge during year, 820 cfs June 26 (gage height, 2.14 ft); minimum, 65 cfs Dec. 29.
1889-1903, 1919-59: Maximum discharge observed, 7,980 cfs May 31, 1896; minimum, 45 cfs Sept. 24, 1934.

Remarks.--Records good. Many diversions above and below station for irrigation. Flow regulated by Rockport, Echo, and East Canyon Reservoirs (see p. 64, 66). Records of chemical analyses and water temperatures for the water year 1959 are given in WSP 1644.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.0	71	1.0	304
.2	100	1.5	505
.6	185	2.0	750

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*297	113	118	100	71	105	160	460	388	469	420	412
2	268	111	118	100	74	114	172	496	536	444	416	424
3	265	114	122	89	76	116	196	368	555	460	408	404
4	232	114	120	97	81	104	223	333	536	460	400	400
5	220	116	111	102	81	97	229	284	546	444	444	384
6	237	134	97	*109	76	97	252	246	528	464	505	380
7	237	124	102	105	87	97	240	240	514	464	523	396
8	256	126	107	97	90	94	209	262	546	*464	518	400
9	256	138	113	95	84	97	180	301	550	478	505	396
10	259	134	111	97	79	*102	162	301	*560	460	500	400
11	256	128	113	98	*81	94	153	294	536	460	*492	*396
12	243	268	140	100	*90	92	151	*294	560	452	505	376
13	220	336	126	*98	84	116	165	392	555	448	492	384
14	223	352	107	95	76	118	162	*478	575	436	500	360
15	223	352	100	90	76	104	*160	580	600	440	500	340
16	215	340	*98	94	94	100	153	640	615	444	496	311
17	212	183	100	95	116	105	142	640	580	444	496	*291
18	212	*130	97	95	120	124	147	640	560	420	496	281
19	204	*118	95	95	114	145	142	650	570	436	528	265
20	201	107	92	97	111	128	132	640	580	420	528	232
21	*223	109	90	92	105	114	124	600	590	420	396	243
22	190	111	94	86	100	122	126	605	600	412	408	229
23	188	111	98	90	100	142	124	625	*518	404	396	229
24	220	120	98	94	98	142	134	600	505	420	396	229
25	190	124	97	100	97	134	170	605	505	416	384	234
26	180	120	94	120	97	130	333	645	550	408	392	284
27	151	126	94	105	98	130	487	640	550	412	404	336
28	120	*116	97	98	100	122	352	518	565	420	388	284
29	120	118	90	94	-	126	294	469	620	420	404	311
30	124	122	89	87	-------	*153	336	428	505	*404	424	336
31	120	-------	90	81	-------	188	-------	380	-------	392	412	-------
Total	6,562	4,715	3,218	2,995	2,556	3,652	6,010	14,654	16,498	13,535	14,076	9,947
Mean	212	157	104	96.6	91.3	118	200	473	550	437	454	332
Ac-ft	13,020	9,350	6,380	5,940	5,070	7,240	11,920	29,070	32,720	26,850	27,920	19,730

Calendar year 1958: Max 2,100 Min 89 Mean 513 Ac-ft 371,200
Water year 1958-59: Max 650 Min 71 Mean 270 Ac-ft 195,200

* Discharge measurement made on this day.

1375. South Fork Ogden River near Huntsville, Utah

Location.--Lat 41°16', long 111°40', in SE¼ sec.12, T.6 N., R.2 E., on right bank half a mile downstream from Magpie Creek, 1 mile upstream from Huntsville Mountain Canal, and 5½ miles east of Huntsville.

Drainage area.--148 sq mi.

Records available.--March 1921 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,190 ft (by barometer). Prior to Aug. 14, 1934, at site 300 ft upstream at different datum.

Average discharge.--38 years, 109 cfs (78,910 acre-ft per year).

Extremes.--Maximum discharge during year, 329 cfs May 2 (gage height, 2.56 ft); maximum gage height, 3.02 ft Jan. 4 (ice jam); minimum discharge, 25 cfs Feb. 14 (gage height, 0.77 ft), result of freezeup.
1921-59: Maximum discharge, 1,890 cfs May 3, 1952 (gage height, 5.98 ft); minimum observed, 20 cfs Nov. 25, 1931, July 28, 1934.

Remarks.--Records good except those for periods of ice effect, which are fair.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.8	26	1.5	100
1.0	40	2.0	190
1.2	61	2.5	307

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	38	39	39	b40	43	73	281	118	47	34	34
2	36	39	39	38	b40	47	87	302	118	46	34	34
3	36	39	39	b37	b40	47	98	247	118	45	33	33
4	36	39	39	b36	40	44	113	215	114	44	32	32
5	36	40	39	b36	39	42	135	186	110	42	32	32
6	35	40	39	b36	b39	44	157	168	108	41	33	32
7	34	40	39	36	39	42	147	159	105	40	32	32
8	36	40	40	36	40	41	*118	166	99	*40	32	31
9	36	41	43	37	40	43	102	188	93	39	32	31
10	36	41	40	36	40	43	90	209	87	39	*31	30
11	36	43	43	36	40	*41	85	*207	*82	40	33	30
12	36	42	55	*36	*40	42	92	211	77	39	35	32
13	36	41	45	37	40	49	107	226	74	39	32	32
14	36	49	40	36	b40	49	114	244	72	39	33	32
15	36	47	40	b36	b40	44	110	229	70	40	33	*34
16	36	43	40	36	41	44	98	218	69	38	32	33
17	36	40	*40	37	45	49	90	194	64	37	32	33
18	36	41	40	37	42	58	93	176	62	37	35	33
19	36	*41	40	37	43	61	87	157	61	37	43	36
20	37	40	40	36	41	55	82	*140	59	36	45	40
21	37	40	39	36	41	55	82	128	55	36	38	40
22	*38	40	40	37	41	61	85	121	52	34	37	36
23	38	40	40	37	41	67	96	119	51	34	37	35
24	38	40	39	37	40	67	111	111	48	34	37	35
25	38	40	39	40	40	63	138	114	49	33	36	42
26	39	39	38	40	40	66	249	119	51	33	37	49
27	39	40	39	39	40	67	264	135	58	33	35	50
28	39	39	39	41	41	62	218	126	54	32	34	42
29	38	39	b39	40	-	67	196	119	53	32	33	40
30	38	39	b39	40	-------	67	222	119	50	32	33	39
31	38	-------	b39	b40	-------	68	-------	119	-------	32	33	-------
Total	1,138	1,220	1,249	1,158	1,133	1,638	3,739	5,453	2,281	1,170	1,068	1,064
Mean	36.7	40.7	40.3	37.4	40.5	52.8	125	176	76.0	37.7	34.5	35.5
Ac-ft	2,260	2,420	2,480	2,300	2,250	3,250	7,420	10,820	4,520	2,320	2,120	2,110

Calendar year 1958: Max 746 Min 34 Mean 104 Ac-ft 75,590
Water year 1958-59: Max 302 Min 30 Mean 61.1 Ac-ft 44,270

Peak discharge (base, 400 cfs).--No peak above base.

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

1378. Middle Fork Ogden River at Huntsville, Utah

Location.--Lat 41°17'15", long 111°46'35", in SE¼NE¼ sec.1, T.6 N., R.1 E., on left bank 20 ft downstream from bridge on State Highway 162 and 1½ miles north of Huntsville.

Drainage area.--32 sq mi, approximately.

Records available.--April 1958 to September 1959.

Gage.--Water-stage recorder and concrete control. Datum of gage is 4,915.41 ft above mean sea level, datum of 1929 (levels by Bureau of Reclamation).

Extremes.--Maximum discharge during year, 175 cfs Apr. 26 (gage height, 2.02 ft); no flow Oct. 1 to Nov. 12, Dec. 16 to Mar. 3, July 24 to Sept. 27.
1958-59: Maximum discharge, 450 cfs May 5, 1958 (gage height, 2.72 ft); no flow at times each year.

Remarks.--Records good except those for period of ice effect, which are fair.

Rating table, water year 1958-59, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.6	0	1.1	10
.7	.2	1.2	19
.8	1.1	1.3	30
.9	2.6	1.6	82
1.0	5.4	1.9	155

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	0.2			0	12	109	5.4	0.7		0
2		0	.2			0	21	106	4.3	.7		0
3		0	.2			0	32	82	3.5	.7		0
4		0	.2			b.2	51	74	3.1	.6		0
5		0	.2			b1.0	76	61	2.4	.6		0
6		0	.1			b.8	104	54	2.4	.6		0
7		0	.1			b.6	97	51	2.0	.6		0
8		0	.1			.5	74	52	1.9	*.6		0
9		0	.1			.6	*54	62	1.5	.5		0
10		0	.1			1.4	44	66	1.4	.4	(*)	0
11		0	.1			*1.1	45	*64	*1.2	.3		0
12		0	.1	(*)	(*)	1.1	57	62	1.2	.3		0
13		.2	.1			2.4	70	64	1.1	.3		0
14		2.2	.1			1.7	68	62	1.1	.2		0
15		4.0	.1			1.4	62	56	1.1	.2		*0
16		2.6	0			1.2	45	47	1.1	.2		0
17		1.0	*0			2.6	35	36	1.0	.2		0
18		.8	0			2.0	30	26	.8	.1		0
19		*1.7	0			1.4	22	17	.8	.1		0
20		.7	0			1.7	18	*15	.8	.1		0
21		.5	0			3.3	17	14	.8	.1		0
22	(*)	.4	0			5.7	19	12	.8	.1		0
23		.4	0			11	29	11	.7	.1		0
24		.4	0			13	55	8.3	.7	0		0
25		.4	0			13	82	8.3	.8	0		0
26		.3	0			15	147	9.5	.8	0		0
27		.3	0			17	123	12	1.0	0		0
28		.3	0			14	*84	9.5	1.0	0		.3
29		.2	0		-	16	78	8.3	.8	0		1.0
30		.2	0		-------	14	89	7.8	.8	0		1.4
31		-------	0		-------	13	-------	6.8	-------	0		-------
Total	0	16.6	2.0	0	0	156.7	1,740	1,273.5	46.3	8.3	0	2.7
Mean	0	0.55	0.06	0	0	5.05	58.0	41.1	1.54	0.27	0	0.09
Ac-ft	0	33	4.0	0	0	311	3,450	2,530	92	16	0	5.4

Calendar year 1958: Max - Min - Mean - Ac-ft -
Water year 1958-59: Max 147 Min 0 Mean 8.89 Ac-ft 6,440

* Discharge measurement or observation of no flow made on this day.
b Stage-discharge relation affected by ice.

1379. Spring Creek at Huntsville, Utah

Location.--Lat 41°15'55", long 111°45'55", in SW¼SE¼ sec.7, T.6 N., R.2 E., on left bank at north edge of Huntsville.

Records available.--April 1958 to September 1959.

Gage.--Water-stage recorder and Parshall flume. Datum of gage is 4,902.99 ft above mean sea level, datum of 1929 (levels by Bureau of Reclamation).

Extremes.--Maximum discharge during year, 55 cfs Mar. 13 (gage height, 1.48 ft); minimum, 3.0 cfs Sept. 8, 11, 12 (gage height, 0.31 ft).
1958-59: Maximum discharge, that of Mar. 13, 1959; minimum, that of Sept. 8, 11, 12, 1959.

Remarks.--Records good except those for periods of no gage-height record, which are fair.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 28 to July 18)

0.2	1.9
.3	3.7
.5	9.2
.7	16
.9	25

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.2	8.3	6.5	6.8	7.7	9.2	a8.0	11	19	14	5.7	4.0
2	6.0	8.0	6.5	6.8	7.1	11	a10	10	18	13	5.0	3.7
3	5.4	7.4	6.5	6.5	7.1	11	a13	9.5	19	14	5.0	3.5
4	6.5	7.4	6.5	6.2	6.8	8.9	a16	9.9	18	13	5.0	3.5
5	6.2	8.0	6.0	6.2	6.8	8.0	a20	10	16	12	5.0	3.5
6	6.2	8.0	6.2	6.8	6.8	8.3	a17	11	13	11	5.0	3.3
7	5.7	7.7	6.8	6.8	6.8	a9.0	a12	11	13	11	5.0	3.3
8	5.4	7.4	7.4	6.8	6.8	a10	a9.0	12	13	*9.5	5.2	3.2
9	5.4	8.0	9.9	6.8	7.1	a11	*7.1	11	13	9.5	5.2	3.3
10	5.4	7.7	8.6	6.8	6.8	a13	7.1	11	13	10	*5.2	3.5
11	5.2	8.3	8.9	6.8	7.1	*15	7.1	*11	*16	10	5.7	3.3
12	4.7	8.0	14	*7.1	*7.1	16	7.1	12	16	11	6.0	3.3
13	5.0	7.4	8.9	7.1	7.1	25	7.1	10	14	11	5.2	3.3
14	4.7	19	8.0	7.1	7.1	13	7.4	11	16	11	5.0	3.3
15	5.0	14	7.7	7.1	7.1	11	7.7	9.9	16	11	4.7	*4.0
16	4.7	10	7.7	7.1	7.1	9.5	7.7	9.9	15	11	5.0	4.0
17	5.7	8.0	*8.8	7.7	8.6	9.2	8.0	11	12	11	4.7	4.2
18	6.5	7.7	6.5	8.0	8.6	8.6	10	13	12	10	5.2	4.2
19	6.2	*8.3	6.5	8.0	8.0	9.9	10	14	13	9.9	6.5	4.7
20	5.7	9.2	6.5	7.7	8.3	8.3	9.5	17	13	9.5	6.8	6.2
21	6.0	9.9	6.5	7.4	8.3	8.0	8.6	19	14	8.3	5.4	6.5
22	*7.4	9.5	8.8	7.4	8.0	7.1	8.3	20	13	7.1	5.2	5.4
23	8.0	8.9	7.1	8.0	7.4	6.8	8.3	21	14	6.2	5.2	5.7
24	8.6	8.6	7.4	8.0	7.1	6.5	8.3	17	14	6.0	5.2	5.7
25	8.3	8.3	7.1	13	6.8	6.5	8.0	14	15	5.7	4.7	9.9
26	8.0	8.0	6.8	12	7.1	6.2	11	16	16	5.4	5.0	16
27	8.6	8.0	6.8	9.9	7.4	a6.0	12	24	24	5.0	4.7	11
28	7.7	6.5	6.8	8.9	8.6	a6.0	9.9	18	20	5.2	4.2	7.7
29	8.6	6.5	6.8	8.6	-	a6.5	10	17	18	5.0	4.2	7.1
30	9.2	6.5	6.8	8.0	-------	a6.5	11	16	14	5.0	4.4	7.1
31	8.9	-------	7.1	8.0	-------	a7.0	-------	17	-------	5.4	4.2	-------
Total	200.1	258.5	228.4	239.4	206.6	298.0	296.2	424.2	460	286.7	158.5	157.4
Mean	6.45	8.62	7.37	7.72	7.38	9.61	9.87	13.7	15.3	9.25	5.11	5.25
Ac-ft	397	513	453	475	410	591	588	841	912	569	314	312

Calendar year 1958: Max - Min - Mean - Ac-ft -
Water year 1958-59: Max 25 Min 3.2 Mean 8.81 Ac-ft 6,380

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of recorded range in stage, weather records, trend of flow, and records for nearby streams.

1390. Pine View Reservoir near Ogden, Utah

Location.--Lat 41°15'20", long 111°50'25", in NW¼SE¼ sec.16, T.6 N., R.1 E., at trashrack at Pine View Dam on Ogden River, 7 miles northeast of Ogden.

Drainage area.--310 sq mi, approximately.

Records available.--November 1936 to September 1959.

Gage.--Staff gage read once daily. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

Extremes.--Maximum contents during year, 39,830 acre-ft May 18-20 (elevation, 4,869.5 ft); minimum, 4,840 acre-ft Sept. 23-25 (elevation, 4,837.8 ft).
1936-59: Maximum contents, 57,600 acre-ft June 11, 1957 (elevation, 4,879.0 ft); minimum, 4 acre-ft Jan. 10, 1957 (elevation, 4,819.1 ft).

Remarks.--Reservoir is formed by earth-fill, rock-faced dam; storage began Nov. 16, 1936; capacity, 110,100 acre-ft at elevation 4,900 ft (maximum super storage) above mean sea level. During September 1939 sills of radial spillway gates were raised 1 ft, thus changing the top of spillway gates from elevation 4,871 to 4,872 ft. During 1957 the storage capacity was increased by raising the crest of the spillway to 4,878 ft and elevation of maximum super storage to 4,900 ft (additional capacity, 65,920 acre-ft). Dead storage negligible. Figures given herein represent total contents. Water is used for irrigation in Weber River basin and Ogden River projects.

Cooperation.--Capacity table furnished by Bureau of Reclamation.

Capacity table, water year 1958-59 (elevation, in feet, and contents, in acre-feet)

4,835.0	3,380	4,855.0	19,330
4,840.0	6,150	4,860.0	25,480
4,845.0	9,680	4,865.0	32,610
4,850.0	14,060	4,870.0	40,680

Contents, in acre-feet, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12,920	11,400	12,020	11,840	13,010	16,070	21,920	34,150	39,660	33,230	18,880	9,070
2	12,650	11,400	12,020	11,840	13,100	16,280	22,280	34,940	39,660	33,070	18,430	8,770
3	12,560	11,490	12,020	11,760	13,100	16,380	22,530	35,730	39,500	32,760	17,990	8,470
4	12,470	11,490	12,020	11,760	13,200	16,490	22,780	36,210	39,330	32,460	17,450	8,180
5	12,370	11,490	12,020	11,760	13,290	16,590	23,280	36,690	39,190	32,160	16,910	7,900
6	12,370	11,490	12,020	11,840	13,390	16,800	23,790	37,020	38,820	31,860	16,490	7,610
7	12,190	11,580	12,020	11,840	13,480	16,910	24,430	37,340	38,490	31,410	16,070	7,270
8	12,020	11,580	12,020	11,760	13,680	17,020	24,960	37,670	38,330	30,960	15,760	7,000
9	11,930	11,670	12,100	11,670	13,680	17,120	25,350	38,000	38,160	30,530	15,350	6,730
10	11,840	11,670	12,190	11,670	13,860	17,340	25,750	38,330	37,830	30,080	15,040	6,530
11	11,760	11,670	12,190	11,670	13,960	17,560	26,150	38,660	37,500	29,640	14,650	6,340
12	11,670	11,670	12,280	11,670	14,060	17,660	26,560	38,990	37,340	29,210	14,350	6,150
13	11,670	11,760	12,370	11,670	14,250	17,880	26,830	39,330	37,020	28,790	14,060	5,900
14	11,580	11,760	12,370	11,670	14,250	18,100	27,240	39,330	36,850	28,220	13,770	5,720
15	11,490	11,840	12,370	11,670	14,350	18,430	27,520	39,660	36,690	27,660	13,480	5,470
16	11,490	11,930	12,370	11,580	14,450	18,770	27,940	39,660	36,370	27,380	13,100	5,240
17	11,400	11,930	12,280	11,580	14,550	18,990	28,220	39,660	36,050	26,830	12,740	5,240
18	11,320	12,020	12,190	11,580	14,750	19,210	28,500	39,830	35,890	26,290	12,370	5,120
19	11,320	12,020	12,190	11,670	14,840	19,330	28,930	39,830	35,730	25,750	11,930	5,070
20	11,320	12,020	12,100	11,670	15,040	19,440	29,210	39,830	35,410	25,220	11,840	5,010
21	11,320	12,020	12,020	11,670	15,140	19,560	29,500	39,660	35,100	24,690	11,760	4,950
22	11,320	12,020	12,020	11,840	15,250	19,790	29,640	39,660	34,780	24,170	11,670	4,900
23	11,320	12,020	12,020	11,930	15,350	20,020	29,790	39,660	34,460	23,530	11,490	4,840
24	11,320	12,020	12,020	12,020	15,450	20,130	29,940	39,660	34,150	23,030	11,400	4,840
25	11,320	12,020	12,020	12,100	15,660	20,250	30,230	39,500	33,840	22,530	11,230	4,840
26	11,320	12,020	12,020	12,280	15,760	20,480	30,670	39,500	33,540	21,920	10,980	4,900
27	11,320	12,020	12,020	12,370	15,860	20,600	31,560	39,500	33,230	21,550	10,650	5,010
28	11,320	12,020	12,020	12,470	15,960	20,840	32,310	39,660	33,230	20,950	10,320	5,010
29	11,320	12,020	11,840	12,740	-	21,070	33,070	39,660	33,230	20,480	10,000	5,010
30	11,400	12,020	11,840	12,830	-------	21,310	33,540	39,660	33,230	19,900	9,680	5,010
31	11,400	-------	11,840	12,920	-------	21,670	-------	39,660	-------	19,330	9,380	-------
(†)	4,847.1	4,847.8	4,847.6	4,848.8	4,851.9	4,857.0	4,865.6	4,869.4	4,865.4	4,855.0	4,844.6	4,838.1
(‡)	-1,700	+620	-180	+1,080	+3,040	+5,710	+11,870	+6,120	-6,430	-13,900	-9,950	-4,370

Calendar year 1958..... ‡ -3,610
Water year 1958-59..... ‡ -8,090

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

1400. Ogden River below Pine View Dam, near Ogden, Utah

Location.--Lat 41°15'15", long 111°50'40", in NE¼SW¼ sec.16, T.6 N., R.1 E., on left bank 500 ft downstream from Wheeler Creek, 1,000 ft downstream from Pine View Dam, and 6½ miles northeast of Ogden.

Drainage area.--321 sq mi.

Records available.--October 1937 to September 1959 (discontinued), not including flow of Pine View pipeline. January 1904 to October 1912, October 1931 to September 1937, including flow of pipeline, published as Ogden River near Ogden; records not equivalent.

Gage.--Water-stage recorder. Datum of gage is 4,803.33 ft above mean sea level (levels by Bureau of Reclamation). Prior to Aug. 24, 1932, hook or chain gage and Aug. 25, 1932, to Sept. 30, 1954, water-stage recorder, at site 1,000 ft downstream at datum 5.03 ft lower.

Average discharge.--22 years (1937-59), 86.2 cfs (62,410 acre-ft per year).

Extremes.--Maximum discharge during year, 81 cfs July 28 (gage height, 2.54 ft); minimum daily, 0.1 cfs Sept. 22-24.
1937-59: Maximum discharge, 3,190 cfs May 3, 1952 (gage height, 7.76 ft, site and datum then in use); minimum daily, 0.1 cfs Jan. 19-22, 1954, Oct. 6-9, 1955, Feb. 15, 1956, Sept. 22-24, 1959, when reservoir gates were closed.

Remarks.--Records good except those for period of doubtful gage-height record, which are fair. Flow regulated by Pine View Reservoir (see preceding page). Pine View pipeline diverts water above station for use in irrigation and power development. Diversions for irrigation and municipal supply above Pine View Reservoir.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 10-16)

1.2	0.1	1.8	8.1
1.3	.3	1.9	13
1.4	.7	2.1	27
1.5	1.5	2.3	48
1.6	2.8	2.5	75
1.7	4.9		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.7	1.8	1.7	1.0	0.7	0.9	8.5	8.5	20	2.6	57	7.7
2	.6	2.0	1.7	1.0	.7	.9	13	8.1	20	19	58	8.5
3	.7	2.1	1.6	1.0	.7	.9	15	7.7	23	18	58	11
4	.7	2.1	1.6	1.0	.7	.9	16	8.1	24	24	58	11
5	.6	3.0	1.4	1.0	.6	.8	16	8.5	24	24	35	13
6	.6	3.5	1.4	1.0	.6	.8	15	6.7	24	25	27	15
7	.6	3.5	1.3	1.0	.6	1.0	11	6.4	24	*24	27	15
8	.8	3.5	1.5	1.0	.6	.9	8.1	7.0	28	31	29	14
9	2.6	3.7	1.4	1.0	.6	.9	6.4	8.1	29	31	31	14
10	3.3	2.8	1.4	1.0	.5	.9	5.7	8.9	25	30	*31	14
11	3.5	1.8	1.6	1.0	.6	*.9	5.7	8.5	*23	30	29	14
12	3.5	1.8	1.8	*.9	*.6	.9	5.4	*16	23	29	29	13
13	1.9	1.8	1.5	.8	.5	1.0	7.4	24	22	51	22	13
14	.8	2.6	1.4	.8	.6	1.1	*8.5	32	20	67	22	12
15	.8	2.2	1.2	.6	.5	1.4	8.1	38	15	67	22	3.3
16	2.1	3.0	1.3	.7	.6	1.3	8.1	33	18	57	21	*.3
17	3.1	3.9	*1.2	.7	.8	1.2	7.7	29	23	47	21	.2
18	3.3	3.9	1.1	.7	.8	1.8	9.3	27	20	49	23	.2
19	3.3	*4.2	1.1	.7	.8	2.4	10	25	22	49	8.3	.2
20	3.5	3.1	1.1	.6	.8	1.8	10	23	24	41	2.4	.2
21	3.5	2.0	1.1	.6	.8	1.8	10	23	24	61	2.0	.2
22	*3.7	2.0	1.1	.6	.8	2.5	10	21	18	64	2.0	.1
23	3.9	2.0	1.1	.6	.8	3.7	10	18	20	64	2.0	.1
24	3.7	2.1	1.0	.8	.7	3.5	7.4	18	27	65	2.8	.1
25	3.7	2.0	1.1	.7	.7	3.3	6.4	17	27	64	12	.3
26	3.9	1.8	1.0	.8	.8	4.4	d27	17	21	62	8.9	.4
27	3.9	1.8	1.1	1.0	.8	4.4	d32	13	6.0	62	8.5	.4
28	3.5	1.7	1.1	1.1	.8	3.5	d20	11	4.9	68	8.1	.4
29	2.5	1.8	1.1	1.1	--	3.9	12	16	5.7	67	8.1	.3
30	1.7	1.7	1.0	1.1	-------	3.9	10	20	3.7	62	8.1	.3
31	1.8	-------	1.0	1.0	-------	5.4	-------	20	-------	58	8.1	-------
Total	72.7	75.2	40.0	26.9	19.1	63.0	339.7	527.5	608.3	1,412.6	681.3	182.2
Mean	2.35	2.51	1.29	0.87	0.68	2.03	11.3	17.0	20.3	45.6	22.0	6.07
Ac-ft	144	149	79	53	38	125	674	1,050	1,210	2,800	1,350	361

Calendar year 1958: Max 1,000 Min 0.6 Mean 91.9 Ac-ft 66,530
Water year 1958-59: Max 68 Min 0.1 Mean 11.1 Ac-ft 8,030

* Discharge measurement made on this day.
d Doubtful gage-height record; discharge estimated on basis of records for nearby streams.

1410. Weber River near Plain City, Utah

Location.--Lat 41°16'42", long 112°05'30", in NW¼NE¼ sec.8, T.6 N., R.2 W., or right bank at highway bridge, 1 mile downstream from Fourmile Creek, 1½ miles south of Plain City, and 6 miles upstream from mouth.

Drainage area.--2,060 sq mi, approximately.

Records available.--May 1905 to September 1959 in reports of Geological Survey. January 1904 to May 1905 in reports of State engineer.

Gage.--Water-stage recorder. Altitude of gage is 4,210 ft (from topographic map). Prior to Nov. 12, 1914, staff gage and Nov. 12, 1914, to Aug. 29, 1949, chain gage, at same site and datum.

Extremes.--Maximum discharge during year, 707 cfs Apr. 27 (gage height, 5.31 ft); minimum not determined, occurred during period of no gage-height record.
1904-59: Maximum discharge, 10,100 cfs May 6, 1952 (gage height, 19.01 ft); practically no flow during latter part of several summers since 1915.

Remarks.--Records good except those for periods of doubtful or no gage-height record, which are poor. During summer months practically entire flow is diverted above station for irrigation. Flow regulated by Rockport, Echo, East Canyon, and Pine View Reservoirs (see p. 64, 66, 73). Records of chemical analyses and water temperatures for the water year 1959 are given in WSP 1644.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	75	142	209	223	151	197	281	387	a30	67	a10	
2	95	133	208	220	117	209	263	547	a28	41	a12	
3	67	117	196	205	148	210	301	465	39	26	a14	
4	63	133	210	156	148	196	318	410	48	a20	20	
5	47	138	210	184	164	182	347	249	36	a18	15	
6	48	155	186	249	156	178	367	136	39	a18	a13	
7	62	178	186	247	159	172	376	89	36	*a18	a11	a10
8	53	160	184	233	182	174	337	a66	32	a17	a10	
9	57	184	162	225	179	*152	298	a53	35	a19	a9.0	
10	79	180	155	208	164	179	268	a38	*44	26	a9.0	
11	83	155	197	192	153	182	249	a30	42	19	*a9.0	
12	79	185	231	*210	174	173	231	a23	39	a16	a8.0	
13	79	367	236	239	*179	179	233	a14	36	20	a8.0	
14	65	432	208	233	148	208	236	a8.0	a30	20	a8.0	a12
15	50	540	192	226	147	196	*217	*a5.0	a30	a19	a10	68
16	48	483	209	228	197	182	194	a6.0	52	29	a8.0	*86
17	48	394	217	234	247	184	150	a8.0	38	41	a8.0	75
18	48	221	*217	229	268	196	210	a9.0	a31	36	a10	79
19	48	206	214	229	283	241	244	a12	a31	a17	40	93
20	47	*202	214	217	255	228	234	a16	a29	a16	81	97
21	46	191	212	172	231	204	200	a19	a29	21	76	87
22	48	194	214	160	214	196	229	a23	39	19	a22	87
23	*64	192	237	153	210	217	200	a28	37	a13		84
24	84	203	239	166	206	239	206	a30	a22	a13		99
25	117	221	236	178	202	229	229	29	a22	a13		132
26	128	210	234	253	188	221	316	50	a22	15		254
27	157	202	233	228	191	226	627	103	29	14	a10	a420
28	153	204	237	198	188	206	572	153	42	a12		418
29	139	202	228	203	-	234	408	85	89	a13		435
30	142	204	176	180	-------	242	332	65	98	a11		450
31	148	-------	204	169	-------	335	-------	41	-------	a10		-------
Total	2,467	6,788	6,491	6,445	5,229	6,367	8,671	3,197.0	1,154	657	501.0	3,106
Mean	79.6	226	209	208	187	205	289	103	38.5	21.2	16.2	104
Ac-ft	4,890	13,460	12,870	12,780	10,370	12,630	17,200	6,340	2,290	1,300	994	6,160

Calendar year 1958: Max 3,120 Min 23 Mean 476 Ac-ft 344,900
Water year 1958-59: Max 627 Min 5.0 Mean 140 Ac-ft 101,300

* Discharge measurement made on this day.
a Doubtful or no gage-height record; discharge estimated on basis of 3 discharge measurements, partial or reconstructed recorder graph, and records for Weber River at Gateway.

1415. Holmes Creek near Kaysville, Utah

Location.--Lat 41°03'18", long 111°53'40", in NE¼ sec.25, T.4 N., R.1 W., on left bank 2 miles northeast of Kaysville.

Drainage area.--2.49 sq mi.

Records available.--May 1950 to September 1959.

Gage.--Water-stage recorder and concrete control. Datum of gage is 5,095.1 ft above mean sea level, unadjusted.

Average discharge.--9 years, 3.75 cfs (2,710 acre-ft per year).

Extremes.--Maximum daily discharge during year, 7.5 cfs May 16 (gage height, 0.71 ft); minimum, 0.7 cfs Jan. 28.
1950-59: Maximum discharge, 36 cfs May 3, 1952 (gage height, 1.13 ft); no flow for part of several days in 1951, 1955.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. No diversion above station.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.4	0.8
.5	1.8
.6	3.4
.7	6.6
.8	12

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*2.0	1.9	2.0	1.6		1.5	2.4	4.8	4.2	*2.1	1.6	1.4
2	2.0	1.9	*2.0	1.5	b1.5	*1.8	2.8	4.8	*4.2	2.1	1.5	1.4
3	2.0	1.9	2.0			1.8	*2.8	4.5	4.2	2.1	1.5	*1.4
4	2.0	*1.9	2.1		*1.5	1.8	3.2	4.5	4.2	2.1	*1.6	1.3
5	2.0	2.0	2.1	b1.5	1.5	1.8	3.6	*3.9	4.5	2.1	1.5	1.3
6	2.0	2.1	2.1		1.5	1.8	a3.6	3.9	4.5	2.0	1.5	1.3
7	2.0	2.3	2.3		1.5	1.8	3.6	3.9	4.5	2.0	1.4	1.3
8	2.0	2.3	2.3	1.6	1.6	1.9	3.2	3.9	4.2	2.3	1.4	1.4
9	2.1	2.3	2.3	1.6	1.6	1.9	2.8	4.2	4.2	2.3	1.4	1.3
10	2.1	2.3	2.4	1.6	1.6	1.8	2.6	4.2	3.9	2.1	1.4	1.3
11	2.1	2.3	2.6	1.6	1.6	2.0	2.4	4.2	3.9	2.1	1.6	1.5
12	2.1	2.4	2.6	1.6	1.5	2.0	2.4	4.5	3.6	2.0	1.6	1.6
13	2.0	2.3	2.3	1.6	1.5	2.0	2.6	4.8	3.2	2.0	1.6	1.5
14	2.0	2.4	2.3	*1.6	1.4	2.0	2.6	5.8	3.4	2.0	1.5	1.5
15	2.0	2.4	2.4	1.9	1.4	2.0	2.8	*6.8	3.2	2.1	1.5	1.9
16	2.0	2.3	2.3	1.8	1.6	*2.1	2.4	7.5	*3.2	*2.0	1.5	1.8
17	*2.0	2.4	*2.1	1.8	*1.8	2.3	*2.3	7.1	3.2	1.9	1.4	1.6
18	2.0	2.6	2.3	1.8	1.6	2.3	2.3	6.2	3.2	1.9	1.5	*1.5
19	2.0	*2.6	2.1	1.8	1.8	2.3	2.1	*5.8	3.0	1.9	1.9	2.0
20	2.0	2.8	2.1	1.6	1.8	2.0	2.1	5.5	2.8	1.9	*1.6	2.0
21	2.0	2.8	2.1	b1.6	1.9	1.9	2.3	5.1	2.6	1.8	1.6	1.9
22	2.0	2.4	2.1	b1.6	1.9	2.0	2.4	4.8	2.6	1.8	1.5	1.8
23	2.0	2.4	2.0	1.6	1.8	2.1	2.8	4.5	2.4	1.9	1.4	1.9
24	2.0	2.4	1.9	1.5	1.6	2.1	3.2	4.2	2.6	1.9	1.4	1.9
25	2.0	2.6	1.9	1.4	1.5	2.1	3.6	4.2	2.6	1.9	1.5	2.1
26	2.0	2.4	1.8	1.5	1.4	2.1	4.5	4.2	3.0	1.8	1.5	2.1
27	2.0	2.1	1.8	1.4	1.4	2.3	4.8	4.8	3.0	1.8	1.5	a2.0
28	2.0	2.3	1.6	1.4	1.4	2.1	4.5	4.5	2.6	1.6	1.4	a1.9
29	2.0	2.4	*1.4	1.6	-	2.1	4.5	4.5	2.4	1.6	1.3	a1.8
30	1.9	2.4	1.5	1.5	-------	2.3	4.8	4.2	2.3	1.6	1.3	a1.7
31	1.9	-------	1.6	b1.5	-------	2.1	-------	4.2	-------	1.6	1.4	-------
Total	62.2	69.6	64.4	49.1	44.2	62.1	92.0	149.8	101.4	60.3	46.3	49.4
Mean	2.01	2.32	2.08	1.58	1.58	2.00	3.07	4.83	3.38	1.95	1.49	1.65
Ac-ft	123	138	128	97	88	123	182	297	201	120	92	98

Calendar year 1958: Max 31 Min 1.4 Mean 4.72 Ac-ft 3,420
Water year 1958-59: Max 7.5 Min 1.3 Mean 2.33 Ac-ft 1,690

Peak discharge (base, 10 cfs).--No peak above base.

a No gage-height record; discharge estimated on basis of weather records, trend of flow, and records for nearby streams.
b Stage-discharge relation affected by ice.

1420. Farmington Creek above diversions, near Farmington, Utah

Location.--Lat 41°00'05", long 111°52'25", in NE¼ sec.18, T.3 N., R.1 E., on right bank 1.0 mile northeast of Farmington.

Drainage area.--10.0 sq mi.

Records available.--November 1949 to September 1959.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 5,100 ft (from Forest Service topographic map). Prior to Oct. 1, 1951, at site 600 ft downstream at different datum.

Average discharge.--9 years, 12.8 cfs (9,270 acre-ft per year).

Extremes.--Maximum discharge during year, 80 cfs May 1 (gage height, 1.43 ft); minimum, 1.1 cfs Aug. 17.
1949-59: Maximum discharge, 232 cfs May 20, 1958 (gage height, 1.86 ft); minimum, 0.9 cfs Aug. 25, 30, 31, 1954.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Records include a small transmoutain diversion from Hardscrabble Creek.

Revisions.--WSP 1564: Drainage area.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.6	1.3	1.1	21
.7	2.6	1.2	32
.8	4.8	1.3	47
.9	8.4	1.4	73
1.0	14		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	2.8	2.3	2.6	2.9	3.4	5.1	52	20	7.1	2.3	1.7
2	*2.8	3.1	2.3	2.4	2.9	*3.8	8.0	41	*21	6.4	2.1	1.7
3	2.6	3.1	*2.3	a2.4	2.8	3.8	*12	27	22	6.4	2.1	*1.5
4	2.6	*3.1	2.6	a2.4	*2.8	3.4	13	23	22	6.0	1.9	1.5
5	2.4	3.4	2.4	2.6	2.8	3.1	15	*20	22	5.7	*1.7	1.5
6	2.6	3.4	2.6	2.6	2.8	3.4	17	20	24	5.1	1.7	1.5
7	2.6	3.4	2.8	2.8	2.9	3.4	16	20	23	4.8	1.6	1.5
8	2.6	3.4	2.9	2.8	2.8	3.4	12	24	23	4.8	1.6	1.5
9	2.6	3.4	3.1	2.8	2.6	3.6	8.9	33	21	4.5	1.6	1.5
10	2.4	3.1	2.9	2.8	2.8	3.8	8.0	35	20	4.3	1.5	1.4
11	2.4	3.4	5.4	2.9	2.8	3.6	8.0	38	20	4.0	1.7	1.5
12	2.4	3.4	6.8	2.9	2.8	3.8	9.8	39	18	3.8	2.0	1.4
13	2.4	3.4	3.6	2.9	2.6	4.5	13	*45	17	3.6	1.6	1.4
14	2.4	4.0	2.8	*2.8	2.4	4.3	13	45	16	3.4	1.6	1.5
15	2.4	3.8	2.9	2.6	2.4	3.8	12	*36	16	3.8	1.6	2.1
16	2.6	3.4	3.4	2.8	2.9	*3.8	9.8	34	15	3.4	1.6	a2.0
17	2.6	3.1	*2.9	2.8	3.8	4.3	*8.4	30	*14	*3.1	1.5	a1.9
18	*2.4	3.4	2.8	2.8	*2.9	4.8	8.4	28	13	3.1	2.0	a1.8
19	2.4	*3.4	2.8	2.8	2.9	5.4	7.5	*25	13	2.8	4.3	a4.2
20	2.6	3.4	2.8	2.6	2.9	4.5	6.8	23	11	2.4	*4.8	a4.0
21	2.9	3.4	2.8	2.6	2.9	4.5	7.1	21	9.8	2.3	2.4	*3.1
22	2.8	3.1	2.8	2.8	2.8	4.8	8.4	21	9.3	2.1	2.1	2.1
23	2.9	2.9	2.9	2.8	2.8	5.7	12	20	8.4	2.1	2.1	2.4
24	2.8	3.1	2.6	2.8	2.8	5.7	18	20	8.0	2.1	2.1	2.8
25	2.9	2.9	2.6	3.4	2.9	5.1	27	20	8.0	2.4	2.0	4.5
26	2.9	2.6	2.6	3.4	2.9	5.1	45	21	9.8	2.1	2.0	6.0
27	2.9	2.6	2.6	2.9	2.9	5.4	33	30	9.8	1.9	1.7	5.4
28	2.9	2.1	2.6	2.6	2.9	4.8	26	26	12	1.9	1.7	3.6
29	2.9	2.6	2.3	3.4	-	4.8	28	24	10	1.7	1.7	3.4
30	2.8	2.6	*2.6	3.1	-------	4.5	36	22	8.0	1.9	1.7	3.1
31	2.8	-------	2.6	2.9	-------	4.3	-------	21	-------	2.0	1.7	-------
Total	81.9	94.8	91.4	86.8	79.4	132.6	452.2	884	464.1	111.0	62.0	73.5
Mean	2.64	3.16	2.95	2.80	2.84	4.28	15.1	28.5	15.5	3.58	2.00	2.45
Ac-ft	162	188	181	172	157	263	897	1,750	920	220	123	146

Calendar year 1958: Max 198 Min 2.1 Mean 17.0 Ac-ft 12,260
Water year 1958-59: Max 52 Min 1.4 Mean 7.16 Ac-ft 5,180

Peak discharge (base, 80 cfs).--May 1 (6 p.m.) 80 cfs (1.43 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, trend of flow, and records for nearby streams.

1425. Ricks Creek above diversions, near Centerville, Utah

Location.--Lat 40°56'25", long 111°52'00", in NW¼ sec.5, T.2 N., R.1 E., on left bank half a mile east of alternate U. S. Highway 91 and 1.2 miles north of Centerville.

Drainage area.--2.35 sq mi.

Records available.--April 1950 to September 1959.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 4,840 ft (from topographic map).

Average discharge.--9 years, 2.30 cfs (1,670 acre-ft per year).

Extremes.--Maximum discharge during year, 8.2 cfs May 15 (gage height, 0.84 ft); minimum, 0.1 cfs, date unknown, occurred during period of no gage-height record.
1950-59: Maximum discharge, 34 cfs May 22, 1958 (gage height, 1.32 ft); minimum, 0.1 cfs Apr. 9, 1953, Feb. 3, 1955, Jan. 19, 1958, January or February 1959.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.5	0.4
.6	1.1
.7	2.5
.8	4.8
.9	8.2

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*0.8	0.9	0.6	0.6	1.0	1.0	1.1	3.7	3.2	*1.4	1.0	0.6
2	.8	1.0	*.6	.6	a0.7	*1.1	1.4	4.2	3.2	1.3	1.0	.6
3	.8	.9	.6	.6		1.1	*1.5	3.2	*3.1	1.3	.9	*.6
4	.8	*.9	.6	b.5	*.7	.9	1.7	3.0	2.8	1.2	*.8	.6
5	.8	.9	.6	b.5	.6	.9	1.8	*2.8	2.6	1.2	.9	.6
6	.9	.9	.6	.6	.6	.9	2.0	3.0	2.6	1.1	.8	.6
7	.9	.9	.6	.6	.6	.9	2.0	2.8	2.8	1.1	.9	.6
8	.9	.9	.7	.6	.6	.8	1.5	3.2	2.6	1.1	.9	.6
9	.8	.9	.7	.7	.6	.9	1.3	4.0	2.5	1.0	.9	.6
10	.8	.8	.6	.8	.7	.9	1.3	4.5	2.3	1.0	.8	.5
11	.8	.9	1.0	.8	.7		1.3	5.1	2.3	.9	.9	.6
12	.8	1.0	.9	.8	.7		1.4	5.7	2.1	.9	.9	.6
13	.8	1.0	.7	.8	.8	a.9	1.4	6.0	2.3	.8	1.1	.6
14	.9	1.1	.6	*.8	.8		1.4	*6.7	2.1	.9	1.1	.6
15	.9	1.0	.7		.8		1.4	7.4	2.3	.9	1.0	.8
16	.9	1.0	.7		.9	*.9	1.3	7.1	2.3	.8	.9	.9
17	*.9	.9	*.7		*.9	.9	*1.3	6.0	2.3	*.7	.8	.8
18	.9	1.0	.8		.7	.9	1.4	5.7	*2.0	.8	1.1	*.8
19	.9	*.9	.7		.9	.9	1.5	*4.8	2.1	.8	1.4	1.1
20	1.0	.9	.7		.9	.8	1.4	4.8	2.0	.8	*1.4	1.0
21	1.0	1.0	.6		.9	.8	1.4	4.5	2.0	.9	1.0	.9
22	1.0	.9	.6		.9	.9	1.4	4.2	1.8	.9	1.0	.8
23	1.0	.9	.6	a.7	.9	.9	1.5	4.2	1.8	1.0	1.0	.8
24	.9	.9	.6		.9	.9	1.8	4.2	1.7	1.1	.8	.9
25	.9	.9	.6		.9	.8	2.1	4.2	1.5	1.1	.8	1.0
26	1.0	.7	.6		.9	.8	2.6	4.2	1.7	1.1	.8	1.1
27	1.0	.6	.6		.9	.8	2.8	4.8	1.8	.9	.7	.9
28	1.0	.6	.6		.9	.8	2.3	4.2	2.1	1.0	.6	.8
29	1.0	.6	*.4		-	.9	2.5	4.0	1.7	.9	.7	.8
30	.9	.6	.6		-------	.9	2.8	3.7	1.5	1.0	.7	.8
31	1.0	-------	.5		-------	.9	-------	3.5	-------	1.0	.6	-------
Total	27.8	26.4	20.0	21.2	21.8	27.7	50.6	139.4	67.1	30.9	28.2	22.5
Mean	0.90	0.88	0.65	0.68	0.78	0.89	1.69	4.50	2.24	1.00	0.91	0.75
Ac-ft	55	52	40	42	43	55	100	276	133	61	56	45

Calendar year 1958: Max 27 Min 0.4 Mean 2.58 Ac-ft 1,870
Water year 1958-59: Max 7.4 Min 0.4 Mean 1.32 Ac-ft 958

Peak discharge (base, 10 cfs).--No peak above base.

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of recorded range in stage, weather records, trend of flow, and records for nearby streams.
b Stage-discharge relation affected by ice.

1430. Parrish Creek above diversions, near Centerville, Utah

Location.--Lat 40°55'25", long 111°51'50", in NW¼ sec.8, T.2 N., R.1 E., on right bank 1 mile northeast of Centerville.

Drainage area.--2.08 sq mi.

Records available.--November 1949 to September 1959.

Gage.--Water-stage recorder. V-notch sharp-crested weir since October 1957. Altitude of gage is 4,600 ft (from topographic map). Prior to Oct. 1, 1957, water-stage recorder at site 500 ft downstream at different datum.

Average discharge.--9 years, 1.59 cfs (1,150 acre-ft per year).

Extremes.--Maximum discharge during year, 5.11 cfs May 15 (gage height, 1.06 ft); minimum, 0.12 cfs several days in August and September.
1949-59: Maximum discharge, 30 cfs May 5, 1952; minimum, 0.12 cfs several days in August and September 1959.

Remarks.--Records good.

Revisions.--WSP 1394: Drainage area.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.2	0.09	0.7	1.85
.3	.23	.9	3.42
.4	.47	1.1	5.60
.5	.81		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.39	0.41	0.41	0.44	0.41	0.56	0.81	2.81	2.12	0.73	0.34	0.21
2	.36	.41	.41	.44	.41	.59	1.17	3.15	2.05	.66	.29	.21
3	.36	.41	.44	.44	.41	.53	1.27	2.89	1.92	.66	.27	.20
4	.36	.41	.47	.44	.47	.47	1.54	2.72	1.78	.63	.25	.20
5	.36	.44	.44	.44	.44	.44	1.72	2.41	1.72	.59	.23	.20
6	.36	.44	.44	.47	.44	.44	1.98	2.34	1.60	.53	.21	.20
7	.36	.44	.44	.47	.47	.44	1.72	2.26	1.54	.50	.21	.20
8	.36	.44	.50	.44	.47	.44	1.32	2.41	1.48	.53	.20	.18
9	.39	.41	.56	.44	.44	.47	1.12	2.72	1.43	.50	.20	.20
10	.39	.41	.50	.44	.44	.47	1.07	2.89	1.43	.47	.20	.18
11	.39	.44	.73	.47	.44	.44	1.07	3.15	1.37	.44	.25	.18
12	.39	.47	.89	.47	.44	.47	1.27	3.42	1.27	.41	.29	.20
13	.36	.44	.56	.50	.44	.56	1.37	4.01	1.22	.41	.27	.20
14	.36	.50	.50	.47	.44	.50	1.37	4.54	1.17	.44	.23	.23
15	.36	.53	.47	.44	.44	.44	1.27	4.65	1.17	.53	.20	.34
16	.39	.47	.47	.44	.53	.50	1.12	4.65	1.17	.41	.18	.39
17	.39	.47	.47	.44	.56	.53	1.02	4.32	1.07	.39	.18	.32
18	.36	.47	.47	.44	.50	.70	1.07	4.11	1.02	.36	.32	.29
19	.36	.47	.47	.47	.50	.70	.94	3.61	.98	.36	.56	.47
20	.41	.47	.47	.44	.50	.56	.89	3.42	.89	.34	.63	.50
21	.41	.50	.47	.44	.50	.56	.98	3.24	.85	.32	.32	.44
22	.41	.50	.47	.41	.50	.63	1.12	3.06	.81	.32	.29	.44
23	.41	.47	.47	.41	.47	.73	1.17	2.98	.77	.29	.27	.39
24	.41	.47	.47	.41	.47	.70	1.48	2.81	.77	.29	.27	.39
25	.41	.47	.44	.53	.47	.63	1.78	2.72	.73	.27	.27	.56
26	.41	.44	.44	.53	.47	.66	2.49	2.72	.85	.27	.29	.63
27	.41	.44	.44	.44	.47	.70	2.34	3.24	.89	.27	.27	.59
28	.41	.41	.47	.39	.50	.63	1.98	2.81	1.07	.25	.23	.47
29	.41	.41	.41	.47	-	.66	2.12	2.64	1.02	.25	.23	.47
30	.41	.41	.41	.44	-------	.66	2.56	2.41	.81	.27	.23	.47
31	.41	-------	.44	.44	-------	.66	-------	2.26	-------	.29	.20	-------
Total	11.97	13.47	15.04	13.95	13.04	17.47	43.13	97.37	36.97	12.98	8.38	9.95
Mean	0.386	0.449	0.485	0.450	0.466	0.564	1.44	3.14	1.23	0.419	0.270	0.332
Ac-ft	24	27	30	28	26	35	86	193	73	26	17	20

Calendar year 1958: Max 19.7 Min 0.27 Mean 1.90 Ac-ft 1,370
Water year 1958-59: Max 4.65 Min 0.18 Mean 0.805 Ac-ft 585

Peak discharge (base, 10 cfs).--No peak above base.

1435. Centerville Creek above diversions, near Centerville, Utah

Location.--Lat 40°55'00", long 111°51'45", in SE¼ sec.8, T.2 N., R.1 E., on right bank 1.2 miles east of Centerville.

Drainage area.--3.15 sq mi.

Records available.--November 1949 to September 1959.

Gage.--Water-stage recorder and concrete rating flume. Altitude of gage is 4,650 ft (from topographic map).

Average discharge.--9 years, 2.67 cfs (1,930 acre-ft per year).

Extremes.--Maximum daily discharge during year, 3.7 cfs May 1; minimum daily, 0.7 cfs several days in July and August, but may have been less during period of no gage-height record.
1949-59: Maximum daily discharge, 30 cfs May 6, 7, 1952; minimum daily, 0.5 cfs Mar. 16, 1955.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Discharge measurements generally made twice a month. Record includes flow of one ditch which diverts water about a quarter of a mile above station.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.1	1.3	1.2	1.3	1.2		a1.6	3.7	2.6	1.3	a0.8	0.8
2	1.1	1.3	1.2	1.2	1.1		2.0	3.5	2.5	1.2	a.8	.8
3	1.2	1.3	1.2	b1.1	1.1		2.3	3.1	2.5	1.2	a.8	.8
4	1.2	1.3	1.2	b1.1	1.1		2.7	3.0	2.6	1.2	.8	.8
5	1.1	1.4	1.2	b1.2	1.1		3.2	2.7	2.6	1.2	.8	.8
6	1.2	1.3	1.3	1.3	1.1		3.5	2.7	2.9	1.2	.7	.8
7	1.1	1.3	1.3	1.2	1.2		2.9	2.6	2.9	1.1	.7	.8
8	1.1	1.3	1.3	1.2	1.2		2.4	2.7	2.8	1.1	.7	.8
9	1.1	1.3	1.3	1.2	1.2		2.1	2.7	2.5	.9	.7	.8
10	1.1	1.2	1.3	1.2	1.2		1.8	2.7	2.5	.9		.8
11	1.1	1.3	1.7	1.2	1.1		1.9	2.7	2.3	.9		.8
12	1.0	1.3	1.7	1.2	1.1		1.9	2.7	2.1	.9		.8
13	1.0	1.2	1.4	1.2	1.1		2.0	2.9	2.1	.9		.8
14	1.0	1.3	1.3	1.2	1.2		2.1	3.1	2.0	.9		.8
15	1.1	1.3	1.3	1.1	1.1		2.0	3.3	2.1	1.0	a.8	1.1
16	1.1	1.2	1.4	1.2	1.2	a1.5	1.9	3.3	2.0	.9		1.1
17	1.0	1.1	1.4	1.2	1.3		1.9	3.2	1.8	.9		.9
18	1.1	1.1	1.3	1.2	1.1		1.8	3.1	1.8	.9		.9
19	1.0	1.2	1.3	1.2			1.7	3.0	1.8	.8		1.3
20	1.1	1.2	1.3	1.2			1.6	2.9	1.7	.8	.8	1.1
21	1.1	1.2	1.3	1.3			1.7	2.8	1.6	.8	.8	1.1
22	1.1	1.2	1.3	1.2			1.7	2.7	1.5	.8	.8	1.1
23	1.1	1.2	1.3	1.2			1.8	2.6	1.4	.8	.8	1.1
24	1.2	1.2	1.3	1.2			2.1	2.4	1.4	.8	.8	
25	1.2	1.2	1.2	1.3	a1.2		2.6	2.4	1.3	.7	.8	
26	1.3	1.3	1.2	1.2			3.4	2.5	1.4	.7	.9	a1.1
27	1.3	1.2	1.2	1.2			3.5	3.5	1.5	.7	.8	
28	1.3	1.2	1.2	1.0			3.0	2.9	1.8	.7	.8	
29	1.3	1.2	1.1	1.3	-		3.1	2.8	1.7	.7	.8	
30	1.3	1.2	1.3	1.2	-------		3.5	2.8	1.5	.7	.8	
31	1.3	-------	1.3	1.2	-------		-------	2.7	-------	.8	.8	-------
Total	35.3	37.3	40.3	37.2	32.7	46.5	69.7	89.7	61.2	28.4	24.5	28.6
Mean	1.14	1.24	1.30	1.20	1.17	1.50	2.32	2.89	2.04	0.92	0.79	0.95
Ac-ft	70	74	80	74	65	92	138	178	121	56	49	57

Calendar year 1958: Max 18 Min - Mean 3.03 Ac-ft 2,190
Water year 1958-59: Max 3.7 Min - Mean 1.46 Ac-ft 1,050

a No gage-height record; discharge estimated on basis of 2 discharge measurements, recorded range in stage, weather records, and records for nearby streams.
b Stage-discharge relation affected by ice.

1440. Stone Creek above diversions, near Bountiful, Utah

Location.--Lat 40°53'40", long 111°50'40", in NW¼ sec.21, T.2 N., R.1 E., on right bank 2.2 miles east of Bountiful.

Drainage area.--4.48 sq mi.

Records available.--April 1950 to September 1959.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 5,080 ft (from topographic map).

Average discharge.--9 years, 3.37 cfs (2,440 acre-ft per year).

Extremes.--Maximum discharge during year, 8.2 cfs May 1 (gage height, 1.08 ft); minimum not determined, probably occurred during period when flow was through pipeline.
1950-59: Maximum discharge, 82 cfs May 5, 1952 (gage height, 2.79 ft); no flow Oct. 5, 1951.

Remarks.--Records good except those for periods when flow was diverted around station by a pipeline, which are fair. Records include flow in pipeline.

Rating tables, water year 1958-59, except periods when flow was diverted around station by pipeline (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 1		Apr. 2 to Sept. 30	
0.7	0.5	0.7	0.1
.8	1.3	.8	.8
.9	3.6	.9	2.2
		1.0	4.9
		1.1	9.3

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0.9	1.2	1.2	1.3	1.4	2.0	7.3	5.2	1.3		
2	(*)	1.0	*1.2	1.2	1.2	1.6	*3.3	6.8	*5.2	*1.2		(*)
3		*1.1	1.2	1.0	*1.2	*1.6	4.2	6.0	5.2	1.0		
4		1.1	1.2	1.2	1.2	1.3	5.2	*5.2	5.2	1.0	(*)	
5	0.5	1.3	1.2	1.3	1.1	1.3	5.6	5.2	5.2	.9		
6		1.3	1.2	1.2	1.1	1.2	6.0	4.9	4.9	.8		
7		1.3	1.2	1.1	1.1	1.2	5.2	4.9	4.9	.7		
8		1.3	1.3	1.2	1.1	1.2	3.9	4.9	4.5	.7		
9		1.2	1.3	1.2	1.1	1.3	3.3	4.9	3.9			
10		1.2	1.2	1.2	1.1	1.3	3.1	5.2	3.6			
11		1.3	2.3	1.3	1.0	1.3	3.1	5.2	3.3	.5		
12		1.3	2.5	1.3	1.0	1.4	3.3	5.6	3.1			
13	.6	1.2	1.4	1.3	.6	1.6	3.6	6.0	3.1			0.4
14	**	1.1	1.2	1.3	.9	1.4	3.6	*6.8	2.8			
15		1.2	1.2	*1.2	1.0	1.3	3.3	6.8	2.8		0.4	
16	.7	1.1	1.2	1.2	1.2	1.6	*2.8	6.4	*2.6	(*)		
17	.7	1.1	1.2	1.2	1.3	*1.8	2.6	5.6	2.4			
18	.7	1.0	*1.1	1.2	1.1	2.3	2.6	*5.6	2.2		(*)	
19	.7	1.2	1.1	1.2	*1.2	2.3	2.6	5.2	2.2			
20	.7	*1.2	1.0	1.2	1.2	1.6	2.4	5.2	2.0			
21	.8	1.2	1.1	1.1	1.2	1.6	2.2	4.9	1.9			(*)
22	.7	1.2	1.1	1.2	1.2	1.8	2.6	4.9	1.9			
23	.7	1.1	1.1	1.2	1.2	2.3	3.1	4.9	1.7	.4		
24	.7	1.1	1.1	1.2	1.2	2.0	4.2	4.5	1.6			
25	.7	1.1	1.2	1.4	1.3	1.6	5.2	4.5	1.3			
26	.8	1.2	1.1	1.4	1.2	1.8	6.8	4.9	1.6			
27	.8	1.2	1.2	1.3	1.2	1.8	6.4	6.0	1.6			
28	.7	1.1	1.1	1.1	1.3	1.4	6.0	5.2	2.2			.7
29	.8	1.2	1.1	1.4	-	1.4	6.4	5.2	2.0			
30	.8	1.2	*1.2	1.4	-------	1.6	6.4	5.2	1.6			
31	.9	-------	1.2	1.3	-------	1.4	-------	4.9	-------			-------
Total	19.9	35.0	38.9	38.2	32.1	48.7	121.0	168.8	91.7	17.5	12.4	13.5
Mean	0.64	1.17	1.25	1.23	1.15	1.57	403	5.45	3.06	0.56	0.4	0.45
Ac-ft	39	69	77	76	64	97	240	335	182	35	25	27

Calendar year 1958: Max 39 Min - Mean 4.23 Ac-ft 3,060
Water year 1958-59: Max 7.3 Min - Mean 1.75 Ac-ft 1,270

Peak discharge (base, 15 cfs).--No peak above base.

* Discharge measurement or observation of no flow made on this day.
** Field estimate made on this day.
Note.--Water bypassing gage in pipeline Oct. 1-16, July 9 to Sept. 30, discharge estimated on basis of 7 discharge measurements, records at station, computations of flow at outlet of pipe, and records for nearby streams.

1450. Mill Creek at Mueller Park, near Bountiful, Utah

Location.--Lat 40°51'50", long 111°50'10", in SE¼ sec.33, T.2 N., R.1 E., on right bank 2 miles southeast of Bountiful.

Drainage area.--8.79 sq mi.

Records available.--April 1950 to September 1959.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 5,240 ft (from topographic map).

Average discharge.--9 years, 6.59 cfs (4,770 acre-ft per year).

Extremes.--Maximum daily discharge during year, 14 cfs May 1; minimum daily, 0.6 cfs Sept. 8, 10-13.
1950-59: Maximum daily discharge, 140 cfs Apr. 28, 1952; minimum daily, 0.5 cfs for several days in August and September 1954.

Remarks.--Records good. Discharge measurements generally made twice a month. Records include flow of pipeline which diverts about a quarter of a mile above station and is measured at diversion box by Cippoletti weirs, and an additional flow of 0.3 cfs which is diverted around this structure.

Revisions.--WSP 1394: Drainage area.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	1.5	1.3	1.3	1.4	1.9	4.2	14	8.4	2.9	1.4	0.9
2	1.4	1.5	1.3	1.3	1.4	2.1	5.5	13	8.8	2.7	1.4	.9
3	1.3	1.5	1.3	1.2	1.4	2.1	6.4	12	9.2	2.7	1.3	.8
4	1.6	1.5	1.3	1.3	1.4	1.9	7.9	11	9.6	2.5	1.3	.7
5	1.9	1.7	1.3	1.3	1.5	1.9	10	10	9.2	2.4	1.1	.7
6	1.9	1.6	1.3	1.3	1.7	1.8	11	10	9.5	2.3	1.0	.7
7	1.9	1.6	1.5	1.3	1.7	1.9	9.7	10	9.4	2.2	.9	.7
8	2.0	1.6	1.6	1.3	1.8	1.9	7.7	10	8.5	2.2	.9	.6
9	2.1	1.5	1.7	1.3	1.7	1.9	6.0	10	7.7	2.2	.9	.7
10	2.2	1.5	1.6	1.3	1.6	1.9	5.5	10	7.0	2.2	.9	.6
11	2.3	1.6	1.9	1.3	1.6	1.9	5.6	10	6.4	2.1	.9	.6
12	2.0	1.7	2.1	1.4	1.6	2.0	5.6	10	5.9	2.1	1.1	.6
13	1.5	1.6	1.7	1.2	1.6	2.1	5.4	11	6.1	2.1	1.0	.6
14	1.5	1.7	1.4	1.3	1.6	2.2	5.5	13	5.8	2.2	.9	.7
15	1.6	1.7	1.4	1.3	1.6	2.0	5.5	13	5.8	2.3	.9	1.1
16	1.5	1.7	1.6	1.4	2.2	2.0	5.4	12	5.0	2.0	.9	1.0
17	1.5	1.7	1.4	1.3	2.6	2.2	5.4	11	4.4	1.7	.9	.9
18	1.5	1.7	1.3	1.3	2.0	2.8	5.4	9.4	3.9	1.7	1.1	.9
19	1.5	1.8	1.3	1.3	2.0	3.1	4.9	8.6	3.7	1.6	1.7	1.2
20	1.5	1.7	1.3	1.3	1.9	2.7	4.6	7.9	3.5	1.6	2.2	1.1
21	1.6	1.6	1.3	1.3	1.9	2.7	4.8	7.0	3.3	1.5	1.3	1.1
22	1.6	1.6	1.3	1.3	1.9	3.1	4.8	6.9	3.1	1.5	1.1	1.0
23	1.6	1.6	1.3	1.3	1.9	3.8	4.9	6.6	3.0	1.4	1.0	1.0
24	1.7	1.6	1.3	1.3	1.7	3.7	5.6	6.6	3.0	1.4	1.0	1.1
25	1.5	1.5	1.3	1.8	1.7	3.7	7.5	7.0	2.7	1.4	1.0	1.7
26	1.6	1.5	1.2	1.6	1.7	3.6	12	6.8	3.2	1.4	1.0	1.7
27	1.5	1.5	1.3	1.5	1.7	3.6	13	7.6	3.2	1.3	.9	1.7
28	1.5	1.2	1.3	1.4	1.7	3.4	12	6.9	3.7	1.3	.9	1.5
29	1.5	1.3	1.1	1.5	-	3.2	12	6.5	3.5	1.3	.9	1.5
30	1.5	1.3	1.2	1.7	-------	3.6	13	7.4	3.2	1.3	.9	1.3
31	1.5	-------	1.3	1.5	-------	3.7	-------	7.8	-------	1.4	.8	-------
Total	51.2	47.1	43.5	42.2	48.5	80.4	216.8	293.0	169.7	58.9	33.5	29.6
Mean	1.65	1.57	1.40	1.36	1.73	2.59	7.23	9.45	5.66	1.90	1.08	0.99
Ac-ft	102	93	86	84	96	159	430	581	337	117	66	59

Calendar year 1958: Max 58 Min 1.1 Mean 7.20 Ac-ft 5,210
Water year 1958-59: Max 14 Min 0.6 Mean 3.05 Ac-ft 2,210

1460. Salt Creek at Nephi, Utah

Location.--Lat 39°42'45", long 111°48'25", in NE¼ sec.3, T.13 S., R.1 E., on right bank 1 mile east of Nephi.

Drainage area.--95.6 sq mi.

Records available.--December 1950 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,240 ft (by barometer). Prior to Nov. 6, 1952, at site 75 ft upstream at datum 1.43 ft higher.

Average discharge.--8 years (1951-59), 28.9 cfs (20,920 acre-ft per year).

Extremes.--Maximum discharge during year, 42 cfs June 7; minimum 4.6 cfs Sept. 6.
1950-59: Maximum discharge, 724 cfs May 2, 1952; minimum, 1.1 cfs Dec. 13, 1951.

Remarks.--Records good except those for period of no gage-height record, which are fair. No flow in Salt Creek diversion canal near Nephi during year.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

1.4	3.4
1.5	6.1
1.6	9.9
1.8	21
2.0	38

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	13	12	12	11	12	13	22	24	19	9.9	7.4
2	11	14	11	12	11	12	13	25	24	16	9.9	6.4
3	12	13	12	11	11	12	13	27	25	13	10	6.8
4	12	13	12	10	11	12	13	25	*31	13	9.0	6.4
5	12	13	12	10	11	11	13	23	32	13	9.0	6.1
6	12	13	12	11	11	11	14	21	36	12	8.6	5.5
7	12	14	13	10	11	12	14	21	37	12	8.6	5.8
8	13	14	13	10	12	12	16	20	38	12	7.8	5.5
9	13	14	13	10	11	11	17	20	34	12	8.2	5.5
10	13	13	13	10	11	11	17	20	32	11	7.8	5.5
11	13	13	13	10	11	11	16	21	30	12	7.1	5.5
12	13	14	13	9.9	*11	11	16	24	28	12	8.6	6.4
13	12	13	14	*12	11	12	15	*a27	27	12	8.6	7.8
14	12	14	14	11	10	12	14	a32	28	*11	8.2	8.6
15	12	14	13	10	11	12	14	a35	28	12	7.8	9.0
16	12	14	13	10	11	11	15	a36	29	11	8.2	8.6
17	13	13	*13	10	16	12	16	a34	*29	11	7.8	*9.0
18	14	*13	13	11	12	12	18	a31	25	10	*8.6	8.2
19	14	12	13	11	12	*13	19	a30	24	10	11	7.8
20	14	12	13	11	12	12	21	a29	22	10	9.9	8.2
21	14	12	13	10	12	12	*21	*28	22	9.9	9.4	6.8
22	*14	11	12	10	13	12	*21	27	20	9.4	9.4	7.1
23	14	13	12	10	12	12	19	24	19	9.4	9.0	7.8
24	13	12	12	11	12	13	17	22	18	9.4	9.0	9.0
25	13	12	13	11	11	12	16	24	18	9.4	9.4	9.0
26	14	12	12	11	12	12	16	23	19	9.9	8.6	7.4
27	13	12	13	11	11	12	21	23	19	9.0	8.2	8.2
28	13	12	12	11	12	12	21	22	18	7.8	7.8	7.1
29	13	12	11	11	-	13	20	22	17	9.0	7.8	6.8
30	13	12	11	11	-------	14	19	23	19	8.2	8.2	7.1
31	13	-------	11	11	-------	13	-------	23	-------	8.6	7.4	-------
Total	399	386	387	329.9	323	371	498	784	772	344.0	268.8	216.3
Mean	12.9	12.9	12.5	10.6	11.5	12.0	16.6	25.3	25.7	11.1	8.67	7.21
Ac-ft	791	766	768	654	641	736	988	1,560	1,530	682	533	459

Calendar year 1958: Max 207 Min 11 Mean 36.7 Ac-ft 26,540
Water year 1958-59: Max 38 Min 5.5 Mean 13.9 Ac-ft 10,080

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of 1 discharge measurement and records from nearby streams.

1465. Currant Creek near Goshen, Utah

Location.--Lat 39°53'05", long 111°53'05", in NW¼SE¼ sec.1, T.11 S., R.1 W., on right bank 0.9 mile upstream from canal diversions and 5.4 miles south of Goshen.

Drainage area.--303 sq mi.

Records available.--August 1953 to October 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,850 ft (from topographic map).

Average discharge.--6 years, 22.3 cfs (16,140 acre-ft per year).

Extremes.--Maximum discharge during year, 78 cfs May 13, 14 (gage height, 1.65 ft); no flow Sept. 27-30.
1953-59: Maximum discharge, that of May 13, 14, 1959, no flow Sept. 27-30, 1959.

Remarks.--Records excellent. Diversions for irrigation above station. Flow regulated by Mona (Mount Nebo) Reservoir about 1 mile above station. Spring area about half a mile below station contributes water to Currant Creek at head of canyon; a discharge of 1.5 cfs was measured Aug. 12, 1955, at point where spring flow enters creek.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.1	0	0.8	13
.2	.7	1.0	22
.3	1.6	1.3	42
.4	2.8	1.7	81
.6	6.8		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	12	16	2.0	2.4	1.6	2.1	55	47	32	39	27
2	24	12	16	1.6	2.4	1.6	3.1	54	47	34	40	27
3	27	16	8.0	1.6	2.1	1.6	3.4	54	47	37	40	30
4	25	18	1.9	1.9	1.8	1.6	3.6	49	48	40	37	29
5	25	19	1.9	1.6	1.9	1.6	3.6	45	49	40	36	23
6	25	16	1.8	1.2	1.8	1.6	3.6	47	49	35	34	23
7	24	15	1.6	1.4	1.8	1.8	3.6	55	48	35	32	24
8	24	14	1.6	1.6	1.8	1.8	3.8	64	48	40	30	22
9	24	16	1.6	1.6	1.8	1.8	4.2	65	48	40	28	20
10	21	16	1.9	1.6	1.9	1.6	4.4	72	46	40	28	20
11	21	14	1.8	1.6	1.9	1.6	6.8	72	46	43	32	20
12	21	14	1.8	*1.6	*1.9	1.6	11	72	57	43	32	18
13	18	14	1.9	1.6	1.6	1.6	19	*76	55	43	31	16
14	15	14	2.0	1.6	1.9	1.6	23	73	55	43	34	15
15	17	15	1.9	1.8	1.8	1.6	19	71	55	*43	38	15
16	17	15	1.9	1.8	1.9	1.1	28	71	54	43	38	14
17	17	15	*2.0	1.8	1.9	1.1	28	70	*41	39	33	*14
18	17	*15	2.0	1.8	1.9	1.2	29	70	44	35	*34	13
19	16	14	2.1	1.8	1.9	*1.3	29	70	49	33	35	13
20	16	16	2.1	1.6	1.8	1.3	*29	70	49	35	35	13
21	16	22	2.1	2.7	1.4	1.3	33	70	44	35	31	13
22	*13	22	2.2	4.2	1.4	1.2	37	69	40	21	28	13
23	13	23	2.2	4.2	1.4	.7	40	69	38	13	25	15
24	13	23	2.2	4.2	1.6	.8	40	68	44	13	26	25
25	13	23	2.0	4.2	1.8	.8	40	64	44	13	27	13
26	13	21	1.9	4.2	2.0	.9	40	60	44	16	30	1.1
27	14	19	1.9	4.0	1.6	.9	40	59	43	17	30	0
28	14	16	1.9	3.8	1.6	1.0	42	59	37	14	30	0
29	14	16	1.9	3.8	-	.9	42	59	35	34	29	0
30	12	16	2.0	3.1	-------	1.1	43	51	30	36	28	0
31	12	-------	2.0	2.4	-------	1.2	-------	46	-------	38	28	-------
Total	563	501	94.1	73.9	51.0	41.4	654.2	1,949	1,381	1,023	998	476.1
Mean	18.2	16.7	3.04	2.38	1.82	1 34	21.8	62.9	46.0	33.0	32.2	15.9
Ac-ft	1,120	994	187	147	101	82	1,300	3,870	2,740	2,030	1,980	944

Calendar year 1958: Max 67 Min 1.6 Mean 21.6 Ac-ft 15,620
Water year 1958-59: Max 76 Min 0 Mean 21.4 Ac-ft 15,500

* Discharge measurement made on this day.

1470. Summit Creek near Santaquin, Utah

Location.--Lat 39°55'20", long 111°45'10", in NW¼NE¼ sec.30, T.10 S., R.2 E., on right bank 3½ miles southeast of Santaquin.

Drainage area.--14.6 sq mi.

Records available.--March 1910 to September 1916, October 1954 to September 1959.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 5,900 ft (from topographic map). March 1910 to September 1916, hook gage and sharp-crested weir in powerplant tailrace and staff gages and weir in main river channel at site 2½ miles downstream at different datums.

Average discharge.--11 years (1911-16, 1954-59), 13.9 cfs (10,060 acre-ft per year).

Extremes.--Maximum discharge during year, 23 cfs May 14 (gage height, 0.78 ft); minimum, 2.5 cfs Feb. 11.
1910-16, 1954-59: Maximum discharge observed, 215 cfs June 3, 1957 (discharge measurement); minimum, 1.3 cfs Jan. 21, 1955.

Remarks.--Records good except those for period of no gage-height record, which are fair.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.4	2.9
.5	4.7
.6	7.6
.7	13
.8	23

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.6	7.6	6.9	6.6	5.6	5.4	6.0	17	14	6.2	4.9	4.7
2	7.6	7.6	6.9	6.2	6.2	5.4	6.6	17	14	6.0	5.2	4.5
3	7.6	7.6	7.2	4.9	6.0	5.4	7.2	15	14	6.2	5.4	4.5
4	7.6	7.6	7.2	5.2	6.0	5.4	8.0	13	14	6.0	5.2	4.3
5	7.2	8.0	6.9	6.9	5.4	4.5	8.0	12	13	6.0	4.9	4.3
6	7.2	8.0	6.9	7.2	5.6	5.0	9.4	12	13	6.0	4.9	4.3
7	7.2	8.0	6.6	6.2	5.6	5.0	8.9	10	13	5.6	4.7	4.3
8	7.2	8.0	6.6	6.2	5.2	4.7	8.0	10	12	5.6	4.7	4.3
9	7.6	8.0	6.9	6.2	4.7	5.4	7.6	12	12	5.4	4.7	4.3
10	7.6	8.0	6.2	6.2	5.4	5.4	6.9	14	12	5.2	4.5	4.3
11	7.2	8.0	6.2	6.2	5.4	5.0	6.9	14	11	5.2	*4.7	4.3
12	7.2	8.0	6.6	6.2	*4.9	5.0	6.9	16	10	5.2	4.7	4.3
13	7.2	8.0	6.2	*6.2	4.5	4.9	7.2	*17	9.8	5.2	4.7	4.3
14	7.2	8.4	6.0	6.0	5.5	4.5	8.0	20	9.8	5.2	4.7	4.3
15	7.2	8.4	5.6	5.6	8.0	4.5	8.0	21	10	*5.4	4.7	5.2
16	7.2	8.0	5.6	6.2	6.0	5.0	8.0	18	9.8	5.2	4.7	4.9
17	7.2	*7.6	*6.0	6.2	6.0	5.2	8.0	17	*8.9	5.2	4.5	*4.7
18	7.2	6.9	6.0	6.2	5.8	5.4	7.6	16	8.4	5.2	4.9	4.5
19	7.2	8.4	6.0	6.2	5.8	5.6	7.2	15	8.4	4.9	*5.6	4.7
20	7.2	8.4	6.0	5.6	5.8	*4.9	7.2	13	8.4	5.2	5.4	4.5
21	7.2	8.0	6.0	5.6	5.4	5.6	6.9	12	8.0	4.9	5.2	4.5
22	*7.2	8.0	6.2	6.6	5.4	5.6	*6.9	*12	7.6	4.9	5.2	4.5
23	7.2	8.0	6.2	6.2	6.0	5.6	7.2	12	7.6	4.9	5.2	4.9
24	7.2	7.6	6.2	6.0	5.8	6.0	8.9	12	6.9	4.9	5.2	4.9
25	7.2	7.2	6.0	6.0	5.4	5.6	12	12	6.9	4.9	5.2	5.2
26	7.2	7.2	5.6	6.0	5.4	5.4	13	12	6.9	4.9	5.2	4.9
27	8.0	7.2	6.2	5.6	5.4	5.4	12	14	7.2	4.7	4.9	5.4
28	8.0	5.6	6.2	5.4	5.4	5.4	12	13	6.9	4.7	4.7	4.9
29	8.0	6.9	5.6	5.2	-	5.4	12	13	6.9	4.7	4.7	4.9
30	8.0	6.9	4.9	6.2	------	5.4	13	14	6.6	4.7	4.7	4.7
31	7.6	------	6.6	6.2	------	5.6	------	14	------	4.7	4.7	------
Total	229.2	231.1	194.2	187.4	157.6	162.6	255.5	439	297.0	163.0	152.6	138.3
Mean	7.39	7.93	6.26	6.05	5.63	5.25	8.52	14.2	9.90	5.26	4.92	4.61
Ac-ft	455	458	385	372	313	323	507	871	589	323	303	274

Calendar year 1958: Max 107 Min 4.9 Mean 16.4 Ac-ft 11,870
Water year 1958-59: Max 21 Min 4.3 Mean 7.14 Ac-ft 5,170

Peak discharge (base, 30 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--No gage-height record Feb. 13 to Mar. 19; discharge estimated on basis of weather records, trend of flow, and records for nearby streams.

1475. Payson Creek above diversions, near Payson, Utah

Location.--Lat 39°58'10", long 111°41'35", in SE¼SE¼ sec.3, T.10 S., R.2 E., on left bank a quarter of a mile above diversion dam for Strawberry Water Users Association powerplant, 5 miles southeast of Payson, and 12 miles upstream from Utah Lake.

Drainage area.--18.8 sq mi (revised).

Records available.--July 1947 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,670 ft (by barometer).

Average discharge.--12 years, 13.4 cfs (9,700 acre-ft per year).

Extremes.--Maximum discharge during year, 44 cfs May 1 (gage height, 1.69 ft); minimum, 4.2 cfs Mar. 5, but may have been less during periods of ice effect.
1947-59: Maximum discharge, 465 cfs May 4, 1952 (gage height, 2.99 ft), from rating curve extended above 150 cfs on basis of logarithmic plotting; minimum recorded, 1.5 cfs Jan. 8, 1957.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Flow affected by several small reservoirs.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.8	3.7
1.0	7.8
1.2	15
1.4	25
1.6	39

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.4	6.4	6.2		b5.1	5.3	6.6	26	8.4	6.6	7.6	
2	6.4	6.4	6.2		5.3	5.7	7.3	23	9.3	8.7	7.8	
3	6.4	6.4	6.2		5.1	5.5	8.7	18	9.3	12	7.3	
4	6.4	6.6	6.2		5.1	5.3	9.6	16	9.0	10	6.9	
5	6.4	6.9	6.2		5.0	b5.3	11	13	8.4	10	6.6	
6	6.4	6.6	6.2	b5.7	5.0	5.3	13	13	8.4	9.6	6.6	
7	6.4	6.6	6.2		5.1	5.3	11	12	8.1	9.0	6.4	
8	6.4	6.4	6.4		5.3	5.3	8.7	16	8.4	9.0	6.4	a5.5
9	6.6	6.4	6.6		5.0	5.3	7.3	23	8.1	9.0	6.4	
10	6.6	6.4	6.4		5.0	5.3	7.1	24	8.1	8.4	6.0	
11	6.6	6.6	6.4		5.0	5.5	7.6	20	7.8	8.4	6.0	
12	6.6	6.4	7.3	*5.7	5.1	5.7	9.0	16	7.6	8.4	6.0	
13	6.4	6.4	6.0	5.7	*5.1	6.0	11	*16	7.6	8.1	6.0	
14	6.4	6.4	5.5	5.7	b5.1	5.7	12	14	7.3	8.1	6.0	
15	6.4	7.1	5.7	5.5	5.1	5.5	12	13	8.1	*8.7	6.0	
16	6.4	7.1	5.7	5.7	5.3	5.7	9.6	12	8.1	9.3	6.0	*5.5
17	6.4	*6.9	*5.7	5.7	5.5	6.2	8.4	11	*7.6	9.0	5.5	5.1
18	6.4	b6.6	5.7	5.5	5.3	6.4	8.1	10	7.6	7.1	6.0	4.6
19	6.4	6.6	5.7	5.5	5.3	*6.4	7.6	10	7.6	6.6	*6.9	4.8
20	6.6	6.6	5.7	5.5	5.1	6.0	*7.1	9.3	7.3	6.4	*a6.0	4.6
21	*6.6	6.6	5.7	5.3	5.1	6.2	6.9	9.0	7.3	6.2		4.4
22	6.4	6.4	5.7	5.5	5.5	6.4	7.8	*9.3	7.1	6.2		4.6
23	6.4	6.4	5.7	5.5	5.3	6.4	9.6	9.0	6.9	6.2		5.1
24	6.4	6.4	5.7	5.5	5.5	6.6	16	8.7	6.6	6.9		5.0
25	6.6	6.4	5.7	5.7	5.3	6.0	20	8.4	6.6	7.3		5.3
26	6.6	6.4	5.3	5.7	5.3	6.0	21	8.7	7.1	7.3	a5.5	5.0
27	6.6	6.4	5.7	5.5	5.3	6.2	18	9.3	7.8	7.1		5.1
28	6.4	5.7	6.0	5.3	5.3	6.0	14	7.8	7.3	6.9		4.8
29	6.4	6.4	5.7	5.1	-	6.0	16	7.8	7.8	6.9		5.0
30	6.4	6.2	b5.7	5.3	-------	6.0	20	7.6	7.6	7.1		5.0
31	6.4	-------	b5.7	5.3	-------	6.2	-------	7.3	-------	7.1		-------
Total	200.2	195.1	184.8	172.9	145.5	180.7	332.0	408.2	234.2	247.6	188.9	156.4
Mean	6.46	6.50	5.96	5.58	5.20	5.83	11.1	13.2	7.81	7.99	6.09	5.21
Ac-ft	397	387	367	343	289	357	659	810	465	491	375	310

Calendar year 1958: Max 119 Min 5.2 Mean 15.2 Ac-ft 11,010
Water year 1958-59: Max 26 Min 4.4 Mean 7.25 Ac-ft 5,250

Peak discharge (base, 80 cfs).--No peak above base.

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of recorded range in stage, trend of flow, and records for nearby streams.
b Stage-discharge relation affected by ice.

1485. Spanish Fork at Thistle, Utah

Location.--Lat 40°00', long 111°30', in SE¼ sec.29 (revised), T.9 S., R.4 E., on right bank at Thistle, 600 ft downstream from confluence of Soldier Fork and Thistle Creek and 2½ miles upstream from Diamond Fork.

Drainage area.--490 sq mi, approximately.

Records available.--January 1908 to September 1925 and October 1936 to September 1959 in reports of Geological Survey. January 1933 to September 1959 in reports of Spanish Fork water commissioner.

Gage.--Water-stage recorder. Altitude of gage is 4,950 ft (from topographic map). Prior to Nov. 21, 1912, staff gage 1 mile downstream at different datum. Nov. 21, 1912, to Dec. 31, 1925, staff gage at site 200 ft downstream at different datum. Jan. 1, 1933, to May 10, 1937, staff gage at present site at different datum. May 12, 1937, to Oct. 8, 1938, staff gage at present site and datum.

Average discharge.--43 years (1908-25, 1933-59), 92.4 cfs (66,890 acre-ft per year).

Extremes.--Maximum discharge during year, 686 cfs July 14 (gage height, 5.60 ft); minimum, 17 cfs Aug. 12, 13.
1908-25, 1933-59: Maximum discharge, 1,800 cfs May 4, 1952 (gage height, 7.96 ft); minimum observed, 10 cfs Sept. 17, 22, 25, Oct. 25, 1934, Dec. 9, 10, 1951.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Small diversions for irrigation above station.

Revisions (water years).--WSP 1564: 1909-11, 1914-15, 1917, 1923-24, 1933, 1935.

Rating tables, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 22		Jan. 23 to Sept. 30	
2.9	38	2.6	12
3.2	69	2.8	25
		3.1	55
		3.4	98

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	52	50	57	45	58	54	55	*63	36	a23	19
2	40	51	53	54	49	61	52	54	62	35	a25	22
3	41	48	53	50	43	62	53	59	59	39	a23	24
4	41	48	57	a47	55	55	53	64	57	41	a22	22
5	41	49	54	a46	50	51	52	59	55	39	a24	22
6	41	49	57	a46	46	57	49	58	54	33	25	22
7	40	50	56	a52	55	55	46	55	53	28	25	22
8	39	49	61	a51	55	57	43	59	51	30	24	21
9	39	50	61	a50	51	61	40	61	47	31	23	20
10	39	50	55	a50	*46	64	39	66	43	31	22	20
11	40	51	56	a52	51	55	38	68	41	31	22	20
12	40	52	62	*53	53	55	36	*72	40	31	20	20
13	39	52	55	52	50	*62	36	79	38	30	17	21
14	40	50	48	*52	44	59	37	87	38	61	20	23
15	42	53	*45	49	50	54	35	95	38	33	22	*25
16	44	49	46	51	53	52	38	98	35	*30	22	27
17	45	44	49	53	70	*57	37	98	33	27	*23	26
18	45	39	49	52	70	61	45	98	*32	27	27	26
19	47	*44	49	53	71	62	42	92	34	27	32	26
20	51	49	50	51	61	54	41	87	33	25	31	27
21	*53	50	51	49	58	54	*39	79	31	25	28	25
22	51	51	55	47	61	53	42	77	31	25	28	24
23	51	51	57	54	58	55	*46	71	27	25	30	26
24	51	53	54	51	55	58	49	64	33	37	27	27
25	51	53	51	53	54	55	50	66	34	a24	31	28
26	51	*53	48	54	54	52	58	66	36	a23	26	26
27	51	54	50	49	54	51	66	66	43	a20	25	31
28	*51	44	57	54	54	49	55	67	41	a18	24	27
29	52	47	46	50	-	51	53	67	41	a20	23	28
30	52	50	51	46	-------	51	54	71	38	a20	25	29
31	52	-------	53	47	-------	55	-------	68	-------	a22	21	-------
Total	1,402	1,485	1,639	1,575	1,516	1,736	1,377	2,226	1,261	924	760	726
Mean	45.0	49.5	52.9	50.8	54.1	56.0	45.9	71.8	42.0	29.8	24.5	24.2
Ac-ft	2,780	2,950	3,250	3,120	3,010	3,440	2,730	4,420	2,500	1,830	1,510	1,440

Calendar year 1958: Max 583 Min 34 Mean 104 Ac-ft 75,160
Water year 1958-59: Max 98 Min 17 Mean 45.6 Ac-ft 32,980

Peak discharge (base, 330 cfs).--July 14 (6:30 p.m.) 686 cfs (5.60 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, trend of flow, and records for nearby stations.

9-2820. Strawberry tunnel at West Portal, near Thistle, Utah

Location.--Lat 40°09'40", long 111°14'40", in SW¼ sec.34, T.7 S., R.6 E., on left bank 40 ft downstream from west portal of tunnel and 18 miles northeast of Thistle.

Records available.--October 1945 to September 1959 in reports of Geological Survey. October 1922 to September 1925 and May 1932 to September 1945 in Spanish Fork water commissioner's reports and files of Salt Lake City district office, Geological Survey.

Gage.--Water-stage recorder and rectangular weir. Altitude of gage is 7,470 ft (by barometer).

Extremes.--1922-25, 1932-59: Maximum daily discharge, 595 cfs July 9, 1923; minimum daily observed, 4 cfs many times when no water was being diverted from Strawberry Reservoir.

Remarks.--Records good. Records show water diverted from Strawberry Reservoir (in Colorado River basin, capacity, 270,000 acre-ft) plus tunnel seepage, for use on lands of Strawberry project.

Cooperation.--Records furnished by Strawberry Water Users Association.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71							15	150	155	258	178
2	79							15	231	180	166	194
3	94							9	340	180	109	216
4	120							6	387	154	109	194
5	135							6	392	137	88	153
6	122							12	372	153	99	144
7	129							15	356	213	155	118
8	137					5	6	20	343	303	200	110
9	108							20	400	322	192	115
10								20	371	311	242	138
11								23	390	288	280	162
12								69	386	320	301	144
13								202	408	366	319	121
14								325	390	356	338	134
15							11	320	377	336	330	120
16		5	5	5	5		30	371	390	298	315	77
17							34	390	412	270	311	70
18							10	391	389	267	311	63
19							6	382	389	203	272	22
20	5						12	398	413	180	190	5
21							22	416	348	186	143	5
22							6	392	332	203	110	5
23							6	365	356	195	82	27
24						6	6	328	459	160	76	22
25							6	308	482	147	96	5
26							6	288	460	141	87	5
27							6	270	397	192	87	15
28							6	217	301	225	87	5
29					-		6	210	262	239	105	5
30					-------		9	186	188	266	105	7
31		-------	-------	-------	-------		-------	150	-------	289	131	-------
Total	1,105	150	155	155	140	171	266	6,139	10,871	7,235	5,694	2,579
Mean	35.6	5	5	5	5	5.52	8.87	198	362	233	184	86.0
Ac-ft	2,190	298	307	307	278	339	528	12,180	21,560	14,350	11,290	5,120

Calendar year 1958 : Max 474 Min - Mean 91.3 Ac-ft 66,100
Water year 1958-59 : Max 482 Min - Mean 95.0 Ac-ft 68,750

Note.--Discharge for periods of seepage flow only Oct. 10 to Apr. 14, Apr. 19,22-29, May 4, 5, Sept. 20-22, 25, 26, 28, 29 estimated on basis of observer's notes.

1495. Diamond Fork below Red Hollow, near Thistle, Utah

Location.--Lat 40°04'40", long 111°24'00", in NW¼ sec.32, T.8 S., R.5 E., on right bank 0.5 mile downstream from Red Hollow, 7.2 miles upstream from mouth, and 8 miles northeast of Thistle.

Drainage area.--110 sq mi, approximately.

Records available.--October 1953 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,300 ft (from river-profile map).

Average discharge.--6 years, 114 cfs (82,530 acre-ft per year).

Extremes.--Maximum discharge during year, 566 cfs June 24 (gage height, 3.35 ft); minimum, 2.6 cfs Nov. 28.
1953-59: Maximum discharge, 1,020 cfs July 13, 1954 (gage height, 4.71 ft); minimum daily, 2.0 cfs Feb. 1, 2, 1956.

Remarks.--Records good. Flow includes water diverted from Strawberry Reservoir (capacity, 270,000 acre-ft) in Colorado River basin via Strawberry tunnel (see preceding page) for irrigation in vicinity of Spanish Fork.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.9	7.4	2.0	123
1.1	17	2.5	238
1.4	39	3.0	403
1.7	74	3.3	526

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	87	17	14	17	11	15	16	33	*155	181	273	186
2	90	17	14	16	14	16	22	36	216	194	196	198
3	103	17	15	12	13	16	25	31	301	208	181	219
4	125	16	16	10	15	15	27	27	348	179	138	206
5	144	16	14	12	14	13	28	24	366	159	108	165
6	134	16	15	16	12	15	32	27	352	168	116	151
7	138	16	15	17	15	14	28	31	334	211	165	129
8	151	16	16	16	15	14	22	36	328	279	219	116
9	132	16	16	16	15	15	19	37	352	324	219	121
10	32	16	16	16	*13	15	19	37	392	318	250	138
11	18	15	16	16	15	14	19	37	384	295	292	161
12	17	16	18	*15	15	14	19	*58	384	311	308	146
13	16	16	16	15	15	*16	20	230	403	348	331	125
14	16	16	12	*14	12	16	20	331	381	348	356	130
15	16	17	*13	13	15	15	19	*328	370	338	345	*121
16	16	14	16	14	15	15	39	362	411	*295	321	90
17	16	11	16	15	19	*16	60	377	392	273	*314	74
18	15	11	16	14	16	17	66	396	*388	267	314	66
19	15	*15	15	14	15	17	25	377	426	233	267	39
20	15	14	15	13	15	16	22	*388	377	196	211	20
21	*15	15	15	13	15	16	38	407	359	191	163	14
22	16	15	15	14	15	17	*25	384	377	204	130	13
23	17	14	15	15	15	18	*20	352	454	204	100	27
24	17	14	15	15	15	19	20	318	517	184	89	30
25	17	15	12	15	15	17	20	292	517	165	103	19
26	17	*15	11	15	15	17	24	270	517	157	98	14
27	*17	16	15	14	15	18	27	258	419	191	95	24
28	17	9.9	17	15	15	17	23	216	295	230	95	14
29	17	13	11	14	-	18	22	201	258	252	112	14
30	17	14	8.7	14	-------	19	22	186	224	270	116	17
31	17	-------	17	12	-------	19	-------	153	-------	292	136	-------
Total	1,480	448.9	455.7	447	409	499	789	6,240	10,997	7,465	6,161	2,787
Mean	47.7	15.0	14.7	14.4	14.6	16.1	26.3	201	367	241	199	92.9
Ac-ft	2,940	890	904	887	811	990	1,560	12,380	21,810	14,810	12,220	5,530

Calendar year 1958: Max 463 Min 8.7 Mean 117 Ac-ft 84,460
Water year 1958-59: Max 517 Min 8.7 Mean 105 Ac-ft 75,730

* Discharge measurement made on this day.

1505. Spanish Fork at Castilla, Utah

Location.--Lat 40°03'00", long 111°32'50", in SW¼NE¼ sec.12, T.9 S., R.3 E., on left bank 600 ft upstream from outlet of Cold Springs, 1 mile upstream from diversion dam of Bureau of Reclamation, 1¼ miles northwest of Castilla, and 3 miles downstream from Diamond Fork.

Drainage area.--670 sq mi, approximately.

Records available.- May 1919 to September 1925 and October 1936 to September 1959 in reports of Geological Survey. January 1933 to September 1959 in reports of Spanish Fork water commissioner.

Gage.--Water-stage recorder. Altitude of gage is 4,870 ft (from topographic map). Prior to Apr. 20, 1920, staff gage and Apr. 20, 1920, to Sept. 30, 1925, water-stage recorder, at same site at different datums.

Average discharge.--32 years (1919-25, 1933-59), 218 cfs (157,800 acre-ft per year).

Extremes.--Maximum discharge during year, 958 cfs July 14 (gage height, 7.30 ft); minimum, 40 cfs Sept. 21.
1919-25, 1933-59: Maximum discharge, 3,610 cfs May 3, 1952 (gage height, 9.83 ft); minimum, 14 cfs Dec. 9, 1951.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Several small diversions for irrigation above station. Flow includes water diverted from Strawberry Reservoir (capacity, 270,000 acre-ft) in Colorado River basin via Strawberry tunnel (see p. 88) for irrigation in vicinity of Spanish Fork.

Rating tables, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 28 to June 3, June 29 to July 8, July 19, 21, 24, 26, Aug. 4-7, 14-20)

Oct. 1 to May 13		May 14 to Sept. 30			
4.6	60	4.5	34	5.5	215
5.0	130	4.7	54	6.0	367
5.5	250	5.0	101	6.5	567

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	145	77	74	81	67	82	91	104	*234	228	327	234
2	139	77	76	77	74	88	93	110	271	237	234	262
3	154	74	76	67	68	88	95	110	364	259	207	283
4	175	74	82	66	81	81	95	112	433	237	163	a260
5	192	76	76	66	73	73	95	106	457	212	156	a220
6	182	76	79	67	66	84	93	102	437	212	144	a190
7	185	76	77	74	77	79	89	106	403	248	167	a170
8	192	74	84	73	81	79	81	112	389	320	242	a145
9	185	74	84	73	76	82	76	116	414	360	254	a150
10	108	74	79	74	*64	89	71	118	441	360	283	a170
11	a90	76	77	81	76	79	71	122	430	353	330	a190
12	a88	76	86	*79	81	76	67	*130	430	364	340	a175
13	a86	76	74	81	77	*86	66	248	461	411	350	a155
14	a86	77	66	*79	67	82	67	389	441	443	364	a160
15	a86	84	*64	74	74	76	67	*434	422	418	374	a155
16	a86	76	68	76	82	77	79	461	457	*374	353	*142
17	a86	67	71	82	100	*86	100	489	433	357	*347	123
18	a84	a64	71	81	102	89	118	494	*430	353	357	a100
19	a82	*68	70	81	102	91	88	477	465	320	330	a75
20	a82	76	73	76	89	82	76	*477	418	231	265	a55
21	*82	77	73	73	86	81	84	485	378	220	218	41
22	82	76	77	68	91	82	*81	473	403	239	179	44
23	82	76	79	79	88	86	*79	437	485	239	149	53
24	81	77	77	74	86	93	81	389	558	220	127	59
25	82	79	70	79	82	86	82	371	549	192	151	53
26	79	*79	66	84	82	82	93	353	554	189	142	46
27	*77	84	66	74	81	82	114	333	502	199	134	59
28	79	67	82	81	81	82	100	292	357	265	132	47
29	79	70	70	74	-	86	95	271	304	286	149	47
30	79	74	63	74	-------	86	93	262	268	311	158	50
31	79	-------	68	70	-------	97	-------	239	-------	330	177	-------
Total	3,394	2,251	2,298	2,338	2,254	2,592	2,580	8,722	12,588	8,987	7,303	3,913
Mean	109	75.0	74.1	75.4	80.5	83.6	86.0	28.1	420	290	236	130
Ac-ft	6,730	4,460	4,560	4,640	4,470	5,140	5,120	17,300	24,970	17,830	14,490	7,760

Calendar year 1958: Max 845 Min 52 Mean 243 Ac-ft 176,000
Water year 1958-59: Max 558 Min 41 Mean 162 Ac-ft 117,500

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, trend of flow, and records for Spanish Fork at Thistle and Diamond Fork below Red Hollow, near Thistle.

1520. Spanish Fork near Lake Shore, Utah

Location.--Lat 40°09'30", long 111°43'50", in SE¼SE¼ sec.32, T.7 S., R.2 E., on left bank 1 mile upstream from mouth and 2½ miles north of Lake Shore.

Drainage area.--700 sq mi, approximately.

Records available.--December 1903 to July 1907, March 1909 to September 1925, January 1938 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,500 ft (from topographic map). Prior to Jan. 23, 1938, staff gages at several sites about 3 miles upstream at various datums. Jan. 23, 1938, to Mar. 23, 1953, water-stage recorder at present site at different datum. Mar. 24, 1953, to Sept. 15, 1957, water-stage recorder at present site at datum 4.0 ft higher.

Average discharge.--38 years (1904-6, 1909-19, 1920-25, 1938-59), 88.1 cfs (63,780 acre-ft per year).

Extremes.--Maximum discharge during year, 159 cfs Mar. 4 (gage height, 5.24 ft); maximum gage height, 6.19 ft Jan. 5 (backwater from ice); no flow Sept. 12, 18.
1903-7, 1909-25, 1938-59: Maximum discharge observed, 3,020 cfs Apr. 28, 1952; no flow at times.

Remarks.--Records good except those for period of ice effect, which are fair. Flow regulated by many diversions for irrigation and hydroelectric powerplant. During latter part of irrigation season, only wasted and return waters pass gage. Station is below all diversions. Discharge includes that of overflow canal constructed in winter of 1947-48, which diverts part of high flow from river about 1 mile above gage.

Rating tables, water year 1958-59, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 24-30, May 24 to July 15, July 25 to Sept. 30)

Oct. 1 to Jan. 4				Jan. 5 to Sept. 30			
1.8	0.3	2.6	21	1.7	0	2.5	14
1.9	2.2	3.0	36	1.8	.3	3.0	31
2.1	6.5	3.5	58	1.9	1.2	4.0	75
2.3	12	4.4	109	2.0	2.6	5.1	148
				2.2	6.4		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	15	95	98	81	107	84	0.3	0.2	0.2	0.2	0.1
2	*1.1	14	95	101	90	110	84	.3	.4	.2	.3	.1
3	1.1	20	96	92	89	114	87	.3	.3	.2	.2	.2
4	2.0	16	100	b90	96	104	87	.4	.5	.3	.3	.4
5	1.4	15	99	b87	95	96	86	.4	.7	.4	.4	.5
6	2.6	*16	102	b86	83	107	87	.5	.2	.4	.4	.4
7	2.0	21	97	86	98	105	74	.6	.5	.3	.2	.5
8	4.4	20	105	86	99	103	51	.6	.2	.4	.2	.4
9	7.2	15	105	86	101	105	37	.5	.2	.7	.2	.3
10	4.9	18	100	89	83	111	30	.4	.2	.5	.2	.2
11	2.0	20	96	93	93	103	27	*.4	.2	.5	.2	.1
12	4.3	21	106	*96	108	101	27	.3	.4	.6	.2	0
13	5.1	26	104	98	100	*108	17	.3	.4	.7	.2	.1
14	1.4	39	97	98	*82	107	3.0	.2	.4	.7	.2	.1
15	3.4	57	93	*93	94	97	2.3	.2	.4	*11	.2	.3
16	3.6	66	*84	93	108	*91	1.7	.2	.4	.5	.2	*.8
17	3.4	*73	96	100	142	102	.8	.3	.5	.4	.1	.1
18	2.8	74	97	97	138	104	.6	.2	*.5	.4	.1	0
19	2.8	81	95	97	134	106	4.0	.3	.3	.4	*.3	.1
20	7.0	86	97	92	122	102	*.7	.4	.2	.4	.3	5.8
21	19	91	97	87	115	99	.6	.4	.2	.3	.1	5.4
22	18	91	105	84	116	95	.4	.4	.4	.3	.1	.2
23	22	87	98	93	116	100	.4	.4	.5	.2	.1	.2
24	32	95	99	93	112	114	.2	.3	.4	.2	.1	8.7
25	27	96	88	96	107	108	.2	.3	.2	2.6	.2	18
26	27	*97	87	106	105	102	.2	.3	.4	.1	.1	4.3
27	*21	90	85	96	105	101	.4	.3	.8	.1	.1	23
28	15	86	97	97	104	99	.8	.2	.5	.1	.1	43
29	13	83	96	96	-	101	.5	.2	.4	.1	.2	42
30	16	89	76	93	-------	99	.5	.2	.2	.2	.2	32
31	18	-------	83	93	-------	108	-------	.3	-------	.2	.1	-------
Total	294.7	1,618	2,970	2,892	2,916	3,209	795.3	10.4	11.1	23.6	6.0	187.3
Mean	9.51	53.9	95.8	93.3	104	104	26.5	0.34	0.37	0.76	0.19	6.24
Ac-ft	585	3,210	5,890	5,740	5,780	6,360	1,580	21	22	47	12	372

Calendar year 1958: Max 469 Min 0 Mean 84.9 Ac-ft 61,410
Water year 1958-59: Max 142 Min 0 Mean 40.9 Ac-ft 29,620

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

1525. Hobble Creek near Springville, Utah

Location.--Lat 40°09'30", long 111°31'30", in NE¼ sec.6, T.8 S., R.4 E., on right bank 1,000 ft downstream from Springville hydroelectric plant, 1¼ miles downstream from Right Fork, and 4 miles southeast of Springville.

Drainage area.--105 sq mi.

Records available.--March 1904 to December 1916 (1906-7, gage heights only), April 1945 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,920 ft (from topographic map). Prior to June 1, 1909, staff gage at site 200 ft downstream at different datum (destroyed by flood). June 1, 1909, to Dec. 31, 1916, staff gage at site 800 ft upstream at different datum. Apr. 17, 1945, to July 23, 1952, water-stage recorder at same site at datum 1.70 ft higher.

Average discharge.- 24 years (1904-5, 1907-16, 1945-59), 50.7 cfs (36,710 acre-ft per year).

Extremes.--Maximum discharge during year, 44 cfs May 11 (gage height, 2.46 ft); minimum, 2.6 cfs Nov. 22.
1904-16, 1945-59: Maximum discharge, 1,250 cfs May 4, 1952 (gage height, 7.83 ft, present datum); minimum, 1.4 cfs Feb. 12, 1946.

Remarks.--Records good. Several diversions above station for irrigation. Flow regulated by hydroelectric plants at times during low stages. Springville City pipeline (capacity, approximately 5 cfs) diverts water from tributary spring above station (diversion began August 1951).

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

1.8	6.0
2.0	12
2.2	22
2.4	38

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*17	18	20	18	17	20	20	28	18	13	9.2	10
2	16	18	20	18	18	20	20	31	17	12	8.5	10
3	16	18	20	15	17	20	22	31	16	12	8.8	10
4	15	19	18	13	18	20	25	33	15	12	9.2	9.8
5	15	20	18	14	18	18	28	30	14	12	9.5	9.8
6	15	*20	18	16	17	20	35	34	15	12	11	9.5
7	15	20	18	18	18	20	36	32	15	9.8	12	9.5
8	13	19	18	18	18	19	30	32	14	8.8	11	9.8
9	14	19	18	18	17	20	27	31	12	8.2	9.8	9.5
10	15	18	18	17	16	20	25	32	11	8.0	9.5	9.5
11	15	20	18	17	18	19	23	32	12	8.0	9.8	11
12	15	20	19	17	18	19	23	*29	12	8.0	9.8	11
13	16	19	18	17	*17	20	23	30	12	9.8	9.8	10
14	16	19	18	17	15	20	27	30	13	11	9.8	*9.8
15	16	20	18	*17	18	18	25	30	14	*11	9.5	11
16	17	19	*18	17	20	19	25	30	14	11	9.5	11
17	17	19	18	17	25	*19	24	30	14	8.8	*10	11
18	17	18	18	17	22	20	24	30	*14	8.2	11	11
19	16	20	18	17	21	20	24	30	14	8.5	11	11
20	18	*20	18	17	21	20	24	28	14	9.5	12	11
21	18	20	18	16	20	19	21	28	13	11	12	12
22	18	20	18	16	20	20	20	*25	12	12	10	12
23	17	20	18	16	20	20	*22	22	12	11	10	11
24	16	20	18	16	20	21	25	21	11	11	11	11
25	16	20	18	16	20	20	27	21	11	10	11	11
26	16	20	17	18	19	20	32	21	13	10	11	11
27	17	20	18	18	19	20	34	21	16	8.2	11	12
28	17	20	17	17	20	20	31	20	16	7.7	9.8	11
29	17	19	17	17	-	20	29	18	14	8.5	9.8	11
30	17	20	14	18	-------	20	28	18	14	8.2	9.8	11
31	17	-------	17	17	-------	20	-------	19	-------	11	10	-------
Total	500	582	557	520	527	611	779	847	412	310.2	316.1	318.2
Mean	16.1	19.4	18.0	16.8	18.8	19.7	26.0	27.3	13.7	10.0	10.2	10.6
Ac-ft	992	1,150	1,100	1,030	1,050	1,210	1,550	1,680	817	615	627	631

Calendar year 1958: Max 323 Min 13 Mean 47.3 Ac-ft 34,200
Water year 1958-59: Max 36 Min 7.7 Mean 17.2 Ac-ft 12,450

Peak discharge (base, 120 cfs).--No peak above base.

* Discharge measurement made on this day.

1535. Provo River near Kamas, Utah

Location.--Lat 40°35'00", long 111°00'30", in NE¼ sec.2, T.3 S., R.8 E., on right bank 3 miles upstream from Soapstone Creek and 14 miles east of Kamas.

Drainage area.--29.6 sq mi.

Records available.--August 1949 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 8,110 ft (by barometer).

Average discharge.--10 years, 51.1 cfs (36,990 acre-ft per year).

Extremes.--Maximum discharge during year, 314 cfs June 6 (gage height, 2.82 ft); minimum, 2.0 cfs Oct. 31.
1949-59: Maximum discharge, 825 cfs June 6, 1957 (gage height, 3.66 ft); minimum, 1.7 cfs Oct. 30, 1956.

Remarks.--Records good except those for periods of ice effect, which are fair. No diversion above station. Flow regulated by several small lakes at headwaters which have dams and outlet works. Combined regulated capacity, 10,841 acre-ft. Station is immediately above outlet of Duchesne tunnel.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.8	2.3	1.6	43
.9	4.0	2.0	99
1.0	6.4	2.4	186
1.1	9.6	2.8	314
1.3	19		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.5	*4.0	3.1	3.6	4.4	4.6	6.7	81	*186	64	84	13
2	3.3	3.6	*3.1	3.8	4.2	4.6	8.6	89	230	64	78	13
3	3.3	3.8	3.3	3.8	4.2	4.6	10	78	240	68	75	12
4	3.3	3.5	3.5	3.6		b4.4	14	61	240	64	61	8.9
5	3.3	4.4	3.3	3.6		b4.4	23	50	*240	65	*39	7.3
6	3.1	3.8	3.3	3.6		4.4	32	43	249	55	38	6.1
7	3.1	4.4	3.3	3.6		4.4	37	41	240	67	39	5.5
8	3.3	4.4	3.5	3.6	b4.0	4.4	29	46	215	*88	41	13
9	3.1	4.6	3.8	3.5		4.4	22	61	192	94	42	26
10	3.1	4.6	4.2	3.5			17	80	186	92	40	24
11	3.1	4.6		3.5		b4.4	16	99	176	99	38	18
12	3.1	4.8		3.5	3.8		18	139	163	106	38	17
13	3.1	4.6		3.5	3.8		23	189	148	103	38	10
14	3.1	4.4		3.5		b4.4	25	206	135	97	38	6.7
15	3.1	4.0	b4.0	3.6	b4.0	b4.4	24	*215	137	96	43	6.4
16	3.1			3.6		4.6	22	209	144	92	49	9.6
17	3.3			3.6	4.4	5.0	19	183	*131	91	51	8.9
18	3.1	b4.0	4.2	3.6		5.5	17	155	125	92	51	7.3
19	3.1		4.2	3.6		5.5	16	131	110	99	53	9.6
20	4.2		4.2	3.8	b4.5	b5.5	14	*113	89	97	51	9.6
21	4.4	4.0	4.0	3.8		b5.5	17	112	89	97	51	8.9
22	4.4	3.8	3.8	3.6		5.5	16	112	86	96	40	10
23	4.0	3.6	3.8	3.6	4.6	5.5	19	101	78	99	31	14
24	4.2	3.6	4.0	3.6	4.6	5.5	29	119	74	99	30	13
25	4.2	3.5	4.0	3.6	4.6	5.5	40	133	88	97	24	13
26	4.2	3.3	4.0		4.6	b5.5	48	119	110	99	19	17
27	4.2	3.3	3.8		4.6	*5.5	38	127	97	96	16	20
28	4.0	3.5	3.8	b3.8	4.6	b5.5	32	144	63	77	19	17
29	3.6	3.3	3.8		-	5.8	*36	176	88	75	16	15
30	3.6	3.1	3.8	4.2	-------	5.8	58	186	77	77	15	*13
31	3.6	-------	3.8	4.2	-------	5.8	-------	176	-------	78	*14	-------
Total	109.1	118.5	117.6	113.8	118.9	154.1	726.3	3,774	4,426	2,683	1,262	372.8
Mean	3.52	3.95	3.79	3.67	4.25	4.97	24.2	122	148	86.5	40.7	12.4
Ac-ft	216	235	233	226	236	306	1,440	7,490	8,780	5,320	2,500	739

Calendar year 1958: Max 414 Min 3.1 Mean 48.1 Ac-ft 34,830
Water year 1958-59: Max 249 Min 3.1 Mean 38.3 Ac-ft 27,720

Peak discharge (base, 400 cfs).--No peak above base.

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

9-2725. Duchesne tunnel near Kamas, Utah

Location.--Lat 40°36', long 111°00', in NE¼ sec.2, T.3 S., R.8 E., on left bank 600 ft downstream from tunnel outlet, 3 miles upstream from Soapstone Creek, and 14 miles east of Kamas.

Drainage area.--40 sq mi, approximately.

Records available.--October 1953 to September 1959.

Gage.--Water-stage recorder with Parshall flume, and Sparling water meter for low flow. Datum of gage is 8,098.5 ft (Bureau of Reclamation design plan).

Extremes.--Maximum discharge during year, 694 cfs June 7 (gage height, 4.72 ft); minimum daily, 1.5 cfs Aug. 16-31, when flow was cut off at head of tunnel.
1953-59: Maximum discharge, that of June 7, 1959; minimum daily discharge, 1.5 cfs Sept. 9-11, 1957, May 27 to June 3, 1958, Aug. 16-31, 1959, when flow was cut off at head end of tunnel.

Remarks.--Records good Apr. 11 to Aug. 15, when most of flow was through Parshall flume, and fair for remainder of year. Flow is diversion from Duchesne River ir Colorado River basin to Jordan River basin, and includes about 1.5 cfs tunnel seepage.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		*6.2	6.5				8.0	78	228	131	29	3
2	7.7		*6.5	6.5			9.0	86	308	110	26	5
3		6.5					10	72	373	115	22	5
4	6.9						12	58	411	96	20	6
5		6.9					14	48	456	84	19	6
6	6.1	7.3					18	43	524	74	19	
7		7.4					24	39	589	71	18	7
8	5.3	7.4					19	40	561	63	16	
9	4.3		6.9				15	51	524	57	16	8
10	4.2						14	73	480	52	16	8
11	4.2						15	90	460	48	16	
12	5.7						16	131	450	45	17	9
13	6.3				6.8		18	183	403	43	16	
14	6.3						21	212	386	40	15	10
15		7.3				7.0	20	226	413	39	10	10
16	6.2		6.7	6.7			20	221	411	37		11
17							19	223	340	34		11
18							18	193	278	32		12
19	6.7						18	165	232	31		15
20							18	141	206	29		18
21		6.9					17	129	195	28		17
22	7.3						15	123	172	28		17
23							18	113	153	26		16
24			6.5				23	119	139	25	1.5	17
25							33	140	130	28		17
26	7.4	6.5			7.0		41	131	123	26		18
27							34	131	127	24		22
28							29	140	122	21		20
29	7.3				-		33	176	174	20		14
30	6.5			6.8	-------		49	213	167	20		9.4
31	5.9	-------	-------	6.8	-------	-------	-------	205	-------	22	-------	-------
Total	201.9	207.7	206.9	207.1	191.2	217.0	618.0	3,993	9,535	1,499	299.0	343.4
Mean	6.51	6.92	6.67	6.68	6.83	7.0	20.6	129	318	48.4	9.65	11.4
Ac-ft	400	412	410	411	379	430	1,230	7,920	18,910	2,970	593	681

Calendar year 1958: Max 552 Min 1.5 Mean 30.3 Ac-ft 21,970
Water year 1958-59: Max 589 Min - Mean 48.0 Ac-ft 34,750

* Discharge measurement made on this day.

1545. Weber-Provo diversion canal near Woodland, Utah

Location.--Lat 40°36'40", long 111°18'15", in SW¼SE¼ sec. 30, T.2 S., R.6 E., on right bank 100 ft upstream from outlet to Provo River and 4½ miles northwest of Woodland.

Records available.--October 1931 to September 1959 (periods of diversion only).

Gage.--Water-stage recorder and Parshall flume. Datum of gage is 6,318 ft above mean sea level (levels by Bureau of Reclamation).

Extremes.--1931-59: Maximum daily discharge, 870 cfs June 4, 1957; no water diverted from Weber River or Beaver Creek for several months in each year.

Remarks.--Records good. Canal diverts water from Weber River in SW¼SW¼ sec.21, T.1 S., R.6 E., and from Beaver Creek in NE¼SE¼ sec.17, T.2 S., R.6 E., to Provo River for irrigation along Provo and Jordan Rivers. Figures given herein represent quantity of water reaching Provo River during periods when water was diverted from Weber River and Beaver Creek. Not all of flow diverted reached Provo River due to evaporation, transpiration, and seepage losses. For records at head of canal see page 60.

Rating tables, Nov. 4, 1958, to June 16, 1959 (gage height, in feet, and discharge, in cubic feet per second)

Nov. 4 to Apr. 9				Apr. 9 to June 16			
1.8	3.6	3.0	48	0.5	25	2.0	231
2.2	14	3.6	80	.8	54	2.6	352
2.6	29	4.2	120	1.0	76	3.4	540
				1.5	146		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	(*)	-	25	29	17	27	39	164	237			
2		-	*31	29	20	28	49	204	334			
3		-	29	24	22	28	54	195	502			
4		13	31	15	22	23	55	180	528			
5		21	26	19	24	20	56	159	394			
6		23	29	24	23	28	59	144	350			
7		22	26	29	29	29	87	137	301			
8		23	28	26	31	27	117	126	330			
9		21	30	26	27	32	105	125	273			
10		22	29	27	25	30	93	144	103			
11		19	29	29	23	30	91	157	115			
12		22	40	29	29	28	89	170	115			
13		*21	38	29	28	36	91	76	97			
14		20	24	26	24	31	98	229	54			
15		28	19	22	23	26	73	401	60			
16		19	25	22	32	29	79	449	52			
17		17	29	32	35	38	72	421	(*)			
18		14	29	29	27	38	75	363	-			
19		25	29	28	31	40	68	295	-			
20		37	29	26	29	32	64	*229	-			
21		34	26	20	28	34	59	190	-			
22		31	28	21	29	40	60	156	-			
23		32	28	29	27	42	64	134	-			
24		30	29	29	26	43	79	125	-			
25		28	19	32	25	39	98	151	-			
26		25	20	29	28	38	128	188	-			
27		29	18	*25	26	40	122	192	-			
28		17	23	29	26	36	102	172	-			
29		17	23	26	-	41	97	181	-			
30		22	11	23	-------	36	120	240	-			
31		-------	18	20	-------	40	-------	235	-------			-------
Total	-	632	818	803	736	1,030	2,443	6,332	3,845	-	-	-
Mean	-	-	26.4	25.9	26.3	33.2	81.4	204	-	-	-	-
Ac-ft	-	1,250	1,620	1,590	1,460	2,040	4,850	12,560	7,630	-	-	-

Calendar year 1958: Max 802 Min - Mean - Ac-ft 49,790
Water year 1958-59: Max 528 Min - Mean - Ac-ft 33,000

* Discharge measurement made on this day.

Note:--No water was diverted from Weber River or Beaver Creek on days for which no figures are given.

1550. Provo River near Hailstone, Utah

Location.--Lat 40°36', long 111°22', in SE¼ sec.34, T.2 S., R.5 E., on right bank 3 miles upstream from Ross Creek and Hailstone.

Drainage area.--233 sq mi.

Records available.--October 1949 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,100 ft (from river-profile map).

Extremes.--Maximum discharge during year, 1,740 cfs June 8 (gage height, 5.55 ft); minimum, 31 cfs Sept. 7.
1949-59: Maximum discharge, 3,880 cfs June 4, 1957 (gage height, 7.28 ft); minimum, 17 cfs Aug. 31, 1954.

Remarks.--Records good except those for periods of ice effect, which are fair. Records include flow of Weber-Provo diversion canal and Duchesne tunnel. Flow affected by irrigation diversions above station and by storage in several small reservoirs at headwaters.

Rating tables, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 31 to Nov. 12)

Oct. 1 to May 14				May 15 to Sept. 30			
1.3	40	3.0	469	1.3	25	3.0	399
1.6	82	4.0	930	1.6	58	4.0	850
2.0	153	4.5	1,200	2.0	119	5.2	1,520
2.5	285			2.5	234		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	52	60	b86	b87	b67	87	149	547	925	324	132	*38
2	50	56	*b90	b85	b70	96	*192	667	*1,210	288	127	37
3	50	56	92	b78	b73	90	225	606	1,450	278	112	38
4	48	*64	90	b68	b76	85	265	535	1,510	248	*101	37
5	46	78	84	b70	b78	80	288	457	*1,480	226	84	35
6	46	80	85	b78	b81	92	322	410	1,480	207	70	35
7	45	79	80	b76	b82	87	357	383	1,490	194	66	32
8	45	78	92	b73	b84	85	339	360	1,510	*202	62	36
9	44	76	92	b75	b79	92	288	390	*1,410	202	62	39
10	41	76	92	b77	b74	88	245	477	1,120	192	57	47
11	44	76	95	b80	b73	84	242	551	1,100	177	48	48
12	43	82	122	b81	b78	87	248	690	1,060	190	46	50
13	40	79	103	b84	b75	108	270	845	1,020	184	48	50
14	41	76	88	b81	b73	96	298	1,120	865	175	47	45
15	44	92	98	b76	b71	88	263	*1,290	900	164	46	48
16	48	78	106	b76	b80	93	248	1,360	*945	159	39	56
17	52	b70	98	88	b92	115	228	1,310	770	153	35	59
18	54	b67	90	85	b90	137	234	1,110	646	151	35	54
19	45	b70	85	82	96	128	217	*945	561	157	53	58
20	53	b78	84	84	92	101	204	775	482	151	52	62
21	61	96	80	b73	88	112	189	*671	434	146	45	64
22	60	95	82	b78	92	143	199	646	403	140	45	62
23	61	93	82	b82	87	157	215	561	348	138	50	77
24	60	92	82	b87	82	145	260	557	301	130	53	81
25	61	88	73	b91	*82	122	315	695	291	128	53	85
26	63	82	b72	b88	87	122	425	680	324	125	52	93
27	60	90	b71	*88	85	133	398	700	358	125	48	134
28	60	b82	b74	90	85	119	332	690	310	110	44	103
29	60	b76	b76	87	-	133	*311	775	377	91	42	*98
30	57	b81	*b68	84	-------	122	372	955	415	88	39	84
31	59	-------	b74	b79	-------	135	-------	910	-------	103	38	-------
Total	1,593	2,346	2,686	2,511	2,272	3,362	8,138	22,668	25,495	5,346	1,831	1,785
Mean	51.4	78.2	86.6	81.0	81.1	108	271	731	850	172	59.1	59.5
Ac-ft	3,160	4,650	5,330	4,980	4,510	6,670	16,140	44,960	50,570	10,600	3,630	3,540

Calendar year 1958: Max 2,420 Min 40 Mean 278 Ac-ft 201,300
Water year 1958-59: Max 1,510 Min 32 Mean 219 Ac-ft 158,700

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

1590. Deer Creek Reservoir near Charleston, Utah

Location.--Lat 40°24'20", long 111°31'40", in SW¼SW¼ sec.5, T.5 S., R.4 E., at dam on Provo River, 800 ft (revised) upstream from Deer Creek and 4½ miles southwest of Charleston.

Drainage area.--560 sq mi.

Records available.--December 1940 to September 1959.

Gage.--Mercury indicating gage read once daily. Datum of gage is at mean sea level (levels by Bureau of Reclamation).

Extremes.--Maximum contents during year, 114,100 acre-ft June 18 (elevation, 5,400.97 ft); minimum, 56,030 acre-ft Sept. 30 (elevation, 5,367.98 ft).
1940-59: Maximum contents, 155,900 acre-ft June 24, 25, 1957, June 8, 1958; maximum elevation, 5,418.25 ft June 8, 1958; minimum since reservoir first filled in June 1946, 56,030 acre-ft Sept. 30, 1959 (elevation, 5,367.98 ft).

Remarks.--Reservoir is formed by earth-fill dam with concrete cutoff wall. Storage began in October 1940. Capacity, 152,560 acre-ft between elevations 5,280 (bottom of outlet tunnel), and 5,417 ft (top of 20-foot radial gates). Dead storage, 2,870 acre-ft below elevation 5,305 ft (sill of trashrack structure). Water used for irrigation, domestic, and industrial purposes. Contents given herein include dead storage and are computed from 12 p.m. elevations which are based on trend indicated by 8 a.m. readings.

Cooperation.--Records of daily elevations and contents furnished by Provo River water commissioner.

Capacity table, water year 1958-59 (elevation, in feet, and contents, in acre-feet)

5,365	51,820	5,390	92,140
5,370	58,970	5,395	101,800
5,375	66,530	5,400	112,000
5,380	74,520	5,405	123,000
5,385	83,040		

Contents, in acre-feet, at 12 p.m., water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	88,930	86,530	89,820	88,990	87,290	88,820	88,840	87,470	97,830	109,400	87,350	66,470
2	88,570	86,580	89,820	88,940	87,200	88,840	88,990	87,450	98,900	109,200	83,580	65,850
3	88,200	86,620	89,870	88,770	87,200	88,820	89,140	87,490	100,500	108,700	85,860	65,290
4	87,840	86,670	89,910	88,680	87,240	88,780	89,300	87,550	101,700	108,300	85,060	64,630
5	87,470	86,760	89,780	88,570	87,250	88,840	89,490	87,620	103,800	107,700	84,320	63,910
6	87,290	86,930	89,730	88,480	87,350	88,880	89,620	87,560	105,500	107,200	83,580	63,240
7	87,130	87,040	89,730	88,440	87,490	88,780	89,710	87,470	106,900	106,300	82,820	62,710
8	87,020	87,130	89,730	88,380	87,560	88,710	89,690	87,360	108,700	105,400	81,990	62,140
9	86,860	87,290	89,780	88,290	87,670	88,700	89,540	87,160	110,300	104,800	81,050	61,530
10	86,750	87,470	89,820	88,260	87,820	88,680	89,630	86,950	111,000	104,200	80,130	61,050
11	86,660	87,580	89,820	88,260	87,960	88,640	89,590	86,890	111,700	103,500	79,270	60,550
12	86,560	87,670	89,870	88,260	88,090	88,700	89,270	87,000	112,400	103,000	78,450	60,110
13	86,480	87,840	89,910	88,260	88,130	88,730	88,990	87,350	112,900	102,400	77,720	59,620
14	86,380	88,020	89,910	88,260	88,200	88,660	88,710	88,130	113,000	101,800	77,020	59,180
15	86,350	88,130	89,910	88,200	88,380	88,620	88,510	89,450	113,200	101,000	76,360	58,840
16	86,350	88,200	89,850	88,110	88,710	88,570	88,330	90,840	113,700	100,300	75,730	58,460
17	86,350	88,310	89,820	88,020	89,010	89,620	88,200	92,030	114,000	99,590	75,080	58,120
18	86,350	88,380	89,760	87,980	89,080	88,730	88,160	92,910	114,100	98,830	74,260	57,920
19	86,300	88,570	89,730	87,980	89,030	88,810	87,950	93,460	113,900	98,240	73,540	57,640
20	86,260	88,810	89,730	87,930	89,080	88,770	87,640	93,830	113,500	97,660	73,100	57,460
21	86,260	89,080	89,670	87,840	89,140	88,770	87,470	93,930	113,000	96,890	72,810	57,230
22	86,200	89,300	89,630	87,750	89,190	88,860	87,360	93,970	112,600	95,980	72,400	57,050
23	86,170	89,540	89,630	87,660	89,190	88,950	87,360	93,870	112,200	95,220	71,850	56,900
24	86,170	89,760	89,580	87,620	89,100	89,010	87,380	93,700	111,700	94,360	71,290	56,760
25	86,170	89,950	89,540	87,620	88,990	89,030	87,160	93,650	111,000	93,420	70,730	56,610
26	86,170	90,130	89,540	87,620	88,940	89,040	87,040	93,800	110,500	92,520	70,170	56,510
27	86,220	90,130	89,480	87,620	88,860	88,990	87,070	94,100	110,200	91,640	69,630	56,440
28	86,260	89,960	89,400	87,620	88,810	88,920	87,160	94,590	110,100	90,690	69,040	56,320
29	86,310	89,860	89,230	87,620	-	88,810	87,240	95,200	109,800	89,760	68,410	56,160
30	86,400	89,820	89,120	87,560	-------	88,750	87,440	96,000	109,800	88,900	67,750	56,030
31	86,490	-------	89,030	87,400	-------	88,750	-------	96,930	-------	88,070	67,120	-------
(†)	5,386.93	5,388.75	5,388.32	5,387.43	5,388.20	5,388.17	5,387.45	5,392.52	5,398.93	5,387.80	5,375.38	5,367.98
(‡)	-2,830	+3,330	-790	-1,630	+1,410	-60	-1,310	+9,490	+12,870	-21,730	-20,950	-11,090

Calendar year 1958..... ‡ -14,970
Water year 1958-59..... ‡ -33,290

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

1595. Provo River below Deer Creek Dam, Utah

Location.--Lat 40°24'10", long 111°31'45", in NE¼NE¼ sec.7, T.5 S., R.4 E., on right bank 200 ft upstream from Deer Creek, 1,000 ft downstream from Deer Creek Dam, and 4 miles northeast of Vivian Park.

Drainage area.--560 sq mi.

Records available.--May 1953 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,270 ft (from topographic map).

Average discharge.--6 years, 346 cfs (250,500 acre-ft per year).

Extremes.--Maximum discharge during year, 595 cfs June 12 (gage height, 3.92 ft); minimum daily, 130 cfs Mar. 5.
1953-59: Maximum discharge, 2,190 cfs June 26, 1957 (gage height, 6.74 ft); no flow Feb. 2, 3, 1957, when reservoir gates were closed.

Remarks.--Records good. Flow regulated by Deer Creek Reservoir (see preceding page), and by small lakes at headwaters that serve as reservoirs. Small transmountain diversions from Strawberry River drainage into Daniels Creek. Flow also affected by irrigation diversions above and water diverted to Provo River by Weber-Provo diversion canal (see p. 95) and Duchesne tunnel (see p. 94).

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 15 to Apr. 30)

2.2	130
2.8	275
3.5	475
4.0	645

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	321	165	241	252	241	267	283	332	377	432	441	335
2	321	165	246	252	241	265	*286	426	483	429	432	*332
3	*318	162	*239	252	239	262	286	423	497	432	394	329
4	318	160	236	254	208	262	286	411	530	456	432	335
5	299	*162	236	254	176	130	286	388	537	460	*432	346
6	208	165	239	252	169	259	374	388	533	456	432	335
7	186	162	241	252	169	262	377	391	520	*463	429	305
8	184	162	241	252	172	262	377	388	514	466	426	302
9	184	160	244	252	172	265	374	382	514	450	426	302
10	181	158	244	252	172	265	374	385	517	417	435	297
11	179	158	246	252	172	265	402	408	533	429	441	307
12	179	158	252	249	169	265	429	432	581	432	432	291
13	179	156	246	249	172	265	463	408	576	441	397	283
14	172	156	249	249	172	262	488	394	574	435	382	280
15	156	156	246	249	169	262	305	414	*554	420	343	259
16	158	153	244	249	172	259	275	444	475	435	346	259
17	158	153	244	249	210	259	241	450	475	429	371	254
18	156	153	241	249	226	262	252	497	472	423	368	252
19	158	151	244	249	239	254	272	520	472	402	337	249
20	160	153	246	246	252	262	310	517	466	299	310	249
21	162	153	246	248	262	259	244	*527	469	429	326	241
22	165	151	246	246	262	259	186	537	441	432	326	244
23	165	149	246	246	262	257	200	530	423	438	326	246
24	165	151	246	248	265	272	223	472	435	453	332	244
25	165	149	249	246	*265	263	236	472	435	456	329	246
26	165	147	249	244	265	263	267	463	435	456	324	246
27	165	206	252	*241	267	260	259	365	423	450	324	278
28	165	241	252	241	267	260	*231	302	408	435	332	278
29	165	244	252	241	-	263	210	297	408	441	346	278
30	165	244	*252	241	-------	263	239	307	423	441	349	270
31	165	-------	252	241	-------	263	-------	313	-------	441	340	-------
Total	5,989	5,003	7,607	7,693	6,027	8,136	9,035	12,983	14,482	13,478	11,660	8,472
Mean	193	167	245	248	215	262	301	419	483	435	376	282
Ac-ft	11,880	9,920	15,090	15,260	11,950	16,140	17,920	25,750	28,720	26,730	23,130	16,800

Calendar year 1958: Max 1,650 Min 147 Mean 384 Ac-ft 278,200
Water year 1958-59: Max 581 Min 130 Mean 303 Ac-ft 219,300

* Discharge measurement made on this day.

1610. Provo River at Vivian Park, Utah

Location.--Lat 40°21'40", long 111°33'45", in NW¼NW¼ sec.25, T.5 S., R.3 E., on right bank half a mile downstream from North Fork, 3,500 ft northwest of Vivian Park, and three-quarters of a mile upstream from South Fork.

Drainage area.--600 sq mi, approximately.

Records available.--November 1911 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,200 ft (from topographic map). Prior to Nov. 13, 1933, staff gage at site three-quarters of a mile downstream at different datum.

Extremes.--Maximum discharge during year, 619 cfs June 13 (gage height, 3.51 ft); minimum daily, 170 cfs Mar. 5.
1911-59: Maximum discharge observed, 3,180 cfs June 11, 1921; minimum daily, 29 cfs Mar. 11, 13, 15-17, 20-22, 1948.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Flow regulated by Deer Creek Reservoir (see p. 97), and by small lakes at headwaters that serve as reservoirs. Small transmountain diversions from Strawberry River drainage into Daniels Creek. Flow also affected by irrigation diversions above and water diverted to Provo River by Weber-Provo diversion canal (see p. 95), and Duchesne tunnel (see p. 94).

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-5, July 2 to Aug. 11)

2.0	165
2.5	283
3.0	430
3.6	641

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	350	186	280	280	267	280	*302	344	389	473	504	367
2	*347	186	283	280	265	280	302	440	480	473	497	*358
3	347	186	*278	280	267	280	302	443	511	477	453	355
4	347	184	278	280	243	278	305	433	554	500	494	355
5	332	*186	278	280	213	170	305	404	561	508	*487	361
6	227	184	278	288	206	280	376	408	561	*508	480	358
7	206	184	280	288	204	283	386	404	546	511	477	327
8	206	182	278	286	206	283	386	401	543	518	470	321
9	204	180	278	288	204	283	382	401	543	508	470	321
10	204	180	275	286	201	283	382	401	546	466	477	318
11	204	180	273	286	204	a283	417	427	561	480	487	324
12	204	178	278	283	201	a283	440	450	608	483	477	310
13	204	178	270	280	201	a283	473	433	604	494	457	305
14	197	178	267	278	201	a283	508	417	604	494	424	299
15	184	178	a265	278	204	280	330	437	590	470	379	286
16	184	178	a265	278	210	283	288	470	*511	487	379	288
17	184	178	a265	280	244	280	260	473	514	483	404	288
18	182	178	a263	278	252	280	273	518	514	473	404	286
19	184	180	a265	280	267	275	291	550	508	456	386	286
20	184	182	a266	275	273	280	321	546	500	347	361	280
21	186	182	a266	278	283	280	267	*550	504	483	370	278
22	186	182	a266	278	283	283	215	557	483	490	370	278
23	186	182	a266	280	283	280	225	554	463	497	370	280
24	184	184	a266	278	*283	296	242	497	480	508	379	278
25	184	180	a268	278	283	305	254	494	480	514	379	283
26	184	180	a268	*278	283	305	283	487	480	514	373	286
27	186	233	a272	273	283	305	*280	392	470	511	370	305
28	186	267	a272	273	283	a305	262	335	450	497	376	*302
29	186	278	*275	270	-	a305	242	327	450	504	395	305
30	186	280	278	267	-------	a305	265	332	463	500	389	305
31	186	-------	280	267	-------	a305	-------	338	-------	504	379	-------
Total	6,721	5,774	8,440	8,652	6,797	8,784	9,564	13,663	15,471	15,131	13,097	9,293
Mean	217	192	272	279	243	283	319	441	516	488	422	310
Ac-ft	13,330	11,450	16,740	17,160	13,480	17,420	18,970	27,100	30,690	30,010	25,980	18,430

Calendar year 1958: Max 1,670 Min 178 Mean 416 Ac-ft 301,400
Water year 1958-59: Max 608 Min 170 Mean 333 Ac-ft 240,800

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, trend of flow, recorded range in stage, and records for other Provo River stations.

1615. South Fork Provo River at Vivian Park, Utah

Location.--Lat 40°21'10", long 111°34'10", in NW¼SE¼ sec.26, T.5 S., R.3 E., on right bank a quarter of a mile southeast of Vivian Park and half a mile upstream from mouth.

Drainage area.--30 sq mi, approximately.

Records available.--November 1911 to September 1959.

Gage.--Water-stage recorder and Parshall flume. Altitude of gage is 5,240 ft (from topographic map). Prior to June 15, 1913, staff gage at site half a mile downstream at different datum. June 15, 1913, to Nov. 21, 1933, staff gage at site a quarter of a mile downstream at different datum.

Extremes.--Maximum discharge during year, 25 cfs Oct. 3 (gage height, 0.81 ft); minimum, 5.1 cfs Aug. 5.
1911-59: Maximum discharge observed, 123 cfs May 27, 1922; minimum, that of Aug. 5, 1959.

Remarks.--Records good. Flow affected by irrigation diversions above, and diversion for city of Provo municipal supply which bypasses gaging station.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.3	4.5
.5	11
.7	19
.9	28

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	21	20	18	19	16	*15	14	13	15	11	12
2	*24	22	20	19	19	16	14	15	13	14	11	*11
3	24	22	*20	19	19	16	14	14	11	14	9.0	10
4	23	22	21	18	18	16	14	14	12	13	7.7	9.7
5	23	22	21	19	18	16	14	14	9.0	13	7.4	9.4
6	23	*21	21	19	18	16	14	14	8.7	*12	*6.2	9.4
7	24	21	21	19	18	16	14	14	11	12	7.7	9.4
8	23	22	21	19	18	16	14	14	9.7	12	9.7	9.0
9	23	22	21	19	18	16	14	14	8.1	12	11	8.7
10	23	21	20	19	17	16	14	14	7.7	11	11	7.1
11	21	21	20	19	17	16	14	14	9.5	8.7	9.7	6.5
12	20	22	22	19	17	16	14	14	12	9.4	8.4	5.7
13	21	21	20	19	17	16	14	14	11	11	8.4	5.7
14	21	21	20	19	17	16	14	*13	12	11	8.4	6.2
15	21	21	20	20	17	15	15	12	10	8.7	10	7.4
16	22	21	20	20	18	15	15	11	*10	7.1	11	8.4
17	22	22	20	19	20	15	15	11	10	8.4	11	10
18	21	22	20	19	18	15	15	10	9.7	8.1	12	12
19	20	21	20	20	17	15	16	9.7	9.4	8.7	13	13
20	20	21	20	20	17	15	15	9.7	7.1	10	12	13
21	20	21	20	19	17	15	15	9.7	6.5	11	12	13
22	22	21	20	19	16	15	15	9.7	5.7	13	12	13
23	22	21	20	20	16	14	14	10	6.8	13	12	14
24	22	20	20	20	*16	15	14	9.7	7.4	12	13	14
25	19	20	20	20	16	15	14	7.7	7.7	12	13	13
26	19	20	20	*20	16	15	15	7.7	9.4	11	13	13
27	22	20	20	20	16	15	15	8.7	12	11	13	13
28	21	20	19	20	16	15	*14	9.0	13	8.7	13	*13
29	22	20	*19	19	-	15	14	9.7	14	6.0	11	13
30	21	20	18	19	-------	15	14	11	14	6.0	12	13
31	21	-------	18	19	-------	15	-------	15	--------	8.1	12	-------
Total	674	632	622	597	486	478	432	367.3	300.4	330.9	331.6	315.6
Mean	21.7	21.1	20.1	19.3	17.4	15.4	14.4	11.8	10.0	10.7	10.7	10.5
Ac-ft	1,340	1,250	1,230	1,180	964	948	857	729	596	656	658	626

Calendar year 1958: Max 51 Min 12 Mean 20.4 Ac-ft 14,760
Water year 1958-59: Max 24 Min 5.7 Mean 15.3 Ac-ft 11,030

* Discharge measurement made on this day.

1630. Provo River at Provo, Utah

Location.--Lat 40°14'15", long 111°41'55", in NW¼SE¼ sec.3, T.7 S., R.2 E., on left bank 1,300 ft downstream from bridge on State Highway 114, 2 miles west of Provo, and 2 miles upstream from mouth.

Drainage area.--680 sq mi, approximately.

Records available.--May 1903 to June 1905 (gage heights only), May 1933 to September 1934, January 1937 to September 1959. Published as Provo River at San Pedro, Los Angeles and Salt Lake Railroad bridge, near Provo 1903-4 and as Provo River at Rio Grande Western Railroad bridge near Provo 1905.

Gage.--Water-stage recorder. Altitude of gage is 4,510 ft (from topographic map). May 1903 to June 1905, staff gages at site three quarters of a mile upstream at different datums. May 1933 to September 1934, staff gage at present site at different datum. January 1937 to November 1938, water-stage recorder at site 1,000 ft upstream at different datum. November 1938 to Aug. 23, 1957, water-stage recorder at present site at datum 2.00 ft higher.

Extremes.--Maximum discharge during year, 324 cfs Mar. 16 (gage height, 3.13 ft); minimum recorded, 1.9 cfs July 22 (gage height, 1.26 ft), but may have been less during period of no gage-height record.
1903-5, 1933-34, 1937-59: Maximum discharge, 2,520 cfs May 6, 1952 (gage height, 6.37 ft); practically no flow during several periods.

Remarks.--Records good except those for period of no gage-height record, which are fair. Station is below all diversions. At times entire flow is diverted above station for irrigation. Flow regulated by Deer Creek Reservoir (see p. 97) and small lakes at headwaters that serve as reservoirs. Small transmountain diversions from Strawberry River basin into Daniels Creek. Flow affected by Weber-Provo diversion canal (see p. 95) and Duchesne tunnel (see p. 94). Certain diversions for industrial use which reach Provo Bay, an arm of Utah Lake, are made above station; however, part of this flow is used for irrigation.

Revisions (water years).--WSP 1564: 1904, 1934.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 1 to Sept. 12)

1.1	1.7	2.0	60
1.2	3.5	2.5	152
1.3	5.9	3.0	279
1.5	14	3.5	439
1.7	27		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	148	268	271	248	273	303	9.4	6.2	2.2		3.9
2	*32	144	268	268	248	276	300	31	9.0	2.2		3.7
3	32	142	265	268	248	276	291	34	6.2	2.4		3.7
4	33	137	262	268	235	273	288	36	6.2	2.4		3.7
5	33	133	265	268	202	164	279	28	6.2	2.7		3.7
6	32	*129	268	271	192	268	306	17	5.9	3.1		4.2
7	31	129	268	268	189	271	306	14	4.6	2.5		4.6
8	33	129	268	268	194	273	306	16	4.2	2.5		5.1
9	33	129	271	268	194	276	312	13	4.4	3.1	a2.5	4.6
10	37	131	268	268	189	276	303	13	5.4	2.5		4.6
11	39	135	271	268	187	279	291	*9.4	5.1	2.4		5.4
12	41	148	279	*268	189	268	282	6.5	5.4	2.5		5.1
13	40	148	273	265	187	273	294	7.2	11	2.7		4.6
14	39	148	271	262	*185	268	282	4.2	6.5	2.5		4.2
15	33	157	268	259	185	268	172	3.7	11	*2.4		5.1
16	33	159	*265	259	194	*271	111	6.5	4.2	2.2		5.6
17	33	170	262	254	248	268	84	4.9	3.1	2.9	a3.5	9.4
18	35	173	262	254	243	273	86	7.2	3.7	2.9	a4	5.9
19	37	173	265	257	254	265	115	12	*4.2	2.5	10	6.2
20	71	*173	265	251	257	276	*109	9.0	3.9	2.4	14	14
21	92	175	268	254	268	271	69	7.5	3.5	2.2	*7.2	11
22	109	180	268	251	259	265	27	7.2	3.7	2.0	5.9	7.2
23	109	182	271	251	262	259	12	8.6	3.7	2.2	4.4	*10
24	104	182	271	251	262	271	12	6.8	2.9	2.2	3.9	24
25	107	180	271	251	265	282	12	8.6	2.5		6.2	24
26	123	177	271	254	268	288	12	8.9	3.7		6.2	45
27	131	209	271	251	271	294	*14	9.5	3.7		5.1	86
28	146	254	268	251	271	294	13	11	3.1	a2.5	5.9	111
29	150	265	265	251	-	297	9.8	9.4	2.5		5.6	137
30	152	268	265	248	-------	303	9.0	5.9	2.4		5.6	161
31	152	-------	271	246	-------	309	-------	5.9	-------		4.9	-------
Total	2,098	5,007	8,312	8,042	6,394	8,468	5,009.8	371.3	148.1	77.1	132.4	723.5
Mean	67.7	167	268	259	228	273	167	12.0	4.94	2.49	4.27	24.1
Ac-ft	4,160	9,930	16,490	15,950	12,680	16,800	9,940	736	294	153	263	1,440

Calendar year 1958: Max 852 Min 3.5 Mean 198 Ac-ft 143,300
Water year 1958-59: Max 312 Min - Mean 123 Ac-ft 88,840

* Discharge measurement madeon this day.
a No gage-height record; discharge estimated on basis of trend of flow and records for other Provo River stations.

1645. American Fork above upper powerplant, near American Fork, Utah

Location.--Lat 40°26'50", long 111°40'55", in NE¼ sec.26, T.4 S., R.2 E., on right bank 500 ft downstream from Rock Creek, 1,000 ft upstream from intake for upper powerplant of Utah Power & Light Co., 4 miles upstream from mouth of canyon, and 8 miles northeast of American Fork.

Drainage area.--51.1 sq mi (revised).

Records available.--October 1945 to September 1959 in reports of Geological Survey. January 1927 to September 1945 available in files of Salt Lake City district office, Geological Survey.

Gage.--Water-stage recorder. Altitude of gage is 5,950 ft (from topographic map).

Average discharge.--32 years, 52.9 cfs (38,300 acre-ft per year).

Extremes.--Maximum discharge during year, 203 cfs June 15 (gage height, 6.05 ft); minimum, 7.8 cfs Mar. 5.
1927-59: Maximum discharge not determined, occurred July 30, 1953 (gage height, 9.2 ft, from floodmark); minimum, 4 cfs Jan. 25, 1952.

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

Cooperation.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	17	16	15	12	12	*17	67	98	55	27	*20
2	*23	17	15	15	14	13	20	72	114	56	26	*20
3	*19	17	*16	15	13	13	26	60	127	60	25	20
4	19	16	16	14	15	12	33	54	137	56	23	19
5	19	18	15	16	15	12	41	46	147	55	22	18
6	19	*17	15	16	14	13	56	42	169	51	*21	18
7	19	18	16	15	15	13	64	37	171	48	20	18
8	19	18	18	*15	15	13	51	37	162	*47	20	16
9	19	18	17	15	15	13	42	44	154	44	20	16
10	19	18	16	15	14	14	35	55	145	41	20	16
11	18	17	20	15	*15	12	34	65	149	43	20	16
12	19	18	26	15	15	13	40	87	149	48	20	15
13	18	18	18	15	14	14	41	116	151	46	20	15
14	18	18	14	15	12	14	48	*143	158	44	20	16
15	18	19	14	15	14	12	42	*160	*167	43	20	22
16	18	14	16	15	16	12	36	141	167	41	19	18
17	18	11	18	14	16	14	32	118	143	39	18	17
18	18	14	17	15	14	16	29	98	122	38	20	16
19	18	18	16	15	14	16	26	81	*111	37	46	21
20	19	*19	16	14	12	15	21	*68	109	35	37	18
21	19	19	17	14	12	15	20	61	109	34	26	18
22	19	18	16	15	12	18	21	59	101	34	25	17
23	18	18	17	14	12	19	25	54	96	33	24	16
24	18	18	15	14	*12	20	33	55	93	32	23	15
25	18	18	14	15	12	16	39	60	87	31	26	17
26	18	18	12	*15	12	18	49	60	86	31	26	20
27	18	17	16	14	12	19	*42	70	78	30	24	23
28	17	13	16	14	12	18	36	65	68	29	22	*18
29	18	15	*11	14	-	*18	38	75	68	*29	21	18
30	18	16	14	14	-------	18	48	81	59	27	21	17
31	18	-------	17	12	-------	17	-------	82	-------	27	20	-------
Total	579	510	500	454	380	464	1,085	2,313	3,695	1,264	722	534
Mean	18.7	17.0	16.1	14.6	13.6	15.0	36.2	74.6	123	40.8	23.3	17.8
Ac-ft	1,150	1,010	992	900	754	920	2,150	4,590	7,330	2,510	1,430	1,060

Calendar year 1958: Max 525 Min 11 Mean 66.1 Ac-ft 47,860
Water year 1958-59: Max 171 Min 11 Mean 34.2 Ac-ft 24,800

* Discharge measurement made on this day.

Transmountain diversions from Colorado River basin to Jordan River basin

The following ditches and tunnels in Utah, each equipped with a water-stage recorder, divert water from the Colorado River basin to the Jordan River basin.

9-2725. Duchesne tunnel diverts water from the Duchesne River to the Provo River. Gage is located in NE¼ sec.2, T.3 S., R.8 E. (see p. 94 for complete record of daily discharge).

9-2800. Strawberry River and Willow Creek ditches divert water from the Strawberry River basin to Daniels Creek. The combined flow is gaged in sec.4, T.2 S., R.12 W., Uinta special meridian. Records of daily flow are available in Salt Lake City district office.

9-2815. Hobble Creek ditch diverts water from tributary of Strawberry River to Daniels Creek (a tributary of Provo River). Gage is located in NW¼ sec.15, T.6 S., R.6 E. Records of daily flow are available in Salt Lake City district office.

9-2820. Strawberry tunnel whose west portal is in SW¼ sec.34, T.7 S., R.6 E., diverts water from Strawberry Reservoir on Strawberry River to Diamond Fork in the Jordan River basin. Records furnished by Spanish Fork Water Users Association and include tunnel seepage (see p. 88 for complete record of daily discharge).

Transmountain diversions, in acre-feet, water year October 1958 to September 1959

Name	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Water year
Duchesne tunnel.....	400	412	410	411	379	430	1,230	7,920	18,910	2,970	593	681	34,750
Strawberry River and Willow Creek ditches.	104	38	0	0	0	0	0	1,100	840	286	160	133	2,660
Hobble Creek ditch..	0	1	0	0	0	0	14	391	99	3	1	0	509
Strawberry tunnel...	2,190	298	307	307	278	339	528	12,180	21,560	14,350	1,290	5,120	68,750
Total in Utah.....	2,690	749	717	718	657	769	1,770	21,590	41,410	17,610	2,040	5,930	106,700

1670. Jordan River at narrows, near Lehi, Utah

Location.--Lat 40°26'40", long 111°55'15", in SE¼NW¼ sec.26, T.4 S., R.1 W., at narrows 5½ miles northwest of Lehi and 7½ miles downstream from Utah Lake.
Drainage area.--2,960 sq mi, approximately, including 280 sq mi in closed basin in Cedar Valley.
Records available.--May to December 1904, July 1913 to September 1959.
Gage.--Water-stage recorder. Altitude of gage is 4,470 ft (by barometer). Prior to May 16, 1920, staff gage and May 16, 1920, to Sept. 30, 1934, water-stage recorder, at outlet of Utah Lake 7½ miles upstream at different datum.
Average discharge.--46 years (1913-59), 367 cfs (265,700 acre-ft per year).
Extremes.--1904, 1913-59: Maximum daily discharge, 1,410 cfs June 10, 1952; no flow at times when gates were closed.
Remarks.--Records good. Figures given herein represent combined flow of Jordan River, Utah and Salt Lake Canal, and East Jordan Canal. Flow may be regulated by gates and pumps at outlet of Utah Lake, pumps at Pelican Point, and diversion dam at narrows.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	523	116	15	14	11	2.8	96	549	437	589	755	668
2	515	120	15	9.5	11	2.8	76	559	529	610	777	667
3	520	126	15	16	13	2.5	77	577	629	621	732	667
4	496	128	15	18	13	2.5	85	519	656	700	735	666
5	483	128	15	14	13	2.5	100	474	682	764	759	663
6	470	127	15	14	14	2.5	94	453	712	799	717	661
7	474	121	15	13	14	2.5	88	439	690	838	717	660
8	457	127	15	12	9.5	2.5	114	446	702	843	730	655
9	438	90	15	12	7.3	2.5	116	436	706	851	730	651
10	456	100	15	12	25	2.5	138	457	708	855	745	657
11	457	101	15	12	16	2.5	142	506	716	854	754	659
12	456	107	14	14	13	2.5	146	603	718	849	747	642
13	455	102	34	14	12	2.2	153	643	719	844	713	610
14	452	97	43	16	17	2.0	147	682	721	846	741	599
15	204	95	18	14	14	2.0	113	697	721	828	774	542
16	117	97	13	14	19	2.0	117	720	726	814	775	514
17	112	66	13	14	28	2.0	188	725	721	834	775	505
18	111	20	13	12	28	1.7	221	722	719	812	765	414
19	114	20	12	13	22	1.4	227	731	723	796	639	378
20	129	20	13	14	20	1.4	202	723	719	773	556	347
21	118	17	12	14	18	1.2	189	723	718	734	608	315
22	105	14	11	14	16	1.2	193	728	744	746	616	300
23	102	14	14	14	16	.9	208	720	757	749	626	294
24	109	15	14	14	12	.9	235	712	784	731	630	276
25	112	15	14	14	18	.9	284	694	794	763	631	278
26	113	15	13	18	6.9	1.2	338	648	796	759	631	290
27	112	15	13	20	1.7	1.2	411	499	845	778	619	264
28	112	15	12	16	2.8	1.2	472	387	831	770	630	248
29	112	15	12	16	-	11	496	384	730	772	636	226
30	113	15	15	14	-------	60	522	363	608	779	669	200
31	113	-------	14	14	-------	88	-------	373	-------	772	670	-------
Total	8,660	2,058	482	439.5	411.2	213.0	5,988	17,892	21,261	24,073	21,602	14,516
Mean	279	68.6	15.5	14.2	14.7	6.87	200	577	709	777	697	484
Ac-ft	17,180	4,080	956	872	816	422	11,880	35,490	42,170	47,750	42,850	28,790

Calendar year 1958: Max 859 Min 11 Mean 364 Ac-ft 263,600
Water year 1958-59: Max 855 Min 0.9 Mean 322 Ac-ft 233,300

1705. Surplus Canal at Salt Lake City, Utah

Location.--Lat 40°43'40", long 111°55'35", in SW¼SW¼ sec.14, T.1 S., R.1 W., on right bank 350 ft downstream from diversion dam which is an eighth of a mile downstream from highway bridge over Jordan River on Twenty-first South Street, Salt Lake City.

Records available.--December 1942 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 4,219.02 ft above mean sea level, datum of 1929. Prior to Oct. 22, 1952, at site 50 ft upstream at present datum. Dec. 31, 1946, to Aug. 22, 1958, auxiliary water-stage recorder about 1 mile downstream.

Average discharge.--16 years (1943-59), 194 cfs (140,500 acre-ft per year).

Extremes.--Maximum discharge during year, 418 cfs June 16 (gage height, 6.39 ft); minimum, 40 cfs Apr. 15.
1942-59: Maximum discharge, 1,700 cfs June 7, 1952; maximum gage height, 8.84 ft May 7, 1952; minimum daily discharge, 9.6 cfs Jan. 13, Feb. 20, June 26, 1956.

Remarks.--Records good. Flow regulated by headgates at diversion dam 350 ft above station. Canal was built to bypass floodwater of Jordan River around Salt Lake City residential and industrial area (see p.106 for records of combined flow of Jordan River and Canal). Several diversions below station for irrigation.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	165	64	*84	73	88	107	*87	*112	*157	309	158	*131
2	*158	71	85	77	85	117	84	141	104	280	190	139
3	146	*74	91	70	85	110	75	166	96	261	*210	142
4	146	68	91	70	96	102	68	182	128	235	195	150
5	157	67	82	75	85	94	73	197	150	221	214	142
6	166	70	73	81	81	91	81	181	189	202	222	154
7	168	87	87	85	80	88	75	152	232	165	194	176
8	174	59	84	93	96	88	73	142	270	155	171	179
9	170	61	82	88	98	93	77	141	298	150	139	200
10	184	61	75	77	74	96	66	128	286	158	115	227
11	197	64	74	60	88	93	56	122	278	165	91	203
12	190	77	87	52	106	91	54	90	258	179	115	226
13	197	68	82	53	101	96	56	104	261	186	102	221
14	181	99	102	59	*107	*102	56	147	214	163	102	223
15	*163	142	107	61	98	101	*52	123	*288	*178	115	277
16	99	130	*91	59	109	96	73	126	346	166	131	320
17	75	118	90	57	154	91	60	139	312	165	122	333
18	70	*102	84	59	146	90	110	*141	266	160	*134	293
19	77	98	96	*56	139	81	174	182	248	165	216	274
20	96	80	96	59	141	71	170	195	221	155	318	261
21	90	81	75	57	128	71	139	176	200	152	278	*277
22	98	78	74	53	120	75	117	182	194	147	277	264
23	102	75	82	57	123	75	110	216	192	154	267	259
24	98	70	73	78	126	75	94	202	187	142	251	269
25	74	80	70	80	117	80	84	203	178	141	232	262
26	66	87	67	101	110	78	104	213	208	139	232	267
27	53	106	68	106	104	68	144	235	306	142	250	285
28	61	106	73	109	*99	85	136	221	309	131	219	256
29	67	104	70	104	-	110	118	238	328	126	192	243
30	63	91	67	96	-------	102	112	243	*320	139	150	210
31	59	-------	*71	*88	-------	102	-------	223	-------	152	128	-------
Total	3,810	2,538	2,533	2,293	2,984	2,819	2,778	5,263	7,024	5,383	5,730	6,863
Mean	123	84.6	81.7	74.0	107	90.9	92.6	170	234	174	185	229
Ac-ft	7,560	5,030	5,020	4,550	5,920	5,590	5,510	10,440	13,930	10,680	11,370	13,610

Calendar year 1958: Max 785 Min 40 Mean 205 Ac-ft 148,200
Water year 1958-59: Max 346 Min 52 Mean 137 Ac-ft 99,210

* Discharge measurement made on this day.

1710. Jordan River at Salt Lake City, Utah

Location.--Lat 40°43'40", long 111°55'25", in SW¼SW¼ sec.14, T.1 S., R.1 W., a quarter of a mile downstream from highway bridge on Twenty-first South Street, Salt Lake City, and 2 miles downstream from Mill Creek.

Records available.--December 1942 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 4,220.73 ft above mean sea level, datum of 1929.

Average discharge.--16 years (1943-59), 150 cfs (108,600 acre-ft per year).

Extremes.--Maximum discharge during year, 253 cfs May 28 (gage height, 4.27 ft); minimum, 88 cfs June 25. Maximum combined discharge during year (Jordan River and Surplus Canal), 660 cfs June 16; minimum daily, 169 cfs Apr. 17.
1942-59: Maximum discharge, 384 cfs June 3, 1944; maximum gage height, 5.75 ft June 26, 1952; no flow May 10, 24, 1952 (entire flow diverted to Surplus Canal). Maximum combined discharge (Jordan River and Surplus Canal), 1,820 cfs June 7, 1952; minimum daily, 141 cfs July 13, 1955.

Remarks.--Records good. Flow completely regulated since reconstruction in May 1952 of Surplus Canal diversion dam 1,000 ft upstream. Flow affected by gates and pumps at outlet of Utah Lake. Many diversions above station for irrigation and industrial and municipal water supplies. See preceding page for records of Surplus Canal. For records of combined flow see following page. Records of chemical analyses and water temperatures for the water year 1959 are given in WSP 1644.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	227	173	*195	191	173	140	*149	*169	*145	178	154	*140
2	*221	171	194	193	170	139	139	165	167	171	165	144
3	215	*174	194	192	169	123	139	175	159	156	*178	146
4	217	183	194	191	175	133	142	178	166	147	172	145
5	219	182	195	194	169	138	139	179	168	142	175	139
6	219	178	193	194	167	139	140	170	180	138	170	141
7	219	179	203	197	164	142	145	157	198	128	157	152
8	222	180	203	205	165	140	137	144	163	122	153	152
9	222	174	197	203	163	140	134	139	149	125	168	151
10	216	169	196	208	151	142	135	136	144	133	157	161
11	212	164	195	192	155	137	133	131	165	134	145	148
12	211	177	200	185	160	135	128	120	195	139	150	155
13	215	182	202	187	164	134	122	129	209	141	138	151
14	212	171	210	188	*162	*132	122	147	203	142	135	155
15	*208	183	210	190	157	130	*134	150	*208	*158	138	177
16	189	179	*204	191	168	131	119	151	214	157	141	189
17	176	177	201	193	180	138	109	147	160	154	138	191
18	173	*176	198	193	171	138	131	*144	139	154	*149	179
19	167	180	201	*193	166	138	144	155	143	155	178	185
20	156	188	201	193	164	134	138	156	142	158	206	187
21	183	184	193	191	159	134	152	153	129	170	185	*186
22	189	184	195	193	158	136	156	174	126	165	187	180
23	188	184	199	193	158	142	149	188	115	149	181	179
24	185	187	194	198	158	147	146	179	97	152	173	184
25	184	194	192	195	155	140	150	177	103	163	168	186
26	183	199	190	193	153	132	149	204	131	164	171	190
27	176	204	189	178	150	132	167	237	172	159	180	204
28	178	203	190	178	*146	135	171	214	183	149	169	195
29	177	200	189	174	-	124	168	168	203	146	157	188
30	176	197	188	175	-------	139	166	171	*193	149	145	175
31	174	-------	*189	*175	-------	160	-------	147	----	151	145	-------
Total	6,109	5,476	6,094	5,916	4,550	4,244	4,253	5,054	4,867	4,649	5,028	5,055
Mean	197	183	197	191	162	137	142	163	162	150	162	168
Ac-ft	12,120	10,860	12,090	11,730	9,020	8,420	8,440	10,220	9,650	9,220	9,970	10,030

Calendar year 1958: Max 268 Min 25 Mean 148 Ac-ft 107,000
Water year 1958-59: Max 237 Min 97 Mean 168 Ac-ft 121,600

* Discharge measurement made on this day.

1710. Jordan River at Salt Lake City, Utah--Continued

Combined discharge, in cubic feet per second, of Jordan River and Surplus Canal at Salt Lake City, Utah, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	392	237	279	264	261	247	236	281	302	487	312	271
2	379	242	279	270	255	256	223	306	271	451	355	283
3	361	248	285	262	254	233	214	341	255	417	388	288
4	363	251	285	261	271	235	210	360	294	382	367	295
5	376	249	277	259	254	232	212	376	318	363	389	281
6	385	248	266	275	248	230	221	351	369	340	392	295
7	387	266	290	282	244	230	220	309	430	293	351	328
8	396	239	287	298	261	228	210	286	433	277	324	331
9	392	235	279	291	261	233	211	280	447	275	307	351
10	400	230	271	285	225	238	201	264	430	293	272	388
11	409	228	269	252	243	230	189	253	443	299	236	351
12	401	254	287	237	266	226	182	210	453	318	265	381
13	412	250	284	240	265	230	178	233	470	327	240	372
14	393	270	312	247	269	234	178	294	417	305	237	378
15	371	325	317	251	255	231	186	273	494	336	253	454
16	288	309	295	250	277	227	192	277	560	323	272	509
17	251	295	291	250	334	229	169	286	472	319	260	524
18	243	278	282	252	317	228	241	285	405	314	283	472
19	244	278	297	249	305	219	318	337	391	320	394	459
20	252	268	297	252	305	205	308	351	363	313	524	448
21	273	265	268	248	287	205	291	329	329	322	463	463
22	287	262	269	246	278	211	273	356	320	312	464	444
23	290	259	281	250	281	217	259	404	307	303	448	438
24	283	257	267	276	284	222	240	381	284	294	424	453
25	258	274	262	275	272	220	234	380	281	304	400	448
26	249	286	257	294	263	210	253	417	339	303	403	457
27	229	310	257	284	254	200	311	472	478	301	430	489
28	239	309	263	287	245	220	307	435	492	280	388	451
29	244	304	259	278	-	234	286	406	531	272	349	431
30	239	288	255	271	-------	241	278	414	513	288	295	385
31	233	-------	260	263	-------	262	-------	370	-------	303	273	-------
Total	9,919	8,014	8,627	8,209	7,534	7,063	7,031	10,317	11,891	10,034	10,758	11,918
Mean	320	267	278	265	269	228	234	333	396	324	347	397
Ac-ft	19,670	15,900	17,110	16,280	14,940	14,010	13,950	20,460	23,590	19,900	21,340	23,640

Calendar year 1958: Max 845 Min 214 Mean 352 Ac-ft 255,100
Water year 1958-59: Max 560 Min 169 Mean 305 Ac-ft 220,800

1727. Vernon Creek near Vernon, Utah

Location.--Lat 39°59', long 112°23', in W½ sec.2, T.10 S., R.5 W., on right bank 7 miles upstream from confluence with Dutch Creek forming Faust Creek and 8 miles southeast of Vernon.

Drainage area.--25 sq mi, approximately.

Records available.--June 1958 to September 1959.

Gage.--Water-stage recorder.

Extremes.--1958: Maximum daily discharge during period June to September, 2.0 cfs June 28 to July 3; minimum daily, 1.5 cfs Sept. 9-11.
1958-59: Maximum discharge during water year, 1.9 cfs Mar. 23 (gage height, 0.57 ft); minimum, 1.0 cfs Sept. 10, 11.

Remarks.--Records good except those for periods of ice effect, which are fair.

Discharge, in cubic feet per second, 1958

Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.	Day	June	July	Aug.	Sept.
1	-	2.0	*1.8	1.6	11	-	1.8	1.7	1.5	21	-	1.8	1.6	1.6
2	-	2.0	1.9	1.6	12	-	1.8	1.7	1.6	22	-	1.8	1.7	1.6
3	-	2.0	1.8	1.6	13	-	1.7	1.7	1.6	23	-	1.8	1.6	1.7
4	-	1.9	1.8	1.6	14	-	*1.8	1.7	1.6	24	-	1.8	1.6	1.7
5	-	1.9	1.8	1.6	15	-	1.8	*1.7	1.6	25	-	1.8	1.6	1.7
6	-	1.9	1.8	1.6	16	-	1.8	1.7	*1.6	26	1.9	1.8	1.6	1.7
7	-	1.8	1.8	1.6	17	-	1.8	1.7	1.6	27	1.9	1.8	1.6	1.7
8	-	1.8	1.8	1.6	18	-	1.8	1.7	1.6	28	2.0	1.8	1.6	1.7
9	-	1.8	1.8	1.5	19	-	1.8	1.7	1.6	29	2.0	1.8	1.6	1.6
10	-	1.8	1.7	1.5	20	-	1.8	1.6	1.6	30	2.0	1.8	1.6	1.6
										31	-	1.8	1.6	-
Total											-	56.6	52.6	48.3
Mean											-	1.83	1.70	1.61
Runoff in acre-feet											-	112	104	96

* Discharge measurement made on this day.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.6	1.6	b1.6	1.5		1.7	1.8	1.6	1.5	1.5	1.3	1.2
2	1.6	1.6	1.6		b1.5	1.7	1.8	1.6	1.5	1.5	1.3	1.2
3	1.6	1.6	1.6	b1.5		1.7	1.8	1.6	1.5	1.5	*1.3	1.2
4	1.6	1.6	1.6		*1.5	b1.7	1.8	1.7	1.5	1.5	1.3	1.2
5	1.6	1.6	1.6	(*)	b1.5	b1.7	1.8	1.6	1.4	1.5	1.3	1.1
6	1.6	1.6	1.6	1.6	b1.5	1.8	1.8	1.6	1.4	1.5	1.3	1.1
7	1.6	1.6	1.6	1.6	1.5	1.8	1.8	1.6	1.5	1.5	1.2	1.1
8	1.6	1.7	*1.6	1.6		b1.8	1.8	1.6	1.5	1.5	1.2	1.1
9	1.6	1.7	1.6	1.6		1.8	1.8	1.5	1.5	*1.5	1.2	1.1
10	1.6	*1.7	1.6	1.6	b1.5	1.9	1.8	1.5	1.5	1.5	1.2	1.1
11	1.6	1.7	1.6	1.6		b1.9	1.7	*1.5	*1.5	1.4	1.2	*1.0
12	1.7	1.7	1.6	1.6	1.6	*1.9	1.7	1.6	1.5	1.4	1.2	1.1
13	1.6	1.7	1.6	1.6		1.9	*1.7	1.6	1.4	1.4	1.2	1.1
14	1.6	1.8	b1.6	1.6			1.7	1.6	1.5	1.4	1.2	1.1
15	1.6	b1.7	b1.6	b1.6	b1.6	b1.8	1.7	*1.6	1.5	1.4	1.2	1.1
16	1.6	1.7	1.6	1.6			1.7	1.6	1.5	1.4	1.2	1.1
17	1.6	b1.7	1.6	1.6		1.8	1.7	1.6	1.5	1.3	1.2	1.1
18	1.6	b1.7	1.6	1.6	1.7	1.8	1.7	1.6	1.5	1.3	1.2	1.1
19	1.7	1.7	1.6	b1.6	1.7	1.8	1.8	1.5	1.5	1.3	1.3	1.1
20	1.7	1.7	1.6		1.7	b1.8	1.8	1.5	1.5	1.3	1.3	1.1
21	1.7	1.7	1.6	b1.5	1.7	1.8	1.8	*1.5	1.5	1.3	1.2	1.1
22	1.7	1.7	1.6		1.7	1.8	1.7	1.5	1.5	1.3	1.2	1.1
23	*1.7	1.7	1.6	1.5	1.7	1.8	1.7	1.5	1.4	1.3	1.2	1.1
24	1.7	1.7	1.6	1.5	1.7	1.9	1.6	1.5	1.4	1.3	1.2	1.1
25	1.7	1.7	1.6	1.5	b1.7	1.8	1.6	1.5	1.5	1.3	1.2	1.1
26	1.7	1.7	b1.6	1.5	1.7	1.8	1.7	1.5	1.6	1.3	1.2	1.1
27	1.7		1.6	1.5	1.7	1.8	1.7	1.6	1.6	1.2	1.2	1.1
28	1.7	b1.6	b1.6	1.5	1.7	1.8	1.6	1.6	1.6	1.2	1.2	1.1
29	1.7		b1.6		-	1.8	1.6	1.6	1.6	1.2	1.2	1.1
30	1.7		b1.5	b1.5	-------	1.8	1.6	1.6	1.5	1.2	1.2	1.1
31	1.7	-------	1.5		-------	1.8	-------	1.6	-------	1.3	1.2	-------
Total	51.0	50.0	49.4	47.9	44.8	55.8	51.8	48.6	44.9	42.5	38.0	33.3
Mean	1.65	1.67	1.59	1.55	1.60	1.80	1.73	1.57	1.50	1.37	1.23	1.11
Ac-ft	101	99	98	95	89	111	103	96	89	84	75	66

Calendar year 1958: Max - Min - Mean - Ac-ft -
Water year 1958-59: Max 1.9 Min 1.0 Mean 1.53 Ac-ft 1,110

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

1728.7. Trout Creek near Callao, Utah

Location.--Lat 39°44', long 113°53', in sec.33, T.12 S., R.18 W., 2½ miles above mouth of Birch Creek and 14 miles southwest of Callao.

Drainage area.--8.8 sq mi, approximately.

Records available.--December 1958 to September 1959.

Gage.--Water-stage recorder.

Extremes.--Maximum discharge during period, 6.2 cfs May 15 (gage height, 1.11 ft); minimum, 0.8 cfs several days in August and September.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair.

Rating table, Dec. 10, 1958, to Sept. 30, 1959 (gage height, in feet, and discharge, in cubic feet per second)

0.8	0.7
.9	1.4
1.0	3.0
1.1	5.9

Discharge, in cubic feet per second, December 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1						1.4	1.5	3.8	3.8	2.4	1.2	0.9
2					bl.1	1.4	*1.6	5.0	3.8	2.2	1.1	.9
3						1.4	1.8	4.7	3.8	2.2	1.1	.9
4					1.4	(*)	1.8	4.1	3.8	2.1	1.1	.9
5			al.3		*bl.3	bl.3	1.9	3.5	3.8	1.9	1.0	.9
6					1.2		2.1	3.5	3.5	1.9	1.0	.9
7					1.0	1.3	2.4	3.3	3.8	1.8	1.0	.9
8					1.0	1.2	2.2	3.3	*4.1	1.8	.9	.9
9					1.0	1.2	2.1	3.0	3.8	1.6	.9	.9
10			*1.6		1.1	1.2	2.1	3.0	4.1	1.6	.9	.9
11			1.6	bl.1	1.1	bl.2	1.9	*3.0	4.1	1.5	1.1	1.0
12			1.6		1.1	bl.2	1.9	3.0	4.1	1.5	1.0	1.0
13			1.4		1.1	1.3	1.9	3.8	4.1	1.5	.9	1.0
14			bl.2	(*)	1.1	1.2	1.9	4.7	4.1	1.5	.9	1.0
15			bl.2		1.1	bl.2	2.1	*5.9	4.1	1.4	.9	*1.2
16			*1.2		1.2	bl.2	2.2	5.9	4.4	1.4	.9	1.0
17			1.1		1.1	1.2	2.1	5.6	4.1	1.3	*.9	1.0
18			1.2		1.1	1.2	2.2	5.3	3.8	1.3	1.0	1.0
19			1.2		1.1	1.2	1.9	5.0	4.1	1.3	1.1	1.2
20			1.2		1.1	1.3	*1.9	5.3	3.8	1.3	1.0	1.2
21			1.2		1.1	1.3	1.9	5.0	3.8	1.3	.9	1.1
22			1.2		1.1	1.2	1.8	5.0	*3.5	*1.2	1.0	1.1
23			1.3	1.4	bl.1	1.3	1.8	5.0	3.3	1.1	1.0	1.2
24				1.4	1.2	1.3	1.9	4.4	3.0	1.3	1.0	1.2
25			bl.2	1.3	bl.2	1.2	1.9	*4.4	2.8	1.3	1.1	1.2
26				1.2	1.2	1.2	2.6	4.1	3.3	1.2	1.0	1.1
27			1.4	1.2	1.2	1.3	2.8	4.7	3.0	1.2	1.0	1.1
28			1.3	1.1	1.3	1.3	2.8	4.1	2.8	1.0	.9	1.2
29					-	1.3	2.8	4.1	2.8	1.0	.9	1.2
30			bl.1	bl.1	-------	1.4	3.0	3.8	2.6	1.0	.9	1.3
31		-------			-------	1.4	-------	3.8	-------	1.0	.9	-------
Total			39.5	35.1	31.8	39.4	62.8	133.1	109.9	46.1	30.5	31.3
Mean			1.27	1.13	1.14	1.27	2.09	4.29	3.66	1.49	0.98	1.04
Ac-ft			78	70	63	78	125	264	218	91	60	62

Calendar year	: Max	Min	Mean	Ac-ft
Water year	: Max	Min	Mean	Ac-ft

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and trend of flow.
b Stage-discharge relation affected by ice.

1729.4. Dove Creek near Park Valley, Utah

Location.--Lat 41°47', long 113°34', in SE¼ sec.4, T.12 N., R.15 W., 6 miles upstream from Black Hill Creek and 12 miles west of Park Valley.

Drainage area.--35 sq mi, approximately.

Records available.--December 1958 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,600 ft (from topographic map).

Extremes.--Maximum discharge during period, 1.8 cfs May 23 (gage height, 1.07 ft); minimum, 0.1 cfs for many days.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair.

Rating table, Dec. 2, 1958, to Sept. 30, 1959 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 12-19)

0.7	0
.8	.2
.9	.5
1.0	1.1
1.1	2.1

Discharge, in cubic feet per second, December 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					0.5	0.7	*1.3	1.0	0.6	0.2	0.1	0.1
2			(*)		.4	.7	1.2	.9	.5	.2	.2	.1
3				a0.3	.4	.7	1.2	1.0	.5	.2	.1	.1
4					.6	.4	1.1	.9	.5	.2	.1	.1
5					.6	*b.4	1.1	.9	.6	.2	.1	.1
6					*.6	.7	.9	.9	.5	.2	.1	.1
7					.6	.9	.9	.9	.5	.2	.1	.1
8					.6	.7	.9	.9	.5	.2	.1	.1
9					.6	.8	.7	.9	.5	.2	.1	.1
10				a.4	.6	.7	.7	.9	.4	.1	.1	.1
11						.6	.9	.9	.4	.1	.1	.1
12						.7		*.8	.4	.1	.1	.1
13					b.5	1.0		.7	.4	.2	.1	.1
14						.6		.7	.4	.2	.1	.1
15				*.4		.6		.8	.4	.2	.1	.1
16			a0.4	.5		.8	a.9	.8	.4	.1	.1	*.1
17				.5		1.1		.9	.4	.1	.1	.1
18				.5	b.6	1.1		.9	.3	.1	*.1	.1
19				.4		.9		.9	.3	.1	.1	.1
20				.3	.6	.7		.9	.3	.1	.1	.1
21				.4	.6	.7	*.9	.9	.2	.1	.1	.1
22				.4	.6	1.1	.9	1.1	.2	*.1	.1	.1
23				.5	.6	1.1	.9	1.6	*.2	.1	.1	.2
24				.6	.6	1.1	.9	1.4	.2	.1	.1	.1
25				.6	.6	1.1	.8	1.0	.2	.1	.1	.2
26				.6	.6	1.0	.9	*1.1	.2	.1	.1	.2
27				.6	.6	1.1	.9	1.3	.2	.1	.1	.2
28				.6	.7	1.0	.9	1.1	.2	.1	.1	.2
29				.5	-	1.1	.9	.9	.3	.1	.1	.2
30				.5	------	1.4	.9	.9	.2	.1	.1	.2
31		------		.5	------	1.3	------	.6	------	.1	.1	------
Total			12.4	13.5	15.9	26.8	27.9	29.4	10.9	4.3	3.2	3.7
Mean			0.4	0.44	0.57	0.86	0.93	0.95	0.36	0.14	0.10	0.12
Ac-ft			25	27	32	53	55	58	22	8.5	6.3	7.3

Calendar year	: Max	Min	Mean	Ac-ft
Water year	: Max	Min	Mean	Ac-ft

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of 1 discharge measurement, recorded range in stage, weather records, and trend of flow.
b Stage-discharge relation affected by ice.

1736. Midway Creek near Hatch, Utah

Location.--Lat 37°31', long 112°43', in sec.10, T.38 S., R.8 W., on right bank 200 ft south of State Highway 14, 0.7 mile east of Navajo Lake Resort turnoff, and 19 miles southwest of Hatch.
Records available.--August 1957 to September 1959.
Gage.--Water-stage recorder.
Extremes.--Maximum discharge during year, 42 cfs May 12 (gage height, 1.53 ft); no flow most of year.
1957-59: Maximum discharge, 153 cfs June 6, 1958 (gage height, 2.64 ft); no flow for most of period.
Remarks.--Records good.

Discharge, in cubic feet per second, water year October 1958 to September 1959

May 11	7.6		
12	*15		
13	14		
14	*4.8		
15	1.5		

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
May 1959	42.9	15	0	1.38	85
Calendar year 1958	-	90	0	1.99	1,440
Water year 1958-59	-	15	0	.12	85

* Discharge measurement made on this day.
Note.--Six observations of no flow made during year.

1739. Duck Creek near Hatch, Utah

Location.--Lat 37°31', long 112°42', in SW¼ sec.12, T.38 S., R.8 W., on right bank 150 ft north of State Highway 14, 200 ft east of Duck Lake dam, 400 ft downstream from Duck Creek Spring, 3 miles east of Navajo Lake, and 18 miles southwest of Hatch.
Records available.--October 1953 to March 1959 (discontinued).
Gage.--Water-stage recorder. Altitude of gage is 8,530 ft (by barometer).
Extremes.--Maximum daily discharge during period October 1958 to March 1959, 17 cfs Oct. 1-13, 16; minimum daily, 2.3 cfs Mar. 17, 20.
1953-59: Maximum discharge, 226 cfs June 6, 1958 (gage height, 3.61 ft); minimum not determined; less than 0.4 cfs during some periods of ice effect or no gage-height record.
Remarks.--Records good except those for period of no gage-height record, which are fair. Station is above all diversions.

Rating table, Oct. 1, 1958, to Mar. 31, 1959 (gage height, in feet, and discharge, in cubic feet per second)

1.2	1.8	1.7	15
1.3	3.2	1.9	25
1.5	8.0		

Discharge, in cubic feet per second, October 1958 to March 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	15	14	8.6	3.8	2.7						
2	17	15	14	8.0	3.4	2.7						
3	17	16	14	8.0	3.2	2.7						
4	17	16	13	7.2	3.0	2.9						
5	17	16	13	6.7	3.0	2.9						
6	17	16	13	6.7	2.9	2.7						
7	17	16	13	6.2	3.0	2.7						
8	17	16	14	5.9	3.4	2.6						
9	17	16	14	5.6	3.4	2.6						
10	17	16	14	5.4	3.0	2.6						
11	17	16	*14	5.4	3.0	2.6						
12	17	16	14	5.4	3.4	2.7						
13	17	15	14	5.1	2.9	2.6						
14	16	15	14	4.9	2.7	2.6						
15	16	16	14	5.1	2.7	2.6						
16	17	16	14	5.1	3.0	2.4						
17	16	15	14	4.9	3.0	2.3						
18	16	14	14	4.9	2.7	2.4						
19	16	14	14	5.1	2.6	2.4						
20	16	14	14	5.1	2.6	2.3						
21	16	14	14	5.1	2.7	2.4						
22	16	14	14	4.6	2.7	2.6						
23	*16	14	14	4.6	2.7	2.6						
24	16	14	14	*4.4	2.9	2.6						
25	16	14	14	4.4	2.7	*2.6						
26	16	15	14	4.2	2.7							
27	15	15	14	4.2	2.7							
28	15	*15	13	4.2	2.7							
29	15	14	13	4.2	-	a2.6						
30	16	14	11	4.0	-------							
31	15	-------	9.9	3.8	-------		-------		-------			-------
Total	506	452	420.9	167.0	82.5	80.4						
Mean	16.3	15.1	13.6	5.39	2.95	2.59						
Ac-ft	1,000	897	835	331	164	159						

Calendar year 1958: Max 191 Min 1.7 Mean 23.3 Ac-ft 16,840
Water year 1958-59: Max - Min - Mean - Ac-ft -

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and trend of flow.

1740. Asay Creek above West Fork, near Hatch, Utah

Location.--Lat 37°33', long 112°31', in sec.33, T.37 S., R.6 W., half a mile downstream from Asay Creek Spring, 2 miles upstream from West Fork Asay Creek, and 8 miles southwest of Hatch.

Records available.--July 1954 to January 1959 (discontinued).

Gage.--Water-stage recorder.

Extremes.--Maximum daily discharge during period October 1958 to January 1959, 41 cfs Oct. 1; minimum daily recorded, 24 cfs Jan. 9-24.
1954-59: Maximum discharge, 419 cfs May 11, 1958 (gage height, 3.63 ft); minimum recorded, 13 cfs sometime during period Jan. 22 to Mar. 30, 1956 (from recorded range in stage), Jan. 28, 1958.

Remarks.--Records good except those for period of no gage-height record, which are fair.

Rating table, Oct. 1, 1958, to Jan. 24, 1959 (gage height, in feet, and discharge, in cubic feet per second)

1.3	20
1.5	32
1.7	50

Discharge, in cubic feet per second, October 1958 to January 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	41	35	31	29								
2	40	35	31	30								
3	40	35	31	28								
4	40	34	32	26								
5	40	34	32	25								
6	40	33	32	25								
7	39	33	32	26								
8	39	33	32	25								
9	39	33	32	24								
10	38	33	*32	24								
11	37	33	32	24								
12	37	36	32	24								
13	37	35	32	24								
14	37	33	32	24								
15	37	33	32	24								
16	37	33	32	24								
17	37	34	32	24								
18	37	32	32	24								
19	36	32	32	24								
20	37	32	32	24								
21	36	32	32	24								
22	36	32	32	24								
23	*36	32	32	24								
24	36	32	32	*24								
25	37	32	32									
26	37	33	31									
27	36	33	31	a24								
28	36	32	32									
29	36	32	31		-							
30	36	32	30		-------							
31	35	-------	29		-------		-------		-------			-------
Total	1,162	993	981	766								
Mean	37.5	33.1	31.6	24.7								
Ac-ft	2,300	1,970	1,950	1,520								

Calendar year 1958: Max 347 Min 14 Mean 63.2 Ac-ft 45,740
Water year 1958-59: Max - Min - Mean - Ac-ft -

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, trend of flow, and records for Duck Creek near Hatch.

1745. Sevier River at Hatch, Utah

Location.--Lat 37°39'00", long 112°25'30", in SW¼NW¼ sec.28, T.36 S., R.5 W., on left bank 300 ft downstream from bridge, 0.2 mile east of Hatch, and 2.8 miles downstream from Mammoth Creek.

Drainage area.--340 sq mi, approximately.

Records available.--June 1911 to September 1928, June 1939 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,870 ft (from river-profile map). Prior to May 7, 1914, and Aug. 22, 1914, to Mar. 15, 1915, staff gages and May 7-25, 1914, Mar. 16, 1915, to Sept. 30, 1928, and June 20, 1939, to Oct. 3, 1949, water-stage recorder, at several sites within 2 miles of present site at various datums.

Average discharge.--28 years (1912-13, 1914-16, 1917-18, 1922-23, 1924-27, 1939-59), 121 cfs (87,600 acre-ft per year).

Extremes.--Maximum discharge during year, 328 cfs Aug. 19 (gage height, 2.63 ft); minimum, 28 cfs Aug. 27.
1911-28, 1939-59: Maximum discharge not determined, occurred May 25, 1914, when Hatchtown Dam failed; maximum recorded, 1,490 cfs May 26, 1922 (gage height, 5.25 ft, datum then in use); minimum daily, 10 cfs for several days in 1912 when water was stored in Hatchtown Reservoir. Minimum natural flow, that of Aug. 27, 1959.

Remarks.--Records good except those for periods of ice effect, which are fair. Small diversions above station for irrigation. No regulation since Hatchtown Dam failed in 1914.

Revisions (water years).--WSP 960: 1939-40. WSP 1284: 1916.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.4	35
1.6	64
1.8	101
2.0	147

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	95	83	78	b68	59	64	67	83	53	48	63	39
2	93	83	78	b66	59	70	76	87	51	48	86	38
3	91	83	78	b64	b60	70	79	85	50	47	63	38
4	89	81	79	b62	60	b65	76	83	50	46	53	38
5	89	79	79	b60	59	b59	85	70	48	47	50	38
6	89	79	79	64	59	59	91	64	48	46	47	39
7	89	81	79	b62	59	62	91	60	48	44	46	38
8	87	81	78	b60	64	67	89	62	51	44	55	38
9	87	81	*78	b62	60	74	81	60	53	44	47	39
10	*87	81	78	60	b58	69	72	62	53	43	43	39
11	85	83	76	62	62	59	62	60	54	43	43	41
12	87	95	78	60	64	70	57	70	54	44	43	41
13	89	85	74	62	b58	101	59	81	53	46	42	41
14	87	81	74	62	b57	89	59	85	53	46	43	46
15	83	b80	76	59	59	67	57	85	51	44	46	56
16	78	78	74	60	62	70	57	79	51	46	44	50
17	78	b78	76	65	65	89	57	72	51	44	43	46
18	85	b78	76	65	62	93	57	67	*51	44	44	42
19	83	b78	76	64	60	81	56	65	51	44	132	41
20	85	78	76	b60	60	65	54	64	50	43	80	*41
21	85	79	74	b58	59	65	53	60	50	53	57	41
22	85	79	74	*b60	60	65	51	67	51	54	50	41
23	85	79	74	64	64	67	50	64	56	41	48	39
24	87	79	70	62	57	72	*51	64	50	*42	*68	39
25	93	81	70	64	*57	67	53	64	48	42	53	39
26	87	85	72	64	59	64	57	62	48	44	46	41
27	87	85	74	60	59	*67	60	59	47	42	43	41
28	87	79	74	b61	59	69	57	*59	48	42	43	41
29	87	78	b70	b60	-	67	59	57	48	41	43	38
30	85	78	b68	b59	-------	67	59	53	50	41	42	39
31	83	-------	69	b59	-------	69	-------	53	-------	70	41	-------
Total	2,687	2,428	2,329	1,918	1,680	2,182	1,932	2,106	1,520	1,413	1,647	1,228
Mean	86.7	80.9	75.1	61.9	60.0	70.4	64.4	67.9	50.7	45.6	53.1	40.9
Ac-ft	5,330	4,820	4,620	3,800	3,330	4,330	3,830	4,180	3,010	2,800	3,270	2,440

Calendar year 1958: Max 791 Min 46 Mean 187 Ac-ft 121,100
Water year 1958-59: Max 132 Min 38 Mean 63.2 Ac-ft 45,760

Peak discharge (base, 500 cfs).--No peak above base.

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

1800. Sevier River near Circleville, Utah

Location.--Lat 38°06', long 112°19', in SW¼ sec.20, T.31 S., R.4 W., Salt Lake meridian, on left bank 2 miles upstream from Pine Creek and 6 miles southwest of Circleville.

Drainage area.--950 sq mi, approximately.

Records available.--May to September 1912, April 1914 to September 1927, November 1949 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,240 ft (from river-profile map). May 10 to Sept. 19, 1912, staff gage at site 300 ft upstream at different datum. Apr. 23, 1914, to Sept. 30, 1927, Nov. 21, 1949, to Aug. 6, 1954, water-stage recorder at site 300 ft upstream at datum 0.23 ft higher.

Average discharge.--18 years (1914-22, 1923-24, 1950-59), 167 cfs (120,900 acre-ft per year).

Extremes.--Maximum discharge during year, 487 cfs Aug. 3 (gage height, 3.25 ft); minimum, 21 cfs July 28.
1912, 1914-27, 1949-59: Maximum discharge, 1,960 cfs about May 21, 1922 (gage height, 9.8 ft, from high-water mark, present datum), from rating curve extended above 1,000 cfs by logarithmic plotting; minimum daily, 19 cfs July 12, 1955.

Remarks.--Records good. Many diversions above and below station.

Revisions (water years).--WSP 1180: 1922(M).

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.9	19
1.2	42
1.6	89
2.0	159
2.5	274

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	145	102	134	130	112	112	106	43	33	25	48	38
2	139	100	137	123	119	123	89	43	32	29	59	37
3	135	107	139	123	118	128	96	46	31	28	170	34
4	132	114	141	106	116	125	92	50	32	27	*95	34
5	132	116	141	101	*119	114	85	47	31	28	74	34
6	128	109	139	*120	114	123	85	41	30	27	55	37
7	123	106	137	125	114	119	88	40	29	*27	46	36
8	128	102	137	114	116	119	89	38	28	29	39	33
9	126	111	*139	118	121	126	90	35	*26	28	41	36
10	118	114	135	123	107	*147	86	36	28	29	38	*40
11	116	*109	135	125	118	128	79	32	29	26	37	43
12	116	130	135	126	126	119	78	*31	28	26	43	44
13	109	126	132	130	111	137	73	29	28	26	37	42
14	104	126	128	132	112	161	69	30	28	26	31	43
15	106	128	128	126	118	135	*68	33	28	29	37	45
16	111	126	130	123	130	119	64	38	28	27	39	45
17	102	114	130	126	134	128	58	36	29	26	36	51
18	94	123	128	126	134	139	59	36	28	26	38	48
19	94	135	126	126	128	141	78	*36	29	26	75	46
20	90	141	126	119	119	126	79	36	31	26	145	48
21	89	139	130	114	118	114	81	38	30	26	88	43
22	*96	145	130	118	118	112	78	45	33	28	59	41
23	100	141	132	121	118	112	76	43	31	26	50	43
24	106	139	130	123	111	114	64	38	31	28	49	45
25	111	141	126	121	104	123	54	38	32	28	54	42
26	112	143	125	121	102	114	55	44	30	26	47	41
27	109	147	130	118	104	111	52	40	30	26	41	39
28	107	135	128	118	106	106	49	37	27	24	39	40
29	107	135	123	111	-	109	45	36	28	24	38	41
30	107	134	121	112	-------	111	44	37	24	32	38	45
31	106	-------	123	111	-------	114	-------	35	-------	35	38	-------
Total	3,498	3,738	4,075	3,730	3,267	3,809	2,209	1,187	880	844	1,724	1,234
Mean	113	125	131	120	117	123	73.6	38.3	29.3	27.2	55.6	41.1
Ac-ft	6,940	7,410	8,080	7,400	6,480	7,560	4,380	2,350	1,750	1,670	3,420	2,450

Calendar year 1958: Max 748 Min 62 Mean 196 Ac-ft 141,600
Water year 1958-59: Max 170 Min 24 Mean 82.7 Ac-ft 59,890

* Discharge measurement made on this day.

1835. Sevier River near Kingston, Utah

Location.--Lat 38°12', long 112°12', in NE¼NW¼ sec.16, T.30 S., R.3 W., on left bank 1,000 ft upstream from bridge on State Highway 22, 1 mile west of Kingston, and 2 miles upstream from East Fork.

Drainage area.--1,110 sq mi, approximately.

Records available.--June 1914 to September 1959.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 5,980 ft (from river-profile map). Prior to Sept. 20, 1918, at site 1 mile downstream at different datum.

Average discharge.--45 years, 134 cfs (97,010 acre-ft per year).

Extremes.--Maximum discharge during year, 326 cfs Aug. 3 (gage height, 1.84 ft); minimum, 5.4 cfs July 11.
1914-59: Maximum discharge, about 3,000 cfs (including estimated flow of 360 cfs in overflow channel bypassing station) Mar. 4, 1938 (gage height, 5.20 ft), from rating curve extended above 600 cfs; minimum daily, 4.2 cfs June 29, 30, 1952.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Many diversions above station for irrigation.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.5	3	1.0	55
.6	7	1.2	101
.7	14	1.5	194
.8	24		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	126	88	144	b144	148	154	118	12	6.2	9.8	7.7	7.7
2	126	84	144	141	151	163	96	11	9.1	7.0	9.8	7.7
3	123	88	151	b139	148	170	61	11	12	8.4	58	7.7
4	121	98	154	b135	154	167	43	12	10	8.4	19	7.0
5	115	91	154	a130	154	157	31	13	9.8	8.4	*13	7.0
6	104	91	151	a145	*151	157	31	13	9.8	9.8	12	7.0
7	94	86	151	*157	151	160	34	13	9.8	*8.4	9.8	7.0
8	91	81	151	151	151	160	31	13	10	8.4	8.4	7.7
9	88	78	*151	b150	154	167	35	12	*10	8.4	9.1	*9.1
10	94	84	151	b150	151	*177	38	11	10	7.7	7.0	9.1
11	98	84	151	b152	148	148	38	10	10	7.0	7.0	9.1
12	98	*109	154	b155	160	138	40	*9.1	10	6.2	7.0	9.1
13	88	123	148	b154	154	154	37	7.7	11	6.6	7.0	9.1
14	76	132	144	a154	151	177	*37	8.4	12	6.6	6.6	8.4
15	63	138	138	a150	148	167	24	9.1	8.4	6.6	6.6	9.1
16	63	141	135	a150	157	144	19	8.4	6.6	6.6	6.6	9.1
17	61	138	141	a150	170	148	13	7.0	7.0	6.6	6.6	9.1
18	66	167	138	a150	167	151	15	7.0	9.8	6.6	6.6	8.4
19	66	157	138	a150	163	157	13	*6.6	10	6.6	8.4	8.4
20	68	157	135	a150	157	154	9.8	6.6	8.4	6.6	44	8.4
21	76	170	138	a145	154	151	13	6.6	9.1	6.6	17	7.7
22	81	167	141	a145	160	148	13	7.0	9.1	6.6	10	7.7
23	88	167	151	a150	160	144	13	6.6	10	7.0	9.8	7.7
24	*94	167	148	a150	154	138	13	6.2	12	6.6	10	7.7
25	98	163	144	a150	148	129	12	6.2	11	6.6	10	8.4
26	104	163	141	a155	141	126	11	6.2	11	6.6	11	9.1
27	96	163	144	a155	144	121	12	6.2	10	7.0	11	14
28	94	148	148	a155	144	121	12	6.2	10	7.0	11	14
29	86	148	b144	154	-	118	12	6.2	10	7.0	10	14
30	81	144	b140	154	-------	112	11	6.2	10	7.7	9.8	16
31	86	-------	138	154	-------	118	-------	6.2	-------	7.7	8.4	-------
Total	2,813	3,815	4,501	4,624	4,293	4,596	885.8	270.7	292.1	227.1	376.2	271.5
Mean	90.7	127	145	149	153	148	29.5	8.73	9.74	7.33	12.1	9.05
Ac-ft	5,580	7,570	8,930	9,170	8,520	9,120	1,760	537	579	450	746	539

Calendar year 1958: Max 637 Min 9.8 Mean 171 Ac-ft 124,100
Water year 1958-59: Max 177 Min 6.2 Mean 73.9 Ac-ft 53,500

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for other Sevier River stations.
b Stage-discharge relation affected by ice.

1850. Antimony Creek near Antimony, Utah

Location.--Lat 38°06', long 111°53', in NW¼ sec.22, T.31 S., R.1 W., on right bank 5 miles upstream from mouth and 5 miles southeast of Antimony.

Drainage area.--26 sq mi, approximately.

Records available.--October 1946 to September 1948, August 1957 to September 1959.

Gage.--Water-stage recorder. October 1946 to September 1948 at datum 0.89 ft lower.

Extremes.--Maximum discharge during year, 669 cfs Aug. 3 (gage height, 4.52 ft), from rating curve extended above 250 cfs on basis of slope-area measurement of peak flow; minimum daily, 13 cfs Aug. 18, 25, 28.
1946-48, 1957-59: Maximum discharge, that of Aug. 3, 1959; minimum, 11 cfs Aug. 22, 1947.

Remarks.--Records good except those for periods of no gage-height record, which are fair. No diversion above station.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 5 to Sept. 30)

0.4	14
.8	32
1.2	59
1.6	96

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	16	15			18	17	24	16	16	16	14
2	16	16	15			18	17	21	16	16	17	14
3	16	16	15		a17	18	17	18	16	16	*28	14
4	16	16	15	a14		18	30	17	16	16	a18	14
5	16	16	14			18	46	17	16	16	*16	14
6	16	16	14		*18	18	69	16	16	16	16	15
7	16	16	14	*15	18	18	78	16	16	16	16	15
8	16	15	14	15	17	18	40	16	16	*16	21	15
9	17	15	14		18	18	26	16	16	16	17	15
10	17	15	14		17	18	21	16	*17	16	14	*15
11	17	*15	14		17	*18	20	*16	17	16	15	15
12	17	16	14		18	18	24	16	17	16	14	15
13	17	15	14		18	18	32	16	17	16	14	16
14	17	16	14		17	18	*28	16	17	16	14	15
15	17	15	14		18	18	25	16	17	16	14	15
16	17	15	14	a15	18	18	24	16	17	16	14	15
17	17		14		18	18	21	16	16	16	14	14
18	17		14		18	18	19	16	16	16	13	14
19	17		*14		18	18	18	*16	16	16	15	14
20	17		14		18	17	17	16	16	16	15	14
21	17	a15	14		18	17	16	16	17	16	15	14
22	a17		14		18	17	16	16	16	16	15	14
23	*17		14		18	17	18	16	16	16	14	14
24	17		14		18	17	31	16	17	16	14	14
25	17		14		18	17	31	16	16	16	13	14
26	17	15	14		18	17	22	16	16	16	14	15
27	17	15	14		18	17	21	16	16	16	14	14
28	16	15	14		18	17	20	16	16	16	13	14
29	16	15	15	a17	-	17	22	16	16	16	14	14
30	16	15	a14		-------	17	24	16	16	17	*14	14
31	16	-------	a14		-------	17	-------	16	-------	17	14	-------
Total	515	459	439	471	495	546	810	513	489	498	475	433
Mean	16.6	15.3	14.2	15.2	17.7	17.6	27.0	16.5	16.3	16.1	15.3	14.4
Ac-ft	1,020	910	871	934	982	1,080	1,610	1,020	970	988	942	859

Calendar year 1958: Max 242 Min 14 Mean 26.3 Ac-ft 19,030
Water year 1958-59: Max 78 Min 13 Mean 16.8 Ac-ft 12,190

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of recorded range in stage, weather records, and records for East Fork Sevier River near Kingston.

1880. Otter Creek Reservoir near Antimony, Utah

Location.--Lat 38°10'15", long 112°00'00", in NW¼ sec.28, T.30 S., R.2 W., near spillway on right side of dam on Otter Creek, 5 miles northwest of Antimony and 12 miles east of Kingston.

Records available.--January to September 1914 and October 1945 to September 1959 in reports of Geological Survey. In files of Salt Lacke City district office, Geological Survey, 1915, 1934-45.

Gage.--Staff gage. Altitude of gage is 6,350 ft (by barometer).

Extremes.--Maximum contents observed during year, 40,640 acre-ft Apr. 9 (gage height, 31.1 ft); minimum observed, 9,500 acre-ft Sept. 10 (gage height, 13.0 ft).
1914-15, 1934-59: Maximum contents observed, 55,000 acre-ft May 1, 1946, May 20, 1948, June 10, 20, 1949, June 10, 1952, May 20, 1958 (gage height, 37.0 ft); minimum observed, 200 acre-ft Sept. 10, 1956 (gage height, 1.0 ft).

Remarks.--Reservoir was formed in 1898 by a 15-foot earth-fill, rock-faced dam which was raised some each year to the ultimate height of 45 ft in 1915. The dam has a conctrete core through the center. Capacity, 52,500 acre-ft between gage height zero (bottom of outlet gate) and 36.0 ft (top of flashboards on spillway). Spillway crest is at gage height of 33.5 ft. Figures given herein represent total contents. Reservoir stores water from Otter Creek and also water diverted from East Fork Sevier River, for irrigation in Sevier River basin.

Cooperation.--Gage-height record furnished by Otter Creek Reservoir Co. Capacity table furnished by Sevier River water commissioner.

Capacity table, water year 1958-59 (gage height, in feet, and contents, in acre-feet)

12.0	8,500	22.0	22,800
14.0	10,700	25.0	28,200
16.0	13,300	28.0	34,000
18.0	16,000	30.0	38,000
20.0	19,200	32.0	42,800

Contents, in acre-feet, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23,520	25,140	27,480	30,400	34,000	37,200	40,160	40,160	37,400	29,640	18,740	10,220
2	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	37,000	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	40,640	-	-	-	-	-
10	24,240	25,680	28,200	31,400	35,000	38,480	-	39,200	-	26,580	16,300	9,500
11	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	34,400	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-
20	24,420	-	29,280	32,800	36,200	39,440	40,400	38,240	32,800	23,880	13,040	9,620
21	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-
25	-	26,760	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	a37,090	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-
30	-	a27,360	-	-	-------	-	a40,180	-	a29,930	-	-	a9,730
31	a25,080	-------	30,000	a33,900	-------	a40,100	-------	a37,470	-------	a20,080	a10,460	-------
(†)	-	-	26.0	-	-	-	-	-	-	-	-	-
(‡)	+1,560	+2,280	+2,640	+3,900	+3,190	+3,010	+80	-2,710	-7,540	-9,850	-9,620	-730

Calendar year 1958 ..... † +13,100
Water year 1958-59 ..... ‡ -13,790

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.
a No gage-height record; contents interpolated.

1890. East Fork Sevier River near Kingston, Utah

Location.--Lat 38°12', long 112°09', in SW¼NW¼ sec.13, T.30 S., R.3 W., on right bank 1,000 ft downstream from bridge on State Highway 22, 1.7 miles east of Kingston and 4.1 miles upstream from mouth.

Drainage area.--1,260 sq mi, approximately.

Records available.--March 1913 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,110 ft (from river-profile map). Prior to Apr. 29, 1914, staff gage at site 1 mile upstream at different datum. Apr. 29, 1914, to June 2, 1939, water-stage recorder at site 1,500 ft downstream at different datum.

Average discharge.--46 years, 83.8 cfs (60,670 acre-ft per year).

Extremes.--Maximum discharge during year, 226 cfs July 30 (gage height, 2.13 ft); minimum, 4.0 cfs Dec. 29, result of freezeup.
1913-59: Maximum discharge, 2,030 cfs May 12, 1941 (gage height, 5.05 ft); minimum daily recorded, 7 cfs Oct. 29, 30, 1930.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Diversions above and below station for irrigation. Flow regulated by Otter Creek Reservoir (see preceding page).

Revisions (water years).--WSP 750: 1931-32.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.6	12	1.5	111
.8	23	2.0	206
1.1	54	2.5	332

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a22	14	b16	b16	17	19	19	34	41	146	210	89
2	23	16	16	b16	b16	19	18	34	39	146	210	86
3	22	16	16	b16	b17	18	18	40	38	146	210	84
4	20	16	16	b14	18	17	18	40	39	144	210	78
5	17	16	16	b12	17	18	18	40	70	144	*208	75
6	16	16	16	b14	*17	18	18	40	152	144	206	78
7	16	15	16	b16	16	18	18	39	150	*139	204	78
8	15	14	16	b16	17	18	18	40	148	137	202	67
9	14	15	*16	b16	18	18	20	36	*148	139	202	19
10	15	16	16	b16	b17	18	41	36	150	141	202	*14
11	15	*16	16	b16	b17	*18	42	40	146	137	200	13
12	15	20	16	b16	18	18	42	*39	144	137	200	24
13	15	22	15	b16	b17	18	42	37	146	139	200	28
14	15	20	b16	b16	b16	18	42	38	148	139	198	30
15	15	b16	b16	16	b16	18	*41	38	148	146	198	34
16	16	b16	b16	16	18	18	38	37	148	156	200	31
17	15	b16	b16	16	20	54	39	33	148	157	198	36
18	14	b16	b16	17	18	72	39	37	148	156	198	33
19	14	b16	b16	17	18	75	38	*37	150	156	200	29
20	14	b16	b16	17	18	76	42	38	148	156	193	31
21	14	b16	b16	b15	18	75	42	38	148	154	191	30
22	14	b16	16	b16	19	76	39	39	148	156	189	
23	14	16	16	b17	19	75	39	41	148	156	191	
24	*14	16	16	17	19	72	39	33	150	157	191	
25	15	16	b16	17	18	74	34	37	148	157	189	a33
26	14	16	b16	18	18	72	37	44	148	156	189	
27	14	16	b16	17	19	71	44	44	148	156	170	
28	15	17	16	18	19	64	43	43	146	171	106	
29	15	b16	14	b18	-	26	40	43	146	193	100	36
30	14	b16	b15	18	-------	21	38	43	146	202	88	38
31	14	-------	b16	18	-------	20	-------	42	-------	208	89	-------
Total	485	489	492	504	495	1,212	1,006	1,200	3,925	4,771	5,742	1,292
Mean	15.6	16.3	15.9	16.3	17.7	39.1	33.5	38.7	131	154	185	43.1
Ac-ft	962	970	976	1,000	982	2,400	2,000	2,380	7,790	9,460	11,390	2,560

Calendar year 1958: Max 569 Min - Mean 92.4 Ac-ft 66,880
Water year 1958-59: Max 210 Min 12 Mean 59.2 Ac-ft 42,870

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of recorded range in stage, trend of flow, and records for nearby streams.
b Stage-discharge relation affected by ice.

1910. Piute Reservoir near Marysvale, Utah

Location.--Lat 38°19'30", long 112°11'30", in NE¼NW¼ sec.3, T.29 S., R.3 W., at Piute Dam, 9 miles south of Marysvale.

Drainage area.--2,400 sq mi, approximately.

Records available.--March 1914 to September 1959.

Gage.--Staff gage read once daily except Sunday. Datum of gage is 5,900.8 ft above mean sea level (levels by Office of State Engineer).

Extremes.--Maximum contents observed during year, 55,310 acre-ft Mar. 28, 30, 31, Apr. 1-3 (gage height, 67.8 ft); minimum observed, 4,640 acre-ft Sept. 30 (gage height, 30.8 ft).

1914-59: Maximum contents, 82,300 acre-ft May 28, 1922 (gage height, 76.4 ft, original capacity table); no contents at times in several years.

Remarks.--Reservoir is formed by earth-fill dam; storage began in summer of 1910. Capacity, 74,010 acre-ft between gage height 16 (approximate bottom of reservoir) and 76 ft (top of flashboards on spillway since 1941). Spillway crest is at gage height 70.2 ft. No dead storage. Water is used for irrigation.

Capacity table, water year 1958-59 (gage height, in feet, and contents, in acre-feet)

29.0	3,480	50.0	24,850
32.0	5,480	55.0	32,250
35.0	7,790	60.0	40,620
40.0	12,510	65.0	49,810
45.0	18,160	68.0	55,710

Contents, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25,280	25,710	31,790	42,780	-	-	55,310	44,240	26,570	19,410	9,340	7,790
2	25,140	-	32,250	42,970	52,330	53,910	55,310	43,690	25,990	19,160	-	7,550
3	24,990	25,850	32,720	43,150	52,530	53,910	55,310	-	25,420	18,780	9,900	7,230
4	24,850	25,850	33,200	-	52,720	53,910	55,110	42,600	24,850	18,540	10,280	6,910
5	-	25,850	33,670	43,690	52,920	53,910	-	41,880	24,430	-	10,570	6,840
6	24,570	25,850	34,150	44,060	53,320	53,910	54,710	41,160	24,000	17,680	10,770	-
7	24,430	25,990	-	44,420	53,710	53,910	54,510	40,620	-	16,950	10,970	6,680
8	24,290	25,990	34,800	44,610	-	-	54,310	40,090	23,580	16,140	11,170	6,600
9	24,290	-	35,130	44,980	53,710	54,110	54,110	39,560	23,300	14,450	-	6,530
10	24,290	25,990	35,450	45,340	53,710	54,110	53,910	-	23,030	13,800	11,570	6,450
11	24,290	26,140	35,790	-	53,710	54,110	53,710	38,510	22,750	13,260	11,570	6,300
12	-	26,280	36,120	45,900	53,710	54,110	-	37,990	22,340	-	11,680	6,220
13	24,290	26,420	36,480	46,080	53,710	54,110	53,320	37,470	20,710	12,090	11,680	-
14	24,430	26,570	-	46,450	53,710	54,310	53,120	36,460	-	11,470	11,890	6,070
15	24,570	26,720	37,130	46,820	-	-	52,720	35,450	21,520	10,870	11,890	5,920
16	24,710	-	37,470	47,190	53,910	54,510	52,130	34,640	21,380	9,520	-	5,850
17	24,850	27,150	37,820	47,560	53,910	54,710	51,550	-	21,250	9,080	11,890	5,780
18	24,990	27,300	38,160	-	53,910	54,710	51,160	32,880	21,120	8,900	11,570	5,780
19	-	27,440	38,510	48,120	53,910	54,710	-	32,100	20,980	-	11,370	5,780
20	25,140	27,730	38,850	48,490	53,910	54,710	50,200	31,330	20,980	8,550	10,970	-
21	25,140	28,020	-	48,870	53,910	54,710	49,620	30,860	-	8,550	10,570	5,780
22	25,140	28,320	39,560	49,250	-	-	49,060	30,410	20,980	8,460	10,090	5,700
23	25,280	-	39,910	49,620	53,910	54,910	48,490	29,950	20,980	8,460	-	5,480
24	25,420	28,910	40,270	49,810	53,910	54,910	47,930	-	20,980	8,550	9,520	5,340
25	25,420	29,350	40,620	-	53,910	54,910	47,380	29,050	20,840	8,630	9,160	5,270
26	-	29,800	40,980	50,580	53,910	55,110	-	28,610	20,580	-	8,900	5,200
27	25,560	30,260	41,340	50,970	53,910	55,110	46,450	28,320	20,320	8,720	8,720	-
28	25,710	30,710	-	51,160	53,910	55,310	45,900	28,020	-	8,720	8,550	4,910
29	25,710	31,170	41,880	51,350	-	-	45,340	27,730	19,930	8,720	8,380	4,770
30	25,710	a31,480	42,240	51,550	-------	55,310	44,790	27,300	19,670	8,810	-	4,640
31	25,710	-------	42,600	51,740	-------	55,310	-------	a26,940	-------	9,080	8,040	-------
(†)	50.8	-	61.1	66.0	67.1	67.8	62.3	-	46.2	36.5	35.3	30.8
(‡)	+150	+5,770	+11,120	+9,140	+2,170	+1,400	-10,520	-17,850	-7,270	-10,590	-1,040	-3,400

Calendar year 1958..... † +15,300
Water year 1958-59..... ‡ -20,920

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.
a No gage-height record; contents interpolated.

1915. Sevier River below Piute Dam, near Marysvale, Utah

Location.--Lat 38°19'55", long 112°11'15", in NW¼SE¼ sec.34, T.28 S., R.3 W., on left bank three-quarters of a mile downstream from Piute Dam and 8 miles south of Marysvale.

Drainage area.--2,440 sq mi, approximately.

Records available.--May 1911 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,870 ft (by barometer). Prior to May 4, 1912, staff gage at site half a mile upstream at different datum. May 4, 1912, to Mar. 31, 1935, water-stage recorder at site a quarter of a mile upstream at different datum. Apr. 1, 1935, to Apr. 7, 1936, at datum 0.2 ft higher.

Average discharge.--47 years (1912-59), 229 cfs (165,800 acre-ft per year).

Extremes.--Maximum discharge during year, 562 cfs July 9 (gage height, 2.20 ft); minimum daily, 3.5 cfs Nov. 27, 28 (gage height, -0.10 ft).
1911-59: Maximum discharge, 2,600 cfs May 23, 24, 1922; practically no flow at times when reservoir gates were closed.

Remarks.--Records good. One small diversion between gage and Piute Reservoir. Flow regulated by Piute Reservoir (see preceding page). Records of chemical analyses for the water year 1959 are given in WSP 1644.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

-0.2	3.2	0.4	35	1.0	178
-.1	4.8	.6	60	1.5	295
0.0	7.5	.7	101	2.0	478
.1	12	.8	132	2.5	678
.2	18				

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	272	92	5.9	6.2	5.2	146	150	327	261	321	121	292
2	263	79	5.9	5.9	5.2	146	148	341	327	315	121	272
3	263	79	5.9	5.9	5.2	148	148	348	324	312	109	238
4	263	79	5.9	5.9	5.2	148	148	362	318	344	124	171
5	222	73	5.9	5.6	*5.2	148	148	374	292	398	*141	101
6	203	73	5.9	5.6	5.2	148	148	370	295	450	148	115
7	201	73	5.9	*5.6	77	148	148	344	318	*490	157	127
8	160	79	5.9	5.6	148	148	148	324	304	550	153	115
9	137	79	5.9	5.6	148	148	146	334	*318	554	153	*124
10	134	66	*5.9	5.6	148	*148	144	341	324	534	178	146
11	115	64	5.6	5.4	148	150	144	341	358	498	224	127
12	121	*66	5.6	5.4	148	127	144	*341	358	478	224	115
13	79	66	5.4	5.2	150	105	141	386	318	474	222	109
14	57	66	5.4	5.2	148	109	158	454	290	454	208	109
15	64	64	5.4	5.2	148	105	*280	454	261	450	224	112
16	79	66	5.4	5.2	146	134	290	470	231	430	219	109
17	62	64	5.4	5.0	148	148	290	514	199	321	245	105
18	59	66	5.4	5.2	148	146	292	490	180	265	351	43
19	59	69	5.4	5.2	144	148	318	430	153	268	386	43
20	59	56	5.4	5.2	146	148	334	*390	134	254	402	45
21	59	45	5.4	5.2	146	148	338	351	144	176	422	73
22	*59	45	5.4	5.2	146	146	331	348	169	199	442	162
23	60	45	5.6	5.2	146	148	304	298	206	176	406	166
24	60	29	5.6	5.2	148	148	298	258	203	139	382	150
25	79	3.8	5.6	5.2	148	148	298	265	219	155	366	112
26	79	3.7	6.2	5.2	148	150	321	265	268	153	324	130
27	97	3.5	6.2	5.2	148	150	307	219	280	178	290	130
28	115	3.5	6.2	5.2	148	150	304	199	307	203	254	132
29	112	4.5	6.2	5.2	-	150	310	231	310	180	222	141
30	109	5.6	6.2	5.2	-------	150	331	249	312	155	194	115
31	109	-------	6.2	5.2	-------	150	-------	256	-------	132	233	-------
Total	3,810	1,607.6	178.2	166.9	3,204.2	4,434	7,009	10,674	7,981	10,026	7,645	3,929
Mean	123	53.6	5.75	5.38	114	143	234	344	266	323	247	131
Ac-ft	7,560	3,190	353	331	6,360	8,790	13,900	21,170	15,830	19,890	15,160	7,790

Calendar year 1958: Max 774 Min 3.5 Mean 236 Ac-ft 170,900
Water year 1958-59: Max 554 Min 3.5 Mean 166 Ac-ft 120,300

* Discharge measurement made on this day.

1942. Clear Creek above diversions, near Sevier, Utah

Location.--Lat 38°34'45", long 112°17'20", in NW¼SW¼ sec.31, T.25 S., R.4 W., on left bank at south side of State Highway 13, 1.8 miles west of Sevier, 2.3 miles upstream from mouth, and 17 miles southwest of Richfield.

Drainage area.--164 sq mi.

Records available.--August 1957 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,680 ft (from topographic map).

Extremes.--Maximum discharge during year, 42 cfs May 16 (gage height, 1.74 ft); minimum, 1.9 cfs Sept. 9.
1957-59: Maximum discharge, 301 cfs May 24, 1958 (gage height, 3.36 ft); minimum, that of Sept. 9, 1959.

Remarks.--Records good except those for periods of doubtful or no gage-height record, which are fair. Small diversions above station for irrigation.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.6	1.8	1.2	12
.8	3.8	1.5	24
1.0	6.9	1.8	46

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	17	8.8	9.3	9.5	12	15	14	21	13	d7.5	3.1
2	10	17	9.8	9.0	11	13	16	17	22	10	9.3	3.1
3	10	17	11	7.5	9.3	12	18	18	22	12	9.0	2.9
4	10	15	13	6.9	13	11	19	19	22	11	*9.5	3.6
5	10	16	12	8.0	*11	9.8	20	19	23	9.8	9.0	3.7
6	10	16	11	*10	10	12	19	18	25	8.0	7.5	3.8
7	9.8	16	11	9.8	12	11	19	17	28	7.7	d6.5	3.6
8	9.5	16	11	9.0	12	10	18	16	28	*7.1	d6.5	3.2
9	9.8	a17	11	9.0	10	11	17	13	26	7.3	7.3	*2.3
10	9.8	a15	*10	10	11	12	15	13	*26	7.5	7.5	2.6
11	9.8	*12	11	11	12	*10	15	14	24	7.7	7.1	2.7
12	9.5	13	11	10	12	11	15	*23	24	7.7	7.1	2.9
13	9.8	12	8.4	11	10	14	15	26	28	7.5	6.4	3.0
14	9.8	12	6.7	11	9.0	13	*16	33	27	7.7	a5.5	3.8
15	9.5	13	6.9	10	14	10	14	36	26	9.3	a5.0	3.8
16	9.5	9.0	8.2	10	13	10	13	39	28	8.8	a4.7	3.5
17	a9.5	7.5	9.3	11	18	13	13	38	27	8.0	a4.4	4.9
18	a9.5	6.9	9.0	11	14	14	15	36	25	7.5	4.2	5.5
19	a10	8.8	9.8	11	13	14	14	33	23	d6.5	5.9	5.2
20	a11	9.8	10	10	12	11	13	*30	21	d6.7	5.7	6.9
21	*a13	10	9.8	8.8	11	11	13	26	20	d6.5	4.9	5.5
22	14	11	12	9.5	13	13	12	25	17	d6.7	6.2	4.1
23	17	11	12	11	12	14	9.8	22	13	d6.7	6.4	4.5
24	17	12	9.0	10	11	16	11	19	12	d7.0	6.4	5.4
25	18	12	9.0	11	11	14	8.6	19	13	d7.0	6.0	5.2
26	18	11	9.3	11	11	12	11	19	13	d6.5	5.9	6.0
27	18	11	11	10	12	14	13	18	13	d6.7	3.6	4.8
28	17	8.0	11	11	12	13	13	17	13	d7.0	3.6	4.8
29	17	9.0	9.0	9.0	-	13	13	17	12	d7.0	3.7	5.4
30	17	9.3	7.1	11	-------	13	13	19	11	d7.0	3.5	6.2
31	17	-------	10	11	-------	14	-------	20	-------	9.5	3.4	-------
Total	379.8	372.3	308.1	307.8	328.8	380.8	436.4	693	633	248.4	189.2	126.0
Mean	12.3	12.4	9.94	9.93	11.7	12.3	14.5	22.4	21.1	8.01	6.10	4.20
Ac-ft	753	738	611	611	652	755	866	1,370	1,260	493	375	250

Calendar year 1958: Max 257 Min 6.4 Mean 38.3 Ac-ft 27,730
Water year 1958-59: Max 39 Min 2.3 Mean 12.1 Ac-ft 8,730

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of 1 discharge measurement, trend of flow, and records for Fillmore Canal near Fillmore.
d Doubtful gage-height record; discharge estimated on basis of partial recorder record and records for Fillmore Canal near Fillmore.

2050. Sevier River near Sigurd, Utah

Location.--Lat 38°52', long 111°57', in SW¼ sec.19, T.22 S., R.1 W., on left bank 200 ft downstream from bridge, half a mile downstream from Rockyford Dam, 2 miles northeast of Sigurd, and 5 miles upstream from Lost Creek.

Drainage area.--3,340 sq mi, approximately.

Records available.--July to September 1912, July 1914 to September 1959. Prior to October 1938, published as "near Vermilion."

Gage.--Water-stage recorder. Altitude of gage is 5,180 ft (by barometer). July to September 1912, staff gage a quarter of a mile downstream at different datum. July 31, 1914, to Apr. 19, 1917, staff gage and Apr. 20, 1917, to Oct. 16, 1935, water-stage recorder, at present site at datum 2.00 ft lower.

Average discharge.--45 years (1914-59), 101 cfs (73,120 acre-ft per year).

Extremes.--Maximum discharge during year, 402 cfs Mar. 1 (gage height, 3.24 ft); minimum not determined, occurred during period of no gage-height record.
1914-59: Maximum discharge, 2,400 cfs May 30, 1922 (gage height, 6.1 ft, present datum), from rating curve extended above 600 cfs on basis of maximum discharge for other Sevier River stations; practically no flow (seepage only) when Rockyford Reservoir gates are closed.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Flow regulated by reservoirs above station. During irrigation season practically entire flow through Rockyford Dam is diverted above station for irrigation below.

Revisions (water years).--WSP 1394: 1927-28, 1947.

Rating tables, water year 1958-59, except periods of no gage-height record (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Nov. 13				Nov. 14 to Sept. 30			
0.6	1.1	1.4	32	0.4	5.8	2.0	120
.7	2.4	1.8	68	.6	13	2.5	202
.9	7.0	2.1	104	1.0	37	3.0	325
1.1	14	2.5	170	1.5	73	3.3	419

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	44	100	87	86	101	370	175	28	24		5.4	
2	53	104	89	88	103	386	175	33	23			
3	51	104	78	81	103	355	194	51	18			
4	47	100	88	78	103	254	198	61	12		a1.2	
5	44	90	83	79	109	219	192	103	18			
6	44	98	80	86	107	223	184	109	22	a1.2	(*)	
7	38	94	79	89	*105	223	178	105	19	(*)	25	
8	15	86	80	*91	107	219	*156	112	20		30	
9	3.0	87	82	92	120	221	134	118	*19		18	(*)
10	3.8	96	*83	93	153	*225	113	132	28		21	
11	4.5	41	83	98	162	225	99	94	21		39	
12	4.3	*a1.7	83	102	173	219	91	*72	19		43	
13	3.8	a1.7	83	104	180	210	72	52	40	21	47	
14	5.0	68	81	108	184	180	67	38	47	35	47	
15	6.5	133	79	104	188	166	*60	38	58	*37	8.2	a1.1
16	112	129	79	100	190	164	52	29	41	33		
17	164	125	79	100	196	166	31	24	35	31		
18	159	118	79	102	206	194	28	*10	42	65		
19	151	101	78	103	208	194	54	*7.4	27	66		
20	148	91	78	102	210	89	69	8.3	24	64		
21	*141	96	81	99	210	26	94	18	14	61		
22	131	107	83	96	212	27	98	36	14	54		
23	89	99	83	97	210	21	100	54	11	58		
24	69	94	84	102	215	*35	99	76		77	a1.1	
25	69	96	84	103	217	106	81	80		79		
26	68	90	83	107	219	169	72	76	a1.2	79		
27	68	87	89	105	223	177	62	60		66		
28	72	84	89	104	299	171	48	*36		54		
29	79	84	88	101	-	177	42	24		27		
30	90	87	83	99	-------	177	31	14		21		
31	95	-------	84	102	-------	173	-------	19	-------	31		-------
Total	2,071.9	2,692.4	2,562	3,001	4,813	5,761	3,049	1,717.7	604.4	973.4	307.2	33.0
Mean	66.8	89.7	82.6	96.8	172	186	102	55.4	20.1	31.4	9.91	1.1
Ac-ft	4,110	5,340	5,080	5,950	9,550	11,430	6,050	3,410	1,200	1,930	609	65

Calendar year 1958: Max 497 Min 1.7 Mean 81.3 Ac-ft 58,850
Water year 1958-59: Max 386 Min - Mean 75.6 Ac-ft 54,720

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of 4 discharge measurements, engineers' and water commissioner's notes, and records for other Sevier River stations.

2100. Pleasant Creek near Mount Pleasant, Utah

Location.--Lat 39°32'30", long 111°23'30", in W½ sec.5, T.15 S., R.5 E., on left bank a quarter of a mile downstream from South Fork and 3.9 miles east of Mount Pleasant.

Drainage area.--16 sq mi, approximately.

Records available.--October 1954 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,760 ft (from river-profile map).

Average discharge.- 5 years, 17.2 cfs (12,450 acre-ft per year).

Extremes.--Maximum discharge during year, 44 cfs June 9 (gage height, 6.51 ft); minimum, 0.8 cfs Sept. 28, caused by temporary obstruction upstream.
1954-59: Maximum discharge not determined, occurred during mud-rock flow Aug. 16, 1955 (estimated flow, 750 cfs below debris basin located half a mile below gage); minimum, that of Sept. 28, 1959.
Maximum discharge known, 2,060 cfs July 24, 1946, from critical-depth measurement of peak flow over retention dam half a mile below gage.

Remarks.--Records good. Records include flow of Candland ditch and Coal Fork ditch which are transmountain diversions from San Rafael River basin.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

5.8	5.2
5.9	9.0
6.1	19
6.5	44

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.9	9.9	9.5	9.0	7.5	7.9	8.6	16	30	18	11	8.2
2	9.9	10	9.5	9.0	7.9	7.9	9.5	15	32	17	11	8.2
3	9.9	10	9.5	8.6	7.9	7.9	11	14	*33	17	11	8.2
4	9.9	10	10	8.6	7.9	7.9	12	13	34	17	10	8.2
5	9.9	10	10	8.6	7.9	7.5	12	12	37	16	9.9	8.2
6	9.9	11	10	8.6	7.9	7.9	13	13	38	15	9.9	8.6
7	9.9	11	10	8.2	7.9	7.9	12	13	38	14	9.5	8.6
8	9.9	11	10	8.2	7.9	7.9	10	14	39	15	9.5	8.6
9	9.9	11	10	7.9	7.9	7.9	9.5	15	39	14	9.5	8.6
10	10	11	10	7.9	7.9	7.9	10	16	39	14	9.0	8.6
11	10	11	10	7.5	*7.9	7.9	11	17	39	14	9.5	8.2
12	10	11	10	7.5	7.9	8.2	12	20	38	14	9.9	8.2
13	10	9.9	9.9	*7.9	7.9	8.2	10	24	36	*13	9.5	8.2
14	*10	9.9	9.5	7.9	7.9	7.9	9.5	*26	36	13	9.0	8.2
15	10	9.5	9.9	7.9	8.2	7.9	9.5	24	36	13	9.0	8.2
16	10	9.5	9.9	7.9	8.2	7.9	8.6	24	36	12	9.0	8.2
17	11	9.5	10	8.2	8.6	8.2	9.0	23	*34	12	8.6	9.9
18	11	*9.0	*9.9	8.2	8.2	*8.6	8.6	22	31	12	*9.0	8.6
19	11	9.9	9.9	8.2	8.2	8.6	9.0	21	31	12	10	8.6
20	11	9.9	9.9	8.2	8.2	7.9	8.6	18	30	12	9.9	9.0
21	10	10	9.5	8.2	8.2	8.2	*9.0	*18	28	11	9.0	8.6
22	11	9.9	9.5	8.2	7.5	8.2	9.5	19	26	10	8.6	8.6
23	11	10	9.5	8.2	8.2	8.2	9.9	20	24	10	8.6	*9.0
24	11	10	9.5	8.2	8.2	8.6	11	21	24	10	8.6	9.5
25	11	9.9	9.0	8.2	8.2	8.2	12	21	24	11	9.0	9.9
26	11	10	9.0	8.2	8.2	8.2	12	20	23	11	9.0	9.9
27	10	9.9	9.0	8.2	8.2	8.2	13	21	22	11	8.2	9.9
28	10	9.5	9.5	7.5	8.2	8.2	11	24	21	9.9	8.2	8.2
29	9.9	9.5	9.5	7.5	-	8.2	13	27	20	9.9	8.2	8.6
30	9.9	9.5	8.6	7.5	-------	8.2	14	27	20	11	8.2	8.6
31	10	-------	9.0	7.5	-------	7.9	-------	27	-------	10	8.2	-------
Total	317.9	302.2	299.0	251.4	224.7	250.2	317.8	605	939	398.8	287.5	260.1
Mean	10.3	10.1	9.65	8.11	8.02	8.07	10.6	19.5	31.3	12.9	9.27	8.67
Ac-ft	631	599	593	499	446	496	630	1,200	1,860	791	570	516

Calendar year 1958: Max 183 Min 8.2 Mean 22.4 Ac-ft 16,230
Water year 1958-59: Max 39 Min 7.5 Mean 12.2 Ac-ft 8,830

Peak discharge (base, 50 cfs).--No peak above base.

* Discharge measurement made on this day.

Transmountain diversions from Colorado River basin to Sevier Lake basin

The following ditch and 2 tunnels in Utah, each equipped with a water-stage recorder, divert water from the Colorado River basin to the Sevier Lake basin. Records of daily flow collected by Geological Survey available in Salt Lake City district office. There are 10 other transmountain diversions in this area; however, they represent only a small portion of the total flow diverted, and records are available for these diversions from October 1949 to September 1958.

9-3095. Fairview ditch diverts water from tributaries of San Rafael River and Price River to San Pitch River basin. Gage is located in SE¼ sec.26, T.13 S., R.5 E.

9-3190. Ephraim tunnel diverts water from tributary of San Rafael River to San Pitch River basin. Gage is located in NW¼ sec.24, T.17 W., R.4 E.

9-3230. Spring City tunnel diverts water from tributary of San Rafael River to San Pitch River basin. Gage is located in SE¼ sec.16, T.16 S., R.5 E.

Transmountain diversions, in acre-feet, water year October 1958 to September 1959

Name	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Water year
Fairview ditch.....	0	0	0	0	0	0	0	0	457	208	0	0	665
Ephraim tunnel.....	40	30	25	18	17	18	18	921	1,140	108	10	12	2,360
Spring City tunnel.	48	37	31	25	22	25	24	346	705	5	43	31	1,340
Total in Utah....	88	67	56	43	39	43	42	1,267	2,302	321	53	43	4,360

Transmountain diversion from Sevier Lake basin to Colorado River basin

1840. Tropic and East Fork Canal diverts water from East Fork Sevier River to tributary of Paria River. Gage is located in SW¼ sec.17, T.36 S., R.3 W.

Figures of diversions, in acre-feet, water year October 1958 to September 1959

Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Water year
19	0	0	0	0	0	180	665	674	488	21	424	2,470

2110. Twin Creek near Mount Pleasant, Utah

Location.--Lat 39°29'30", long 111°24'25", in NW¼ sec.30, T.15 S., R.5 E., on right bank 3½ miles southeast of Mount Pleasant.

Drainage area.--5.9 sq mi, approximately (revised).

Records available.--October 1954 to September 1959.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 6,500 ft (from topographic map).

Average discharge.--5 years, 8.39 cfs (6,070 acre-ft per year).

Extremes.--Maximum discharge during year, 24 cfs June 9 (gage height, 1.50 ft); minimum, 3.4 cfs Feb. 11.
1954-59: Maximum discharge, 117 cfs June 26, 1957, from rating curve extended above 70 cfs; maximum gage height, 2.18 ft May 27, 1958; minimum discharge, 1.8 cfs Mar. 18, 1955.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Records include flow of Twin Creek tunnel, a transmountain diversion from San Rafael River basin.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 5-30)

1.1	2.8
1.2	6.7
1.3	13
1.4	22

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		5.3	4.5	4.5	b4.5	4.5	5.3	6.2	8.8	8.3	4.9	5.3
2		5.3	4.5		4.5	4.5	5.3	6.2	8.8	8.3	4.5	5.3
3		5.3	4.9		b4.5	4.5	5.3	6.7	*11	8.3	4.9	5.3
4		5.3	4.9	b4.5	4.5	b4.5	5.8	6.7	10	7.7		4.9
5		5.3	4.9		4.5	b4.5	5.3	6.2	11	7.2		4.5
6		5.3	4.9		4.5	4.9	5.8	6.2	11	7.2		4.9
7	a4.5	5.3	4.9	4.9	3.8	b4.5	5.3	6.2	12	7.2		4.9
8		5.3	4.9	4.9	b3.8	b4.5	4.9	6.7	13	6.7		4.9
9		5.3	4.9	4.9	b3.8	4.5	4.9	6.2	16	6.7		4.9
10		5.3	4.9	4.9	b3.8	4.9	b4.9	6.7	16	6.7		4.9
11		5.8	4.5	4.9	*3.8	4.9	4.9	7.2	14	6.2	a5.2	4.9
12		5.8	4.9	4.9	b3.8	b4.9	4.9	7.7	13	6.2		4.9
13		5.8	b4.5	*4.9	3.8	5.3	4.9	10	13	*6.2		4.9
14		5.8	b4.5	4.5	b3.8	b5.3	4.9	*12	13	6.7		4.9
15	*4.9	b5.6	b4.5	4.5	3.8	b5.3	4.9	12	14	6.2		4.9
16	4.9	b5.4	b4.5	4.5	3.8	b5.3	5.3	11	13	6.2		5.3
17	4.9	b5.4	*4.5	4.9	3.8	5.8	4.9	11	*14	5.8		5.8
18	5.3	*b5.4	3.8	4.9	3.8	*5.3	5.3	11	15	5.8	*5.3	5.3
19	4.9	b5.2	3.8	4.9	3.8	5.3	4.9	10	15	5.8	5.8	4.9
20	4.9	4.9	3.8	b4.9	3.8	b5.3	4.9	9.4	14	5.8	5.8	4.9
21	5.3	4.9	3.8	b4.9	3.8	b5.3	*4.9	*8.8	13	5.8	5.3	4.9
22	5.3	4.9	3.8	b4.9	b4.0	5.3	4.9	8.3	12	4.9	5.3	4.9
23	5.3	4.9	4.1	4.9	4.1	5.3	4.9	8.8	11	4.9	5.3	*5.3
24	5.3	4.9	4.1	4.9	4.1	4.9	5.3	8.3	11	4.9	5.8	5.3
25	6.2	4.9	b4.1	4.9	4.1	4.9	5.3	8.8	11	4.9	5.8	5.8
26	5.8	4.9	b4.1	4.9	4.1	5.3	5.8	8.3	10	5.3	5.3	5.8
27	5.8	b4.5	4.1	4.5	4.1	4.9	5.8	8.3	10	5.3	5.3	5.8
28	5.8	b4.5	b4.1	b4.5	4.1	4.9	5.8	7.2	9.4	4.9	5.3	5.3
29	5.8	b4.5	b4.1	b4.5	-	5.3	5.8	8.3	9.4	4.9	5.3	5.3
30	5.8	b4.5	b4.1	4.5	-------	5.3	5.8	8.3	8.8	6.2	5.3	5.3
31	5.3	-------	b4.1	4.5	-------	5.3	-------	8.3	-------	5.3	4.9	-------
Total	154.5	155.5	136.0	146.3	112.6	155.2	156.9	257.0	361.2	192.5	162.9	154.2
Mean	4.98	5.18	4.39	4.72	4.02	5.01	5.23	8.29	12.0	6.21	5.25	5.14
Ac-ft	306	308	270	290	223	308	311	510	716	382	323	306

Calendar year 1958: Max 90 Min 3.8 Mean 10.5 Ac-ft 7,580
Water year 1958-59: Max 16 Min 3.8 Mean 5.88 Ac-ft 4,250

Peak discharge (base, 30 cfs).--No peak above base.

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of recorded range in stage, weather records, and records for nearby streams.
b Stage-discharge relation affected by ice.

2170. Sevier River below San Pitch River, near Gunnison, Utah

Location.--Lat 39°09'00", long 111°52'30", in NE¼ sec.14, T.19 S., R.1 W., on left bank 1,000 ft downstream from San Pitch River and 3 miles west of Gunnison.

Drainage area.- 4,880 sq mi, approximately.

Records available.--October 1917 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,900 ft (from topographic map).

Average discharge.--42 years, 218 cfs (157,800 acre-ft per year).

Extremes.--Maximum discharge during year, 490 cfs Mar. 2, 3 (gage height, 3.29 ft); minimum, 14 cfs July 6 (gage height, 0.82 ft).
1917-59: Maximum discharge, 2,620 cfs June 1, 1922 (gage height, 5.68 ft); minimum daily, 3 cfs July 13-17, Sept. 6, 1934.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Flow regulated by reservoirs and many diversions above station for irrigation. Most of flow diverted above station during irrigation season.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.8	15	2.0	183
1.1	39	3.0	419
1.5	90	4.0	716

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	148	166	210	198	200	389	234	108	63	29	78	44
2	158	170	212	196	200	467	232	103	65	33	113	35
3	166	175	217	194	206	484	229	115	81	30	93	34
4	166	172	217	180	198	453	238	138	116	31	65	33
5	164	175	217	177	198	366	245	158	94	26	63	33
6	158	166	212	179	210	331	236	236	88	*21	*51	42
7	154	175	202	a185	*208	331	229	223	88	17	39	55
8	131	170	191	*196	210	334	221	227	*87	17	26	*58
9	129	166	202	204	214	*334	206	232	78	16	40	56
10	120	166	*202	219	219	316	172	229	45	16	39	56
11	118	170	200	206	256	324	160	217	44	16	46	39
12	118	*142	200	214	294	316	148	162	43	15	79	52
13	116	106	198	221	283	304	142	*137	39	15	69	52
14	111	109	189	223	274	290	129	120	48	18	72	47
15	103	158	187	227	283	234	118	111	65	40	76	46
16	96	240	185	219	299	236	*140	111	103	51	65	46
17	164	243	189	217	318	229	133	82	75	69	61	51
18	219	240	196	219		227	118	*75	72	88	58	58
19	212	238	198	219		267	116	48	76	101	54	73
20	*210	227	196	214		251	135	42	68	120	52	72
21	212	236	196	210		129	148	42	67	122	49	73
22	200	227	204	202	a320	79	175	60	71	103	46	71
23	185	234	208	204		79	175	60	84	45	46	59
24	160	232	208	210		84	177	71	82	58	33	46
25	150	227	202	219		91	177	101	51	82	22	46
26	146	236	198	217		172	160	106	34	106	19	51
27	148	225	198	212	326	229	172	103	37	90	17	65
28	154	217	208	210	324	236	162	88	35	81	25	54
29	156	206	208	206	-	225	168	71	38	69	26	56
30	156	210	196	202	-------	234	115	55	55	65	25	65
31	158	-------	191	206	-------	245	-------	58	-------	60	27	-------
Total	4,786	5,824	6,237	6,405	7,600	8,286	5,210	3,689	1,992	1,650	1,574	1,568
Mean	154	194	201	207	271	267	174	119	66.4	53.2	50.8	52.3
Ac-ft	9,490	11,550	12,370	12,700	15,070	16,440	10,330	7,320	3,950	3,270	3,120	3,110

Calendar year 1958: Max 901 Min 45 Mean 235 Ac-ft 170,000
Water year 1958-59: Max 484 Min 15 Mean 150 Ac-ft 108,700

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of trend of flow, recorded range in stage, and records for station near Sigurd.

2185. Sevier Bridge Reservoir near Juab, Utah

Location.--Lat 39°22'20", long 112°01'55", in NW¼NW¼ sec.1, T.17 S., R.2 W., at Sevier Bridge Dam 13 miles southwest of Juab.

Drainage area.- 5,120 sq mi, approximately.

Records available.- January 1914 to September 1959.

Gage.--Staff gage below gage height 60 ft and wire-weight gage above, read once daily.

Extremes.--Maximum contents observed during year, 108,400 acre-ft Apr. 6, 8-11 (gage height, 63.1 ft); minimum observed, 4,620 acre-ft Sept. 4-8 (gage height, 17.2 ft).
1914-59: Maximum contents, 251,000 acre-ft Apr. 19, 20, 1922 (gage height, 80.0 ft), from former capacity table; no storage at times in 1927-28, 1930-36, 1951.

Remarks.--Reservoir was formed by a 30-foot earth-fill dam. Storage began about 1904. Dam ultimately raised to 90 ft by June 1916. Capacity, 236,000 acre-ft between gage heights 6 (approximate bottom of outlet tunnel) and 80.0 ft (top of flashboard on spillway). No dead storage. Figures given herein represent total contents. Water is used for irrigation.

Revisions (water years).--WSP 960: 1941.

Capacity table, water year 1958-59 (gage height, in feet, and contents, in acre-feet)

17	4,440	45	51,390
20	7,200	50	64,580
25	12,830	55	79,240
30	20,200	60	95,630
35	29,150	65	117,700
40	39,540		

Contents, in acre-feet, at 8 a.m., water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32,110	41,800	50,650	63,480	75,890	91,100	106,200	92,810	58,870	30,320	16,580	5,140
2	32,310	42,260	50,890	63,760	76,190	91,770	106,600	90,760	58,080	29,540	15,990	4,790
3	32,710	42,490	51,390	64,030	76,800	92,810	107,100	89,420	57,560	28,770	15,690	4,700
4	33,120	42,960	51,890	64,310	77,100	93,510	107,500	88,100	56,500	27,830	15,270	4,620
5	33,530	42,960	52,400	64,580	77,410	94,570	108,000	88,100	55,470	27,080	14,710	4,620
6	33,950	42,730	52,910	64,860	78,020	94,930	108,400	87,780	54,690	-	14,290	4,620
7	34,160	42,730	53,410	65,150	78,320	95,630	108,000	87,460	53,670	-	13,750	4,620
8	34,370	42,490	53,920	65,430	78,630	96,400	108,400	-	52,910	24,170	12,970	4,620
9	34,780	42,260	54,430	65,990	79,240	97,160	108,400	86,160	52,150	23,110	12,210	4,790
10	34,990	42,260	54,690	66,550	-	97,540	108,400	85,200	50,650	22,240	11,470	4,970
11	35,200	42,030	54,950	67,110	79,860	98,300	108,400	84,250	49,900	21,220	10,760	5,140
12	35,630	42,030	55,470	67,390	80,480	98,690	108,000	83,300	49,160	21,050	9,950	5,230
13	35,630	42,260	55,980	67,970	81,100	99,450	107,100	82,350	48,430	20,540	9,280	5,410
14	36,050	42,260	56,500	68,250	81,730	99,860	106,600	81,100	47,460	18,580	8,750	5,590
15	36,270	-	56,760	68,830	82,350	100,300	105,800	79,550	46,490	-	8,220	5,680
16	36,480	43,420	57,030	69,120	82,980	100,700	104,900	-	45,780	17,180	7,710	5,680
17	36,700	43,890	57,560	69,690	83,620	101,100	104,400	76,800	44,830	17,020	7,400	-
18	36,910	44,360	57,820	69,980	84,250	101,500	103,600	74,690	44,120	17,180	-	5,680
19	37,340	44,830	58,080	70,560	84,880	101,900	103,600	-	43,420	17,340	-	5,770
20	37,780	45,300	58,610	70,850	85,520	102,300	104,000	71,440	42,490	17,650	-	5,960
21	38,220	45,780	59,140	71,440	86,160	102,700	104,000	69,980	41,800	17,960	7,200	6,140
22	38,660	46,250	49,410	71,730	85,810	103,200	103,600	68,250	41,120	18,110	7,200	6,250
23	39,100	46,730	59,680	72,320	87,130	103,200	103,200	66,830	40,440	18,420	7,300	6,230
24	39,320	47,220	60,220	72,610	87,780	103,200	102,300	-	39,320	18,580	7,200	6,330
25	39,760	47,700	60,490	72,900	88,750	103,600	101,100	-	38,220	18,740	7,200	6,430
26	39,990	48,190	61,030	73,200	89,090	103,600	99,450	63,210	37,340	18,900	7,100	6,520
27	40,220	48,670	61,300	73,790	89,760	103,600	98,690	62,380	35,840	19,060	-	6,720
28	40,440	49,160	61,840	74,390	90,430	104,400	97,160	61,570	34,990	19,230	6,520	6,810
29	40,890	49,660	62,380	74,690	-	104,400	95,630	60,760	33,120	18,270	-	6,910
30	41,350	50,150	62,660	75,290	-------	105,300	94,220	60,220	31,710	17,650	5,870	7,100
31	41,590	-------	62,930	75,590	-------	105,800	-------	59,410	-------	17,020	5,680	-------
(†)	40.9	44.5	49.4	53.8	58.5	62.5	59.6	48.1	36.3	28.0	18.4	19.9
(‡)	+9,680	+8,560	+12,780	+12,660	+14,840	+15,370	-11,580	-34,810	-27,700	-14,690	-11,340	+1,420

Calendar year 1958..... ‡ -7,330
Water year 1958-59..... ‡ -24,810

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.

2190. Sevier River near Juab, Utah

Location.--Lat 39°22'30", long 112°02'20", in SE¼ sec.35, T.16 S., R.2 W., on left bank half a mile downstream from Sevier Bridge Dam and 12 miles southwest of Juab.

Drainage area.--5,120 sq mi, approximately.

Records available.- September 1911 to September 1959.

Gage.--Water-stage recorder and rubble masonry control since Apr. 16, 1914. Altitude of gage is 4,940 ft (by barometer). Prior to Apr. 16, 1914, staff gage 500 ft upstream at different datum. Apr. 16, 1914, to Apr. 7, 1938, water-stage recorder at present site and datum. Apr. 8, 1938, to Mar. 31, 1942, water-stage recorder at site 1,300 ft upstream at different datum.

Average discharge.- 48 years, 239 cfs (173,000 acre-ft per year).

Extremes.--Maximum discharge during year, 938 cfs May 1 (gage height, 4.02 ft); minimum not determined, occurred during period of no gage-height record.
1911-59: Maximum discharge, 2,140 cfs June 2, 1922 (gage height, 8.50 ft); practically no flow at times when reservoir gates were closed.

Remarks.--Records good except those for periods of no gage-height record, which are fair. No diversion between station near Gunnison and this station. Flow regulated by Sevier Bridge Reservoir (see preceding page).

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 28 to June 3)

1.0	9.9	3.0	579
1.2	45	4.0	914
1.5	116	5.0	1,300
2.0	260		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								897	420	556	303	319
2		a3.1						822	a420	497	328	152
3							a3.6	788	517	491	325	58
4		96						449	562	420	322	58
5		200						224	553	382	*322	60
6		227					72	336	543	*471	*316	60
7		224			(*)		121	502	533	530	375	24
8		224			a3.2		121	589	*572	530	407	(*)
9		224				(*)	121	605	596	530	404	
10		224					121	648	468	526	436	
11		221	(*)				312	675	391	526	455	a1.7
12		76					417	675	391	526	414	
13		(*)					420	*776	510	526	369	
14							375	877	562	462	347	
15							417	914	507	423	276	65
16	a3.1	a4.0	a3.6	a3.4		a3.6	*400	907	452	259	215	108
17							369	846	449	60	146	42
18							215	*870	449		113	
19							43	900	449		116	
20							*96	894	449		90	
21							248	890	449		*67	
22	(*)				a3.4		388	870	449	a2	34	
23							535	812	*446		36	
24							622	781	543		83	
25		a3.8					692	688	701		119	a1.6
26							795	589	754		119	
27							826	516	747	118	188	
28							826	446	741	322	224	
29					-		880	417	734	411	224	
30							921	417	721	404	221	
31								420		322	294	
Total	96.1	1,795.3	111.6	105.4	92.2	111.6	10,371.0	21,040	16,078	9,310	7,688	978.7
Mean	3.1	59.8	3.6	3.4	3.3	3.6	346	679	536	300	248	32.6
Ac-ft	191	3,560	221	209	183	221	20,570	41,730	31,890	18,470	15,250	1,940

Calendar year 1958: Max 1,370 Min - Mean 246 Ac-ft 177,700
Water year 1958-59: Max 921 Min - Mean 186 Ac-ft 134,400

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of 6 discharge measurements, weather records, trend of flow, and records for nearby stations.

2240. Sevier River near Lynndyl, Utah

Location.--Lat 39°29', long 112°24', in SE¼ sec.27, T.15 S., R.5 W., on right bank 1½ miles downstream from highway bridge and 3½ miles southwest of Lynndyl.

Drainage area.--6,270 sq mi, approximately.

Records available.--April 1914 to October 1919, November 1942 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,660 ft (by barometer).

Average discharge.--21 years (1914-19, 1943-59), 205 cfs (148,400 acre-ft per year).

Extremes.--Maximum discharge during year, 765 cfs Apr. 27 (gage height, 6.04 ft); minimum, 7.0 cfs Feb. 3 (gage height, 1.83 ft), result of freezeup.
1914-19, 1942-59: Maximum daily discharge, 1,820 cfs June 9, 1914, based on records at Leamington; minimum, 5.2 cfs Nov. 25, 1957 (gage height, 1.79 ft), result of freezeup.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Flow regulated by Sevier Bridge Reservoir (see p. 126). Several diversions for irrigation between reservoir and station. Records of chemical analyses and water temperatures for the water year 1959 are given in WSP 1644.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.0	11	3.5	157
2.2	19	4.0	242
2.5	38	5.0	474
3.0	90	6.0	748

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	46	19	14	14	46	30	680	272	728	357	229
2	39	45	19	13	14	46	33	652	292	629	301	281
3	39	46	19	b12	14	46	30	591	292	513	357	268
4	45	47	17	b12	*14	40	29	564	323	505	336	144
5	48	45	17	*b12	13	38	29	413	388	471	329	111
6	48	102	16	b12	13	a38	30	151	381	418	*325	98
7	48	196	16	b12	13	a39	29	140	362	436	323	105
8	47	232	*16	b14	14	a41	65	254	357	*529	332	102
9	46	244	16	15	15	a44	125	369	350	529	393	86
10	46	*248	15	16	16	a36	139	408	376	510	391	59
11	43	244	15	16	13	a32	146	428	*312	513	388	*53
12	42	248	14	16	17	*32	191	443	209	516	410	46
13	42	231	14	16	16	36	*391	*436	202	516	403	40
14	42	119	14	16	14	36	418	466	254	513	360	40
15	41	78	b14	15	14	38	403	575	391	a500	327	40
16	40	51	b14	15	15	37	400	615	408	a470	305	40
17	25	b30	16	15	15	35	448	632	474	a350	246	66
18	42	b24	17	15	15	36	416	613	466	a150	231	119
19	44	b22	17	14	14	34	371	569	440	a90	180	86
20	46	b21	15	15	26	31	156	607	418	a64	172	51
21	46	b21	15	15	48	32	94	*610	416	a58	160	48
22	46	b21	14	15	49	34	146	635	413	a55	133	46
23	*47	21	14	15	50	34	345	632	413	a51	114	46
24	43	21	14	15	42	41	443	604	418	a48	88	51
25	36	20	14	15	40	36	591	572	474	*46	89	50
26	44	19	13	16	41	35	638	534	629	43	133	47
27	44	19	16	15	46	35	731	526	731	41	150	41
28	43	19	14	15	46	33	697	393	734	36	142	41
29	42	19	14	14	-	31	671	320	739	155	209	41
30	44	19	15	14	-------	28	649	281	756	334	221	42
31	46	-------	15	14	-------	30	-------	275	-------	357	221	-------
Total	1,331	2,518	478	448	661	1,130	8,884	14,988	12,670	10,174	8,126	2,515
Mean	42.9	83.9	15.4	14.5	23.6	36.5	296	483	422	328	262	83.8
Ac-ft	2,640	4,990	948	889	1,310	2,240	17,620	29,730	25,130	20,180	16,120	4,990

Calendar year 1958: Max 1,000 Min 12 Mean 211 Ac-ft 153,000
Water year 1958-59: Max 739 Min 12 Mean 175 Ac-ft 126,800

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, trend of flow, recorded range in stage, water commissioner's notes, and records for nearby streams.
b Stage-discharge relation affected by ice.

2325. Chalk Creek near Fillmore, Utah

Location.--Lat 38°58', long 112°18', in NE¼ sec.28, T.21 S., R.4 W., on left bank 1 mile east of Fillmore and 2¼ miles downstream from South Fork.

Drainage area.--60 sq mi, approximately.

Records available.--May to July 1914, March 1944 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,180 ft (by barometer). May to July 1914, staff gage at site 1½ miles upstream at different datum.

Average discharge.--15 years (1944-59), 32.0 cfs (23,170 acre-ft per year).

Extremes.--Maximum discharge during year, 308 cfs July 31; minimum daily, 5.1 cfs Nov. 10. 1914,1944-59: Maximum discharge, 509 cfs May 4, 1952; minimum daily, 4.4 cfs Nov. 21, 1956.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Records include flow of Fillmore Canal which diverts on left bank at flood-control dam 400 ft upstream. During low-water periods flow is diverted 2 miles upstream and carried in a lined ditch to head of Fillmore Canal. One small diversion above station for irrigation.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	11	9.9	10	8.1	10	18	39	23	10	15	6.6
2	10	11	9.9	9.7	8.6	10	18	41	21	9.7	12	6.6
3	10	11	9.9	6.3	8.8	10	19	41	20	10	11	6.1
4	10	11	10	7.9	*8.6	9.6	20	39	19	10	*10	6.6
5	10	11	10	8.8	*8.4	9.2	21	35	19	8.9	9.1	6.4
6	10	11	10	*10	8.3	9.5	22	33	18	8.5	8.5	6.4
7	10	11	10	9.9	8.6	9.5	24	32	18	8.9	8.1	6.4
8	10	11	*11	9.2	9.0	9.2	23	31	18	*8.7	8.1	6.4
9	10	11	11	9.2	8.6	9.5	22	32	16	7.9	8.5	6.3
10	11	5.1	11		8.6	8.8	21	33	*16	7.9	7.9	6.4
11	12	*5.5	11	9.4	9.6	*8.6	20	35	16	7.7	7.9	6.8
12	12	7.6	11	9.4	10	8.9	19	36	15	7.5	7.3	7.2
13	10	8.6	11	9.6	9.0	8.9	*19	*40	15	7.5	7.3	7.3
14	10	8.8	9.9	9.4	8.8	8.9	19	43	15	7.3	7.0	7.5
15	10	10	9.9	9.2	9.8	8.6	19	45	15	7.2	7.0	7.2
16	11	9.0	10	8.9	9.6	8.2	19	43	16	7.0	7.2	7.2
17	11	8.6	10	8.9	11	9.5	19	42	15	7.0	6.8	*7.0
18	11	8.1	10	8.9	10	10	20	39	15	6.8	7.5	6.8
19	11	10	10	8.9	9.6	11	20	38	15	6.8	8.1	6.8
20	11	9.6	10	8.8	9.8	10	19	*36	14	6.8	7.5	7.5
21	11	9.4	9.9	8.7	9.2	10	18	34	14	6.8	7.3	6.8
22	11	9.2	10	8.8	10	11	18	32	13	6.8	6.6	6.8
23	*11	9.4	10	9.0	10	12	19	29	12	6.8	6.8	7.5
24	11	9.5	10	9.0	10	13	21	28	12	7.2	7.2	7.5
25	11	9.3	10	8.9	9.4	12	23	29	11	7.2	*7.0	7.2
26	11	9.4	10	8.8	9.9	13	27	28	12	6.8	6.8	7.0
27	11	10	10	8.3	10	14	32	27	12	6.6	6.6	6.8
28	11	8.8	10	8.5	10	15	32	26	12	6.6	6.6	7.0
29	11	9.4	9.4	7.9	-	15	33	24	11	6.6	6.4	7.0
30	11	9.9	8.8	9.1	-------	16	35	24	11	7.0	6.6	7.5
31	11	-------	10	8.8	-------	17	----	24	-------	13	6.3	----
Total	331	284.2	313.6	277.4	261.3	335.9	659	1,058	459	243.5	246.0	206.6
Mean	10.7	9.47	10.1	8.95	9.33	10.8	22.0	34.1	15.3	7.85	7.94	6.89
Ac-ft	657	564	622	550	518	666	1,310	2,100	910	483	488	410

Calendar year 1958: Max 252 Min 5.1 Mean 35.7 Ac-ft 25,800
Water year 1958-59: Max 45 Min 5.1 Mean 12.8 Ac-ft 9,280

* Discharge measurement or observation of no flow made on this day.
Note.--No gage-height record Jan. 4, 5, Feb. 14-20, Mar. 11 to Apr. 2; discharge estimated on basis of 1 discharge measurement, weather records, recorded range in stage, and records for nearby streams.

2340. Three Creeks near Beaver, Utah

Location.--Lat 38°17'40", long 112°25'40", in NW¼NW¼ sec.16, T.29 S., R.5 W., on right bank half a mile downstream from Three Creeks Dam, half a mile upstream from Merchant Creek, and 16 miles east of Beaver.

Drainage area.--19.5 sq mi.

Records available.--July 1947 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 8,550 ft (from topographic map). Prior to Aug. 24, 1947, at site 500 ft downstream at different datum. Aug. 24, 1947, to May 11, 1950, at site 700 ft upstream at different datum.

Average discharge.--12 years, 10.5 cfs (7,600 acre-ft per year).

Extremes.--Maximum discharge during year, 22 cfs May 13 (gage height, 1.95 ft); minimum recorded, 0.2 cfs May 16, when reservoir gates were closed upstream.
1947-59: Maximum discharge, 290 cfs Aug. 9, 1947 (gage height, 4.35 ft, site and datum then in use), from rating curve extended above 160 cfs on basis of slope-area measurement of peak flow; minimum daily, 0.1 cfs May 6, 9, 10, 1955, when gates of Three Creeks Dam were closed.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Flow affected by storage in Puffer Lake and in Three Creeks Reservoir (capacity, 2,020 acre-ft) completed in 1950.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.0	0.5	1.4	4.6
1.1	1.0	1.5	6.7
1.2	1.8	1.6	9.3
1.3	3.0	1.8	16

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.2	5.4		3.4	3.1		3.5	9.0	5.0	8.3	4.8	2.7
2	7.0	5.4		3.3	3.1		4.5	8.0	5.0	7.7	5.4	2.6
3	7.0	5.2	4.5	3.0			6.0	6.5	5.0	7.5	3.4	2.6
4	7.0	5.2		3.1			6.4	6.0	5.0	7.0	3.0	2.6
5	6.7	5.2	*4.2	3.4			7.2	5.4	5.0	6.5	3.3	3.0
6	6.7	5.2	4.1	3.0		3.3	7.4	5.6	5.0	5.8	3.3	2.7
7	6.7	5.6	4.1	3.3			7.2	5.4	5.0	5.4	3.3	2.6
8	*6.5	5.4	4.1	3.1			6.6	5.4	4.8	4.8	3.1	2.6
9	6.7	5.2	4.1	3.1			6.0	5.8	4.8	5.0	3.6	2.6
10	6.5	5.2	4.1	3.3			4.5	7.0	4.8	4.2	3.4	2.5
11	6.5	5.4	4.1	3.3	3.1		5.0	8.8	4.8	3.8	3.4	2.6
12	6.5	5.4	3.9	3.3			5.1	11	4.8	3.8	3.4	2.7
13	6.5	5.2	4.2	3.3			5.4	13	5.0	3.8	3.4	2.7
14	6.3	5.2		3.3			5.4	6.2	5.0	3.8	3.4	2.9
15	6.3	5.2		3.3			5.4	*.9	5.0	3.8	3.3	2.9
16	6.0			3.3			5.2	.8	5.0	3.8	3.3	2.6
17	5.8		b4.0	3.3			5.0	2.8	5.0	3.6	3.3	2.9
18	5.8			3.3			4.5	4.4	*5.0	3.6	3.3	2.7
19	5.8	b5.0		3.3			4.1	4.6	5.0	3.6	3.8	2.6
20	5.6			3.1			4.3	4.8	5.0	3.6	3.6	2.7
21	5.4		3.8	3.1		3.4	4.7	4.8	5.0	3.6	3.4	2.6
22	5.4		3.6	*3.1			*5.4	4.8	5.0	*3.8	3.3	*2.5
23	5.4		3.6	3.1			5.4	4.8	4.8	3.6	3.3	2.7
24	5.6	5.0	3.4	3.1			5.6	4.8	4.8	3.4	3.3	2.7
25	5.8		b3.4	3.1	3.3		5.8	5.0	4.8	3.6	3.3	2.6
26	5.8		b3.4	3.1	(*)		5.6	5.0	4.8	3.6	*3.1	2.6
27	5.6		3.4	3.1			5.6	4.8	7.6	3.4	3.0	2.5
28	5.6	4.5	3.4	3.1			5.8	4.8	9.3	3.3	2.9	2.5
29	5.6		3.0	3.1	-		6.7	4.8	9.0	3.1	2.9	2.6
30	5.4		3.3	3.1	-------		8.3	4.8	8.8	3.1	2.9	2.7
31	5.4	-------	3.3	3.0	-------		-------	4.8	-------	3.6	2.7	-------
Total	190.1	151.9	120.5	98.8	88.4	104.4	167.6	174.6	162.9	137.5	104.9	79.8
Mean	6.13	5.06	3.89	3.19	3.16	3.37	5.59	5.63	5.43	4.44	3.38	2.66
Ac-ft	377	301	239	196	175	207	332	346	323	273	208	158

Calendar year 1958: Max 112 Min - Mean 16.7 Ac-ft 12,080
Water year 1958-59: Max 13 Min 0.8 Mean 4.33 Ac-ft 3,140

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Nov. 22 to Dec. 4, Feb. 3 to Apr. 21; discharge estimated on basis of 1 discharge measurement, weather records, and records for stations on Beaver River.

2345. Beaver River near Beaver, Utah

Location.--Lat 38°16'40", long 112°33'30", in NW¼ sec.20, T.29 S., R.6 W., or left bank a quarter of a mile downstream from Bakers Canyon and 4½ miles east of Beaver. Prior to Mar. 21, 1959, at site 0.4 mile downstream.

Drainage area.--82 sq mi, approximately.

Records available.--June to September 1906, March 1914 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,250 ft (from topographic map). Prior to Mar. 30, 1914, staff gage and Mar. 30, 1914, to Oct. 15, 1937, water-stage recorder, at site 3,000 ft downstream at different datum. Oct. 16, 1937, to Mar. 20, 1959, at site 0.4 mile downstream at different datum.

Average discharge.--45 years (1914-59), 54.1 cfs (39,170 acre-ft per year).

Extremes.--Maximum discharge during year, 99 cfs May 14 (gage height, 1.84 ft); minimum daily, 12 cfs Aug. 31 to Sept. 13.
1914-59: Maximum discharge, 1,080 cfs July 22, 1936 (gage height, 7.27 ft, site and datum then in use), from rating curve extended above 500 cfs; minimum daily recorded, 10 cfs for several days in 1915, 1931, 1934.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. No diversions above station for irrigation. Water diverted for hydroelectric power, but returned to stream above station. Some regulation by power-plants and several small reservoirs.

Rating tables, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 20		Mar. 21 to Sept. 30	
2.0	13	0.9	12
2.1	19	1.0	16
2.3	37	1.2	27
		1.5	52
		1.7	77

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	24	21	b18	b19	19	22	57	35	23	26	12
2	24	23	21	b18	b19	21	29	54	36	22	30	12
3	26	23	21	b14	b17	20	39	40	36	23	23	12
4	26	25	22	b17	b19	19	41	37	35	23	21	12
5	25	25	*21	b18	b19	b19	47	33	35	22	16	12
6	25	25	22	b20	b19	19	49	36	36	21	16	12
7	25	25	21	b20	b17	19	47	35	37	20	16	12
8	*25	25	21	b20	b19	19	41	34	37	19	15	12
9	27	23	21	a20	b19	20	36	33	35	19	15	12
10	25	23	21	17	b19	20	27	35	34	17	15	12
11	25	25	21	21	20	b19	33	46	33	17	15	12
12	22	27	21	20	20	19	33	56	33	16	16	12
13	29	26	b20	21	b19	21	37	67	32	16	16	12
14	25	25	b18	20	b19	21	38	*70	31	16	15	14
15	24	23	b18	19	18	b19	34	*60	32	15	14	15
16	25	a22	b18	18	19	b20	33	50	33	15	14	14
17	25	a21	18	*19	21	21	30	48	30	15	14	15
18	25	a22	18	20	20	23	23	44	*28	16	14	15
19	25	a23	18	19	19	21	21	43	26	15	19	14
20	25	23	18	b18	18	*21	24	40	25	15	17	15
21	25	23	18	b19	18	21	*26	40	25	*15	15	16
22	22	22	18	b19	19	22	*24	39	26	14	14	*14
23	23	21	19	19	19	22	30	38	25	14	14	14
24	22	24	18	20	19	23	31	36	24	15	14	16
25	26	22	b19	19	b18	23	35	36	24	15	14	15
26	26	22	b19	20	*18	22	38	35	23	15	*14	15
27	25	22	b19	19	18	22	35	33	22	15	14	15
28	25	b20	b19	19	18	22	35	33	22	14	14	14
29	25	b20	b18	b19	-	22	37	33	25	14	14	14
30	23	21	b15	18	-------	21	47	33	24	14	13	13
31	22	-------	b16	b19	-------	22	-------	34	-------	14	12	-------
Total	767	695	598	587	526	642	1,022	1,308	899	524	499	404
Mean	24.7	23.2	19.3	18.9	18.8	20.7	34.1	42.2	30.0	16.9	16.1	13.5
Ac-ft	1,520	1,380	1,190	1,160	1,040	1,270	2,030	2,590	1,780	1,040	990	801

Calendar year 1958: Max 507 Min 15 Mean 70.5 Ac-ft 51,040
Water year 1958-59: Max 70 Min 12 Mean 23.2 Ac-ft 16,790

Peak discharge (base, 250 cfs).--No peak above base.

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for station at Adamsville.
b Stage-discharge relation affected by ice.

2370. Beaver River at Adamsville, Utah

Location.--Lat 38°15'05", long 112°47'25", in SE¼ sec.30, T.29 S., R.8 W., on left bank 600 ft downstream from bridge on State Highway 21, a quarter of a mile upstream from Indian Creek, and half a mile south of Adamsville.

Drainage area.--272 sq mi.

Records available.--December 1913 to September 1936, October 1937 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,500 ft (revised), from topographic map. Prior to Sept. 15, 1936, water-stage recorder and Sept. 15-30, 1936, staff gage at site 225 ft upstream at different datum. Oct. 16, 1937, to May 28, 1946, water-stage recorder at site 75 ft downstream at datum 0.50 ft higher.

Average discharge.--44 years (1914-36, 1937-59), 37.1 cfs (26,860 acre-ft per year).

Extremes.--Maximum discharge during year, 120 cfs Feb. 18 (gage height, 2.00 ft); no flow June 19 to Aug. 2, Aug. 4 to Sept. 30.
1913-36, 1937-59: Maximum discharge, 1,090 cfs July 23, 1941 (gage height, 4.68 ft, site and datum then in use), from rating curve extended above 500 cfs; no flow during summer months in many years.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. No diversions between station and Rockyford Reservoir. Several ditches above station divert practically entire flow during irrigation season to supply Adamsville and Beaver districts.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 9 to July 4)

0.3	0	0.9	9.4
.4	.1	1.0	14
.5	.4	1.2	27
.6	1.4	1.5	57
.7	3.4	1.8	94
.8	6.0		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	40	49	40	40	56	28	0.8	0.2		0	
2	23	52	50	38	40	52	20	.9	.1		0	
3	22	52	48	30	35	48	16	.8	.2		4.6	
4	22	51	48	b38	43	45	12	.7	.1		0	
5	22	51	*47	b40	46	45	12	.7	.1		0	
6	22	50	46	b45	44	44	11	.9	.1		0	
7	22	50	48	b44	41	44	9.0	.9	.1		0	
8	*21	50	46	44	42	44	9.0	1.1	.1		0	
9	21	50	47	45	39	43	9.0	1.4	.1		0	
10	20	47	48	35	41	42	7.9	.8	.1		0	
11	14	50	47	44	46	42	5.7	.6	.1		0	
12	14	62	47	46	45	43	4.9	.6	.1		0	
13	15	56	46	46	47	43	3.9	.9	.1		0	
14	16	54	45	43	46	42	3.6	.6	.1		0	
15	16	54	44	41	45	41	2.7	*.6	.1		0	
16	17	b49	46	40	49	43	1.5	.5	.1		0	
17	18	b45	44	41	75	44	.9	.4	.1		0	
18	20	b49	44	40	84	45	1.9	.4	.1		0	
19	18	b57	43	38	74	*45	2.3	.5	*0		0	
20	17	59	44	35	56	41	a2.0	.4	0		0	
21	22	59	43	*38	51	41	a1.2	.4	0	(*)	0	
22	26	58	42	40	52	39	*.9	.6	0		0	(*)
23	28	55	45	39	54	37	.9	.3	0		0	
24	31	56	44	39	56	37	.9	.3	0		0	
25	37	57	45	38	52	41	.8	.3	0		0	
26	39	55	45	39	*55	40	1.1	.6	0		*0	
27	36	52	43	40	58	42	2.3	.4	0		0	
28	35	49	43	39	59	42	1.1	.2	0		0	
29	34	48	39	40	-	42	.9	.2	0		0	
30	34	49	33	40	-------	41	.9	.2	0		0	
31	35	-------	34	40	-------	41	-------	.2	-------		0	-------
Total	741	1,566	1,383	1,245	1,415	1,335	174.3	18.2	2.0	0	4.6	0
Mean	23.9	52.2	44.6	40.2	50.5	43.1	5.81	0.59	0.07	0	0.15	0
Ac-ft	1,470	3,110	2,740	2,470	2,810	2,650	346	36	4.0	0	9.1	0

Calendar year 1958: Max 450 Min 4.0 Mean 55.4 Ac-ft 40,100
Water year 1958-59: Max 84 Min 0 Mean 21.6 Ac-ft 15,650

* Discharge measurement or observation of no flow made on this day.
a No gage-height record; discharge estimated on basis of trend of flow.
b Stage-discharge relation affected by ice.

2385. Rockyford Reservoir near Minersville, Utah

Location.--Lat 38°14', long 112°50', in NE¼ sec.11, T.30 S., R.9 W., at Rockyford Dam on Beaver River, 5 miles east of Minersville.

Drainage area.--510 sq mi, approximately.

Records available.--October 1937 to September 1959.

Gage.--Staff gage.

Extremes.--Maximum contents observed during year, 15,530 acre-ft Mar. 26 (gage height, 43.0 ft); minimum contents observed, 868 acre-ft Sept. 12, 17, 19, 26, 30 (gage height, 11.5 ft).
1937-59: Maximum contents observed, 23,810 acre-ft Apr. 22, 25, 28, 30, May 1, 1945; no contents Oct. 16, 31, 1939, and part of August to November 1956.

Remarks.--Reservoir is formed by earth-fill dam completed in 1914. Capacity, 23,260 acre-ft between gage height 0.0 (bottom of outlet tunnel) and 51.0 ft (spillway crest). Prior to fall of 1937 the spillway crest was at elevation 52.5 ft; capacity, 24,910 acre-ft. Dead storage negligible. Figures given herein represent total contents. Water is used for irrigation in vicinity of Minersville and Milford.

Capacity table, water year 1958-59 (gage height, in feet, and contents, in acre-feet)

10	622	30	6,720
15	1,520	35	9,590
20	2,810	40	13,110
25	4,500	45	17,280

Contents, in acre-feet, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	5,750	-	10,400	-	-	-	-	10,470	-	-	-
2	-	5,840	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	8,640	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	14,720	-	-	-	-	-	-
8	4,580	-	-	-	-	-	-	-	-	-	3,830	-
9	-	6,390	-	-	-	-	-	-	-	-	-	-
10	-	-	-	11,080	12,950	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	868
13	-	-	9,390	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	12,870	-	-	-	-
16	-	-	-	-	13,270	-	-	-	-	-	-	-
17	-	-	-	11,490	-	-	-	-	-	-	-	869
18	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	8,250	-	-	868
20	-	-	9,930	-	-	-	-	-	-	-	2,940	-
21	-	-	-	11,760	-	-	15,290	-	-	4,920	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-
23	-	7,710	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	11,960	14,160	-	-	-	-	-	-	-
26	-	-	-	-	-	15,530	-	-	-	-	2,340	868
27	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	a14,330	-	-	-	-	-	2,050	-
29	-	-	-	-	-	-	-	-	-	-	-	-
30	-	a8,250	-	-	-------	-	a14,380	-	7,320	-	-	868
31	a5,700	-------	a10,360	12,380	-------	a15,480	-------	a10,610	-------	a4,310	a1,810	-------
(†)	-	-	-	39.1	-	-	-	-	31.1	-	-	11.5
(‡)	+1,160	+2,550	+2,110	+2,020	+1,950	+1,150	-1,100	-3,770	-3,290	-3,010	-2,500	-942

Calendar year 1958..... ‡ -4,510
Water year 1958-59..... ‡ -3,670

† Gage height, in feet, at end of month.
‡ Change in contents, in acre-feet.
a No gage-height record; contents interpolated.

2390. Beaver River at Rockyford Dam, near Minersville, Utah

Location.--Lat 38°14', long 112°50', in NW¼ sec.11, T.30 S., R.9 W., on right bank half a mile downstream from Rockyford Dam and 4¾ miles east of Minersville.

Drainage area.--512 sq mi.

Records available.--December 1913 to September 1959.

Gage.--Water-stage recorder. Concrete control since Nov. 12, 1916. Altitude of gage is 5,400 ft (by barometer). Prior to June 1, 1916, at site 1,500 ft upstream at different datum.

Average discharge.--44 years (1914-36, 1937-59), 39.1 cfs (28,310 acre-ft per year).

Extremes.--Maximum daily discharge during year, 152 cfs July 2; minimum daily, 4.4 cfs Oct. 15, Sept. 19, 21-30.
1913-59: Maximum discharge, 727 cfs June 10, 1921 (gage height, 3.53 ft); minimum daily, 0.4 cfs Mar. 20, 1914.

Remarks.--Records good. One small diversion between dam and station. Flow regulated by Rockyford Reservoir (see preceding page). Numerous diversions above reservoir for irrigation and municipal use.

Revisions (water years).--WSP 1564: 1920, 1924.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	5.5	5.9	5.9	8.1	8.1	9.3	38	57	148	30	57
2	36	5.9	5.9	5.9	8.7	8.7	9.3	39	57	152	32	44
3	29	5.9	5.5	5.9	8.7	8.7	9.3	41	56	134	36	43
4	25	6.3	5.5	5.9	8.1	8.7	9.9	41	54	113	37	43
5	25	6.3	*5.5	5.9	8.1	8.7	9.3	39	57	109	36	36
6	25	6.3	5.5	5.9	8.1	8.7	9.9	76	57	126	36	25
7	19	6.9	5.5	5.9	8.7	8.7	9.9	95	58	140	35	26
8	*13	6.9	5.5	5.9	8.7	8.7	9.9	100	66	144	35	26
9	5.2	6.9	5.5	5.9	9.3	8.7	9.9	109	64	134	35	26
10	5.2	6.9	5.5	5.5	8.7	8.7	9.9	114	66	120	39	25
11	4.8	7.5	5.5	5.5	8.7	8.7	10	114	68	111	47	24
12	4.8	8.1	5.5	5.5	8.7	8.7	10	114	68	100	50	18
13	4.8	8.1	5.9	5.9	8.1	8.7	10	114	68	88	47	16
14	4.8	7.5	5.9	6.3	6.9	8.7	10	114	66	82	43	16
15	4.4	7.5	6.3	6.3	6.9	8.7	10	*113	63	77	42	10
16	4.8	7.5	6.3	6.3	6.9	8.7	9.9	105	62	75	42	9.3
17	4.8	6.9	6.3	6.3	7.5	8.7	10	105	60	72	47	5.9
18	4.8	6.9	6.3	6.3	8.1	9.3	10	96	60	70	49	4.8
19	4.8	6.3	6.3	6.3	8.1	*9.3	9.9	91	*57	69	49	*4.4
20	4.8	6.3	6.9	6.3	8.1	9.3	9.9	90	53	70	49	4.8
21	4.8	6.9	6.9	*6.3	8.1	9.3	*9.3	82	51	*70	53	4.4
22	4.8	6.9	6.9	6.3	8.7	9.9	8.7	75	54	64	64	4.4
23	5.2	6.9	6.9	6.3	8.7	9.9	8.7	75	63	62	68	4.4
24	5.5	6.9	6.9	6.9	8.7	9.9	8.7	70	69	60	69	4.4
25	5.9	6.9	6.3	6.9	8.7	9.3	8.7	69	72	47	70	4.4
26	5.9	6.9	6.3	6.9	*8.7	9.3	9.3	66	86	44	*68	4.4
27	5.9	6.9	5.9	6.9	8.1	9.3	28	63	100	38	68	4.4
28	5.9	6.9	5.9	6.9	8.1	9.3	35	62	118	38	66	4.4
29	5.9	6.3	6.3	7.5	-	9.3	37	60	136	35	66	4.4
30	5.5	5.9	5.9	7.5	-------	9.3	36	58	142	33	66	4.4
31	5.5	-------	5.9	8.1	-------	9.3	-------	58	-------	32	66	-------
Total	326.8	203.8	187.1	196.1	231.0	279.3	385.7	2,486	2,108	2,657	1,540	508.2
Mean	10.5	6.79	6.04	6.33	8.25	9.01	12.9	80.2	70.3	85.7	49.7	16.9
Ac-ft	648	404	371	389	458	554	765	4,930	4,180	5,270	3,050	1,010

Calendar year 1958: Max 212 Min 4.4 Mean 64.5 Ac-ft 46,700
Water year 1958-59: Max 152 Min 4.4 Mean 30.4 Ac-ft 22,030

* Discharge measurement made on this day.

2418. Ashdown Creek near Cedar City, Utah

Note.--Records for the 1959 water year have been withheld pending better definition of the stage-discharge relation. They will be published in a subsequent anrual report.

2420. Coal Creek near Cedar City, Utah

Note.--Records for the 1959 water year have been withheld pending better definition of the stage-discharge relation. They will be published in a subsequent anrual report.

ESCALANTE VALLEY

9-4085. Santa Clara-Pinto diversion near Pinto, Utah

Location.--Lat 37°28'00", long 113°28'30", in SW¼ sec.19, T.38 S., R.14 W., on left bank 400 ft downstream from diversion tunnel outlet and 6 miles southeast of Pinto.

Records available.--October 1953 to September 1959 (records of monthly diversion only). Records of daily flow collected by Geological Survey available in Salt Lake City district office.

Gage.--Water-stage recorder and artificial rock-masonry control. Altitude of gage is 6,860 ft (by barometer).

Extremes.--Maximum discharge during year, 3.3 cfs Mar. 13 (gage height, 0.9[illegible] ft); no flow for most of year.
1953-59: Maximum discharge, 72 cfs May 26, 1958; no flow for most of each year.

Remarks.--Records good. This is a transmountain diversion from a tributary of Santa Clara River in Colorado River basin to Pinto Creek in Escalante Valley in The Great Basin.

Monthly diversion, in acre-feet, water year October 1958 to September 1959

Month	Diversion	Month	Diversion
October	0	May	0
November	0	June	0
December	0	July	0
January	0	August	0
February	0	September	0
March	3.5	Water year	39.5
April	36		

2540.05. Salton Sea near Westmoreland, Calif.

Location.--Lat 33°11'37", long 115°49'54", in NE¼SE¼SW¼ sec.21, T.11 S., R.11 E., at outer end of third mooring pier from western shore at Sandy Beach, 15.5 miles northwest of Westmoreland.

Drainage area.--8,360 sq mi, approximately.

Records available.--November 1904 to September 1959. Records prior to 1932 are published in WSP 735.

Gage.--Water-stage recorder. Datum of gage is 250.00 ft below mean sea level, datum of 1929, adjustment of 1934; gage readings have been reduced to elevations below mean sea level. Prior to January 1925 staff gages at various sites along eastern shore, but all elevations have been converted to datum of 1901. From January 1925 to Oct. 22, 1951, staff gages and reference marks at site on western shore, 22 miles northwest at datum 0.91 ft lower.

Extremes.--Maximum elevation during year, 234.6 ft below mean sea level Apr. 27-29; minimum, 235.7 ft below mean sea level Sept. 30.
1904-59: Maximum elevation, 195.0 ft below mean sea level (former site and datum) in February and March 1907; minimum since 1906, 250.7 ft below mean sea level (former site and datum) in November 1924.

Remarks.--Records excellent. Bottom of sea is 273.5 ft below mean sea level (determined in 1904-5). See WSP 300, 735, and 918 for condensed history of Salton Sea. Area and capacity tables as computed from survey of 1956 above elevation 240 ft below mean sea level and tied in to former survey for portion below this elevation are given in WSP 1864.

Month-end elevations, in feet, below mean sea level, water year October 1958 to September 1959

Date	Elevation (feet)
Sept.30	235.6
Oct. 31	235.6
Nov. 30	235.6
Dec. 31	235.4
Jan. 31	235.2
Feb. 28	235.0
Mar. 31	234.8
Apr. 30	234.7
May 31	234.8
June 30	235.0
July 31	235.1
Aug. 31	235.4
Sept.30	235.7

2557. San Felipe Creek near Julian, Calif.

Location.--Lat 33°07'07", long 116°26'04", in NW¼NE¼ sec.23, T.12 S., R.5 E., on left bank at bridge on State Highway 78 in Sentenac Canyon, 0.9 mile upstream from Grapevine Canyon and 10 miles northeast of Julian.

Records available.--August 1958 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 1,872.69 ft above mean sea level (datum of 1929).

Extremes.--Maximum discharge during period, 7.1 cfs Feb. 16, 1959 (gage height, 1.68 ft), from rating curve extended above 0.9 cfs on basis of velocity-area study; no flow for many days.
1958-59: Maximum discharge, that of Feb. 16, 1959; no flow for many days each year.

Remarks.--Records good below 1 cfs and poor above.

Rating table, Aug. 1, 1958, to Sept. 30, 1959 (gage height, in feet, and discharge, in cubic feet per second)

1.1	0	1.4	1.3
1.2	.2	1.5	2.6
1.3	.6	1.6	4.8

Discharge, in cubic feet per second, 1958

Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.	Day	Aug.	Sept.
1	0	0	7	0	0	13	0	0	19	0	0	25	*0	0
2	0	0	8	0	0	14	0	0	20	0	0	26	0	0
3	0	0	9	0	*0	15	0	0	21	0	0	27	0	0
4	0	0	10	0	0	16	0	0	22	0	0	28	0	.1
5	0	0	11	0	0	17	0	0	23	0	*0	29	.1	.1
6	0	0	12	0	0	18	*0	0	24	0	0	30	0	0
												31	0	
Total													0.1	0.2
Mean													0.003	0.007
Runoff in acre-feet													0.2	0.4

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0.3	0.5	0.6	0.7	0.7	0.6	0.2	0.1		0.8	
2	.1	.3	.5	.7	.8	*.7	.6	.3	.1		.1	
3	.1	.2	.6	.7	.7	.7	.5	.3	.1		*0	
4	.1	.2	.6	.7	.7	.6	.5	.3	.1		0	
5	.1	.2	.5	*.7	*.7	.6	.5	.3	.1		0	
6	.1	.3	.5	.9	.7	.7	.5	.3	.1		0	
7	*.1	.3	.5	.8	.7	.7	.6	.2	.1		0	
8	.1	.2	.6	.9	1.0	.7	.6	.2	0	(*)	0	(*)
9	.1	.2	.6	.8	2.3	.7	.5	.2	.1		0	
10	.1	.2	.5	.8	.9	.6	.5	.2	.1		*0	
11	.1	.3	.6	.8	1.1	.6	.5	.2	*0		0	
12	.1	*.3	.6	.7	1.7	.6	.4	*.2	0		0	
13	.1	.3	.6	.7	1.0	.7	.4	.2	0		0	
14	.1	.3	.6	.7	.9	.7	.4	.2	0		0	
15	.1	.4	*.6	.7	.8	.6	.3	.2	0		0	
16	.1	1.1	.6	.7	*3.4	.6	*.4	.2	0		0	
17	.1	.6	.6	.7	1.2	.7	.4	.2	0		0	
18	.1	.5	.6	.7	*.8	.7	.5	.2	0		0	
19	.1	.5	.6	.7	.8	*.6	.5	.2	0		0	
20	*.1	.5	.6	.7	.7	.6	.5	.2	0		0	
21	.1	.5	.6	.7	.9	.7	.4	.2	0		0	(*)
22	.1	.5	.7	*.7	1.5	.7	.4	.2	0		0	
23	.2	.5	.7	.7	.9	.7	.4	.2	0		0	
24	.2	.5	.7	.7	.8	.7	.3	.2	0		0	
25	.2	.5	.7	.7	.9	.7	.4	.2	0		*0	
26	.2	*.5	.7	.7	.7	.6	.4	.2	0		0	
27	.2	.5	.7	.7	.7	.6	.3	*.2	0	(*)	0	
28	.2	.5	.7	.7	.7	.6	.3	.2	0		0	
29	*.2	.5	.6	.7	-	.6	*.3	.1	*0		0	
30	.2	.5	.6	.7	-------	*.6	.2	.1	0		0	
31	.3	-------	.6	.7	-------	.6	-------	.1	-------		0	-------
Total	4.1	12.2	18.7	22.3	28.5	20.2	13.1	6.4	0.9	0	0.9	0
Mean	0.13	0.41	0.60	0.72	1.02	0.65	0.44	0.21	0.03	0	0.03	0
Ac-ft	8.1	24	37	44	57	40	26	13	1.8	0	1.8	0

Calendar year 1958: Max - Min - Mean - Ac-ft -
Water year 1958-59: Max 3.4 Min 0 Mean 0.35 Ac-ft 253

* Discharge measurement or observation of no flow made on this day.

2558 (revised). Coyote Creek near Borrego Springs, Calif.

Location.--Lat 33°22'30", long 116°25'25", in SE¼ sec.23, T.9 S., R.5 E., on right bank 500 ft upstream from Box Canyon and 9 miles northwest of Borrego Springs.

Drainage area.--144 sq mi.

Records available.--November 1950 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 1,250 ft (from topographic map).

Average discharge.--9 years, 2.52 cfs (1,820 acre-ft per year).

Extremes.--Maximum discharge during year, 460 cfs July 1 (gage height, 8.90 ft), from rating curve extended above 3 cfs on basis of slope-area measurement at gage height 7.52 ft; minimum daily, 1.1 cfs Aug. 19, 20.
1950-59: Maximum discharge, 3,800 cfs July 28, 1951 (gage height, 14.14 ft, from floodmark), from rating curve extended above 4 cfs on basis of slope-area measurement of peak flow; minimum daily, that of Aug. 19, 20, 1959.

Remarks.--Records good except those above 3 cfs and those for periods of no gage-height record, which are poor. Discharge measurements generally made twice a month.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.0	1.9	2.3	2.5	2.5	2.3	2.3	1.8	1.6	24	2.1	1.6
2	2.0	1.9	2.3	2.5	2.5	2.3	2.3	1.9	1.6	a3	2.2	1.6
3	2.1	2.0	2.3	2.6	2.5	2.3	2.3	1.9	1.6	a3	2.0	1.6
4	2.1	2.0	2.3	2.7	2.5	2.3	2.3	1.9	1.6	a2.5	2.2	1.6
5	2.0	2.0	2.3	2.7	2.5	2.3	2.2	1.9	1.6	a2.5	2.1	1.6
6	1.9	2.0	2.3	2.8	2.6	2.3	2.2	1.9	1.6	a2.5	2.1	1.6
7	2.0	2.0	2.3	2.7	2.4	2.3	2.2	1.9	1.6	a2	13	1.6
8	2.0	2.1	2.3	2.6	2.4	2.3	2.2	1.8	1.6	2.2	a2.5	1.6
9	2.0	2.1	2.2	2.5	2.4	2.3	2.1	1.9	1.6	2.2	a2	1.6
10	2.0	2.1	2.2	2.5	2.5	2.2	2.1	1.9	1.6	2.3	a2	1.5
11	2.0	2.1	2.2	2.5	2.6	2.2	2.1	1.9	1.6	2.0	2.0	1.5
12	2.0	2.1	2.2	2.4	2.5	2.2	2.1	1.7	1.6	1.6	2.0	1.9
13	2.0	2.1	2.2	2.4	2.5	2.2	2.1	1.6	1.6	1.5	2.0	3.0
14	2.0	2.1	2.2	2.4	2.5	2.3	2.1	1.6	1.6	1.6	1.8	a2
15	2.0	2.1	2.2	2.3	2.5	2.3	2.0	1.7	1.6	1.5	1.4	a2
16	2.0	2.1	2.2	2.3	2.8	2.3	1.9	1.6	1.6	1.5	1.4	a2
17	2.0	2.2	2.2	2.3	2.3	2.3	2.0	1.7	1.6	1.6	1.4	a1.5
18	2.0	2.2	2.2	2.3	2.3	2.3	1.9	1.7	1.6	1.6	1.3	a1.5
19	2.0	2.2	2.2	2.3	2.4	2.3	1.9	1.7	1.6	1.6	1.1	a1.5
20	2.0	2.3	2.2	2.3	2.4	2.3	1.9	1.7	1.6	1.6	1.1	a1.5
21	a2	2.2	2.2	2.3	2.4	2.3	1.9	1.7	1.5	1.6	1.2	1.6
22	a2	2.3	2.2	2.3	2.4	2.3	1.9	1.7	1.5	1.6	1.4	1.7
23	a2	2.3	2.3	2.4	2.4	2.3	1.8	1.7	1.5	1.6	1.6	1.7
24	a2	2.3	2.3	2.4	2.4	2.3	1.9	1.7	1.5	2.0	1.6	1.7
25	a2	2.3	2.4	2.4	2.4	2.2	1.8	1.7	1.5	1.9	1.6	1.7
26	a2	2.3	2.4	2.4	2.3	2.2	1.7	1.7	1.6	1.9	1.6	1.7
27	a2	2.3	2.4	2.4	2.3	2.2	1.7	1.7	1.6	1.9	1.6	1.7
28	a2	2.2	2.4	2.4	2.3	2.2	1.6	1.6	1.6	1.9	1.6	1.6
29	1.9	2.3	2.5	2.4	-	2.2	1.6	1.6	1.6	2.1	1.6	1.6
30	1.9	2.3	2.5	2.4	-------	2.2	1.6	1.6	2.6	2.3	1.6	1.6
31	1.9	-------	2.5	2.4	-------	2.3	-------	1.6	-------	2.4	1.6	-------
Total	61.8	64.4	70.9	75.8	68.5	70.3	59.7	54.0	48.5	83.5	64.7	50.9
Mean	1.99	2.15	2.29	2.45	2.45	2.27	1.99	1.74	1.62	2.69	2.09	1.70
Ac-ft	123	128	141	150	136	139	118	107	96	166	128	101

Calendar year 1958: Max 86 Min - Mean 2.58 Ac-ft 1,860
Water year 1958-59: Max 24 Min 1.1 Mean 2.12 Ac-ft 1,530

Peak discharge (base, 50 cfs).--July 1 (5:30 p.m.) 460 cfs (8.90 ft); Aug. 7 (4:30 p.m.) 176 cfs (7.52 ft).

a No gage-height record; discharge estimated on basis of 5 discharge measurements, recorded range in stage, or interpolated.

2558.1 (revised). Palm Canyon Creek near Borrego Springs, Calif.

Location.--Lat 33°16'40", long 116°25'50", in NW¼ sec.26, T.10 S., R.5 E., on left bank 3.5 miles northwest of Borrego Springs.

Drainage area.--21.7 sq mi.

Records available.--December 1950 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 1,200 ft (from topographic map).

Average discharge.--9 years, 0.52 cfs (376 acre-ft per year).

Extremes.--Maximum discharge during year, 93 cfs July 23 (gage height, 4.44 ft, from floodmarks); no flow for several months.
1950-59: Maximum gage height, 9.9 ft, from floodmarks, Aug. 23, 1955 (discharge not determined); no flow for several months in each year.

Remarks.--Records good except those for July 23, which are poor. Discharge measurements generally made twice a month.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0	0.3	0.3	0.5	0.2	0.1		0		
2			0	.3	.3	.5	.2	.1		0		
3			0	.3	.3	.5	.2	.1		0		
4			0	.3	.3	.5	.2	.1		0		
5			0	.3	.3	.5	.2	.1		0		
6			0	.6	.3	.5	.2	0		0		
7			0	.4	.3	.5	.3	0		0		
8			0	.3	.8	.5	.3	0		0		
9			0	.3	.9	.5	.3	0		0		
10			0	.3	.7	.5	.2	0		0		
11			0	.3	1.1	.5	.2	0		0		
12			0	.3	2.0	.5	.1	0		0		
13			0	.3	1.2	.5	.1	0		0		
14			0	.3	.9	.5	.1	0		0		
15			0	.3	.7	.5	.1	0		0		
16			0	.3	2.1	.5	.1	0		0		
17			0	.3	3.9	.5	.1	0		0		
18			.1	.3	1.8	.5	.1	0		0		
19			.2	.3	1.4	.6	.1	0		0		
20			.3	.3	1.2	.6	.1	0		0		
21			.3	.3	1.3	.6	.1	0		0		
22			.3	.3	1.3	.6	.1	0		0		
23			.4	.3	1.2	.6	0	0		2.1		
24			.4	.3	1.0	.6	0	0		0		
25			.5	.3	.9	.5	0	0		0		
26			.5	.3	.7	.4	0	0		0		
27			.5	.3	.7	.3	0	0		0		
28			.5	.3	.6	.2	.1	0		0		
29			.5	.3	-	.2	0	0		0		
30			.3	.3	-------	.2	.1	0		0		
31		-------	.3	.3	-------	.2	-------	0	-------	0		-------
Total	0	0	5.1	9.7	28.5	14.6	3.8	0.5	0	2.1	0	0
Mean	0	0	0.16	0.31	1.02	0.47	0.13	0.02	0	0.07	0	0
Ac-ft	0	0	10	19	57	29	7.5	1.0	0	4.2	0	0

Calendar year 1958: Max 48 Min 0 Mean 0.99 Ac-ft 718
Water year 1958-59: Max 3.9 Min 0 Mean 0.18 Ac-ft 128

Peak discharge (base, 15 cfs).--July 23 (6 p.m.) 93 cfs (4.44 ft).

2560. Whitewater River at White Water, Calif.

Location.--Lat 33°56'48", long 116°38'24", in NW¼NW¼NE¼ sec.2, T.3 S., R.3 E., on right bank 1.5 miles north of White Water and 3½ miles upstream from San Gorgonio River.
Drainage area.--57.4 sq mi.
Records available.--October 1946 to September 1959.
Gage.--Water-stage recorder. Datum of gage is 1,610.98 ft above mean sea level, adjustment of 1,434. Supplementary water-stage recorder and sharp-crested weir on diversion channel 400 ft west and 500 ft downstream from base gage. Feb. 24, 1950, to Sept. 30, 1958, supplementary gage used as base gage.
Average discharge.--11 years, 11.3 cfs (8,180 acre-ft per year); average combined discharge of river and infiltration line, 10 years (1949-59), 12.9 cfs (9,340 acre-ft per year); median of combined yearly mean discharges, 11 cfs (8,000 acre-ft per year).
Extremes.--Maximum discharge during year, 1,300 cfs Feb. 16 (gage height, 7.20 ft), from rating curve extended above 680 cfs by logarithmic plotting; minimum daily, 5 cfs Feb. 26 to Mar. 2, May 11.
1948-59: Maximum discharge, about 1,500 cfs Apr. 3, 1958 (gage height, 6.35 ft), from rating curve extended above 680 cfs by logarithmic plotting; no flow Jan. 9, 11, 1957.
Maximum discharge known, 42,000 cfs Mar. 2, 1938, from slope-area measurement of peak flow, at site 2.5 miles upstream (drainage area, 51.4 sq mi).
Remarks.--Records good prior to Feb. 15 and poor thereafter. Discharge measurements generally made three times a month. Records of daily discharge include water pumped from open pumps in ground-water seepage area surrounding station. The monthly runoff is adjusted for flow from infiltration line that bypasses station. Water is diverted out of basin about 15 miles upstream to powerplants in San Gorgonio River basin and thence to an area north of Banning for irrigation. One small diversion for domestic use and one for irrigation are made 2 to 3 miles upstream.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	27	26	20	22	e5	8.0	9.0	e9	11	14	9.0
2	26	27	26	20	22	e5	8.5	9.0	e9	11	36	8.7
3	26	27	26	20	22	5.6	8.5	9.0	e9	11	7.9	8.7
4	26	26	25	20	22	5.8	9.0	7.5	e9	6.6	7.9	10
5	27	26	25	20	21	e6	9.0	e7	e9	6.6	9.5	8.1
6	27	26	25	41	21	e6	9.5	6.3	e9	10	9.0	8.7
7	27	26	25	28	22	e7	9.0	5.6	e9	10	8.4	9.8
8	27	26	25	25	27	e8	9.0	7.5	e9	9.5	7.6	10
9	27	26	25	24	24	e9	9.0	e7	e9	10	6.1	10
10	27	26	24	23	23	e10	9.0	e6	9.3	10	7.6	9.5
11	26	28	23	23	42	e10	9.5	e5	e8	6.1	8.1	9.8
12	28	28	23	22	31	e9	9.5	5.6	9.5	7.0	8.4	9.0
13	26	28	23	22	25	e9	9.5	5.3	7.6	8.4	8.1	48
14	25	28	22	22	24	e9	9.5	7.5	8.0	9.2	11	5.6
15	24	29	22	22	24	e8	9.5	9.0	12	8.4	7.1	5.6
16	25	29	21	21	330	e8	9.5	6.1	12	8.1	6.8	11
17	25	28	21	20	a30	e7	9.5	5.1	13	8.1	9.0	8.0
18	24	28	21	20	7.0	e7	9.5	7.1	13	6.6	9.5	8.1
19	24	27	20	20	e7	7.3	9.5	7.3	12	6.3	11	5.6
20	24	27	19	21	e7	7.3	9.5	7.6	8.0	8.4	9.5	a5.5
21	24	27	20	21	e7	6.6	9.0	8.0	8.0	9.5	9.5	8.1
22	25	27	20	23	e7	7.0	8.0	9.0	14	8.4	6.3	7.6
23	26	27	20	21	e6	7.0	7.0	e8	12	9.0	6.3	6.8
24	28	27	20	21	e6	7.5	8.5	e8.5	11	8.7	9.5	6.1
25	28	27	21	20	e6	8.0	9.5	e8.5	11	6.8	9.5	7.6
26	27	26	21	20	e6	8.0	10	e8.5	12	6.3	7.6	6.1
27	26	26	21	20	e8	8.0	8.5	e8.5	11	8.4	7.6	6.1
28	26	26	21	20	e5	8.5	7.5	e8.5	9.5	9.0	8.1	7.6
29	26	28	21	20	-	8.0	8.0	e8.5	12	9.0	7.9	8.1
30	27	26	21	20	----	9.0	7.0	e8.5	11	9.0	6.6	8.7
31	27	- - -	20	21	- --	9.0	-------	e8.5	-------	8.0	9.0	-------
Total	805	808	693	680	802.0	235.6	266.5	232.5	304.9	264.4	290.4	281.5
Mean	26.0	26.9	22.4	21.9	28.6	7.60	8.88	7.50	10.2	8.53	9.37	9.38
Ac-ft	1,600	1,600	1,370	1,350	1,590	467	529	461	605	524	576	558
(†)	81	76	81	82	63	65	76	66	69	74	54	52

Adjusted for infiltration only

Ac-ft	1,680	1,680	1,450	1,430	1,650	532	605	527	674	598	630	610
(‡)	225	199	191	177	156	173	165	144	105	102	95	90

Observed

Calendar year 1958: Max 212 Min 0.9 Mean 33.3 Ac-ft 24,110
Water year 1958-59: Max 330 Min 5 Mean 15.5 Ac-ft 11,230

Adjusted

Calendar year 1958: Mean 34.6 Cfsm In. Ac-ft 25,060
Water year 1958-59: Mean 16.7 Cfsm In. Ac-ft 12,070

Peak discharge (base, 100 cfs).--Feb. 11 (11 a.m.) 132 cfs (6.60 ft); Feb. 16 (6:30 p.m.) 1,300 cfs (7.20 ft); Aug. 2 (2 a.m.) 101 cfs (6.13 ft); Sept. 13 (4:30 a.m.) 170 cfs (6.02 ft).

† Runoff, in acre-feet, from infiltration line bypassing station; furnished by Whitewater Mutual Water Co.
‡ Runoff, in acre-feet, diverted from basin 15 miles upstream; furnished by California Electric Power Co.
a No gage-height record; discharge estimated on basis of 9 discharge measurements, engineers' notes, weather records, and probable recession curves.
e Stage-discharge relation indefinite, estimated same as footnote "a" above.

2580. Tahquitz Creek near Palm Springs, Calif.

Location (revised).--Lat 33°48'18", long 116°33'30", in NE¼SW¼SW¼ sec.22, T.4 S., R.4 E., on left bank 2.2 miles southwest of Palm Springs and 7 miles upstream from mouth.

Drainage area.--16.7 sq mi.

Records available.--October 1947 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 764.5 ft above mean sea level (levels by Riverside County Flood Control and Water Conservation District).

Average discharge.--12 years, 3.00 cfs (2,170 acre-ft per year); median of yearly mean discharges, 1.7 cfs (1,200 acre-ft per year).

Extremes.--Maximum discharge during year, 107 cfs Feb. 16 (gage height, 3.38 ft); no flow June 9 to Sept. 30.

1947-59: Maximum discharge, 1,570 cfs Aug. 31, 1954 (gage height, 8.45 ft in gage well, 10.0 ft outside, from floodmarks), from rating curve extended above 60 cfs on basis of slope-area measurement of peak flow; no flow for parts of each year.

Remarks.--Records good.

Revisions (water years).--WSP 1244: 1948, 1951.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.5	0	1.5	8.9
.6	.2	1.7	13
.7	.5	1.9	17
.8	1.0	2.1	23
1.0	2.4	2.3	30
1.2	4.5	2.5	40

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	0.8	0.8	0.7	0.8	3.4	2.6	1.0	0.1			
2	.5	.8	.7	.7	*.9	3.8	2.6	1.0	.1			
3	.5	.7	.7	.7	.9	*3.8	2.7	.9	.1			
4	.4	.7	.7	.7	.9	4.2	2.6	.8	.1			
5	.5	.7	.7	.7	1.0	4.1	2.6	.8	.1			
6	.6	.6	.7	1.4	.9	4.1	2.6	.7	.1			
7	.6	.6	.7	*1.1	.9	4.1	2.6	.7	.1			
8	.5	.6	*.7	1.0	1.2	4.1	2.4	.6	.1			
9	.5	.6	.7	.9	1.3	4.1	2.3	.6	0			
10	.4	.6	.7	.9	1.1	4.1	2.2	.6	*0			
11	.4	.7	.7	.9	1.8	4.1	2.1	.5	0			
12	.4	.9	.7	.9	2.0	3.9	1.9	.5	0			
13	.4	1.0	.7	.9	1.4	3.9	1.9	*.4	0		(*)	
14	*.4	1.0	.7	.9	1.3	3.9	1.8	.4	0			
15	.4	.8	.7	.8	1.2	4.1	*1.8	.4	0			
16	.4	1.0	.7	.8	*27	3.7	1.8	.4	0			
17	.4	1.0	.6	.8	36	3.4	1.8	.3	0			
18	.4	1.0	.6	.8	12	3.4	1.7	.3	0			
19	.4	1.0	.6	.9	8.2	3.4	1.6	.3	0			
20	.4	1.0	.6	.9	6.3	3.4	1.5	.2	0			
21	.4	1.0	.6	1.0	5.5	3.3	1.5	.2	0			(*)
22	.4	1.0	.6	1.0	4.3	3.3	1.4	.2	0			
23	.4	1.0	.7	1.0	4.1	3.2	1.4	.2	0			
24	.6	.9	.7	.9	3.7	*3.1	1.3	.2	0			
25	.9	.9	.7	.9	3.4	3.0	1.3	.2	0			
26	1.0	.9	.7	.8	3.3	3.0	1.5	.2	0			
27	.9	.9	.7	.8	3.3	3.0	1.5	.2	0			
28	.8	.8	.7	.8	3.3	3.0	1.2	.2	0			
29	.7	.8	.7	.8	-	3.0	1.2	.1	*0			
30	.7	.8	.7	.8	-------	2.9	1.1	.1	0	(*)		
31	.8	-------	.6	.8	-------	2.8	-------	.1	-------			-------
Total	16.7	25.1	21.1	27.0	138.0	110.6	56.5	13.3	0.8	0	0	0
Mean	0.54	0.84	0.68	0.87	4.93	3.57	1.88	0.43	0.03	0	0	0
Ac-ft	33	50	42	54	274	219	112	26	1.6	0	0	0

Calendar year 1958: Max 74 Min 0.4 Mean 11.4 Ac-ft 8,230
Water year 1958-59: Max 36 Min 0 Mean 1.12 Ac-ft 812

Peak discharge (base, 20 cfs).--Feb. 16 (12 p.m.) 107 cfs (3.38 ft).

* Discharge measurement or observation of no flow made on this day.

Note.--No gage-height record Apr. 30 to May 12, June 11-28; discharge estimated on basis of probable recession curves, recorded range in stage, weather records, or interpolated.

2585. Palm Canyon Creek near Palm Springs, Calif.

Location.--Lat 33°44'55", long 116°32'15", in S½ sec.11, T.5 S., R.4 E., on right bank three-quarters of a mile upstream from Murray Canyon Creek and 6 miles south of Palm Springs.

Drainage area.--94.0 sq mi.

Records available.--January 1930 to January 1942, October 1947 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 700 ft (from topographic map). Prior to Jan. 14, 1942, at datum 0.2 ft higher.

Average discharge.--23 years (1930-41, 1947-59), 4.73 cfs (3,420 acre-ft per year); median of yearly mean discharges, 1.1 cfs (800 acre-ft per year).

Extremes.--Maximum discharge during year, 82 cfs Feb. 16 (gage height, 2.40 ft); no flow for most months.
1930-42, 1947-59: Maximum discharge, 3,850 cfs Feb. 6, 1937 (gage height, 5.60 ft, datum then in use), from rating curve extended above 120 cfs on basis of velocity-area study; no flow for several months in most years.

Remarks.--Records good except those for Oct. 24, which are poor. Discharge measurements or observations of no flow generally made twice a month.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 4-26)

1.1	0	1.5	3.2
1.2	.1	1.6	6.2
1.3	.4	1.8	16
1.4	1.3	2.0	32

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0			0	0	0.5						
2	0			0	0	.5						
3	0			0	0	.5						
4	0			0	.1	.3						
5	0			0	.1	.3						
6	0			.3	0	.3						
7	0			.2	0	.3						
8	0			.1	.6	.2						
9	0			.1	1.3	.2						
10	0			0	.8	.2						
11	0			0	2.5	.1						
12	0			0	6.8	.1						
13	0			0	2.1	.1						
14	0			0	1.3	.1						
15	0			0	1.0	.1						
16	0			0	18	.1						
17	0			0	23	.1						
18	0			0	6.2	0						
19	0			0	3.7	0						
20	0			0	2.1	0						
21	0			0	1.7	0						
22	0			0	2.1	0						
23	0			.1	1.0	0						
24	a3.2			0	.8	0						
25	0			0	.8	0						
26	0			0	.7	0						
27	0			0	.6	0						
28	0			0	.5	0						
29	0			0	-	0						
30	0			0	-------	0						
31	0	-------		0	-------		-------		-------			-------
Total	3.2	0	0	0.8	77.8	4.0	0	0	0	0	0	0
Mean	0.10	0	0	0.03	2.78	0.13	0	0	0	0	0	0
Ac-ft	6.3	0	0	1.6	154	7.9	0	0	0	0	0	0

Calendar year 1958: Max 474 Min 0 Mean 10.1 Ac-ft 7,290
Water year 1958-59: Max 23 Min 0 Mean 0.24 Ac-ft 170

Peak discharge (base, 100 cfs).--No peak above base.

a No gage-height record; discharge estimated on basis of field estimate.

2590. Andreas Creek near Palm Springs, Calif.

Location (revised).--Lat 33°45'40", long 116°32'57", in NW¼SE¼SE¼ sec.3, T.5 S., R.4 E., on left bank at Bureau of Indian Affairs diversion dam, 1.1 miles above mouth and 5.1 miles south of Palm Springs.

Drainage area.--8.78 sq mi.

Records available.--October 1948 to September 1959.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 800 ft (from topographic map). Prior to Mar. 25, 1949, reference point at same site at different datum.

Average discharge.--11 years, 2.09 cfs (1,510 acre-ft per year); median of yearly mean discharges, 1.6 cfs (1,200 acre-ft per year).

Extremes.--Maximum discharge during year, 57 cfs Feb. 16 (gage height, 2.50 ft); minimum daily, 0.4 cfs for many days.
1948-59: Maximum discharge, 1,960 cfs Aug. 31, 1954 (gage height, 7.11 ft), from rating curve extended above 80 cfs on basis of slope-area measurement of peak flow; minimum daily, 0.3 cfs for many days in 1950-51.

Remarks.--Records good. One small diversion for domestic use about 1 mile above station.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

1.3	0.4	1.8	12
1.4	1.4	2.0	20
1.5	2.9	2.5	58
1.6	5.0		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.3	1.5	1.8	1.5	1.8	1.8	1.8	1.1	0.8	0.7	0.5	0.4
2	1.3	1.5	1.8	1.5	1.8	1.8	1.8	1.1	.8	.6	.7	.4
3	1.3	1.5	1.8	1.5	1.8	1.8	1.8	1.1	.8	.6	.5	.4
4	1.3	1.5	1.8	1.5	1.8	1.9	1.8	1.1	.8	.5	.4	.4
5	1.5	1.5	1.8	1.6	1.8	1.9	1.8	1.1	.8	.5	.4	.4
6	1.5	1.5	1.8	4.0	1.9	1.9	1.9	1.1	.8	.5	.5	.4
7	1.5	1.5	1.9	2.7	1.9	1.9	1.9	1.0	.8	.4	.6	.4
8	1.3	1.6	2.1	2.4	2.5	2.1	1.8	1.0	.8	.4	.9	.4
9	1.3	1.6	2.1	2.4	2.2	1.9	1.6	1.0	.8	.4	.7	.4
10	1.3	1.6	2.1	2.2	2.1	1.8	1.5	1.0	.8	.4	.5	.5
11	1.3	1.8	2.1	2.2	4.1	1.8	1.6	.9	.8	.4	.5	.6
12	1.3	1.8	1.9	2.2	4.3	1.8	1.8	.9	.7	.4	.6	.6
13	1.3	1.8	1.9	2.2	2.5	1.8	1.9	.9	.7	.4	.5	.8
14	1.3	1.8	2.1	2.2	2.2	1.8	1.9	.9	.7	.4	.5	.8
15	1.3	1.8	2.1	2.2	2.1	1.8	2.0	.9	.7	.4	.5	.7
16	1.3	1.9	1.9	2.2	24	1.8	1.9	.9	.7	.4	.6	.7
17	1.3	1.9	1.9	2.2	16	1.8	2.1	.9	.7	.4	.6	.8
18	1.3	1.9	1.9	2.1	4.5	1.6	2.2	.8	.7	.4	.6	.8
19	1.3	1.9	1.8	1.9	3.5	1.8	2.2	.8	.7	.4	.5	.8
20	1.3	1.9	1.6	1.9	3.1	1.8	1.8	.8	.7	.4	.5	.8
21	1.3	1.9	1.6	1.8	2.9	1.8	1.8	.7	.6	.4	.5	.7
22	1.3	1.9	1.6	1.6	2.7	1.8	1.6	.8	.5	.4	.7	.7
23	1.5	1.9	1.6	1.6	2.5	1.8	1.6	.8	.5	.4	.7	.7
24	1.6	1.9	1.8	1.6	2.2	1.9	1.6	.8	.5	.4	.6	.7
25	1.6	1.9	1.8	1.6	2.1	2.1	1.5	.8	.5	.4	.6	.6
26	1.6	1.9	1.8	1.6	2.1	2.2	1.3	.8	.6	.4	.6	.6
27	1.5	1.9	1.8	1.6	1.9	2.2	1.3	.8	.7	.4	.4	.7
28	1.5	1.8	1.6	1.8	1.8	2.2	1.1	.8	.8	.4	.4	.7
29	1.5	1.8	1.5	1.8	-	2.1	1.1	.8	.7	.4	.4	.7
30	1.5	1.8	1.5	1.8	-------	1.8	1.1	.8	.5	.7	.4	.8
31	1.5	-------	1.5	1.8	-------	1.8	-------	.8	-------	.6	.4	-------
Total	43.0	52.5	56.3	61.2	104.1	58.3	51.1	28.0	21.0	13.9	16.8	18.4
Mean	1.39	1.75	1.82	1.97	3.72	1.88	1.70	0.90	0.70	0.45	0.54	0.61
Ac-ft	85	104	112	121	206	116	101	56	42	28	33	36

Calendar year 1958: Max 43 Min 1.1 Mean 4.11 Ac-ft 2,980
Water year 1958-59: Max 24 Min 0.4 Mean 1.44 Ac-ft 1,040

Peak discharge (base, 30 cfs).--Feb. 16 (8 p.m.) 57 cfs (2.50 ft).

2605. Deep Creek near Hesperia, Calif.

Location.--Lat 34°20'30", long 117°13'40", in SE¼ sec.18, T.3 N., R.3 W., on right bank 0.5 mile upstream from confluence with West Fork Mojave River and 8 miles southeast of Hesperia.

Drainage area.--137 sq mi.

Records available.--December 1929 to September 1959. November 1904 to September 1922, published as "East Fork of Mojave" in reports of California Division of Water Resources. Combined creek and canal, October 1950 to September 1959.

Gage.--Water-stage recorder and broad-crested weir. Altitude of gage is 3,050 ft (from topographic map). Prior to Sept. 30, 1922, staff gage and water-stage recorder at same site at different datum. December 1929 to Apr. 20, 1938, at same site at different datum. Apr. 21 to Dec. 10, 1938. at site 0.25 mile downstream at different datum.

Average discharge.--29 years (1930-59), 54.7 cfs (39,600 acre-ft per year); median of yearly mean discharges, 33 cfs (23,900 acre-ft per year). Average combined discharge of creek and canal, 9 years (1950-59), 45.0 cfs (32,580 acre-ft per year).

Extremes.--Maximum discharge during year, 6,920 cfs Feb. 16 (gage height, 6.50 ft), from rating curve extended above 4,000 cfs on basis of slope-area measurement at gage height 11.30 ft; minimum daily, 0.2 cfs Aug. 4.
1929-59: Maximum discharge, 46,600 cfs Mar. 2, 1938, by slope-area measurement of peak flow; minimum, 0.1 cfs at times in 1932-34, 1936.

Remarks.--Records good except those for periods of no gage-height record, which are poor. Discharge measurements generally made twice a month. Slight regulation by Lake Arrowhead (capacity, 48,000 acre-ft), used principally for recreation. Hesperia Water Co.'s canal diverts water about 2½ miles above station for irrigation of about 1,500 acres and domestic use below station. For records of combined discharge of Deep Creek and canal, see following page.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 5-13, 18-20, Feb. 27 to Mar. 7)

0.65	0.2	1.3	9.3	2.2	100
.8	1.0	1.4	9.6	2.5	209
.9	2.0	1.5	11	3.0	518
1.0	3.4	1.6	16	3.5	980
1.1	5.1	1.8	30	4.0	1,620
1.2	7.3	2.0	57		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.3	a1.5	5.8	3.9	4.1	91	24	7.4	8.7	1.4	0.6	0.7
2	2.2	a1.5	3.5	3.9	4.1	101	24	8.1	8.5	1.3	.7	.6
3	2.2	a1.5	3.5	3.9	4.1	112	25	8.3	7.9	1.3	.3	.7
4	2.4	a1.4	3.5	3.9	4.1	125	25	8.7	7.6	1.0	.2	.6
5	3.2	1.3	3.3	4.1	4.3	104	24	7.6	7.2	.7	15	.6
6	2.7	1.4	3.7	37	4.3	88	24	7.2	6.6	.7	2.9	.5
7	a1.4	1.5	5.2	35	4.5	83	24	7.0	6.4	.7	1.2	.5
8	a1.4	1.6	6.0	15	15	77	23	17	6.4	.6	1.2	.5
9	a1.4	2.0	5.2	9.8	14	77	22	19	6.2	.6	1.1	.5
10	a1.4	2.3	3.9	9.2	8.7	73	20	18	6.0	.6	1.0	.6
11	a1.4	2.3	3.2	9.2	96	70	19	15	5.8	.6	.9	.7
12	a1.4	3.2	3.2	9.3	a93	65	17	13	5.2	.6	.6	.8
13	a1.4	2.9	3.2	9.2	a34	63	14	12	5.0	.5	.6	1.0
14	a1.4	2.9	3.2	9.2	a23	58	12	11	4.5	.5	.8	1.0
15	a1.4	2.9	3.3	9.0	a20	56	11	12	3.3	.5	.6	1.0
16	a1.4	5.0	3.5	8.1	a1,540	43	10	11	3.2	.5	.5	1.1
17	a1.4	5.0	3.3	7.4	843	a34	10	10	3.1	.4	.6	1.2
18	a1.4	5.4	3.2	8.1	158	a34	10	9.9	2.9	.3	.6	1.4
19	a1.4	6.0	3.3	8.1	125	a34	10	9.7	2.7	.5	.6	1.4
20	a1.4	7.0	3.5	5.2	91	a33	10	9.6	2.4	.5	.7	1.4
21	a1.4	6.0	3.5	4.7	80	a32	9.2	9.8	2.4	.5	.8	1.3
22	a1.4	4.5	3.2	4.5	71	a31	9.0	9.8	2.0	.6	.9	1.2
23	a1.6	4.5	3.1	4.5	63	a30	8.3	9.7	1.9	.6	1.2	1.1
24	a1.8	4.1	3.1	4.5	60	a30	7.4	9.7	1.8	.6	1.3	1.1
25	a2.0	3.9	3.2	4.3	58	29	7.2	9.9	a1.8	.8	1.3	1.1
26	a2.0	3.7	3.2	4.3	56	27	8.9	9.7	a1.7	.3	1.4	1.1
27	a1.8	3.9	3.3	4.3	66	26	20	9.5	a1.7	.4	1.0	1.1
28	a1.8	5.8	3.5	4.3	75	28	11	9.4	a1.7	.4	1.0	1.1
29	a1.6	8.7	3.7	4.3	-	24	9.4	9.2	1.7	.3	1.0	1.2
30	a1.6	8.5	3.7	4.3	-------	24	8.1	9.1	1.6	.3	.9	1.3
31	a1.6	-------	3.9	4.1	-------	24	-------	9.0	-------	.5	.7	-------
Total	53.2	112.2	113.9	256.6	3,619.2	1,726	456.5	326.3	127.9	19.1	42.2	28.4
Mean	1.72	3.74	3.67	8.28	129	55.7	15.2	10.5	4.26	0.62	1.36	0.95
Ac-ft	106	223	226	509	7,180	3,420	905	647	254	38	84	56

Calendar year 1958: Max 4,590 Min 1.0 Mean 130 Ac-ft 94,390
Water year 1958-59: Max 1,540 Min 0.2 Mean 18.9 Ac-ft 13,650

Peak discharge (base, 400 cfs).--Feb. 16 (about 6 p.m.) 6,920 cfs (6.50 ft).

a No gage-height record; discharge estimated on basis of 5 discharge measurements, recorded range in stage, and records for nearby stations.

2605. Deep Creek near Hesperia, Calif.--Continued

Combined discharge, in cubic feet per second, of Deep Creek and Hesperia Water Co.'s canal near Hesperia, Calif., water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.8	6.9	12	11	11	97	31	13	8.7	1.4	0.6	0.7
2	6.8	7.0	10	11	10	107	31	14	8.5	1.3	.7	.6
3	6.6	7.1	10	11	10	118	32	14	7.9	1.3	.3	.7
4	5.4	7.0	10	10	11	131	32	14	7.6	1.0	.2	.6
5	4.0	6.8	9.5	11	11	110	31	13	7.2	.7	15	.6
6	5.2	6.9	9.8	43	11	94	30	12	6.6	.7	2.9	.5
7	6.3	6.9	10	39	11	90	30	11	6.4	.7	1.2	.5
8	5.2	6.6	9.5	20	23	84	29	18	6.4	.6	1.2	.5
9	4.8	6.8	9.3	15	22	83	28	19	6.2	.6	1.1	.5
10	4.4	6.6	9.3	14	17	79	26	18	6.0	.6	1.0	.6
11	4.3	7.6	9.2	14	105	76	25	15	5.8	.6	.9	.7
12	4.3	9.6	9.3	14	102	70	23	13	5.2	.6	.6	.8
13	4.2	9.3	9.0	14	42	68	20	12	5.0	.5	.6	1.0
14	4.2	8.8	8.9	14	30	63	18	11	4.5	.5	.8	1.0
15	4.1	8.6	9.5	13	28	61	17	12	3.3	.5	.8	1.0
16	3.9	11	10	12	1,550	49	16	11	3.2	.5	.5	1.1
17	3.9	11	9.9	12	848	42	16	10	3.1	.4	.6	1.2
18	3.8	11	9.8	12	163	43	16	9.9	2.9	.3	.6	1.4
19	3.8	11	9.8	13	130	42	16	9.7	2.7	.5	.6	1.4
20	3.9	11	10	12	96	41	16	9.6	2.4	.5	.7	1.4
21	4.2	10	10	12	86	40	15	9.8	2.4	.5	.8	1.3
22	4.6	10	10	11	77	39	15	9.8	2.0	.6	.9	1.2
23	5.4	10	10	11	68	38	14	9.7	1.9	.6	1.2	1.1
24	6.8	10	10	11	66	38	13	9.7	1.8	.6	1.3	1.1
25	7.6	10	10	11	63	37	13	9.9	1.8	.8	1.3	1.1
26	7.5	9.5	10	11	62	35	15	9.7	1.7	.3	1.4	1.1
27	7.1	9.5	11	11	72	33	26	9.5	1.7	.4	1.0	1.1
28	7.1	9.5	11	11	81	35	17	9.4	1.7	.4	1.0	1.1
29	6.8	10	11	11	-	31	15	9.2	1.7	.3	1.0	1.2
30	6.7	12	10	11	-------	31	14	9.1	1.6	.3	.9	1.3
31	6.8	-------	10	11	-------	31	-------	9.0	-------	.5	.7	-------
Total	166.5	268.0	307.8	437	3,806	1,936	640	364.0	127.9	19.1	42.2	28.4
Mean	5.37	8.93	9.93	14.1	136	62.5	21.3	11.7	4.26	0.62	1.36	0.95
Ac-ft	330	532	611	867	7,550	3,840	1,270	722	254	38	84	56

Calendar year 1958: Max 4,590 Min 3.5 Mean 135 Ac-ft 98,090
Water year 1958-59: Max 1,550 Min 0.2 Mean 22.3 Ac-ft 16,150

2610. West Fork Mojave River near Hesperia, Calif.

Location.--Lat 34°20'27", long 117°14'24", in SW¼SW¼ sec.18, T.3 N., R.4 W., on left bank at highway bridge, 0.5 mile upstream from confluence with Deep Creek and 6.5 miles southeast of Hesperia.

Drainage area.--74.8 sq mi.

Records available.--January 1930 to September 1959. December 1904 to June 1922 in reports of California Department of Water Resources.

Gage.--Water-stage recorder. Altitude of gage is 3,050 ft (from topographic map). Prior to June 30, 1922, staff gage and water-stage recorder several hundred feet downstream at different datum.

Average discharge.--29 years (1930-59), 27.8 cfs (20,130 acre-ft per year); median of yearly mean discharges, 12 cfs (8,700 acre-ft per year).

Extremes.--Maximum discharge during year, 2,800 cfs Feb. 16 (gage height, 5.87 ft); no flow for most of time.
1930-59: Maximum discharge, 26,100 cfs Mar. 2, 1938, by slope-area measurement; no flow for several months in each year.

Remarks.--Records good except those above 300 cfs and those for periods of no gage-height record, which are poor. Discharge measurements generally made twice a month. Water diverted from Lake Gregory above station for domestic use and fire protection. One small diversion for irrigation above station.

Revisions (water years).--WSP 1564: 1930(M), 1932, 1938.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				0		25	1.5					
2				0		24	1.4					
3				0		21	1.4					
4				0		17	1.4					
5				0	0	16	1.4					
6				20		15	1.4	0.1				
7				12		15	1.4					
8				5	7.2	14	1.1					
9				2	18	12	1.0					
10				1	15	9.9	.4					
11					173	5	.3					
12					128	1.3	.3					
13					54	1.3	.2					
14					38	1.3	.2					
15					32	1.3	.2					
16					688	1.3	.2					
17					380	1.3	.2					
18					124	1.3	.2					
19					81	1.3						
20					66	1.3						
21				0	58	1.4		0				
22					51	1.4						
23					39	1.5						
24					38	1.6	.1					
25					34	1.6						
26					31	1.6						
27					29	1.6						
28					28	1.6						
29					-	1.5						
30						1.5						
31						1.5						
Total	0	0	0	40	2,110.2	202.4	15.4	1.0	0	0	0	0
Mean	0	0	0	1.29	75.4	6.53	0.51	0.03	0	0	0	0
Ac-ft	0	0	0	79	4,190	401	31	2.0	0	0	0	0

Calendar year 1958: Max 3,120 Min 0 Mean 61.4 Ac-ft 44,440
Water year 1958-59: Max 688 Min 0 Mean 6.49 Ac-ft 4,700

Peak discharge (base, 500 cfs).--Feb. 16 (6 p.m.) 2,800 cfs (5.87 ft).

Note.--No gage-height record Oct. 1 to Jan. 5, Jan. 8 to Feb. 7, Mar. 11 to Apr. 5, Apr. 19 to June 15; discharge estimated on basis of 11 discharge measurements, weather records, records for Deep Creek near Hesperia, or interpolated.

2615. Mojave River at lower narrows, near Victorville, Calif.

Location.--Lat 34°34'22", long 117°19'08", in SW¼SW¼SE¼ sec.29, T.6 N., R.4 W., on left bank 1,000 ft upstream from bridge on U. S. Highway 66, 2,500 ft downstream from The Atchison, Topeka and Santa Fe Railway Co. bridge, and 3 miles northwest of Victorville.

Drainage area.--530 sq mi.

Records available.--February 1899 to July 1906, November 1930 to September 1959. Prior to Oct. 1, 1936, published as "at Victorville."

Gage.--Water-stage recorder. Altitude of gage is 2,650 ft (from topographic map). Prior to Aug. 1, 1906, staff gage and Nov. 12, 1930, to Dec. 8, 1936, water-stage recorder, at site 3.8 miles upstream at different datum. Dec. 9, 1936, to Mar. 28, 1938, water-stage recorder at present site at datum 2.00 ft higher.

Average discharge.--28 years (1931-59), 73.3 cfs (53,070 acre-ft per year); median of yearly mean discharges, 40 cfs (29,000 acre-ft per year).

Extremes.--Maximum discharge during year, 1,380 cfs Feb. 17 (gage height, 3.10 ft); minimum daily, 9.7 cfs Aug. 3, 4, 13.
1930-59: Maximum discharge, 70,600 cfs Mar. 2, 1938 (gage height, 18.7 ft, present datum), by slope-area measurement of peak flow; minimum daily, 6 cfs Aug. 19, 21, 26, 1951.

Remarks.--Records good. Periodic regulation by Lake Arrowhead (capacity, 48,000 acre-ft, used principally for recreation). Diversions and pumping for irrigation of about 5,000 acres above station.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 4-17, Sept. 10-30)

0.5	7.6	1.5	200
.6	13	2.0	440
.8	35	2.5	790
1.0	66		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	27	33	38	47	46	37	19	24	11	12	10
2	19	27	34	38	49	43	33	24	19	11	11	11
3	16	26	35	38	49	45	31	25	17	11	9.7	12
4	16	26	35	38	47	*39	31	27	16	11	9.7	11
5	17	26	35	*39	46	39	33	30	15	11	10	11
6	19	27	35	56	45	41	34	*27	17	11	11	11
7	*19	27	35	50	45	42	*33	29	19	11	11	11
8	20	29	35	47	46	42	29	25	20	11	11	*11
9	19	26	35	46	45	42	30	22	20	11	13	12
10	20	31	*37	47	43	42	27	22	21	10	12	12
11	20	34	37	47	60	42	26	22	20	11	11	12
12	19	*27	37	46	*46	39	25	24	19	11	11	15
13	19	25	37	47	43	33	25	25	17	11	9.7	19
14	20	25	42	46	42	37	25	25	16	11	10	20
15	22	26	41	46	41	38	25	25	13	11	10	19
16	22	26	42	47	42	39	27	25	11	11	10	20
17	22	26	43	46	*522	39	26	24	*12	11	11	21
18	24	26	41	49	56	39	30	24	12	10	*11	20
19	22	26	41	49	50	*39	29	*25	12	11	13	22
20	22	26	39	49	52	39	33	26	11	10	13	25
21	22	29	41	47	49	39	31	22	11	11	13	27
22	22	29	41	47	47	38	*26	22	11	*11	13	16
23	24	31	37	47	47	38	25	20	11	13	15	14
24	*22	33	37	46	46	38	22	21	10	11	15	14
25	22	*33	38	46	46	37	22	20	12	12	13	13
26	22	33	38	47	47	35	26	19	12	11	13	13
27	24	33	38	*47	46	34	30	18	13	10	12	13
28	24	33	38	47	46	34	30	17	12	11	11	13
29	24	33	38	47	-	31	26	17	*12	11	12	16
30	25	33	35	47	-------	34	22	17	11	11	13	18
31	26	-------	37	47	-------	33	-------	20	-------	11	11	-------
Total	653	859	1,167	1,424	1,790	1,196	849	708	446	340	361.1	462
Mean	21.1	28.6	37.6	45.9	63.9	38.6	28.3	22.8	14.9	11.0	11.6	15.4
Ac-ft	1,300	1,700	2,310	2,820	3,550	2,370	1,680	1,400	885	674	716	916

Calendar year 1958: Max 5,010 Min 13 Mean 136 Ac-ft 98,650
Water year 1958-59: Max 522 Min 9.7 Mean 28.1 Ac-ft 20,320

Peak discharge (base, 200 cfs).--Feb. 17 (6 a.m.) 1,380 cfs (3.10 ft).

* Discharge measurement made on this day.

2625. Mojave River at Barstow, Calif.

Location.--Lat 34°54'25", long 117°01'20", in SE¼SW¼ sec.31, T.10 N., R.1 W., on left bank 75 ft upstream from bridge on U. S. Highway 91 at Barstow.

Records available.--October 1930 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 2,090 ft (from topographic map).

Average discharge.--29 years, 27.4 cfs (19,840 acre-ft per year); median of yearly mean discharges, 0.1 cfs (72 acre-ft per year).

Extremes.--Maximum discharge during year, 25 cfs Oct. 24 (gage height, 2.18 ft); no flow for most of year.
1930-59: Maximum discharge, 64,300 cfs Mar. 3, 1938 (gage height, 8.60 ft), by slope-area measurement of peak flow; no flow for several months in each year.

Remarks.--Records good. Slight regulation by Lake Arrowhead (capacity, 48,000 acre-ft, used principally for recreation). Diversions and pumping for irrigation of about 15,000 acres above station.

Revisions (water years).--WSP 1564: 1932.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0											
2	0											
3	0											
4	0											
5	0										(*)	
6	0			(*)								
7	0									(*)		
8	0											
9	0											
10	0											
11	0											
12	0											
13	0											
14	0											
15	0											
16	0											
17	0								(*)			
18	0				(*)	(*)						
19	0							(*)				
20	0											
21	0											
22	0											
23	*0											(*)
24	1.9	(*)										
25	0											
26	0											
27	0											
28	0										(*)	
29	0				-		(*)					
30	0				-------							
31	0	-------			-------		-------		-------			-------
Total	1.9	0	0	0	0	0	0	0	0	0	0	0
Mean	0.06	0	0	0	0	0	0	0	0	0	0	0
Ac-ft	3.8	0	0	0	0	0	0	0	0	0	0	0

Calendar year 1958: Max 2,500 Min 0 Mean 27.7 Ac-ft 20,070
Water year 1958-59: Max 1.9 Min 0 Mean 0.005 Ac-ft 3.8

Peak discharge (base, 100 cfs).--No peak above base.

* Observation of no flow made on this day.

2630. Mojave River at Afton, Calif.

Location.--Lat 35°02'15", long 116°23'00", in SE¼ sec.18, T.11 N., R.6 E., on downstream end of right pier of Union Pacific Railroad bridge, 0.3 mile west of Afton.

Records available.--December 1929 to September 1932, October 1952 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 1,400.15 ft above mean sea level, datum of 1929, supplementary adjustment of 1943. Dec. 21, 1929, to Sept. 30, 1932, water-stage recorder at site 1.7 miles downstream at different datum.

Average discharge.--9 years (1930-32, 1952-59), 2.58 cfs (1,870 acre-ft per year).

Extremes.--Maximum discharge during year, 30 cfs Aug. 17 (gage height, 4.28 ft); minimum daily, 0.2 cfs June 24-26, July 18 to Aug. 7, Aug. 13-15, Sept. 1-6.
1929-32, 1952-59: Maximum discharge, 3,550 cfs Feb. 10, 1932 (gage height, 4.70 ft, site and datum then in use); minimum daily, 0.1 cfs July 23-26, 1932.

Remarks.--Records good except those for Oct. 24, July 2, 3, and Aug. 17, 18, which are poor. Natural flow affected by ground-water withdrawals, diversions, municipal use, and storage in two small reservoirs.

Revisions (water years).--WSP 1564: 1931.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	0.9	1.1	1.1	1.1	1.3	1.5	0.6	0.5	0.4	0.2	0.2
2	.6	.9	1.1	1.1	1.1	1.5	1.5	.6	.5	1.3	.2	.2
3	.6	.9	1.1	1.1	1.1	1.5	1.3	.6	.5	2.4	.2	.2
4	.6	.9	1.1	1.1	1.1	1.5	1.2	.6	.5	.6	.2	.2
5	.7	.9	1.1	1.1	1.1	1.6	1.1	.6	.5	.6	*.2	.2
6	.8	.9	1.1	*1.2	1.1	1.6	.9	.6	.4	*.5	.2	.2
7	.8	.9	1.1	1.2	1.1	1.5	.9	.6	.4	.4	.2	.3
8	.8	.9	1.1	1.2	1.2	1.5	.8	.6	.4	.5	.3	.3
9	.8	.9	1.1	1.2	1.2	1.5	.8	.5	.4	.5	.4	.4
10	.8	.9	1.1	1.2	1.2	1.5	.8	.5	.4	.5	.4	.4
11	.8	.9	1.1	1.1	1.2	1.5	.8	.5	.5	.4	.3	.4
12	.7	1.1	1.1	1.1	1.2	1.5	.8	.4	.5	.4	.3	.4
13	.7	1.1	1.1	1.1	1.2	1.5	.8	.4	.5	.4	.2	.5
14	.7	.9	1.1	1.1	1.2	1.5	.8	.4	.5	.4	.2	1.1
15	.7	.9	1.1	1.1	1.2	1.5	.8	.4	.4	.4	.2	.5
16	.7	1.1	1.1	1.1	1.2	1.5	.8	.4	.4	.4	.3	.5
17	.7	1.1	1.1	1.1	1.2	1.5	.8	.4	*.4	.3	3.8	.6
18	.7	1.1	1.1	1.1	*1.2	*1.5	.8	.4	.4	.2	2.1	.6
19	.6	1.1	1.1	1.1	1.2	1.5	.8	*.4	.4	.2	.4	.6
20	.6	1.1	1.1	1.1	1.2	1.5	.8	.5	.4	.2	.4	.6
21	.6	1.1	1.1	1.1	1.3	1.5	.8	.5	.4	.2	.4	.6
22	.7	1.1	1.1	1.1	1.3	1.5	.8	.5	.4	.2	.4	.6
23	*.7	1.1	1.1	1.1	1.3	1.5	.8	.6	.3	.2	.4	*.6
24	2.1	*1.1	1.1	1.1	1.3	1.5	.8	.6	.2	.2	.4	.6
25	1.5	1.1	1.1	1.1	1.3	1.5	.8	.6	.2	.2	.4	.6
26	.9	1.1	1.1	1.1	1.3	1.5	.8	.6	.2	.2	.3	.6
27	.9	1.1	1.1	1.1	1.3	1.5	*.8	.5	.3	.2	.3	.6
28	.8	1.1	1.1	1.1	1.3	1.5	.7	.5	.3	.2	.3	.6
29	.8	1.1	1.1	1.1	-	1.5	.7	.5	.3	.2	.3	.6
30	.8	1.1	1.1	1.1	-------	1.5	.6	.5	.4	.2	.3	.6
31	.9	-------	1.1	1.1	-------	1.5	-------	.5	-------	.2	.3	-------
Total	24.7	30.4	34.1	34.6	33.7	46.5	26.4	15.9	11.9	13.2	14.5	14.4
Mean	0.80	1.01	1.10	1.12	1.20	1.50	0.88	0.51	0.40	0.43	0.47	0.48
Ac-ft	49	60	68	69	67	92	52	32	24	26	29	29

Calendar year 1958: Max 396 Min 0.2 Mean 3.82 Ac-ft 2,770
Water year 1958-59: Max 3.8 Min 0.2 Mean 0.82 Ac-ft 597

Peak discharge (base, 100 cfs).--No peak above base.

* Discharge measurement made on this day.

2635. Big Rock Creek near Valyermo, Calif.

Location.--Lat 34°25'17", long 117°50'19", in NE¼ sec.20, T.4 N., R.9 W., on left bank 0.1 mile upstream from Punchbowl Canyon and 0.9 mile south of Valyermo.

Drainage area.--23.0 sq mi.

Records available.--January 1923 to September 1959. May 1938 to January 1939, at site 0.2 mile downstream, not equivalent owing to inflow from Punchbowl Canyon. Prior to October 1954, published as "Rock Creek near Valyermo."

Gage.--Water-stage recorder. Altitude of gage is 4,050 ft (from topographic map). Prior to May 4, 1938, at same site at different datums. May 4, 1938, to Jan. 26, 1939, at site 0.2 mile downstream (below Punchbowl Canyon) at different datum.

Average discharge.--35 years (1923-37, 1938-59), 14.7 cfs (10,640 acre-ft per year); median of yearly mean discharges, 8.8 cfs (6,400 acre-ft per year).

Extremes.--Maximum discharge during year, 215 cfs Feb. 16 (gage height, 3.28 ft); minimum daily, 2.5 cfs Sept. 1-10, 19-24.
1923-59: Maximum discharge, 8,300 cfs Mar. 2, 1938, on basis of slope-area measurement of peak flow; minimum daily, 0.7 cfs Nov. 5, 1951.

Remarks.--Records good. Discharge measurements made four or more times a month. There is evidence of appreciable infiltration into the streambed in the immediate vicinity of station.

Cooperation.--Twenty-eight discharge measurements furnished by Los Angeles County Flood Control District.

Revisions (water years).--WSP 1564: 1932, 1937, 1939(M).

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.1	7.1	6.8	5.6	5.9	12	11	8.1	5.1	4.1	3.4	2.5
2	8.1	7.1	6.8	5.3	5.9	13	11	8.1	5.1	4.1	3.4	2.5
3	8.4	7.1	7.1	5.3	5.9	13	12	8.4	5.1	3.9	3.4	2.5
4	8.4	7.1	6.8	5.3	5.9	14	12	8.4	4.8	3.9	3.4	2.5
5	8.4	7.1	6.8	6.6	5.6	14	12	8.4	4.8	3.9	3.6	2.5
6	8.7	7.1	6.8	14	5.6	13	12	8.1	4.8	3.6	3.6	2.5
7	9.1	7.1	6.8	7.4	5.3	13	12	8.1	4.8	3.6	3.9	2.5
8	9.1	6.8	6.8	7.1	5.3	13	12	7.8	4.8	3.4	3.9	2.5
9	9.1	6.8	6.5	7.1	5.3	13	11	7.8	4.8	3.4	3.6	2.5
10	8.7	7.1	6.5	7.1	5.6	13	11	7.8	4.8	3.4	3.6	2.5
11	8.7	7.8	6.5	6.8	16	13	11	7.8	4.8	3.4	3.4	2.7
12	8.7	7.1	6.2	6.8	9.5	13	11	7.4	4.8	3.4	3.1	2.8
13	8.4	6.8	6.2	6.8	7.8	12	11	7.4	4.8	3.4	3.1	2.8
14	8.4	6.8	6.2	6.8	7.4	12	11	7.4	4.8	3.6	3.1	2.7
15	8.4	7.1	6.2	6.8	7.8	12	10	7.4	4.8	3.6	3.1	2.7
16	8.1	7.1	6.2	6.5	88	12	10	7.1	4.8	3.6	3.1	2.7
17	8.1	7.1	6.2	6.5	67	12	10	6.8	4.8	3.6	3.1	2.7
18	7.8	7.1	6.2	6.5	28	12	10	6.5	4.8	3.9	3.1	2.7
19	7.8	7.1	5.9	6.2	20	12	9.9	6.2	4.6	3.9	3.1	2.5
20	8.1	6.8	5.9	6.2	16	12	9.5	5.9	4.6	3.9	3.1	2.5
21	8.1	6.8	5.9	6.2	16	12	9.1	5.9	4.6	3.9	3.1	2.5
22	8.1	6.8	5.9	6.2	14	12	8.7	5.9	4.6	3.9	3.0	2.5
23	8.4	6.8	5.9	5.9	13	12	8.4	5.9	4.6	3.9	3.0	2.5
24	8.4	6.8	5.9	5.9	12	12	8.4	5.9	4.6	3.9	3.0	2.5
25	8.1	6.8	5.9	5.9	12	11	8.7	5.9	4.6	3.9	2.8	2.7
26	7.8	6.8	5.9	5.9	12	11	11	5.6	4.4	3.9	2.8	2.7
27	7.4	6.8	5.9	5.9	12	11	9.9	5.6	4.4	3.6	2.8	2.8
28	7.1	6.8	5.9	5.9	12	11	8.7	5.6	4.1	3.6	2.8	2.8
29	6.8	6.8	5.9	5.9	-	11	8.1	5.3	4.1	3.6	2.7	2.7
30	6.8	6.8	5.6	5.9	-------	11	7.8	5.3	4.1	3.6	2.7	2.7
31	6.8	-------	5.6	5.9	-------	11	-------	5.3	-------	3.6	2.7	-------
Total	252.4	209.2	193.7	202.2	426.8	378	308.2	213.1	140.6	115.0	98.5	78.2
Mean	8.14	6.97	6.25	6.52	15.2	12.2	10.3	6.87	4.69	3.71	3.18	2.61
Ac-ft	501	415	384	401	847	750	611	423	279	228	195	155

Calendar year 1958: Max 203 Min 5.6 Mean 33.9 Ac-ft 24,560
Water year 1958-59: Max 88 Min 2.5 Mean 7.17 Ac-ft 5,190

Peak discharge (base, 50 cfs).--Feb. 16 (6 p.m.) 215 cfs (3.28 ft).

2640. Little Rock Creek near Little Rock, Calif.

Location.--Lat 34°27'50", long 118°01'05", in SW¼SW¼NE¼ sec.3, T.4 N., R.11 W., on right bank 0.3 mile upstream from Santiago Creek, 1.65 miles upstream from Little Rock Palmdale Irrigation District's dam, and 5 miles south of Little Rock.

Drainage area.--49.0 sq mi.

Records available.--October 1930 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 3,290 ft (from topographic map). Prior to May 1943, at site 500 ft downstream at different datums (datum changed in March 1939).

Average discharge.--27 years (1930-37, 1939-59), 17.2 cfs (12,450 acre-ft per year); median of yearly mean discharges, 9.0 cfs (6,500 acre-ft per year).

Extremes.--Maximum discharge during year, 598 cfs Feb. 16 (gage height, 6.30 ft); no flow July 8 to Sept. 30.
1930-59: Maximum discharge, 17,000 cfs (estimated) Mar. 2, 1938; no flow for periods in most years.

Cooperation.--Records furnished by Los Angeles County Flood Control District; records reviewed by Geological Survey.

Revisions (water years).--WSP 1564: 1935, 1944.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9	1.9	4.1	4.7	4.5	29	11	6.3	1.6	0.1		
2	.8	2.0	4.1	4.7	4.5	30	11	6.1	1.6	.1		
3	.6	2.0	4.1	4.7	4.5	32	11	6.1	1.2	.1		
4	.6	2.0	4.1	4.7	4.5	31	11	5.8	1.1	.1		
5	.5	1.9	4.3	4.7	4.3	29	11	5.4	1.1	.1		
6	.6	1.9	4.3	18	4.1	26	11	4.9	1.0	.1		
7	.8	1.9	4.3	11	4.1	25	11	4.7	1.0	.1		
8	1.0	1.9	4.3	7.5	5.6	24	11	4.3	.9	0		
9	1.0	1.9	4.3	6.3	6.1	22	10	4.1	.8	0		
10	1.0	1.9	4.3	6.1	5.2	21	9.3	3.6	.6	0		
11	.9	3.0	4.3	6.8	18	20	8.6	3.2	.5	0		
12	.9	3.8	4.3	7.0	15	19	7.9	2.8	.5	0		
13	.9	3.8	4.3	6.8	11	18	7.2	2.6	.5	0		
14	.9	3.6	4.3	6.5	9.8	17	6.8	2.6	.4	0		
15	.9	3.4	4.3	6.3	9.6	17	6.5	2.6	.4	0		
16	.9	3.6	4.5	5.8	163	15	6.5	2.5	.4	0		
17	.8	3.6	4.5	5.6	142	14	6.3	2.2	.4	0		
18	.8	3.6	4.5	5.6	52	14	6.3	2.2	.4	0		
19	.8	3.6	4.5	5.6	37	14	6.1	2.2	.4	0		
20	.9	3.6	4.5	5.4	32	14	5.8	2.2	.4	0		
21	.9	3.6	4.5	5.2	29	13	5.6	2.2	.4	0		
22	1.1	3.6	4.5	4.9	25	13	5.2	2.3	.4	0		
23	1.7	3.6	4.7	4.7	22	13	4.9	2.6	.2	0		
24	2.5	3.6	4.7	4.3	20	13	4.7	2.6	.2	0		
25	3.0	3.6	4.7	4.1	19	13	5.2	2.6	.2	0		
26	2.8	3.6	4.7	4.1	20	12	11	2.6	.2	0		
27	2.3	3.8	4.7	4.1	22	11	9.8	2.3	.1	0		
28	2.2	3.8	4.9	3.9	25	11	8.2	2.0	.1	0		
29	1.9	3.9	4.9	3.9	-	11	7.7	2.0	.1	0		
30	1.7	4.1	4.7	4.1	-------	10	6.5	1.9	.1	0		
31	1.7	-------	4.7	4.3	-------	10	-------	1.9	-------	0		-------
Total	38.3	92.1	137.9	181.4	718.8	561	244.1	101.4	17.2	0.7	0	0
Mean	1.24	3.07	4.45	5.85	25.7	18.1	8.14	3.27	0.57	0.02	0	0
Ac-ft	76	183	274	360	1,430	1,110	484	201	34	1.4	0	0

Calendar year 1958: Max 521 Min 0.4 Mean 38.0 Ac-ft 27,510
Water year 1958-59: Max 163 Min 0 Mean 5.73 Ac-ft 4,150

2646. Oak Creek near Mojave, Calif.

Location.--Lat 35°03'00", long 118°21'25", in NW¼ sec.15, T.11 N., R.14 W., on upstream right wingwall of culvert, 100 ft downstream from unnamed tributary, 0.1 mile west of junction of Oak Creek and Willow Springs Roads, and 10.5 miles west of Mojave.

Drainage area.--15.8 sq mi.

Records available.--August 1957 to September 1959.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 4,100 ft (from topographic map).

Extremes.--Maximum discharge during year, 9.2 cfs Jan. 6 (gage height, 1.19 ft); no flow July 17 to Sept. 30.
1957-59: Maximum discharge, 22 cfs Apr. 18 (gage height, 1.51 ft); no flow at times each year.

Remarks.--Records good.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.54	0	0.9	2.1
.6	.1	1.0	3.8
.7	.3	1.1	5.9
.8	1.0		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	0.9	1.0	1.1	1.7	1.8	1.5	1.1	0.7	0.2		
2	.8	.9	1.0	1.1	1.7	2.0	1.5	1.2	.7	.1		
3	.8	.9	1.0	1.0	1.7	2.0	1.5	1.2	.7	.1	(*)	
4	.8	.9	1.0	1.0	1.7	2.0	1.5	1.2	*.6	.1		
5	.8	.9	1.0	1.1	1.7	2.0	1.5	*1.2	.5	.1		
6	.8	.9	1.0	*3.9	1.7	2.0	1.5	1.2	.5	.1		
7	.8	.9	1.0	2.2	1.7	1.9	1.5	1.1	.6	.1		
8	.8	.9	1.0	2.0	1.7	1.9	1.5	1.0	.5	.2		
9	.8	.9	1.0	2.0	1.7	1.8	1.5	1.0	.5	.2		
10	.8	1.0	1.0	1.9	1.8	1.8	1.5	1.0	.5	.1		
11	.8	1.0	1.0	1.9	2.7	1.8	1.5	.9	.5	.1		
12	.7	1.0	1.0	1.9	*2.0	1.8	1.5	.9	.4	.1		
13	.8	1.0	1.0	1.9	1.9	1.8	1.4	.9	.3	.1		
14	.8	1.0	1.0	1.9	1.9	1.8	1.4	.9	.3	.1		
15	.8	1.1	1.0	1.9	2.0	1.8	1.4	.9	.3	.1		
16	.8	1.1	1.0	1.9	2.9	1.7	1.4	.8	.3	.1		
17	.8	1.1	1.0	1.9	2.4	1.7	1.4	.8	.3	0		
18	.8	1.1	1.1	1.8	2.2	*1.6	1.4	.8	.2	0		
19	.8	1.1	1.1	1.8	2.0	1.5	1.4	.8	.2	0		
20	.8	1.1	1.1	1.8	2.0	1.5	1.2	.8	.2	0		
21	.8	1.1	1.1	1.8	2.0	1.5	1.2	.8	.2	0		(*)
22	.8	1.1	1.1	1.8	2.0	1.5	1.2	.8	.2	0		
23	*.8	1.0	1.1	1.8	2.0	1.5	1.2	.8	.2	0		
24	.9	*1.0	1.1	1.8	1.9	1.6	1.2	.8	.2	0		
25	1.0	1.0	1.1	1.8	1.9	1.6	1.4	.7	.2	0		
26	1.0	1.0	1.1	1.8	1.9	1.5	1.4	.7	.2	0		
27	1.0	1.0	1.1	1.8	1.9	1.5	1.2	.7	.2	0		
28	.9	1.0	1.1	1.8	1.8	1.6	1.1	.7	.2	0		
29	.9	1.0	1.1	1.8	-	1.6	1.1	.7	.2	0		
30	.9	1.0	1.1	1.8	-------	1.5	1.0	.7	*.2	0		
31	1.0	-------	1.1	1.7	-------	1.5	-------	.7	-------	0		-------
Total	25.9	29.9	32.4	55.7	54.5	53.1	41.0	27.8	10.8	1.9	0	0
Mean	0.84	1.00	1.05	1.80	1.95	1.71	1.37	0.90	0.36	0.06	0	0
Ac-ft	51	59	64	110	108	105	81	55	21	3.8	0	0

Calendar year 1958: Max 16 Min 0.1 Mean 2.38 Ac-ft 1,720
Water year 1958-59: Max 3.9 Min 0 Mean 0.91 Ac-ft 658

Peak discharge (base, 10 cfs).--No peak above base.

* Discharge measurement or observation of no flow made on this day.
Note.--No gage-height record Aug. 7 to Sept. 20; discharge estimated on basis of 2 discharge measurements and weather records.

2870. Mono Lake near Mono Lake, Calif.

Location.--Lat 38°00', long 119°08', in NE¼ sec.31, T.2 N., R.26 E., on west bank 1 mile south of town of Mono Lake.

Records available.--June 1912 to September 1959. Records prior to September 1934 are published in WSP 765.

Gage.--Staff gage or reference point. Datum of gage is 6,410.73 ft above mean sea level, datum of 1929. Prior to Oct. 2, 1945, at datum 20.07 ft lower. Gage readings have been reduced to elevations above mean sea level.

Extremes.--1912-59: Maximum elevation observed, 6,428.1 ft July 18, 1919; minimum observed, 6,399.84 ft Sept. 25, 1959.

Cooperation.--Records furnished by city of Los Angeles, Department of Water and Power.

Revisions (water years).--WSP 765: 1912-33. WSP 1284: 1952.

Elevation, in feet, water year October 1958 to September 1959

Date	Elevation	Date	Elevation	Date	Elevation
Oct. 3	6,401.55	Jan. 30	6,401.21	June 5	6,401.31
10	6,401.53	Feb. 6	6,401.24	12	6,401.27
17	6,401.45	13	6,401.28	19	6,401.22
24	6,401.34	20	6,401.38	26	6,401.10
31	6,401.34	27	6,401.39	July 3	6,301.04
Nov. 7	6,401.31	Mar. 6	6,401.41	10	6,401.02
14	6,401.20	13	6,401.47	17	6,400.87
21	6,401.19	20	6,401.46	24	6,400.80
26	6,401.19	Apr. 2	6,401.51	31	6,400.71
Dec. 5	6,401.20	10	6,401.56	Aug. 7	6,400.58
12	6,401.20	17	6,401.56	14	6,400.45
19	6,401.19	24	6,401.54	21	6,400.31
24	6,401.21	May 1	6,401.52	28	6,400.22
31	6,401.18	8	6,401.51	Sept. 4	6,400.09
Jan. 8	6,401.21	15	6,401.41	11	6,400.06
19	6,401.21	22	6,401.38	18	6,399.89
23	6,401.23	29	6,401.32	25	6,399.84

WALKER LAKE BASIN

2885. Walker Lake near Hawthorne, Nev.

Location (revised).--Lat 38°35'05", long 118°42'15", in NE¼NE¼ sec.2, T.8 N., R.29 E., 5½ miles northwest of Hawthorne.

Records available.--August 1928 to September 1959. Occasional readings prior to August 1928.

Gage.--Bench mark, at U. S. Naval Depot, 4,053.41 ft above mean sea level, adjustment of 1912.

Extremes.--1928-59: Maximum elevation observed, 4,051.8 ft Mar. 13, 1928 (Indian Service); minimum observed, 3,987.78 ft Sept. 2, 1959.
An elevation of 4,078.0 ft, adjustment of 1912, was observed Sept. 27, 1908, by Geological Survey.

Remarks.--Elevations determined by spirit leveling.

Cooperation.--Records furnished by U. S. Navy Department.

Elevation, in feet, water year October 1958 to September 1959

Dec. 1	3,989.77	June 25	3,989.12
Feb. 4	3,989.40	July 2	3,988.77
Mar. 6	3,989.40	Aug. 6	3,988.35
Apr. 3	3,989.53	Sept. 2	3,987.78

2890. Virginia Creek near Bridgeport, Calif.

Location.--Lat 38°11'30", long 119°12'30", near center of W½ sec.22, T.4 N., R.25 E., on right bank 1¼ miles downstream from Clearwater Creek, 3 miles upstream from mouth, and 4½ miles southeast of Bridgeport.

Drainage area.--64 sq mi, approximately.

Records available.--October 1953 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,700 ft (from topographic map).

Average discharge.--6 years, 16.2 cfs (11,730 acre-ft per year).

Extremes.--Maximum discharge during year, 76 cfs Apr. 4 (gage height, 4.30 ft); minimum, 1.7 cfs Aug. 29, Sept. 1.
1953-59: Maximum discharge, 1,300 cfs Dec. 23, 1955 (gage height, 8.40 ft), from rating curve extended above 170 cfs on basis of slope-area measurement of peak flow; minimum, 1.5 cfs July 8, 1954.

Remarks.--Records good. Flow partly regulated by Virginia Lakes and other lakes near headwaters. Diversions for irrigation of about 3,000 acres above station.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

3.1	1.2	3.5	10
3.2	2.2	3.6	15
3.3	4.0	4.0	46
3.4	6.5		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	12	13	b12	11	12	27	15	7.7	4.2	2.4	2.0
2	11	12	13	b10	b11	13	27	15	6.5	3.8	2.3	2.3
3	10	12	14	b8.5	b10	13	34	15	8.1	4.0	2.4	2.2
4	9.7	12	14	b9.7	12	13	43	14	8.9	4.2	2.4	2.2
5	9.7	12	13	12	12	13	44	12	9.7	4.0	2.4	2.2
6	10	13	13	11	11	13	40	11	12	3.8	2.4	2.3
7	10	13	13	12	11	13	31	11	14	3.6	2.4	2.3
8	10	13	13	14	b11	13	*25	9.3	12	3.8	3.0	2.2
9	10	13	13	15	b11	14	23	9.7	11	3.6	3.0	2.6
10	9.7	13	13	15	11	14	23	9.7	11	3.6	3.0	2.6
11	11	14	13	14	b9.3	14	23	10	12	3.6	2.6	2.6
12	11	14	13	14	b10	15	23	11	11	3.6	2.4	3.0
13	11	15	12	13	b10	18	21	14	12	2.8	2.6	3.2
14	11	15	11	13	b14	16	18	15	11	3.0	2.8	*3.0
15	*11	13	11	13	16	16	18	15	11	2.8	2.6	3.0
16	11	b13	13	13	16	16	17	14	11	4.2	2.6	3.2
17	11	b11	13	13	14	16	16	14	10	4.0	2.4	3.4
18	11	15	12	13	15	18	16	13	8.9	2.3	2.4	8.2
19	11	16	11	13	14	18	15	13	8.9	2.1	2.8	14
20	11	*15	*12	11	b13	17	15	*12	8.5	2.3	*3.0	6.5
21	11	15	13	*11	13	18	15	9.7	9.3	2.8	3.0	7.1
22	11	14	13	12	b12	18	15	15	8.5	3.2	3.0	7.1
23	12	14	12	12	b12	*18	*15	20	*7.7	*3.4	3.0	7.1
24	13	14	11	12	b12	15	16	18	7.1	3.4	3.0	6.8
25	13	14	12	13	*b12	14	16	14	6.2	3.0	2.8	6.8
26	13	15	12	11	12	15	21	10	6.2	2.2	2.8	6.5
27	13	14	11	13	12	14	18	10	5.9	2.0	2.6	6.2
28	12	12	b8.1	11	12	15	16	8.9	5.3	2.1	2.4	6.2
29	12	12	b9.3	b9.3	-	16	15	7.7	5.0	2.2	1.9	6.5
30	12	b11	12	b10	-------	17	16	8.1	4.6	2.2	2.0	6.8
31	12	-------	12	b7.7	-------	21	-------	8.1	-------	2.6	2.0	-------
Total	346.1	401	378.4	371.2	339.3	476	662	382.2	271.0	98.4	80.4	140.1
Mean	11.2	13.4	12.2	12.0	12.1	15.4	22.1	12.3	9.03	3.17	2.59	4.67
Ac-ft	686	795	751	736	673	944	1,310	758	538	195	159	278

Calendar year 1958: Max 156 Min 7.1 Mean 24.9 Ac-ft 18,000
Water year 1958-59: Max 44 Min 1.9 Mean 10.8 Ac-ft 7,820

Peak discharge (base, 50 cfs).--Apr. 4 (8 p.m.) 76 cfs (4.30 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

2895. Green Creek near Bridgeport, Calif.

Location.--Lat 38°10'25", long 119°14'00", in NE¼SE¼ sec.29, T.4 N., R.25 E., on right bank 130 ft downstream from county road bridge and 5½ miles south of Bridgeport.

Drainage area.--19.4 sq mi.

Records available.--October 1953 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,850 ft (from topographic map).

Average discharge.--6 years, 29.4 cfs (21,280 acre-ft per year).

Extremes.--Maximum discharge during year, 73 cfs June 14 (gage height, 2.42 ft); maximum gage height, 2.59 ft Feb. 13 (backwater from ice); minimum discharge, 3.7 cfs Nov. 14, 19.

1953-59: Maximum discharge, 307 cfs Dec. 23, 1955, from rating curve extended above 220 cfs on basis of slope-area measurement of peak flow and logarithmic plotting; maximum gage height, 3.46 ft Feb. 2, 1956 (backwater from ice); minimum discharge, 3.7 cfs Nov. 17, 1955, Nov. 14, 19, 1959, but may have been less during periods of ice effect.

Remarks.--Records good except those for periods of ice effect, which are poor. Flow regulated by West, Green, East, Summit, and other lakes.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.5	3.5	2.0	23
1.6	5.0	2.2	41
1.7	8.0	2.5	79
1.8	12		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	7.1	b7	b5.5	b6	7.7	16	42	36	33	24	4.8
2	11	7.1	7.1	b5.5	b6	7.7	16	32	41	33	22	4.4
3	11	7.1	7.1	b5	b6	8.0	19	29	46	32	22	4.6
4	11	7.1	7.1	b5	b6.5	b8	22	27	50	32	28	4.2
5	10	7.1	7.1	b6.5	b7	b8	25	25	54	31	27	4.2
6	10	7.1	6.5	b6.5	b6.5	8.4	25	25	64	29	25	4.2
7	9.6	7.1	6.2	b7	6.2	8.4	25	24	66	27	23	4.2
8	9.6	7.1	6.2	b8	b6	b8	22	25	64	26	22	4.4
9	9.6	6.8	6.2	10	b6	8.8	21	27	64	25	18	4.6
10	9.2	7.4	6.2	11	b6	8.8	21	28	63	24	16	4.8
11	9.2	8.4	6.2	12	b5.5	b8.5	22	33	62	24	15	5.6
12	8.8	7.7	6.2	11	b5.5	9.6	24	40	66	25	14	6.8
13	8.4	8.0	5.3	11	b5	10	24	48	68	31	14	7.1
14	8.4	8.4	b5	b9.5	b8	10	23	48	68	34	12	*8.0
15	*7.7	7.1	b5.5	10	b10	b9	23	46	64	43	12	8.0
16	7.7	b7	6.2	9.2	b20	b9	23	44	60	43	11	7.1
17	7.4	b6	5.9	8.4	b20	10	22	41	56	42	10	6.5
18	7.1	b7	5.9	8.4	11	10	22	39	54	41	9.2	9.4
19	7.1	b8	b5.5	7.7	11	10	22	36	56	40	9.2	28
20	7.1	*7.7	*5.9	b7.5	b10	10	21	*35	54	38	*8.8	21
21	7.1	7.4	6.2	*b8	b10	11	22	34	56	37	7.7	16
22	7.1	7.4	6.5	8.0	b10	11	24	36	59	35	7.4	15
23	7.1	7.4	5.3	7.1	b10	*11	26	35	*62	34	6.8	14
24	7.4	7.4	b5.5	7.1	*b9	10	*27	32	59	*33	7.1	14
25	7.4	7.4	6.8	7.1	b8.5	10	29	31	54	32	6.5	13
26	8.0	7.4	b6.5	b7	8.0	11	29	31	51	30	6.2	12
27	8.0	7.1	5.9	b7	8.0	11	27	30	48	29	5.6	13
28	7.7	6.2	b6	7.1	7.7	12	27	29	42	28	5.9	13
29	7.4	b6	b6	b6.5	-	12	28	31	37	27	5.6	12
30	7.1	b6	b5.5	b6	-------	12	32	31	34	25	4.8	12
31	7.1	-------	b5.5	b6	-------	12	-------	33	-------	25	4.8	-------
Total	263.3	216.0	190.0	241.6	239.4	300.9	711	1,047	1,658	988	410.6	285.9
Mean	8.49	7.20	6.13	7.79	8.55	9.71	23.7	33.8	55.3	31.9	13.2	9.53
Ac-ft	522	428	377	479	475	597	1,410	2,080	3,290	1,960	814	567

Calendar year 1958: Max 203 Min 5 Mean 38.2 Ac-ft 27,630
Water year 1958-59: Max 68 Min 4.2 Mean 17.9 Ac-ft 13,000

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

2900. Summers Creek near Bridgeport, Calif.

Location.--Lat 38°09'15", long 119°15'30", in NW¼NE¼ sec.6, T.3 N., R.25 E., 7½ miles southwest of Bridgeport.

Drainage area.--12.6 sq mi.

Records available.--October 1953 to November 1959 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 7,100 ft (from topographic map).

Average discharge.--6 years, 5.92 cfs (4,290 acre-ft per year).

Extremes.--Maximum discharge during period October 1958 to November 1959, 18 cfs Apr. 1 (gage height, 2.82 ft); minimum, 0.4 cfs Sept. 1.
1953-59: Maximum discharge, 690 cfs Dec. 23, 1955 (gage height, 5.95 ft, in gage well, 6.2 ft from floodmark), from rating curve extended above 58 cfs on basis of slope-area measurement of peak flow; minimum, that of Sept. 1, 1959.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Flow partly regulated by Tamarack Lake, several smaller lakes, and a transarea diversion to Twin Lakes. Diversions for irrigation of about 160 acres above station.

Rating table, Oct. 1, 1958, to Nov. 18, 1959 (gage height, in feet, and discharge, in cubic feet per second)

2.39	0.75	2.6	5.7
2.5	2.9	2.7	9.7

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.4	3.4	3.6	3.6	3.1	3.1	9.2	4.5	3.4	3.4	2.1	0.8
2	3.4	3.1	3.6	3.6	2.9	3.1	7.9	4.2	3.1	3.1	1.3	.8
3	3.4	3.1	3.6	3.6	3.1	3.1	7.5	4.5	2.9	3.6	1.1	.8
4	3.4	3.1	3.6	3.9	3.4	3.1	7.9	4.2	2.9	3.4	1.1	.8
5	3.4	3.1	3.6	3.9	3.4	3.1	7.9	3.9	2.9	3.4	1.1	.8
6	3.1	3.1	3.6	4.2	3.4	3.1	7.5	3.9	3.1	3.6	1.3	.8
7	3.4	3.4	3.6	4.2	3.1	3.1	7.1	3.6	3.4	4.8	1.3	.8
8	3.4	3.4	3.6	4.2	3.1	3.4	*6.3	3.6	3.6	4.5	1.7	.9
9	3.4	3.4	3.6	5.4	3.1	3.6	6.3	3.6	3.4	4.5	1.5	.9
10	3.4	3.9	3.6	6.0	3.1	3.4	6.3	3.4	3.4	4.2	1.5	1.1
11	3.1	3.9	3.6	5.1	3.1	3.4	6.3	3.4	3.6	4.2	1.3	1.3
12	3.1	3.9	3.6	5.4	3.1	3.9	6.0	3.6	3.9	4.2	1.3	1.3
13	3.1	3.9	3.4	5.4	3.1	4.2	6.0	4.2	4.5	4.2	1.3	1.3
14	3.1	3.9	3.4	5.1	3.1	4.2	5.7	4.2	4.8	3.9	1.3	*1.1
15	*3.1	3.6	3.4	5.1	3.1	4.2	5.4	3.9	4.8	4.2	1.1	1.3
16	3.1	3.4	3.4	5.1	3.4	4.2	5.4	3.9	4.8	3.9	1.3	1.5
17	3.1	3.6	3.4	5.1	3.1	4.5	5.1	3.6	4.8	3.6	1.3	2.5
18	2.9	3.6	3.4	5.1	3.1	4.8	4.8	3.6	4.5	2.7	.9	6.3
19	2.9	3.9	3.4	4.8	3.1	4.8	4.8	3.6	5.1	1.5	1.1	a5.0
20	2.9	*3.9	*3.4	4.2	3.1	4.8	4.5	*3.9	5.4	1.5	*1.3	a4.0
21	3.1	3.9	3.4	*4.5	3.1	5.1	4.5	4.2	5.7	1.5	1.1	a3.5
22	3.4	3.9	3.6	4.2	a3.1	5.4	4.5	5.4	5.4	1.7	.9	3.1
23	3.4	3.9	3.4	4.2	a3.1	*4.8	4.5	5.1	*5.1	2.1	1.1	2.7
24	3.4	3.9	3.6	4.2	*3.1	4.5	*4.5	4.8	5.4	*1.5	1.1	2.5
25	3.6	3.9	3.6	3.9	2.9	4.2	4.8	4.5	5.7	1.1	1.1	2.3
26	3.6	3.9	3.6	3.9	2.9	4.5	5.7	4.2	6.3	1.1	1.1	2.1
27	3.6	3.9	3.6	3.9	3.1	4.8	5.1	4.2	6.3	1.1	.9	2.1
28	3.4	3.6	3.4	3.4	3.1	5.4	4.8	3.9	5.1	.9	.9	2.1
29	3.4	3.6	3.6	3.4	-	5.1	4.5	3.6	2.3	.9	.9	2.1
30	3.4	3.6	3.6	3.1	-------	6.3	4.5	3.6	2.9	.9	.9	2.1
31	3.4	-------	3.6	3.1	-------	7.1	-------	3.4	-------	1.5	.8	-------
Total	101.8	108.7	109.4	134.8	87.4	132.3	175.3	124.2	128.5	86.7	37.0	58.7
Mean	3.28	3.62	3.53	4.35	3.12	4.27	5.84	4.01	4.28	2.80	1.19	1.96
Ac-ft	202	216	217	267	173	262	348	246	255	172	73	116

Calendar year 1958: Max 42 Min 2.5 Mean 8.33 Ac-ft 6,030
Water year 1958-59: Max 9.2 Min 0.8 Mean 3.52 Ac-ft 2,550

Peak discharge (base, 20 cfs).--No peak above base.

* Discharge measurement made on this day.
a No gage-height record; discharge interpolated.

Discharge, in cubic feet per second, 1959

Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.	Day	Oct.	Nov.
1	a2	2.1	7	a1.8	2.1	13	a1.8	2.1	19	1.9	-	25	2.1	-
2	a2	2.1	8	a1.8	2.1	14	a1.8	2.1	20	1.9	-	26	2.1	-
3	a2	2.1	9	a1.8	2.1	15	a1.8	2.1	21	1.9	-	27	2.1	-
4	a2	2.1	10	a1.8	2.1	16	*1.7	2.1	22	2.1	-	28	2.1	-
5	a2	2.1	11	a1.8	2.1	17	1.7	2.1	23	2.1	-	29	2.1	-
6	a1.8	2.1	12	a1.8	2.1	18	1.9	*2.1	24	2.1	-	30	2.1	-
												31	2.1	-
Total													60.0	-
Mean													1.94	-
Runoff in acre-feet													119	-

Peak discharge (base, 20 cfs).--No peak above base.

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of recorded range in stage.

2905. Robinson Creek at Twin Lakes outlet, near Bridgeport, Calif.

Location.--Lat 38°10'20", long 119°19'25", in SE¼SE¼ sec.28, T.4 N., R.24 E., on left bank a quarter of a mile downstream from Twin Lakes and 8 miles southwest of Bridgeport.

Drainage area.--34.7 sq mi.

Records available.--October 1953 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 7,050 ft (from topographic map).

Average discharge.--6 years, 58.4 cfs (42,280 acre-ft per year).

Extremes.--Maximum daily discharge during year, 136 cfs June 15 (gage height, 2.96 ft); minimum daily, 3.9 cfs Nov. 11.
1953-59: Maximum discharge, 445 cfs June 29, 1956 (gage height, 4.35 ft); no flow for many days in 1954-55, 1958.
Maximum discharge known, 660 cfs June 21, 1911 (gage height, 5.2 ft), at site 2½ miles downstream.

Remarks.--Records excellent. Flow regulated by Twin Lakes.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

1.2	3.9	2.5	83
1.6	19	3.0	141
2.0	41		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	12	19	16	15	18	18	70	76	110	82	24
2	29	12	19	16	15	18	18	70	77	106	81	24
3	29	12	20	14	15	18	57	70	78	104	81	22
4	29	11	20	16	15	18	102	70	81	101	82	21
5	29	11	20	19	15	17	96	69	84	98	81	20
6	29	6.6	19	22	17	17	94	68	88	95	82	20
7	28	6.0	18	22	17	17	93	67	96	92	83	20
8	28	6.0	19	20	18	17	92	66	106	89	82	20
9	28	5.4	18	23	19	17	90	65	111	86	80	20
10	28	4.2	17	24	22	17	88	63	118	81	78	20
11	28	3.9	17	24	33	17	87	63	123	78	76	20
12	28	4.2	17	24	31	17	85	64	127	76	74	20
13	28	7.0	17	24	28	19	83	65	129	74	71	20
14	28	9.4	17	24	26	17	83	68	133	72	69	18
15	28	9.0	17	22	25	17	83	70	136	71	66	17
16	28	10	17	22	34	17	88	70	134	70	63	17
17	28	12	17	22	34	18	91	70	134	69	60	*16
18	26	14	17	20	32	16	89	70	133	67	54	17
19	21	15	*17	20	29	17	87	*71	132	65	*50	20
20	13	*16	17	19	26	17	85	81	132	65	46	21
21	12	17	17	*18	25	18	85	93	131	64	42	22
22	12	18	18	18	20	20	83	93	*131	64	38	22
23	12	19	18	18	22	20	*81	91	131	*63	36	23
24	12	20	19	20	20	*18	79	90	131	62	34	24
25	12	20	19	21	*20	18	78	87	127	64	33	26
26	12	20	19	20	20	19	77	85	124	71	32	29
27	12	20	20	20	19	19	75	84	122	74	31	31
28	12	20	18	20	19	20	73	82	120	76	28	32
29	12	19	17	19	-	20	72	79	117	78	27	33
30	12	19	17	16	-------	24	71	78	114	79	26	34
31	12	-------	16	16	-------	18	-------	77	-------	81	24	-------
Total	674	378.7	557	619	631	562	2,383	2,309	3,476	2,445	1,792	673
Mean	21.7	12.6	18.0	20.0	22.5	18.1	79.4	74.5	116	78.9	57.8	22.4
Ac-ft	1,340	751	1,100	1,230	1,250	1,110	4,730	4,580	6,890	4,850	3,550	1,330

Calendar year 1958: Max 371 Min 0 Mean 75.4 Ac-ft 54,560
Water year 1958-59: Max 136 Min 3.9 Mean 45.2 Ac-ft 32,710

* Discharge measurement made on this day.

2915 (Corrected). Buckeye Creek near Bridgeport, Calif.

Location.--Lat 38°14'20", long 119°19'30", in NE¼NE¼ sec.4, T.4 N., R.24 E., on right bank at Buckeye Hot Springs, 0.6 mile downstream from Eagle Creek and 5½ miles southwest of Bridgeport.

Drainage area.--45 sq mi, approximately.

Records available.--November 1910 to September 1914 (fragmentary), October 1953 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,900 ft (from topographic map). November 1910 to September 1914 staff gage at site half a mile downstream at different datum.

Average discharge.--7 years (1911-12, 1953-59), 58.9 cfs (42,640 acre-ft per year).

Extremes.--Maximum discharge during year, 201 cfs June 6 (gage height, 2.88 ft); minimum, 8.8 cfs Jan. 2, 3, but may have been less during periods of ice effect.

1953-59: Maximum discharge, 700 cfs Dec. 23, 1955 (gage height, 4.00 ft), from rating curve extended above 360 cfs on basis of slope-area measurement of peak flow; minimum, 4.7 cfs Mar. 14, 1955, result of freezeup.

Flood of June 21, 1911, reached an observed stage of 4.8 ft (discharge not determined), site and datum then in use.

Remarks.--Records good except those for periods of ice effect, which are fair.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.5	12	2.3	83
1.7	23	2.7	159
2.0	47		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	23	20	19	b19	19	37	113	103	57	24	14
2	29	22	20	16	19	21	43	76	119	58	24	14
3	29	22	21	b16	b20	22	46	64	125	59	23	13
4	29	22	21	b19	21	22	55	58	131	57	22	13
5	29	22	20	b19	17	21	63	57	141	53	21	13
6	28	22	20	b20	17	22	64	57	150	49	21	13
7	28	22	19	20	17	22	62	57	123	45	21	13
8	28	22	19	21	b19	24	55	68	123	43	21	13
9	27	22	19	32	b18	25	52	76	123	42	21	13
10	27	24	19	27	b20	25	54	86	117	42	21	13
11	27	24	19	23	b18	25	57	110	121	42	19	14
12	26	22	19	23	b18	27	62	133	131	42	18	16
13	26	23	18	21	b17	29	59	144	137	43	18	16
14	*26	24	18	19	b18	29	58	119	127	42	18	16
15	26	21	20	19	32	29	57	123	113	40	18	16
16	26	b21	18	19	34	29	56	108	101	38	17	15
17	25	b21	18	19	32	30	56	103	96	37	17	*14
18	25	b21	18	19	21	29	53	96	96	36	17	34
19	25	*b22	*17	18	19	29	53	*86	96	36	*17	77
20	25	22	18	*17	b18	30	58	83	94	36	16	42
21	24	22	18	b19	b18	32	61	80	97	33	16	32
22	25	22	18	18	b18	32	65	77	*101	33	16	30
23	25	21	16	18	b16	29	*70	65	91	*34	16	29
24	25	21	18	18	b16	*27	72	63	86	32	16	26
25	25	22	18	18	*b18	26	79	61	82	31	16	24
26	24	22	18	b17	18	27	68	68	79	30	15	25
27	24	21	18	18	18	27	59	63	70	29	15	24
28	24	19	b18	17	19	28	62	69	65	28	14	22
29	24	19	b18	b19	-	27	73	75	61	26	14	21
30	23	19	b18	b19	-------	28	94	79	57	26	14	21
31	23	-------	18	b19	-------	29	-------	91	-------	25	14	-------
Total	807	652	577	606	555	821	1,803	2,608	3,156	1,224	560	646
Mean	26.0	21.7	18.6	19.5	19.8	26.5	60.1	84.1	105	39.5	18.1	21.5
Ac-ft	1,600	1,290	1,140	1,200	1,100	1,630	3,580	5,170	6,260	2,430	1,110	1,280

Calendar year 1958: Max 422 Min 11 Mean 82.2 Ac-ft 59,510
Water year 1958-59: Max 150 Min 13 Mean 38.4 Ac-ft 27,790

Peak discharge (base, 100 cfs).--May 1 (3 a.m.) 141 cfs (2.59 ft); May 13 (2 a.m.) 168 cfs (2.79 ft); June 6 (12:30 a.m.) 201 cfs (2.88 ft); Sept. 19 (12 m.) 101 cfs (2.42 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

2920. Swager Creek near Bridgeport. Calif.

Location.--Lat 38°17'00", long 119°17'50", in SE¼NW¼ sec.23, T.5 N., R.24 E., on right bank three-quarters of a mile downstream from Yaney Canyon and 4 miles northwest of Bridgeport.

Drainage area.--53 sq mi, approximately.

Records available.--June 1911 to September 1915 (fragmentary), October 1953 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,620 ft, revised (from topographic map). June 1911 to September 1915 staff gages at approximately same site at different datums.

Average discharge.--6 years (1953-59), 13.0 cfs (9,410 acre-ft per year).

Extremes.--Maximum discharge during year, 35 cfs Mar. 30 (gage height, 2.46 ft); maximum gage height, 2.97 ft Feb. 13 (backwater from ice); minimum discharge, 1.4 cfs Aug. 1. 1911-15, 1953-59: Maximum discharge, 585 cfs Dec. 23, 1955 (gage height, 6.24 ft), from rating curve extended above 175 cfs on basis of slope-area measurement of peak flow; no flow Apr. 20, 1912.

Remarks.--Records good except those for periods of ice effect, which are fair. Diversions for irrigation of about 1,000 acres above station.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.7	1.3	2.0	8.7
1.8	2.8	2.2	18
1.9	5.2	2.5	37

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.1	9.6	11	11	10	13	24	7.5	9.6	2.4	1.7	1.7
2	9.1	10	11	10	10	13	23	7.5	9.1	2.4	1.8	1.7
3	9.1	10	11	b7.0	b10	13	23	9.1	8.3	2.4	1.5	1.7
4	9.1	10	11	b7.0	12	13	25	10	6.4	2.3	1.7	1.7
5	9.1	10	11	8.7	12	13	26	10	6.1	2.4	1.8	1.7
6	9.1	12	11	b7.0	11	14	28	9.6	6.4	2.3	1.7	1.8
7	9.1	13	11	b7.0	11	14	25	9.6	6.1	2.1	1.7	1.8
8	9.1	14	11	9.1	11	14	*22	8.7	6.1	1.9	1.8	1.8
9	9.1	14	11	12	b10	14	22	9.1	5.8	1.9	1.8	1.8
10	9.6	14	11	12	11	14	22	9.1	5.2	1.9	2.1	1.9
11	10	14	11	12	12	14	22	8.7	5.2	1.9	1.9	1.9
12	10	12	11	12	b10	15	19	8.3	4.2	1.9	1.7	2.1
13	10	12	10	12	b10	16	13	10	3.9	1.9	1.7	2.1
14	*9.6	13	9.6	b11	b11	16	14	10	3.7	1.9	1.7	*1.9
15	9.6	8.3	10	12	13	16	14	8.7	3.5	1.9	1.7	2.1
16	9.6	b7.0	11	12	13	16	14	8.3	3.0	1.8	1.7	2.3
17	9.6	b6.0	11	12	13	16	14	8.3	2.8	1.8	1.7	2.8
18	9.6	b8.0	11	12	13	16	12	7.1	2.8	1.8	1.7	3.2
19	10	*10	*10	11	13	16	12	*7.5	2.8	1.8	*1.7	3.9
20	10	11	10	*9.1	b12	16	13	7.5	2.8	1.8	1.7	3.5
21	10	12	10	10	13	17	13	8.7	2.8	1.7	1.7	3.7
22	10	12	11	11	12	17	13	11	*3.2	1.7	1.7	3.9
23	10	12	10	11	b11	*16	*13	11	3.2	*1.7	1.7	4.2
24	10	12	9.6	12	*b11	16	13	12	3.5	1.7	1.7	3.9
25	11	12	10	11	b11	16	14	10	3.2	1.8	1.7	3.5
26	11	12	10	9.6	b11	18	16	14	2.8	2.1	1.7	3.5
27	11	11	10	11	12	18	14	12	2.6	2.3	1.7	3.7
28	11	9.1	9.1	11	13	20	13	11	2.4	1.7	1.7	4.9
29	11	10	b8.3	b10	-	19	11	11	2.4	1.7	1.7	5.8
30	10	10	10	10	-------	22	9.1	11	2.3	1.7	1.7	6.1
31	10	-------	10	b8.0	-------	22	-------	10	-------	1.8	1.7	-------
Total	304.5	330.0	322.6	320.5	322	493	516.1	296.3	132.2	60.4	53.5	86.6
Mean	9.82	11.0	10.4	10.3	11.5	15.9	17.2	9.56	4.41	1.95	1.73	2.89
Ac-ft	604	655	640	636	639	978	1,020	588	262	120	106	172

Calendar year 1958: Max 143 Min 5.0 Mean 24.9 Ac-ft 18,040
Water year 1958-59: Max 28 Min 1.5 Mean 8.87 Ac-ft 6,420

Peak discharge (base, 25 cfs).--Mar. 30 (4 p.m.) 35 cfs (2.46 ft); Apr. 6 (8 p.m.) 34 cfs (2.46 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

2325. Bridgeport Reservoir near Bridgeport, Calif.

Location.--Lat 38°19'30", long 119°12'50", in SE¼NE¼ sec.34, T.6 N., R.25 E., at Bridgeport Dam on East Walker River, 4½ miles north of Bridgeport.

Drainage area.--362 sq mi.

Records available.--March 1926 to September 1959. Monthly discharge only for some periods, published in WSP 1314.

Gage.--Float gage read once daily. Datum of gage is at mean sea level.

Extremes.--Maximum contents during year, 43,520 acre-ft Mar. 18, 19 (elevation, 6,460.37 ft); minimum, 2,970 acre-ft Sept. 18, 19 (elevation, 6,435.08 ft).
1926-59: Maximum contents, 44,580 acre-ft June 12, 1938, June 25, 26, 1958 (elevation, 6,460.7 ft); no contents during fall of 1929, 1930.

Remarks.--Reservoir is formed by earth-fill, rock-faced dam. Storage began Dec. 8, 1923. Dam completed in November 1924. Capacity, 42,460 acre-ft between elevations 6,415 (approximate elevation of bottom of reservoir) and 6,460 ft (crest of spillway). Elevation of sill of outlet gate, 6,412 ft. No dead storage. Figures given herein represent total contents. Water is used for irrigation by Walker River Irrigation District.

Cooperation.--Elevations and capacity table furnished by Walker River Irrigation District.

Revisions (water years).--WSP 1180: 1949.

Capacity table, water year 1958-59 (elevation, in feet, and contents, in acre-feet)

6,435	2,920	6,448	15,470
6,437	4,050	6,452	22,580
6,440	6,240	6,456	31,570
6,444	10,200	6,461	45,490

Contents, in acre-feet, at 8 a.m., water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24,140	22,090	25,980	30,970	37,180	41,580	43,220	38,710	32,460	26,310	16,500	6,160
2	23,830	22,190	26,090	31,090	37,320	41,580	43,370	38,290	32,330	25,980	16,190	5,840
3	23,620	22,290	26,310	31,210	37,320	41,580	43,370	38,010	32,080	25,760	15,870	5,560
4	23,410	22,380	26,420	31,330	37,460	41,580	43,370	37,870	31,820	25,540	15,550	5,260
5	23,200	22,480	26,530	31,450	37,730	41,580	43,370	37,590	31,570	25,320	15,170	5,040
6	23,000	22,580	26,640	31,700	37,870	41,580	43,370	37,460	31,330	25,210	15,030	4,780
7	22,790	22,790	26,860	31,820	38,010	41,580	43,370	37,180	31,210	24,880	14,660	4,610
8	22,480	22,890	26,980	32,080	38,290	41,580	43,220	37,040	30,970	24,660	14,360	4,380
9	22,290	22,890	27,200	32,200	38,430	41,880	43,070	36,900	30,730	24,450	13,990	4,220
10	22,290	23,000	27,320	32,460	38,570	42,020	42,920	36,630	30,490	24,240	13,650	4,020
11	22,090	23,100	27,440	32,840	38,980	42,170	42,920	36,500	30,240	23,930	13,310	3,870
12	21,990	23,310	27,550	33,220	39,120	42,310	42,760	36,230	30,000	23,720	12,970	3,690
13	21,890	23,410	27,660	33,600	39,260	42,610	42,760	36,100	29,760	23,410	12,570	3,540
14	21,890	23,520	27,900	33,730	39,540	42,610	42,610	35,960	29,640	23,200	12,190	3,450
15	21,700	23,620	28,010	34,110	39,690	42,920	42,310	35,700	29,520	22,890	11,690	3,240
16	21,700	23,720	28,120	34,240	39,980	43,070	42,170	35,440	29,280	22,480	11,440	3,100
17	21,700	23,830	28,360	34,380	40,420	43,220	41,880	35,170	29,160	22,190	11,080	3,000
18	21,600	23,930	28,470	34,640	40,710	43,520	41,580	34,770	28,930	21,890	10,730	2,970
19	21,500	24,040	28,700	34,770	40,850	43,520	41,290	34,380	28,700	21,500	10,380	2,970
20	21,400	24,240	28,820	34,900	41,000	43,370	41,150	34,110	28,470	21,110	9,980	3,100
21	21,400	24,350	29,040	35,170	41,150	43,370	40,850	33,730	28,240	20,720	9,650	3,210
22	21,400	24,560	29,160	35,300	41,290	43,370	40,560	33,600	28,120	20,250	9,320	3,290
23	21,400	24,770	29,280	35,570	41,290	43,370	40,270	33,350	27,900	19,880	9,000	3,370
24	21,500	24,880	29,520	35,700	41,290	43,070	39,980	33,220	27,780	19,420	8,690	3,420
25	21,500	24,990	29,760	35,830	41,440	42,920	39,830	33,220	27,550	19,060	8,390	3,510
26	21,600	25,210	30,000	36,100	41,440	43,070	39,690	33,090	27,320	18,690	8,030	3,570
27	21,700	25,320	30,120	36,360	41,580	42,920	39,400	32,970	27,090	18,350	7,700	3,630
28	21,700	25,540	30,360	36,500	41,580	42,920	39,260	32,840	26,860	17,920	7,310	3,690
29	21,800	25,650	30,490	36,630	-	43,070	38,980	32,590	26,750	17,580	7,030	3,720
30	21,890	25,760	30,610	36,760	-------	43,070	38,840	32,590	26,530	17,150	6,720	3,780
31	21,990	-------	30,850	36,900	-------	43,070	-------	32,460	-------	16,820	6,460	-------
(†)	6,451.69	6,453.52	6,455.68	6,458.06	6,459.70	6,460.22	6,458.76	6,456.35	6,453.83	6,448.85	6,440.23	6,436.54
(‡)	-2,570	+3,770	+5,090	+6,050	+4,680	+1,490	-4,230	-6,380	-5,930	-9,710	-10,360	-2,680

Calendar year 1958..... ‡ +9,540
Water year 1958-59..... ‡ -20,780

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

2930. East Walker River near Bridgeport, Calif.

Location.--Lat 38°19'40", long 119°12'50", in SW¼NE¼ sec.34, T.6 N., R.25 E., on right bank 1,500 ft downstream from Bridgeport Reservoir, 5 miles north of Bridgeport, and 10 miles upstream from Sweetwater Creek.

Drainage area.--362 sq mi.

Records available.--July 1911 to September 1914 (gage heights only), October 1921 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,400 ft (from topographic map). Prior to Oct. 1, 1921, staff gage at site half a mile upstream at different datum. Oct. 1, 1921, to Feb. 21, 1924, water-stage recorder at site 1 mile downstream at different datum. Feb. 22, 1924, to Sept. 30, 1931, water-stage recorder and Oct. 1, 1931, to May 25, 1939, staff gage, at present site at datum 2.34 ft lower.

Average discharge.--36 years (1922-24, 1925-59), 133 cfs (96,290 acre-ft per year).

Extremes.--Maximum discharge during year, 259 cfs Oct. 1, 2; maximum gage height, 1.69 ft July 21; minimum daily discharge, 4.0 cfs Dec. 17.
1921-59: Maximum discharge, 1,240 cfs Jan. 22, 1943 (gage height, 4.5 ft); minimum daily, 0.2 cfs Nov. 2-29, Dec. 1-22, 25-28, 1955, Jan. 17-25, 1956.

Remarks.--Records good. Diversion for irrigation of meadow pasture lands near Bridgeport. Flow regulated by Bridgeport Reservoir (see preceding page). Records of chemical analyses and water temperatures for the water year 1959 are given in WSP 1644.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.1	2.5	0.8	81
.2	5.0	1.0	96
.3	9.0	1.5	212
.4	15	1.7	268
.6	33		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	256	29	21	4.4	4.7	70	82	184	154	194	156	168
2	242	29	21	4.4	4.4	83	85	184	194	178	156	164
3	226	29	21	4.4	4.7	96	114	184	194	152	156	154
4	212	29	21	4.4	4.7	96	136	176	212	152	150	147
5	212	29	20	4.4	4.7	96	156	161	226	152	138	136
6	212	29	19	4.4	4.7	96	152	161	226	152	152	136
7	212	29	19	4.4	4.7	96	152	159	226	152	186	134
8	212	29	20	4.4	4.7	96	150	159	226	152	186	125
9	184	29	20	4.4	5.0	96	145	159	226	152	186	112
10	159	29	20	4.4	5.0	96	143	159	226	150	186	110
11	156	27	20	4.4	5.0	96	140	159	226	150	184	110
12	152	24	20	4.4	5.0	96	140	188	226	150	194	108
13	152	24	20	4.4	5.0	96	138	194	226	154	199	108
14	150	24	20	4.4	5.0	100	164	194	226	168	199	*100
15	*138	24	12	4.4	5.0	104	171	204	226	194	194	82
16	129	24	4.7	4.4	5.0	108	171	228	226	202	186	78
17	120	23	4.0	4.4	5.0	116	171	226	220	202	189	66
18	116	22	4.4	4.4	5.0	154	171	228	207	202	198	61
19	116	20	4.4	4.4	5.0	189	171	228	207	202	*194	40
20	104	*20	*4.4	*4.4	50	176	171	*226	194	207	191	28
21	87	20	4.7	4.4	70	176	171	217	191	239	181	28
22	73	21	4.4	4.7	70	176	171	191	189	248	176	28
23	63	21	4.4	4.7	70	181	171	178	*189	248	171	32
24	63	21	4.4	4.7	70	*143	*171	156	196	*239	171	37
25	63	21	4.4	4.7	*70	120	174	150	212	215	178	38
26	63	21	4.4	4.7	70	120	171	136	212	212	191	38
27	63	21	4.7	4.7	70	100	166	136	212	204	189	38
28	52	21	4.7	4.7	70	78	150	136	202	191	178	38
29	29	21	4.7	4.7	-	76	150	136	196	189	171	38
30	29	21	4.7	4.7	-------	82	164	136	196	189	171	38
31	29	-------	4.7	4.7	-------	78	-------	136	-------	178	168	-------
Total	4,074	731	366.1	139.4	702.3	3,486	4,582	5,451	6,289	5,769	5,523	2,520
Mean	131	24.4	11.8	4.50	25.1	112	153	176	210	186	178	84.0
Ac-ft	8,080	1,450	726	276	1,390	6,910	9,090	10,810	12,470	11,440	10,950	5,000

Calendar year 1958: Max 813 Min 4.0 Mean 220 Ac-ft 158,900
Water year 1958-59: Max 256 Min 4.0 Mean 109 Ac-ft 78,590

* Discharge measurement made on this day.

2935. East Walker River above Strosnider ditch, near Mason, Nev.

Location.--Lat 38°48'50", long 119°02'50", in NW¼SW¼ sec.14, T.11 N., R.26 E., on right bank 0.8 mile upstream from head of Strosnider ditch, 12 miles southeast of Mason, and 13½ miles southeast of Yerington.

Drainage area.--1,100 sq mi, approximately.

Records available.--January 1947 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 4,574.10 ft above mean sea level, datum of 1929. Prior to Oct. 24, 1957, at site 400 ft upstream at datum 0.56 ft higher.

Average discharge.--12 years, 139 cfs (100,600 acre-ft per year).

Extremes.--Maximum discharge during year, 372 cfs July 24 (gage height, 2.78 ft); minimum determined, 22 cfs, occurred sometime during period Jan. 4-20, from recorded range in stage.
1947-59: Maximum discharge, 1,640 cfs Dec. 24, 1955 (gage height, 6.87 ft, site and datum then in use), from rating curve extended above 1,100 cfs by logarithmic plotting; minimum, 3.1 cfs Mar. 21, 1948; minimum daily, 3.4 cfs Mar. 21-24, 1948.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Diversions for irrigation above station. Flow regulated by Bridgeport Reservoir (see p. 160).

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 17 to Feb. 21, Sept. 21-30)

0.6	22	1.5	116
.8	33	2.0	202
1.0	51	2.5	305

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	236	70	53	31	26	78	82	138	127	143	138	135
2	232	70	54	30	b26	79	82	160	134	143	124	137
3	220	68	54	b28	b26	87	80	172	153	142	121	127
4	204	*67	54	a26	b26	101	93	179	146	122	118	119
5	194	68	54	a27	27	102	110	163	163	122	110	116
6	191	69	53	a30	28	104	130	145	167	121	101	106
7	183	68	53	a31	27	102	134	145	176	118	101	104
8	181	68	52	a29	29	104	134	146	181	110	119	107
9	183	67	52	a29	b28	104	138	140	179	106	124	100
10	169	67	51	a30	28	104	137	140	176	106	126	*94
11	155	69	51	a30	31	104	132	142	*178	107	129	91
12	151	68	51	a30	30	101	130	138	181	110	130	94
13	150	64	51	a29	28	98	129	140	181	106	*138	88
14	148	63	51	a28	29	95	126	*155	179	*107	142	83
15	143	64	a48	a28	29	97	*142	150	178	118	142	83
16	142	63	a46	a28	34	*97	150	146	179	129	145	75
17	138	b60	44	a27	37	98	146	165	183	135	138	67
18	132	b56	38	a27	35	101	148	172	176	137	138	61
19	129	62	35	a26	*34	121	146	178	169	140	153	59
20	124	63	34	a26	33	155	142	192	165	142	156	53
21	122	60	34	*26	34	162	146	196	151	142	153	43
22	121	59	*35	26	67	169	142	204	146	158	146	39
23	114	59	35	26	72	170	140	191	140	179	143	35
24	106	59	34	27	74	174	142	185	135	244	146	34
25	102	59	32	27	74	151	145	170	142	210	142	32
26	101	59	32	26	75	129	138	148	146	191	138	32
27	100	58	32	26	75	124	140	132	151	178	*142	29
28	95	*58	32	26	75	113	135	*129	156	*174	142	29
29	97	56	31	26	-	93	127	127	146	165	138	29
30	82	55	30	26	-------	84	*130	130	*143	160	135	31
31	74	-------	30	26	-------	83	-------	132	-------	153	132	-------
Total	4,519	1,896	1,336	858	1,137	3,484	3,896	4,850	4,827	4,418	4,150	2,232
Mean	146	63.2	43.1	27.7	40.6	112	130	156	161	143	134	74.4
Ac-ft	8,960	3,760	2,650	1,700	2,260	6,910	7,730	9,620	9,570	8,760	8,230	4,430

Calendar year 1958: Max 814 Min 30 Mean 232 Ac-ft 167,900
Water year 1958-59: Max 244 Min 26 Mean 103 Ac-ft 74,580

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of recorded range in stage, weather records, and records for nearby stations.
b Stage-discharge relation affected by ice.

2952. West Walker River at Leavitt Meadows, near Coleville, Calif.

Location.--Lat 38°19'50", long 119°33'05", in NW¼NW¼ sec.34, T.6 N., R.22 E., on left bank at Leavitt Meadows Lodge, 500 ft upstream from Brownie Creek, 0.9 mile downstream from Leavitt Creek, and 16½ miles south of Coleville.

Drainage area.--73 sq mi, approximately.

Records available.--October 1957 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 7,111.32 ft above mean sea level (levels by Bureau of Reclamation).

Extremes.--Maximum discharge during year, 735 cfs May 12 (gage height, 4.32 ft); minimum, 5.8 cfs Dec. 19, but may have been less during period of ice effect.
1957-59: Maximum discharge, 1,440 cfs June 23, 1958 (gage height, 5.68 ft); minimum,5.2 cfs Apr. 2, 1958, result of snowblock upstream.

Remarks.--Records good.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.1	7.0	2.7	134
1.5	20	3.1	222
1.9	42	4.1	645
2.3	78		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	16	14	b12	15	b20	63	488	438	134	32	12
2	27	16	14	b12	15	b22	89	302	478	136	30	12
3	26	16	14	b11	b14	b25	110	228	514	141	28	11
4	25	16	14	b10	b15	b25	134	190	532	129	26	10
5	24	15	14	11	b15	b26	203	181	560	114	24	10
6	24	15	14	14	14	b27	225	184	596	100	23	10
7	23	15	13	b11	14	28	225	208	478	90	23	9.7
8	22	15	13	12	b15	b30	188	*258	*460	*80	23	9.7
9	22	15	14	20	b15	b32	174	302	465	75	24	10
10	22	16	14	26	b20	b33	186	388	452	74	26	*9.7
11	20	17	14	25	b18	b34	206	483	474	76	*24	10
12	20	15	13	28	b14	36	244	586	524	78	22	11
13	*19	16	12	26	b14	41	*241	622	546	78	21	14
14	19	18	11	*b23	b14	43	228	532	496	76	20	19
15	19	14	12	22	21	41	214	510	411	70	18	17
16	19	15	12	20	32	42	203	442	362	63	18	14
17	18	b15	*12	19	32	45	206	398	339	62	18	14
18	18	17	11	18	26	48	193	348	348	60	18	38
19	18	*17	10	18	*b26	*50	195	310	339	58	18	269
20	18	16	11	b16	b25	52	211	294	339	55	17	144
21	17	16	12	b15	b24	57	228	276	357	50	16	90
22	17	16	12	16	b22	57	254	244	344	48	16	76
23	18	15	10	16	b22	54	283	200	283	51	16	70
24	18	16	b11	16	b20	b50	314	174	254	48	16	59
25	18	16	12	b16	b19	b48	318	174	232	45	16	50
26	18	16	12	b15	b19	48	244	219	214	43	16	50
27	19	15	12	17	b19	47	200	214	181	41	14	48
28	18	13	b11	16	b19	48	217	241	160	38	14	43
29	17	14	b12	b15	-	46	283	265	145	36	14	38
30	16	13	b12	b15	-------	46	424	290	134	34	13	36
31	16	-------	b12	b14	-------	48	-------	366	-------	32	12	-------
Total	623	465	384	525	538	1,249	6,503	9,917	11,455	2,215	616	1,214.1
Mean	20.1	15.5	12.4	16.9	19.2	40.3	217	320	382	71.5	19.9	40.5
Ac-ft	1,240	922	762	1,040	1,070	2,480	12,900	19,670	22,720	4,390	1,220	2,410

Calendar year 1958 : Max 1,300 Min 9.7 Mean 225 Ac-ft 163,160
Water year 1958-59 : Max 622 Min 9.7 Mean 97.8 Ac-ft 70,820

Peak discharge (base, 600 cfs).--May 12 (12 p.m.) 735 cfs (4.32 ft); June 5 (11 p.m.) 690 cfs (4.26 ft); June 13 (9 p.m.) 636 cfs (4.12 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

2955. Little Walker River near Bridgeport, Calif.
(Formerly published as East Fork West Walker River near Bridgeport)

Location.--Lat 38°21'30", long 119°26'30", in NW¼NW¼ sec.22, T.6 N., R.23 E., on right bank three-quarters of a mile north of Sonora Junction, 1½ miles upstream from mouth, and 14 miles northwest of Bridgeport.

Drainage area.--63 sq mi, approximately.

Records available.--April to August 1910, October 1944 to September 1959. Prior to October 1958, published as "East Fork West Walker River."

Gage.--Water-stage recorder. Altitude of gage is 6,790 ft (from topographic map). April to August 1910, staff gage at site 1 mile upstream at different datum.

Average discharge.--15 years (1944-59), 51.5 cfs (37,280 acre-ft per year).

Extremes.--Maximum discharge during year, 134 cfs June 5 (gage height, 1.46 ft); maximum gage height, 1.71 ft Nov. 17 (backwater from ice); minimum discharge, 7.0 cfs Aug. 27.

1910, 1944-59: Maximum discharge, 994 cfs Dec. 23, 1955 (gage height, 2.80 ft), from rating curve extended above 370 cfs on basis of slope-area measurements at gage heights 2.60 and 2.80 ft; maximum gage height recorded, 3.63 ft Jan. 3, 1945 (backwater from ice); minimum discharge recorded, 4.9 cfs Nov. 17, 1943, but may have been less during periods of ice effect.

Remarks.--Records good except those for periods of ice effect, which are fair. Small diversions above station.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.4	8.0	1.0	44
.6	15	1.2	75
.8	25	1.4	118

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	23	b22	b18	b23	20	27	60	66	45	18	11
2	27	23	b22	b19	b19	20	32	47	79	44	18	11
3	27	23	b21	b19	b18	20	31	47	87	44	15	11
4	27	23	21	b19	b18	b20	35	44	93	41	13	11
5	25	23	21	b23	b19	b20	41	40	102	37	13	12
6	24	23	20	b23	b18	b21	41	38	106	35	12	12
7	24	23	b20	b23	b18	21	38	40	102	32	12	12
8	24	23	b19	b24	b19	b22	33	*43	*102	*31	12	12
9	24	23	20	b25	b19	23	32	51	95	31	16	12
10	24	24	20	27	b21	23	35	58	91	30	16	*12
11	24	24	20	23	b24	24	38	68	91	30	*15	13
12	24	23	20	24	b26	24	41	79	102	29	15	14
13	*24	24	20	21	b24	28	*37	85	102	32	15	14
14	24	23	b20	*22	b23	27	37	75	97	31	15	13
15	25	b22	b22	20	b29	25	36	75	89	31	15	14
16	25	b23	b21	20	b29	26	36	73	83	28	14	15
17	24	b20	*b21	21	b30	27	36	70	79	28	14	15
18	24	b23	b19	20	23	29	35	65	77	28	14	26
19	24	b26	b20	b19	*23	*30	35	65	72	27	14	29
20	24	*b24	b20	b17	b21	30	35	63	70	27	14	17
21	24	b23	20	b19	b21	31	35	61	73	24	14	16
22	24	b22	20	20	b20	29	35	63	72	21	14	15
23	25	b23	b17	20	b19	25	38	57	65	21	14	15
24	25	23	b19	20	b20	b24	41	52	60	19	13	14
25	25	23	19	20	b20	b23	41	50	58	18	10	14
26	25	23	b18	b20	b20	24	40	50	57	21	9.5	14
27	24	b20	18	b19	b20	23	35	47	52	23	8.9	14
28	24	b20	b18	19	b20	25	35	48	48	22	11	13
29	23	b20	b19	b21	-	23	41	48	47	21	12	13
30	23	b22	b19	b20	-------	23	51	51	45	20	11	14
31	23	-------	b18	b21	-------	24	-------	60	-------	20	11	-------
Total	760	682	614	646	604	754	1,103	1,773	2,362	891	418.4	428
Mean	24.5	22.7	19.8	20.8	21.6	24.3	36.8	57.2	78.7	28.7	13.5	14.3
Ac-ft	1,510	1,350	1,220	1,280	1,200	1,500	2,190	3,520	4,680	1,770	830	849

Calendar year 1958: Max 367 Min - Mean 74.5 Ac-ft 53,930
Water year 1958-59: Max 106 Min 8.9 Mean 30.2 Ac-ft 21,900

Peak discharge (base, 200 cfs).--No peak above base.

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

2960. West Walker River below Little Walker River, near Coleville, Calif.
(Formerly published as West Walker River below East Fork, near Coleville)

Location.--Lat 38°22'45", long 119°27'00", in NW¼SE¼ sec.9, T.6 N., R.23 E., on left bank 75 ft downstream from Little Walker River, 200 ft upstream from bridge on U. S. Highway 395, and 13 miles southeast of Coleville.

Drainage area.--182 sq mi.

Records available.--April 1938 to September 1959. Prior to October 1958, published as "below East Fork."

Gage.--Water-stage recorder. Altitude of gage is 6,650 ft (from topographic map). Prior to Oct. 1, 1939, at site 125 ft downstream at datum 1.00 ft higher.

Average discharge.--21 years, 260 cfs (188,200 acre-ft per year).

Extremes.--Maximum discharge during year, 866 cfs May 13 (gage height, 3.42 ft); minimum, 18 cfs Dec. 19, result of freezeup.
1938-59: Maximum discharge, 6,220 cfs Nov. 20, 1950 (gage height, 8.10 ft), from rating curve extended above 1,900 cfs on basis of slope-area measurement of peak flow; minimum, 4.0 cfs Nov. 18, 1948, result of freezeup.
Maximum discharge recorded prior to 1938, 5,800 cfs Dec. 11, 1937, by slope-area measurement.

Remarks.--Records good except those for periods of ice effect, which are fair. Station is above diversions except a few small ranch ditches. Flow very slightly regulated by Poor Lake Reservoir (capacity unknown) 7 miles upstream.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.6	24	2.0	257
.9	46	2.5	430
1.2	82	3.3	801
1.6	157		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*76	51	*47	*45	*b52	*56	*116	*586	*538	*201	61	*33
2	66	51	47	42	b52	58	157	411	600	206	*57	32
3	63	*50	48	b40	b50	62	181	330	648	206	58	32
4	62	50	48	b40	b50	62	232	284	*673	196	55	32
5	60	49	48	43	b46	63	300	266	698	175	53	31
6	57	48	47	46	48	67	320	263	770	157	52	30
7	57	48	45	b45	44	69	324	281	658	142	51	29
8	57	48	44	48	47	72	275	341	614	126	51	26
9	56	47	46	67	b44	79	254	392	614	118	51	26
10	56	50	45	85	50	81	263	462	573	112	50	25
11	55	51	46	72	56	81	290	573	610	116	49	26
12	54	47	45	72	b56	88	327	688	663	118	49	29
13	54	50	40	64	b50	102	327	754	683	116	49	31
14	54	51	37	56	b55	100	320	638	629	111	48	36
15	54	42	41	54	60	95	304	624	542	107	44	35
16	54	b40	43	52	76	95	290	555	491	100	42	33
17	54	b38	40	50	b85	102	294	521	462	96	42	32
18	53	b40	40	49	b76	107	275	466	470	93	40	66
19	53	b50	35	48	66	109	275	434	458	88	41	294
20	52	52	37	45	b60	109	294	411	446	85	42	191
21	52	51	40	44	b60	116	313	400	466	78	43	116
22	53	51	41	48	b55	116	341	377	458	78	42	92
23	54	50	36	47	b50	109	374	327	403	79	43	85
24	54	51	35	48	b47	96	392	294	362	74	42	72
25	55	51	40	48	b47	93	415	272	341	68	42	66
26	54	52	39	b43	b50	98	344	317	317	67	40	63
27	55	49	41	b48	b55	95	287	307	275	63	39	62
28	54	44	38	47	57	98	297	334	240	64	38	60
29	52	45	b38	b42	-	93	362	362	221	69	36	*57
30	50	45	b42	b41	-------	95	487	385	203	66	35	56
31	52	-------	44	b43	-------	96	-------	458	-------	62	32	-------
Total	1,732	1,442	1,303	1,562	1,544	2,762	9,030	13,113	15,126	3,437	1,417	1,798
Mean	55.9	48.1	42.0	50.4	55.1	89.1	301	423	504	111	45.7	59.9
Ac-ft	3,440	2,860	2,580	3,100	3,060	5,480	17,910	26,010	30,000	6,820	2,810	3,570

Calendar year 1958: Max 2,080 Min 35 Mean 364 Ac-ft 263,200
Water year 1958-59: Max 770 Min 25 Mean 149 Ac-ft 107,600

Peak discharge (base, 1,120 cfs).--No peak above base.

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

2965. West Walker River near Coleville, Calif.

Location.--Lat 38°30'55", long 119°27'15", in NW¼NE¼ sec.28, T.8 N., R.23 E., on left bank a quarter of a mile downstream from Rock Creek and 5 miles southeast of Coleville.

Drainage area.--245 sq mi.

Records available.--October 1902 to July 1908 (published as West Fork of Walker River near Coleville 1903, 1905-8, and as Walker River (West Fork) near Coleville 1904), March 1909 to September 1910, June 1915 to March 1938, May 1957 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,520 ft (from topographic map). Prior to July 31, 1908, staff gage at site half a mile upstream at different datum. Mar. 1, 1909, to Aug. 31, 1910, staff gage and June 18, 1915, to Aug. 15, 1919, water-stage recorder, near present site at different datums. Aug. 16, 1919, to Mar. 31, 1938, water-stage recorder at site 1,000 ft upstream at different datum.

Average discharge.--30 years (1902-7, 1909-10, 1915-37, 1957-59), 278 cfs (201,300 acre-ft per year).

Extremes.--Maximum discharge during year, 884 cfs May 13 (gage height, 2.76 ft); minimum, 21 cfs Dec. 29, Jan. 3, result of freezeup, but may have been less during other ice-affected periods.
1915-38, 1957-59: Maximum discharge, 6,500 cfs Dec. 11, 1937, from slope-area measurement of peak flow; minimum, 5 cfs Dec. 3, 1924, Aug. 27, 1931.

Remarks.--Records good. Station is above diversions except for a few small ranch ditches. Flow very slightly regulated by Poor Lake Reservoir (capacity unknown) 17 miles upstream. Records of chemical analyses and water temperatures for the water year 1959 are given in WSP 1644.

Revisions (water years).--WSP 880: 1917 (runoff in acre-feet). WSP 1514: 1918, 1923.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.7	26	2.0	370
1.1	87	2.8	860
1.5	185		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*95	62	*59	*50	*56	*72	*130	*614	*524	*215	68	*35
2	82	62	59	b46	54	72	161	435	602	215	*65	35
3	80	*62	59	b44	b52	77	179	354	644	222	67	35
4	78	62	60	b42	56	77	229	311	685	211	65	34
5	77	60	59	a48	54	77	300	292	706	192	60	34
6	73	60	57	a48	52	80	322	288	797	170	59	32
7	72	60	54	a50	51	84	342	296	685	155	57	32
8	73	59	54	a55	52	87	300	342	620	140	59	29
9	72	59	57	a70	b40	95	277	395	626	130	59	27
10	72	62	56	98	46	98	284	450	584	123	59	26
11	70	65	57	93	b36	98	300	578	608	123	56	27
12	70	60	56	85	b50	104	334	692	671	132	56	32
13	68	64	51	80	b45	119	334	797	699	130	57	34
14	68	70	48	70	b54	123	330	650	684	123	56	39
15	68	57	50	67	59	117	315	650	548	119	52	44
16	68	b59	54	65	70	115	303	572	494	110	48	39
17	68	b51	51	62	82	121	307	530	450	106	50	39
18	65	b70	51	62	78	126	292	482	460	102	45	50
19	67	73	45	60	78	128	292	440	445	95	46	262
20	65	70	48	54	b75	126	307	425	435	93	48	250
21	65	67	51	b50	72	135	322	415	445	85	50	150
22	65	65	54	59	70	135	342	400	450	84	48	126
23	67	64	48	56	a64	130	366	350	395	87	48	115
24	67	65	45	56	a60	117	380	322	358	84	50	91
25	67	64	52	62	a60	112	415	300	338	77	46	89
26	67	65	50	50	a62	117	358	334	322	72	44	84
27	67	62	52	59	a65	112	319	326	292	67	44	82
28	65	54	46	56	a70	117	311	346	258	65	42	77
29	64	56	46	b45	------	115	362	375	232	75	39	*70
30	60	56	48	b50	------	112	465	385	211	75	38	68
31	65	------	51	b44	------	115	------	445	------	68	34	------
Total	2,170	1,865	1,628	1,836	1,663	3,313	9,278	13,591	15,248	3,745	1,615	2,087
Mean	70.0	62.2	52.5	59.2	59.4	107	309	438	508	121	52.1	69.6
Ac-ft	4,300	3,700	3,230	3,640	3,300	6,570	18,400	26,960	30,240	7,430	3,200	4,140

Calendar year 1958: Max 2,010 Min 45 Mean 376 Ac-ft 272,200
Water year 1958-59: Max 797 Min 26 Mean 159 Ac-ft 115,100

Peak discharge (base, 1,120 cfs).--No peak above base.

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for upstream stations.
b Stage-discharge relation affected by ice.

2970. Topaz Reservoir near Topaz, Calif.

Location.--Lat 38°41'35", long 119°31'10", in NW¼NE¼ sec.33 (revised), T.10 N., R.22 E., at outlet works of Topaz Reservoir, 6 miles north of Topaz.

Records available.--October 1931 to September 1959.

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

Extremes.--Maximum contents during year, 57,200 acre-ft Mar. 30, 31, Apr. 1 (elevation, 5,004.02 ft); minimum, 3,460 acre-ft Sept. 19 (elevation, 4,974.54 ft).
1931-59: Maximum contents observed, 60,240 acre-ft June 30, 1941 (elevation, 5,005.35 ft); minimum observed, 505 acre-ft Oct. 22-25, 1931 (elevation, 4,972.63 ft).

Remarks.--Topaz Reservoir, formerly known as Alkali Lake, was formed by the diversion of water from West Walker River through a feeder canal and the construction of an outlet tunnel through a low saddle in rim of lake. Storage began Jan. 30, 1922. Usable capacity, 59,440 acre-ft between elevations 4,972.3 ft (lowest practical elevation for diversion through tunnel, bottom of outlet tunnel at elevation 4,970 ft) and 5,005 ft (3 ft below top of levee). Capacity of reservoir increased from about 45,000 to 59,440 acre-ft in October 1937 by an earth-fill, rock-faced levee at south end. Figures given herein represent usable contents. Water is used for irrigation in Walker River Irrigation District.

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

Capacity table, water year 1958-59 (elevation, in feet, and contents, in acre-feet)

4,974	2,620	4,990	28,970
4,977	7,320	4,995	38,100
4,980	12,130	5,000	48,350
4,985	20,390	5,005	59,440

Contents, in acre-feet, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31,100	27,370	32,480	38,250	44,970	51,960	57,200	49,960	42,530	36,160	17,180	6,400
2	30,780	27,510	32,680	38,450	45,130	52,180	57,160	49,890	42,310	35,710	16,720	6,220
3	30,520	27,650	32,870	38,600	45,320	52,400	57,160	49,530	42,120	35,100	16,220	5,980
4	30,250	27,800	33,050	38,680	45,510	52,600	57,140	49,100	41,980	34,450	15,760	5,740
5	30,010	27,960	33,240	38,840	45,720	52,780	57,160	48,600	41,940	33,910	15,280	5,550
6	29,720	28,100	33,420	39,030	45,890	53,000	57,160	48,070	41,960	33,250	14,820	5,370
7	29,430	28,240	33,600	39,310	46,120	53,200	57,110	47,600	41,980	32,660	14,410	5,180
8	29,110	28,380	33,780	39,510	46,330	53,400	57,050	47,180	41,960	32,070	14,040	4,990
9	28,800	28,520	33,960	39,750	46,480	53,600	56,890	46,810	41,900	31,510	13,690	4,800
10	28,590	28,660	34,140	40,060	46,650	53,800	56,640	46,650	41,780	30,840	13,370	4,680
11	28,450	28,810	34,320	40,360	46,940	53,970	56,410	46,540	41,630	30,200	13,020	4,520
12	28,290	29,010	34,510	40,710	47,180	54,170	56,190	46,500	41,550	29,570	12,670	4,360
13	28,060	29,160	34,690	40,910	47,370	54,370	56,010	46,600	41,570	28,900	12,290	4,210
14	27,890	29,320	34,870	41,150	47,540	54,570	55,760	46,880	41,570	28,290	11,920	4,050
15	27,720	29,500	35,060	41,410	47,810	54,780	55,470	46,880	41,530	27,680	11,560	3,900
16	27,540	29,650	35,190	41,680	48,170	54,950	55,160	46,920	41,290	27,060	11,190	3,740
17	27,440	29,810	35,370	41,900	48,820	55,160	54,820	46,860	41,030	26,430	10,810	3,650
18	27,370	29,970	35,560	42,120	49,310	55,360	54,440	46,580	40,750	25,810	10,420	3,520
19	27,250	30,130	35,730	42,330	49,680	55,540	54,170	46,270	40,510	25,160	10,050	3,460
20	27,120	30,320	35,900	42,530	49,960	55,740	53,660	45,950	40,220	24,560	9,730	3,550
21	27,020	30,520	36,070	42,710	50,180	55,990	53,290	45,590	40,030	23,870	9,410	3,740
22	26,970	30,730	36,230	42,900	50,440	56,190	52,910	45,180	39,830	23,220	9,100	3,740
23	26,930	30,940	36,440	43,100	50,670	56,370	52,600	44,900	39,630	22,510	8,850	3,740
24	26,880	31,150	36,690	43,270	50,890	56,530	52,250	44,660	39,230	21,910	8,590	3,740
25	26,830	31,370	36,880	43,470	51,110	56,730	51,920	44,340	38,720	21,320	8,320	3,740
26	26,810	31,560	37,070	43,850	51,330	56,890	51,550	44,090	38,270	20,780	8,000	3,680
27	26,830	31,760	37,280	44,030	51,550	57,000	51,260	43,890	37,860	20,160	7,670	3,650
28	26,920	31,940	37,490	44,240	51,770	57,070	50,810	43,780	37,510	19,550	7,350	3,610
29	27,000	32,120	37,670	44,450	-	57,160	50,460	43,580	37,090	18,900	7,050	3,570
30	27,090	32,300	37,860	44,630	-------	57,200	50,220	43,270	36,610	18,280	6,780	3,520
31	27,230	-------	38,060	44,800	-------	57,200	-------	42,960	-------	17,680	6,580	-------
(†)	4,989.00	4,991.88	4,994.98	4,998.32	5,001.58	5,004.02	5,000.87	4,997.43	4,994.23	4,983.38	4,976.53	4,974.58
(‡)	-4,160	+5,070	+5,760	+6,740	+6,970	+5,430	-6,980	-7,260	-6,350	-18,930	-11,100	-3,060

Calendar year 1958..... ‡ +18,240
Water year 1958-59..... ‡ -27,870

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

2975. West Walker River at Hoye Bridge, near Wellington, Nev.

Location.--Lat 38°43'40", long 119°25'40", in NE¼SE¼ sec.17, T.10 N., R.23 E., on left bank 20 ft upstream from Hoye Bridge, 2 miles upstream from head of Saroni Canal, and 4 miles southwest of Wellington.

Drainage area.--504 sq mi.

Records available.--April to August 1910 (published as West Walker River near Wellington), July 1920 to September 1923, March 1924 to September 1932, October 1957 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,980 ft (from topographic map). April to August 1910 staff gage at same site at different datum. July 1, 1920, to Sept. 30, 1923, water-stage recorder at site 3 miles downstream (1 mile downstream from Saroni Canal) at different datum and supplemental staff gage on Saroni Canal 1 mile downstream from head. Mar. 1, 1924, to Sept. 30, 1932, water-stage recorder at same site at different datum.

Average discharge.--12 years (1920-23, 1925-32, 1957-59), 215 cfs (155,700 acre-ft per year).

Extremes.--Maximum discharge during year, 593 cfs June 6 (gage height, 4.28 ft); minimum, 12 cfs Feb. 3, 11, 13.
1910, 1920-23, 1924-32, 1957-59: Maximum discharge, 2,180 cfs June 6, 1922; minimum, 6 cfs Dec. 19, 1925.

Remarks.--Records good. Flow regulated by off-channel storage in Topaz Reservoir (see preceding page) since Jan. 30, 1922. Diversions for irrigation of about 10,500 acres above station. Records include releases from Topaz Reservoir and all return flow from Antelope Valley.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.9	11	2.0	125
1.1	24	3.0	308
1.4	50	4.3	598

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	207	47	18	16	15	18	90	474	474	358	260	120
2	205	45	18	16	15	18	104	490	520	389	244	122
3	205	42	18	20	15	18	113	495	557	402	231	120
4	205	*38	18	17	15	17	131	479	569	395	235	118
5	204	36	18	19	15	16	164	459	562	389	231	112
6	204	36	18	17	15	16	207	452	576	371	227	102
7	211	36	18	16	15	16	242	*415	572	331	*204	97
8	211	38	18	16	16	16	244	393	555	337	184	94
9	196	37	18	17	15	16	246	389	555	346	169	*89
10	164	36	18	18	15	16	248	391	548	*371	169	82
11	160	36	18	18	20	16	266	419	538	371	179	78
12	160	35	18	18	16	16	274	481	*522	382	179	78
13	159	35	18	17	16	16	302	536	529	367	182	73
14	157	34	18	17	15	16	354	522	529	358	182	63
15	155	35	18	16	16	16	365	529	520	354	182	57
16	154	34	18	*16	23	16	358	518	504	350	191	56
17	114	34	*18	15	44	16	*360	516	477	348	195	58
18	109	34	16	15	*30	*16	363	509	450	350	188	50
19	106	35	16	15	26	16	375	504	*444	352	159	49
20	103	*32	16	15	23	16	*384	502	435	342	152	45
21	*103	26	16	15	22	20	382	497	413	358	151	41
22	103	25	18	15	21	20	397	479	404	358	147	40
23	103	24	18	15	20	21	402	479	435	352	138	40
24	103	23	18	15	20	23	405	450	461	*323	139	47
25	103	22	17	16	19	23	435	433	439	310	*160	47
26	90	21	17	16	19	50	422	393	*395	310	167	46
27	90	20	18	15	18	56	424	369	375	312	162	46
28	77	20	18	15	18	60	424	*360	360	331	151	47
29	70	19	16	15	-	61	395	371	356	337	139	56
30	63	19	16	15	-------	82	413	386	350	312	125	51
31	51	-------	16	15	-------	78	-------	422	-------	283	118	-------
Total	4,345	954	542	501	537	801	9,289	14,112	14,424	10,849	5,540	2,124
Mean	140	31.8	17.5	16.2	19.2	25.8	310	455	481	350	179	70.8
Ac-ft	8,620	1,890	1,080	994	1,070	1,590	18,420	27,990	28,610	21,520	10,990	4,210

Calendar year 1958: **Max** 1,820 **Min** 16 **Mean** 339 **Ac-ft** 245,600
Water year 1958-59: **Max** 576 **Min** 15 **Mean** 175 **Ac-ft** 127,000

Peak discharge (base, 700 cfs).--No peak above base.

* **Discharge measurement made on this day.**

3000. West Walker River near Hudson, Nev.

Location.--Lat 38°48'35", long 119°13'35", in SE¼SW¼ sec.18, T.11 N., R.25 E., on left bank half a mile upstream from Wilson Canyon and 3 miles southeast of Hudson.

Drainage area.--964 sq mi.

Records available.--August 1914 to March 1925, January 1947 to September 1959. August 1914 to May 1921 published as "at Hudson."

Gage.--Water-stage recorder. Altitude of gage is 4,670 ft (from topographic map). Prior to May 1921, staff gage at site 2½ miles upstream at different datum. May 1921 to March 1925 water-stage recorder at approximately same site at different datum.

Average discharge.--22 years (1914-24, 1947-59), 199 cfs (144,100 acre-ft per year).

Extremes.--Maximum discharge during year, 373 cfs May 14 (gage height, 2.20 ft); minimum, 30 cfs Sept. 1.
1914-25, 1947-59: Maximum discharge, 2,700 cfs Dec. 24, 1955 (gage height, 7.42 ft from floodmarks), from rating curve extended above 1,700 cfs; minimum daily, 13 cfs Aug. 7 to Sept. 21, 1920.

Remarks.--Records excellent. Flow regulated by off-channel storage in Topaz Reservoir (see p. 167) since Jan. 30, 1922. Many diversions above station for irrigation. Station is below return flow from irrigated areas in Smith Valley.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.9	20	1.8	223
1.1	45	2.2	373
1.4	105		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	158	76	52	52	41	50	48	255	311	209	136	30
2	155	64	54	52	40	50	60	266	323	203	118	35
3	144	60	54	47	40	48	59	285	346	216	118	33
4	161	59	54	41	41	50	62	278	354	223	115	35
5	174	55	54	41	40	50	84	263	342	241	115	37
6	174	54	55	44	40	52	136	266	342	237	120	36
7	186	54	55	42	40	50	155	248	342	196	120	41
8	177	52	57	41	41	50	161	223	334	177	108	45
9	177	54	59	41	41	50	155	216	334	174	94	44
10	136	64	60	42	41	50	141	213	319	192	91	44
11	120	60	60	41	44	50	138	216	326	192	84	45
12	120	62	62	41	45	48	130	252	*323	199	*80	38
13	120	64	64	41	44	48	147	296	326	203	80	37
14	122	62	60	41	41	47	177	*354	338	*196	82	*42
15	120	68	59	41	45	47	183	319	334	164	76	42
16	108	68	55	*41	70	47	177	342	319	161	78	41
17	100	66	*47	42	96	45	*180	326	307	167	68	42
18	98	70	45	41	*89	*42	183	319	300	177	62	45
19	98	72	45	41	70	41	186	319	289	196	59	52
20	103	*72	45	40	62	41	192	315	281	213	55	55
21	*112	62	45	40	59	41	189	315	270	206	52	54
22	122	57	50	41	55	42	209	323	259	203	52	57
23	130	57	52	41	54	41	227	338	270	223	38	50
24	130	57	50	40	54	44	213	334	285	192	38	48
25	133	55	48	42	54	37	245	326	270	177	45	52
26	120	55	48	44	52	37	263	300	255	174	48	48
27	112	54	52	44	52	45	263	292	241	170	50	47
28	112	52	52	42	50	44	255	289	230	167	47	44
29	98	52	52	40	-	40	227	274	230	174	42	47
30	89	52	50	41	-------	37	216	274	223	164	40	48
31	84	-------	52	41	-------	40	-------	289	-------	158	33	-------
Total	3,993	1,803	1,647	1,309	1,441	1,404	5,061	8,925	9,023	5,944	2,344	1,314
Mean	129	60.3	53.1	42.2	51.5	45.3	169	288	301	192	75.6	43.8
Ac-ft	7,920	3,590	3,270	2,600	2,860	2,780	10,040	17,700	17,900	11,790	4,650	2,610

Calendar year 1958: Max 1,690 Min 38 Mean 262 Ac-ft 189,800
Water year 1958-59: Max 354 Min 30 Mean 121 Ac-ft 87,710

Peak discharge (base, 500 cfs).--No peak above base.

* Discharge measurement made on this day.

3015. Walker River near Wabuska, Nev.

Location.--Lat 39°09'10", long 119°05'50", in SE¼NW¼ sec.20, T.15 N., R.26 E., on left bank 600 ft upstream from timber bridge at Julian Ranch, 1¾ miles downstream from Southern Pacific Railroad bridge, 4.6 miles east of Wabuska, and 16 miles upstream from Weber Dam.

Drainage area.--2,600 sq mi, approximately.

Records available.--July 1902 to December 1904, January 1905 to July 1908 (fragmentary), January 1920 to September 1934, October 1958 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,280 ft (from topographic map). July 22, 1902, to July 31, 1908, staff gage at site 2½ miles upstream at different datum. Jan. 15 to July 27, 1920, staff gage; July 28, 1920, to Aug. 29, 1922, water-stage recorder; Aug. 30 to Oct. 13, 1922, staff gage; Oct. 14, 1922, to Sept. 30, 1924, water-stage recorder; Oct. 1, 1924, to Sept. 30, 1929, staff gage; all near present site at different datums; Oct. 1, 1929, to Sept. 30, 1934, water-stage recorder at site 1½ miles downstream at different datum.

Average discharge.--16 years (1902-4, 1920-24, 1925-34, 1958-59), 111 cfs (80,360 acre-ft per year).

Extremes.--Maximum discharge during year, 316 cfs Oct. 8 (gage height, 4.22 ft); minimum daily, 8.5 cfs Sept. 8-10.

1902-8, 1920-34, 1958-59: Maximum discharge observed, 3,280 cfs July 10, 11, 1906 (gage height, 5.90 ft, site and datum then in use); no flow at times in 1924-25, 1931.

Revisions.--The maximum discharge for the water year 1923 has been revised to 870 cfs May 22, 1923 (gage height, 5.68 ft), superseding figure published in WSP 570.

Remarks.--Records good. Many diversions for irrigation above station. Flow regulated by Bridgeport Reservoir (see p. 160) and Topaz Reservoir (see p. 167).

Revisions.--Revised figures of discharge, in cubic feet per second, for the period Dec. 8-14, 1903, and the monthly mean discharge for January 1904, superseding those published in WSP 100, are given herewith:

1903		1903-Con.	
Dec. 8	80	Dec. 12	85
9	80	13	85
10	80	14	85
11	85		

Month	Maximum	Minimum	Mean	Runoff in acre-feet
December 1903	97	73	86	5,290
January 1904	-	-	150	9,220
Calendar year 1903	964	1	167	121,000
Water year 1903-4	1,520	1	346	251,000

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 18 to Feb. 16, June 30 to July 16)

1.9	7.0	3.0	91
2.0	10	4.0	262
2.3	24	4.3	320
2.6	45		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	304	172	132	102	94	161	92	54	104	41	23	9.4
2	286	159	128	102	96	158	71	61	94	42	24	9.4
3	298	151	133	83	87	158	61	89	90	42	22	10
4	294	143	136	69	90	163	54	98	87	43	21	9.4
5	308	133	133	83	96	185	51	100	75	38	18	10
6	308	132	132	114	96	188	53	96	80	36	17	11
7	304	133	128	116	92	185	88	91	69	33	16	9.7
8	308	132	127	111	90	185	75	80	66	33	14	8.5
9	296	124	127	116	92	185	72	72	69	28	16	8.5
10	298	124	127	116	92	185	63	71	62	28	18	*8.5
11	284	133	125	114	97	186	58	67	*73	29	18	8.8
12	260	136	125	112	97	186	53	67	71	30	18	12
13	*239	141	122	111	94	168	57	73	73	31	*18	15
14	221	*144	119	109	92	152	60	*76	67	*31	20	14
15	213	143	114	108	92	152	62	104	65	32	21	14
16	212	146	114	104	104	*156	*70	92	66	31	18	14
17	188	146	112	102	124	168	66	87	67	28	16	16
18	174	146	114	100	130	168	58	80	69	28	16	16
19	165	156	103	97	*151	168	50	85	65	24	16	16
20	156	161	100	102	141	176	52	92	63	22	16	14
21	161	159	100	*94	141	206	60	91	58	22	16	13
22	194	151	*104	98	124	204	61	100	63	22	16	13
23	210	141	108	102	132	215	71	135	60	22	16	13
24	224	154	106	97	146	179	67	167	54	24	14	13
25	221	158	103	100	148	176	75	161	61	23	16	12
26	219	154	102	104	152	165	81	152	53	23	16	12
27	212	151	100	104	159	116	97	128	50	22	*14	12
28	210	149	100	106	161	106	84	*109	49	*22	13	12
29	208	140	100	102	-	109	87	103	50	22	14	14
30	195	136	102	104	-------	103	*75	100	*44	24	14	16
31	181	-------	100	102	-------	96	-------	98	-------	24	12	-------
Total	7,351	4,348	3,576	3,184	3,210	5,108	2,024	2,979	2,017	900	527	364.2
Mean	237	145	115	103	115	165	67.5	96.1	67.2	29.0	17.0	12.1
Ac-ft	14,580	8,620	7,090	6,320	6,370	10,130	4,010	5,910	4,000	1,790	1,050	722

Calendar year 1958: Max - Min - Mean - Ac-ft -
Water year 1958-59: Max 308 Min 8.5 Mean 97.5 Ac-ft 70,590

* Discharge measurement made on this day.

CARSON RIVER BASIN

3045. Silver Creek below Pennsylvania Creek, near Markleeville, Calif.

Location.--Lat 38°36'00", long 119°46'30", in SE¼NE¼ sec.28, T.9 N., R.20 E., on left bank a quarter of a mile downstream from Pennsylvania Creek and 6½ miles south of Markleeville.

Drainage area.--20 sq mi, approximately.

Records available.--December 1946 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,500 ft (from topographic map). Prior to Aug. 3, 1954, at site 180 ft upstream at datum 3.20 ft higher. Aug. 3, 1954, to Sept. 16, 1957, at site 30 ft upstream at datum 1.00 ft higher.

Average discharge.--12 years (1947-59), 45.4 cfs (32,870 acre-ft per year).

Extremes.--Maximum discharge during year, 207 cfs May 12 (gage height, 2.99 ft); minimum, 1.0 cfs Dec. 14, 19.
1946-59: Maximum discharge, 1,520 cfs Dec. 23, 1955 (gage height, 6.09 ft, site and datum then in use), from rating curve extended above 450 cfs on basis of slope-area measurement of peak flow; minimum, 0.7 cfs Oct. 25, 27, 28, 1954.

Remarks.--Records good except those for period of no gage-height record, which are fair. Flow partly regulated by three small reservoirs (total capacity, about 1,700 acre-ft).

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.7	0.6	1.8	28
.9	2.0	2.1	50
1.1	4.4	2.4	81
1.3	8.4	2.8	155
1.5	14		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.6	3.4	4.0	3.6	6.2	12	30	107	76	28	36	2.0
2	4.6	3.4	3.8	3.4	6.0	14	*37	70	87	28	29	11
3	4.4	3.4	4.0	3.3	6.0	15	48	57	89	27	10	17
4	4.4	3.4	3.6	3.2	6.2	13	67	54	89	25	12	12
5	4.3	3.4	3.4	3.7	6.4	13	74	54	91	23	18	2.1
6	4.3	3.4	3.4	3.8	6.4	14	75	54	97	21	17	1.8
7	4.3	*3.4	3.3	3.7	6.2	16	62	61	80	20	15	1.7
8	4.3	3.3	3.3	3.7	6.0	16	52	73	76	20	10	1.7
9	4.3	3.3	3.3	18	5.8	17	52	79	75	19	11	1.7
10	4.3	5.3	3.4	36	5.6	16	55	94	74	18	10	1.7
11	4.1	4.4	3.6	17	6.6	16	63	112	76	18	12	1.8
12	4.1	3.8	3.6	21	6.2	19	67	140	80	22	25	1.8
13	4.1	4.6	2.9	14	6.0	20	69	141	a80	52	24	2.4
14	4.1	4.4	2.2	11	6.0	19	64	128	a75	51	20	2.4
15	4.3	3.0	3.3	10	6.2	18	60	112	a67	49	6.6	2.4
16	4.3	3.8	3.4	9.7	17	19	59	98	a64	35	6.0	2.3
17	4.1	3.8	3.1	9.4	14	20	56	91	a60	15	5.7	2.3
18	4.3	4.6	3.0	9.2	11	20	54	81	a58	14	5.5	43
19	4.3	5.7	2.5	8.4	10	21	57	73	a58	14	5.5	37
20	4.3	5.7	3.0	6.9	9.2	22	59	67	a65	13	6.9	9.4
21	4.1	5.3	3.3	7.1	8.7	23	64	63	a55	13	10	6.4
22	*4.3	5.1	*3.3	*7.3	8.4	21	71	59	a45	13	10	*5.7
23	4.4	4.8	2.6	7.1	8.2	19	75	54	a40	13	10	5.1
24	4.4	4.6	2.6	7.5	8.0	17	88	54	a38	13	25	4.4
25	4.1	4.4	3.3	7.3	8.0	16	77	58	a35	13	*30	4.1
26	4.1	4.6	3.1	6.6	8.4	*17	61	*58	a32	12	23	4.0
27	4.1	4.0	3.0	7.3	*8.9	16	55	58	a30	*12	21	3.8
28	4.0	*3.0	3.1	6.4	10	16	60	60	a30	12	20	3.7
29	3.7	3.6	3.1	5.7	-	16	*77	60	*30	12	16	3.4
30	3.3	3.3	3.3	6.2	-------	16	123	63	30	13	11	3.7
31	3.4	-------	3.4	5.8	-------	18	-------	69	-------	36	2.3	-------
Total	129.7	122.2	100.2	273.3	221.8	535	1,911	2,402	1,882	674	463.5	201.8
Mean	4.18	4.07	3.23	8.82	7.92	17.3	63.7	77.5	62.7	21.7	15.0	6.73
Ac-ft	257	242	199	542	440	1,060	3,790	4,760	3,730	1,340	919	400

Calendar year 1958 : Max 352 Min 2.2 Mean 52.3 Ac-ft 37,880
Water year 1958-59 : Max 141 Min 1.7 Mean 24.4 Ac-ft 17,680

Peak discharge (base, 190 cfs).--Apr. 30 (5 p.m.) 198 cfs (2.96 ft); May 12 (7 p.m.) 207 cfs (2.99 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of recorded range in stage and records for nearby streams.

3090. East Fork Carson River near Gardnerville, Nev.

Location (revised).--Lat 38°50'50", long 119°42'10", in SW¼NE¼ sec.2, T.11 N., R.20 E., on left bank 2 miles east of Mud Lake Reservoir, 4½ miles downstream from Bryant Creek, and 7 miles southeast of Gardnerville.

Drainage area.--344 sq mi.

Records available.--January 1890 to December 1893, October 1900 to December 1906 (gage heights only August to December 1904 and July to December 1905), January 1908 to December 1910, June to October 1917, December 1924 to September 1928, June to September 1929, October 1935 to December 1937, May 1939 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 4,985.11 ft above mean sea level (levels by Bureau of Reclamation). Prior to May 19, 1939, staff gages at several sites within 2 miles of present site at various datums.

Average discharge.--32 years (1890-93, 1901-3, 1908-10, 1925-28, 1935-37, 1939-59), 398 cfs (288,100 acre-ft per year).

Extremes.--Maximum discharge during year, 1,030 cfs May 13 (gage height, 2.95 ft); minimum, 38 cfs Sept. 7.

1890-93, 1900-1906, 1908-10, 1917, 1924-28, 1929, 1935-37, 1939-59: Maximum discharge, 17,600 cfs Dec. 23, 1955 (gage height, 11.88 ft), from rating curve extended above 6,000 cfs on basis of slope-area measurements at gage heights 9.66 and 11.88 ft; minimum observed, 8 cfs Dec. 4-10, 19-23, 1904.

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

Revisions (water years).--WSP 1060: Drainage area. WSP 1214: 1938(M), 1942-43(M), 1945(M). WSP 1514: 1909-10.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.7	35	1.5	222
.9	63	2.0	430
1.1	102	3.0	1,080

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	87	77	74	68	87	187	236	839	475	171	89	43
2	87	77	77	72	96	215	319	576	516	158	87	42
3	85	77	77	54	81	*233	358	470	582	155	76	52
4	85	77	77	62	92	212	440	416	600	147	77	54
5	83	77	76	110	96	198	564	407	600	138	76	47
6	81	76	76	85	98	212	600	407	636	133	76	40
7	81	76	72	65	98	218	576	416	588	144	72	39
8	72	76	70	77	96	222	460	475	528	147	68	39
9	74	74	76	248	81	233	445	528	516	144	65	40
10	76	85	72	435	79	226	465	576	486	152	65	42
11	76	92	74	351	76	208	498	666	492	155	62	42
12	79	81	74	229	92	222	558	770	510	152	65	43
13	79	77	68	215	81	247	564	909	522	133	72	44
14	77	94	63	155	110	240	546	790	498	127	72	47
15	77	87	60	141	107	222	504	770	430	127	62	50
16	77	77	74	130	408	212	480	692	402	127	56	51
17	*76	60	70	124	393	229	470	636	371	117	56	53
18	74	81	68	120	254	229	435	594	362	127	52	106
19	79	100	65	114	212	236	435	534	344	122	52	354
20	77	96	67	107	187	226	470	492	344	141	56	177
21	77	*94	70	96	168	251	492	475	353	144	57	107
22	77	89	77	112	155	247	522	534	327	133	58	*83
23	81	85	*70	*102	138	236	570	460	290	127	57	74
24	83	89	60	102	133	215	570	440	266	120	63	70
25	83	83	68	138	130	208	636	445	254	104	81	67
26	83	85	68	102	141	215	540	*455	240	89	*72	63
27	83	83	85	114	149	204	435	412	212	*77	65	62
28	81	74	68	112	158	204	455	416	198	74	63	60
29	79	72	54	87	-	201	*510	430	*190	74	62	58
30	77	72	62	85	-------	204	673	421	181	70	58	58
31	76	-------	79	81	-------	208	-------	440	-------	79	51	-------
Total	2,462	2,443	2,191	3,993	3,996	6,820	14,626	16,891	12,313	3,908	2,043	2,107
Mean	79.4	81.4	70.7	129	143	220	494	545	410	126	65.9	70.2
Ac-ft	4,880	4,850	4,350	7,920	7,930	13,530	29,410	33,500	24,420	7,750	4,050	4,180

Calendar year 1958: Max 2,610 Min 54 Mean 468 Ac-ft 339,000
Water year 1958-59: Max 909 Min 39 Mean 203 Ac-ft 146,800

Peak discharge (base, 1,300 cfs).--No peak above base.

* Discharge measurement made on this day.

3100. West Fork Carson River at Woodfords, Calif.

Location.--Lat 38°46'00", long 119°50'00", in SE¼SW¼ sec.34, T.11 N., R.19 E., on left bank 0.3 mile downstream from bridge on State Highways 88 and 89, 0.8 mile west of Woodfords, and 3¾ miles downstream from Willow Creek.

Drainage area.--66 sq mi, approximately.

Records available.--October 1900 to May 1907, 1910-11 (fragmentary), October 1938 to September 1959. April 1890 to March 1892 and June 1907 to September 1920 (except portions of 1910-11) at site 0.7 mile downstream; records not equivalent due to diversion for irrigation.

Gage.--Water-stage recorder. Altitude of gage is 5,760 ft (from river-profile map). Prior to Oct. 1, 1938, staff gage at about the same site at different datum. Oct. 1, 1938, to Nov. 11, 1958, water-stage recorder at site 150 ft upstream at datum 2.04 ft higher.

Average discharge.--23 years (1901-3, 1905-6, 1939-59), 112 cfs (81,080 acre-ft per year).

Extremes.--Maximum discharge during year, 320 cfs Apr. 5 (gage height, 3.60 ft); minimum, 8.2 cfs Sept. 11.

1900-1907, 1910-11, 1938-59: Maximum discharge, 4,810 cfs Dec. 23, 1955 (gage height, 8.86 ft), from rating curve extended above 1,000 cfs on basis of slope-area measurements at gage heights 8.35 and 8.86 ft; minimum (1900-1907, 1938-59), 8.2 cfs Nov. 30, 1954, Sept. 11, 1959.

Flood of Dec. 11, 1937, reached a stage of 11.0 ft (present datum), from floodmarks (discharge, 3,500 cfs by slope-area measurement).

Remarks.--Records good except those for periods of no gage-height record, which are fair. One small diversion above station for irrigation. Flow slightly regulated by several small reservoirs (total capacity, about 1,500 acre-ft). Records of chemical analyses and water temperatures for the water year 1959 are given in WSP 1644.

Rating tables, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Nov. 11		Nov. 12 to Sept. 30			
1.9	30	0.9	7.5	2.5	90
2.2	42	1.2	13	3.0	172
		1.5	21	3.4	265
		2.0	44		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	35	25	23	b28	38	123	228	114	70	34	9.2
2	24	35	25	23	b27	42	155	170	123	87	19	9.2
3	24	27	26	b21	b29	44	174	144	*128	65	13	9.2
4	24	24	27	b22	29	43	215	130	126	61	12	9.2
5	23	24	26	23	28	42	245	128	123	44	11	9.2
6	23	24	25	21	28	44	252	126	137	27	11	9.0
7	23	*23	24	22	26	46	225	*128	121	29	11	9.0
8	24	23	24	25	b27	46	*186	144	109	32	11	8.8
9	24	23	25	46	b24	49	184	155	103	32	11	8.7
10	24	30	25	68	21	48	194	162	95	32	15	8.6
11	24	29	25	74	22	48	210	180	94	31	23	8.6
12	24	a29	25	81	b23	52	220	190	98	29	21	8.6
13	23	28	23	72	b21	59	215	218	100	34	20	9.2
14	23	31	21	52	b25	58	204	192	96	50	20	9.2
15	22	b26	22	48	27	57	190	172	85	52	19	9.6
16	22	b26	23	43	41	56	a180	155	79	51	18	10
17	22	*b26	23	38	40	65	a170	144	72	49	13	11
18	25	31	23	37	41	70	a160	130	70	38	11	43
19	26	33	21	34	39	74	a160	120	70	28	10	72
20	24	30	22	31	39	72	a170	112	87	18	11	32
21	24	29	23	32	38	85	a180	112	76	16	11	23
22	*24	28	25	32	38	84	a190	135	58	16	11	*20
23	24	28	23	32	36	76	a200	140	52	18	10	20
24	24	28	21	34	36	68	a200	149	47	18	18	19
25	24	27	24	32	36	61	a190	139	45	15	25	17
26	23	28	23	30	36	*70	a170	135	43	*14	*18	16
27	23	27	20	32	*36	70	a150	120	40	14	14	16
28	22	*25	24	28	36	72	155	110	*38	33	11	17
29	22	24	b21	*30	-	91	*170	110	38	38	10	17
30	24	24	*24	b29	-------	91	206	106	66	37	9.6	18
31	33	-------	25	b28	-------	91	-------	108	-------	36	9.2	-------
Total	740	825	733	1,143	877	1,912	5,643	4,492	2,533	1,094	460.8	486.3
Mean	23.9	27.5	23.6	36.9	31.3	61.7	188	145	84.4	35.3	14.9	16.2
Ac-ft	1,470	1,640	1,450	2,270	1,740	3,790	11,190	8,910	5,020	2,170	914	965

Calendar year 1958 : Max 1,100 Min 18 Mean 136 Ac-ft 98,780
Water year 1958-59 : Max 252 Min 8.6 Mean 57.4 Ac-ft 41,530

Peak discharge (base, 500 cfs).--No peak above base.

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of recorded range in stage.
b Stage-discharge relation affected by ice.

3105. Clear Creek near Carson City, Nev.

Location.--Lat 39°06'50", long 119°47'50", in NE¼NW¼ sec.1, T.14 N., R.19 E., on left bank 3 miles upstream from mouth and 4 miles southwest of Carson City.

Drainage area.--15 sq mi, approximately.

Records available.--March 1948 to September 1959.

Gage.--Water-stage recorder and sharp-crested weir. Altitude of gage is 4,700 ft (from river-profile map).

Average discharge.--11 years, 6.10 cfs (4,420 acre-ft per year).

Extremes.--Maximum discharge during year, 24 cfs Jan. 9 (gage height, 0.88 ft); minimum, 1.4 cfs July 27-30, Aug. 10-17.
1948-59: Maximum discharge, 117 cfs Dec. 23, 1955 (gage height, 2.03 ft); minimum, 1.0 cfs Aug. 4, 5 6, 20, 1949.

Remarks.--Records good. Four small diversions for irrigation of about 150 acres of hay meadows and pasture above station.

Revisions (water years).--WSP 1444: 1950(M), 1951, 1952(P).

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.2	1.4
.3	2.9
.4	5.0
.6	11
.8	19

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.8	4.0	5.0	5.3	5.5	7.2	6.1	4.2	a3.1	1.7	1.7	2.2
2	2.8	4.0	5.0	5.3	5.5	7.7	6.4	4.2	a3.1	1.8	1.7	2.2
3	2.8	4.0	5.0	5.0	5.5	7.2	6.4	4.0	a2.9	1.8	1.7	2.2
4	2.8	4.0	5.0	5.5	6.4	6.9	6.6	4.2	a2.9	1.8	1.7	2.2
5	2.9	4.0	5.0	6.4	6.1	6.6	6.9	4.0	a2.8	1.7	1.7	2.2
6	*3.1	4.0	4.8	6.9	6.1	6.9	6.9	3.7	a2.8	1.8	1.7	2.2
7	3.3	*4.0	4.8	6.9	6.1	6.6	6.6	3.7	a2.6	1.7	1.7	2.2
8	3.3	4.0	4.8	7.2	6.1	6.4	5.8	3.5	a2.6	1.7	1.7	2.2
9	3.3	4.0	*4.8	17	5.5	6.4	*5.3	3.5	a2.6	1.7	1.7	*1.8
10	3.3	4.4	4.8	16	5.3	6.1	5.5	3.5	a2.4	*1.7	*1.6	1.8
11	3.1	4.4	4.8	12	5.0	6.1	5.5	3.5	*2.4	1.7	1.6	2.0
12	3.3	4.4	5.0	13	5.3	6.1	5.5	3.5	2.4	1.8	1.6	2.0
13	3.3	4.4	5.0	8.0	5.0	*6.4	5.5	*4.0	2.3	1.7	1.6	2.2
14	3.3	5.8	5.0	5.5	4.6	6.4	5.3	4.2	2.3	1.8	1.6	2.3
15	3.3	5.5	5.0	5.5	5.5	6.4	5.0	3.7	2.2	1.7	1.6	2.4
16	3.3	5.5	5.0	5.3	*9.7	6.1	5.0	3.3	2.0	1.7	1.6	2.6
17	3.3	5.8	5.0	5.3	7.4	5.8	4.8	3.1	2.0	1.7	1.6	2.6
18	3.3	5.5	5.0	5.3	6.1	5.8	4.6	3.3	2.0	1.7	1.7	3.3
19	3.1	5.8	5.0	*5.3	5.8	5.8	4.4	3.1	2.0	1.7	2.0	2.8
20	3.5	5.8	5.0	5.0	5.5	5.8	4.4	2.8	2.0	1.7	2.0	2.4
21	3.5	5.5	5.3	5.0	5.3	5.8	4.4	3.1	2.0	1.6	2.0	2.6
22	3.5	5.5	5.8	5.5	5.0	5.5	4.4	5.3	2.0	1.6	2.0	2.6
23	3.5	5.3	5.5	5.5	5.0	5.8	4.4	5.5	1.8	1.6	2.0	2.6
24	3.5	5.0	5.5	6.4	5.0	5.8	4.4	4.8	1.8	1.6	2.2	2.6
25	3.7	5.3	5.8	7.4	5.0	5.5	4.4	5.0	1.8	1.6	2.2	2.6
26	3.7	5.3	5.8	6.1	5.8	6.4	4.6	4.2	1.8	1.6	2.2	2.6
27	4.0	a5.3	6.4	5.8	5.8	5.8	4.4	4.0	1.8	1.6	2.2	2.6
28	4.0	a5.0	5.5	5.8	5.8	5.8	4.4	3.7	1.7	1.6	2.2	2.8
29	4.0	5.0	5.3	5.5	-	5.5	4.2	3.5	1.8	1.6	2.2	2.8
30	3.7	5.0	5.3	5.5	-------	6.1	4.2	3.3	1.7	1.7	2.2	2.9
31	3.7	-------	5.3	5.5	-------	5.5	-------	a3.3	-------	1.7	2.2	-------
Total	104.0	145.5	160.3	215.7	160.7	192.2	156.3	118.7	67.6	52.4	57.4	72.5
Mean	3.35	4.85	5.17	6.96	5.74	6.20	5.21	3.83	2.25	1.69	1.85	2.42
Ac-ft	206	289	318	428	319	381	310	235	134	104	114	144

Calendar year 1958: Max 23 Min 2.8 Mean 6.75 Ac-ft 4,890
Water year 1958-59: Max 17 Min 1.6 Mean 4.12 Ac-ft 2,980

Peak discharge (base, 15 cfs).--Jan. 9 (3 p.m.) 24 cfs (0.88 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge interpolated or estimated on basis of weather records and records for nearby streams.

3110. Carson River near Carson City, Nev.

Location.--Lat 39°06'30", long 119°42'40", in SW¼NW¼ sec.2, T.14 N., R.20 E., on left bank 2 miles downstream from Clear Creek, 2½ miles upstream from bridge on road to Mexican Dam, and 5 miles southeast of Carson City.

Drainage area.--876 sq mi.

Records available.--May 1939 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 4,621.48 ft above mean sea level, datum of 1929. Prior to Dec. 23, 1955, water-stage recorder on right bank at same datum. Dec. 23, 1955, to Mar. 13, 1956, staff gage at present site and datum.

Average discharge.--20 years, 409 cfs (296,100 acre-ft per year).

Extremes.--Maximum discharge during year, 1,690 cfs Feb. 17 (gage height, 3.73 ft); minimum, 4.8 cfs Aug. 18.
1938-59: Maximum discharge, 30,000 cfs Dec. 24, 1955 (gage height, 15.0 ft, from floodmarks), from rating curve extended above 6,000 cfs on basis of slope-area measurement at gage heights 8.40 and 15.0 ft, computation of flow over dam at gage height 11.40 ft, and float measurement at gage height 9.60 ft; minimum daily, 4 cfs Aug. 17, 1939.

Remarks.--Records good. Many diversions for irrigation above station. Flow slightly regulated by several small reservoirs on tributaries.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 26-31, Aug. 2 to Sept. 7, Sept. 9-18)

-0.5	4.5	1.0	100
-.2	10	1.5	208
0.0	16	2.0	410
.4	35	3.0	1,000
.7	60	3.6	1,510

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	86	94	142	146	194	291	205	445	253	55	12	8.2
2	80	98	142	138	200	315	200	521	211	45	9.6	9.2
3	77	100	144	130	189	307	*250	390	217	43	9.4	9.6
4	76	102	146	119	189	328	271	333	261	36	7.4	8.2
5	70	105	144	*119	203	*311	375	236	250	35	6.6	8.4
6	58	100	142	162	203	307	532	250	243	36	6.4	8.6
7	66	97	140	169	197	320	526	261	243	36	6.4	9.6
8	76	103	138	155	194	324	450	250	257	33	6.8	13
9	96	112	138	169	194	328	333	243	227	26	8.8	*8.8
10	81	107	136	460	189	324	279	268	227	22	6.6	6.4
11	75	115	136	532	*194	315	283	395	214	22	8.8	5.6
12	72	117	138	390	208	320	279	455	169	20	*6.8	6.6
13	73	123	138	395	194	324	275	*576	181	19	6.8	6.2
14	77	126	136	338	194	333	250	650	230	18	6.4	6.6
15	76	130	128	287	246	324	250	570	*236	*14	5.6	7.4
16	96	144	123	264	469	315	*211	565	205	13	5.8	8.6
17	91	132	130	250	1,450	295	239	495	174	13	5.4	6.6
18	90	132	130	239	806	324	250	480	*157	19	5.2	6.2
19	88	149	128	230	538	295	246	370	125	16	5.8	25
20	80	174	125	220	435	283	257	320	97	17	7.6	44
21	78	171	123	203	380	268	250	307	88	18	6.8	24
22	86	171	142	194	338	287	253	328	78	13	5.4	16
23	88	167	174	197	303	283	295	626	72	16	5.6	16
24	90	167	164	192	291	279	351	638	60	13	15	15
25	96	162	151	214	275	275	390	565	47	13	9.4	16
26	96	*171	151	283	271	246	425	516	44	9.6	7.4	18
27	97	171	169	227	271	239	435	465	45	8.2	7.2	18
28	*97	157	200	217	275	227	338	420	45	7.6	8.2	19
29	88	146	158	211	-	224	295	342	50	8.8	6.8	20
30	94	140	151	197	-------	227	333	287	54	10	5.8	22
31	100	-------	140	200	-------	246	-------	303	-------	9.2	5.4	-------
Total	2,594	3,983	4,444	7,247	9,090	9,084	9,326	12,870	4,760	664.4	227.2	396.8
Mean	83.7	133	143	234	325	293	311	415	159	21.4	7.33	13.2
Ac-ft	5,150	7,900	8,810	14,370	18,030	18,020	18,500	25,530	9,440	1,280	451	787

Calendar year 1958: Max 3,010 Min 37 Mean 521 Ac-ft 377,400
Water year 1958-59: Max 1,450 Min 5.2 Mean 177 Ac-ft 128,300

Peak discharge (base, 1,600 cfs).--Feb. 17 (9 a.m.) 1,690 cfs (3.73 ft).

* Discharge measurement made on this day.

3120. Carson River near Fort Churchill, Nev.

Location.--Lat 39°17'30", long 119°18'40", in SW¼SE¼ sec.32, T.17 N., R.24 E., on right bank 400 ft downstream from Buckland ditch, 2 miles west of Fort Churchill, and 3 miles upstream from Weeks bridge on U. S. Highway 95 alternate.

Drainage area.--1,450 sq mi, approximately.

Records available.--April 1911 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 4,214.70 ft above mean sea level, datum of 1929, supplementary adjustment of 1956. Prior to Apr. 25, 1924, staff gage at site 7¾ miles upstream at different datum. Apr. 25, 1924, to Dec. 31, 1933, water-stage recorder at site 8 miles upstream at different datum. Jan. 1, 1934, to Sept. 30, 1957, water-stage recorder at present site at datum 1.36 ft higher (levels by Truckee-Carson Irrigation District).

Average discharge.--48 years, 368 cfs (266,400 acre-ft per year).

Extremes.--Maximum discharge during year, 1,320 cfs Feb. 18 (gage height, 4.41 ft); no flow for many days in August and September.
1911-59: Maximum daily discharge, 9,680 cfs Dec. 26, 1955; maximum gage height, about 11 ft in December 1955, present datum, from floodmarks; no flow for some periods in nearly every year since 1923.

Remarks.--Records excellent. Many diversions for irrigation above station, including diversions for irrigation of 720 acres between present site and sites used prior to Jan. 1, 1934. Buckland ditch diverts 400 ft upstream for irrigation below the station.

Revisions (water years).--WSP 1514: 1917.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

1.24	0	1.7	7.0	2.8	194
1.3	0.3	1.8	12	3.2	386
1.4	1.0	2.0	28	3.7	710
1.5	2.0	2.2	50	4.2	1,120
1.6	4.0	2.5	103		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	75	155	146	211	268	*219	215	228	0.4	0	0
2	52	79	158	149	*207	282	187	*343	*190	*.4	0	*0
3	49	79	155	143	207	*302	176	359	158	.4	*0	0
4	40	77	158	116	198	302	194	292	155	.3	0	0
5	27	77	158	*143	202	312	215	241	165	.3	.1	0
6	27	80	155	140	211	297	282	183	155	.3	.1	0
7	24	88	155	155	207	297	392	183	152	.3	0	0
8	20	90	152	165	202	302	398	183	162	.3	0	0
9	21	92	152	158	198	307	337	169	158	.5	0	0
10	28	101	149	176	194	312	259	162	146	.4	0	.1
11	32	113	149	468	202	312	211	183	143	.3	0	.1
12	31	118	146	474	207	302	207	268	131	.2	0	.1
13	31	118	146	386	207	307	207	317	110	.2	0	.1
14	30	118	146	398	198	312	202	456	106	.2	.1	.1
15	30	131	146	343	198	317	187	474	123	.2	.1	.1
16	31	131	140	297	259	317	176	450	128	.2	0	.1
17	36	137	140	277	716	312	152	432	116	.2	0	.2
18	48	131	128	264	*1,110	302	165	392	106	.2	0	.2
19	72	143	118	250	675	312	176	364	95	.4	.2	.2
20	82	152	116	236	499	292	176	287	79	.1	0	.2
21	74	176	113	232	421	282	169	236	62	.1	0	.4
22	74	180	116	215	381	273	162	241	45	.1	0	.4
23	65	187	126	207	343	287	152	307	19	.1	0	.4
24	58	187	158	202	312	282	172	524	0.7	.1	0	.4
25	60	194	165	202	282	277	211	524	.4	.1	0	.4
26	60	190	152	232	278	273	245	444	.4	.1	0	.3
27	*68	187	152	282	278	245	277	432	.4	.1	*0	.3
28	74	*187	176	241	278	232	292	381	.4	.1	0	.3
29	75	176	202	228	-	223	223	337	.4	.1	0	.4
30	74	162	162	223	-------	215	202	282	.4	.1	0	**.4
31	72	-------	158	211	-------	219	-------	232	-------	.1	0	-------
Total	1,507	3,956	4,602	7,359	8,881	8,874	6,623	9,893	2,935.1	6.9	0.6	5.2
Mean	48.6	132	148	237	317	286	221	319	97.8	0.22	0.02	0.17
Ac-ft	2,990	7,850	9,130	14,600	17,620	17,600	13,140	19,620	5,820	14	1.2	10

Calendar year 1958: Max 2,790 Min 5.5 Mean 473 Ac-ft 342,700
Water year 1958-59: Max 1,110 Min 0 Mean 150 Ac-ft 108,400

Peak discharge (base, 1,400 cfs).--No peak above base.

* Discharge measurement or observation of no flow made on this day.
** Field estimate made on this day.

3155. Marys River above Hot Springs Creek, near Deeth, Nev.

Location.--Lat 41°15', long 115°17', in NE¼SE¼ sec.24, T.39 N., R.59 E., on right bank 1 mile upstream from Hot Springs Creek, 7 miles north of Cross Ranch, and 13 miles north of Deeth.

Drainage area.--415 sq mi.

Records available.--October 1943 to September 1959. Prior to October 1950, published as "below Hot Springs Creek, near Deeth."

Gage.--Water-stage recorder. Altitude of gage is 5,500 ft (from river-profile map). Prior to Nov. 3, 1950, at site 1½ miles downstream at different datum.

Average discharge.--16 years, 59.4 cfs (43,000 acre-ft per year).

Extremes.--Maximum discharge during year, 128 cfs June 8 (gage height, 1.98 ft); minimum, 0.4 cfs Aug. 21, 24, 26-28.
1943-59: Maximum discharge, 1,250 cfs Apr. 29, 1952 (gage height, 6.57 ft); minimum, 0.1 cfs Sept. 5, 1950, Aug. 27, 1955.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Several diversions above station for irrigation.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9	3.6	6.9	15	b16	23	39	81	70	14	0.6	0.6
2	*1.0	3.6	*6.6	*b14	b15	26	38	97	68	12	.6	.6
3	1.0	3.6	6.6	b13	b15	32	48	106	68	9.3	.6	.6
4	1.0	3.6	7.2	b12	*15	31	72	96	74	7.8	.6	.6
5	1.0	3.6	7.8	13	16	28	92	a88	84	6.9	.6	.6
6	1.3	*3.6	8.2	13	16	28	*106	*79	92	5.5	.6	.6
7	1.3	3.8	8.2	13	16	28	112	73	109	4.8	.6	.6
8	1.3	3.8	8.2	b12	b15	29	99	67	123	4.3	.6	.6
9	1.3	4.3	8.5	13	b14	28	89	64	*117	4.1	.6	.7
10	1.4	4.8	9.7	13	b14	28	81	64	102	3.6	.6	.6
11	1.6	4.3	10	14	b15	28	76	66	96	3.4	.6	.8
12	1.6	4.1	10	15	b14	25	76	68	89	3.2	.6	.8
13	1.8	4.3	b9.7	16	b13	26	80	73	84	3.2	.6	1.0
14	1.8	5.5	b9.6	16	b14	32	86	82	76	3.0	.6	1.3
15	1.8	4.5	b9.6	16	15	34	87	98	74	2.8	.6	1.0
16	2.1	5.0	b10	16	16	30	86	108	69	3.0	.5	1.2
17	2.1	5.0	12	16	16	30	79	a110	60	2.4	.5	1.2
18	2.1	4.8	12	17	17	33	74	a110	50	2.4	.5	1.3
19	2.1	5.0	12	b16	17	36	69	a107	35	2.1	.6	1.3
20	2.3	5.0	13	b15	17	36	65	a100	29	2.1	.6	1.2
21	2.4	5.5	13	b15	18	34	61	a90	38	1.8	.4	1.3
22	2.6	5.8	15	16	18	34	58	a92	35	1.6	.5	1.4
23	2.8	6.3	15	16	21	36	57	a100	29	1.2	.6	1.4
24	2.8	6.6	15	17	19	37	60	a90	23	1.2	.4	1.3
25	2.8	6.9	15	19	20	37	67	74	a20	.9	*.5	1.4
26	3.2	6.9	13	19	21	36	76	72	a20	.8	.4	1.8
27	3.4	7.2	13	19	21	37	83	*74	21	.7	.4	1.6
28	3.2	6.9	b12	21	*22	38	81	82	21	.7	.4	1.3
29	3.4	6.6	b12	19	-	38	74	82	a19	.6	.5	1.0
30	3.4	6.6	14	18	-------	39	73	78	*17	.6	.5	1.0
31	3.4	-------	15	b17	-------	39	-------	76	-------	*.6	.5	-------
Total	64.2	151.1	337.8	484	466	996	2,244	2,647	1,812	110.6	16.8	30.7
Mean	2.07	5.04	10.9	15.6	16.6	32.1	74.8	85.4	60.4	3.57	0.54	1.02
Ac-ft	127	300	670	960	924	1,980	4,450	5,250	3,590	219	33	61

Calendar year 1958: Max 496 Min 0.6 Mean 67.6 Ac-ft 48,920
Water year 1958-59: Max 123 Min 0.4 Mean 25.6 Ac-ft 18,560

Peak discharge (base, 200 cfs).--No peak above base.

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of trend of flow, and records for North Fork Humboldt River near Halleck.
b Stage-discharge relation affected by ice.

3165. Lamoille Creek near Lamoille, Nev.

Location.--Lat 40°41'30", long 115°28'30", in NE¼ sec.6, T.32 N., R.58 E., on left bank at Lamoille Creek bridge at mouth of canyon, 300 ft downstream from Elko-Lamoille powerplant and 3 miles south of Lamoille.

Drainage area.--25 sq mi, approximately.

Records available.--May 1915 to June 1923, October 1943 to September 1959.

Gage.--Water-stage recorder. Concrete control since Oct. 30, 1950. Altitude of gage is 6,240 ft (from topographic map). Prior to Oct. 1, 1943, staff gages at various sites nearby at different datums.

Average discharge.--22 years (1915-16, 1917-22, 1943-59), 42.6 cfs (30,840 acre-ft per year).

Extremes.--Maximum discharge during year, 238 cfs June 6; minimum, 1.2 cfs Feb. 2.
1915-23, 1943-59: Maximum discharge recorded, 794 cfs June 4, 1957, caused by failure of diversion structure 200 ft upstream but may have been exceeded by that of June 1917 when gage washed out; minimum, 1 cfs Jan. 24. 1918, Dec. 8, 1954.

Remarks.--Records good except those for periods of ice effect, which are fair. Records include flow of McDermott ditch, which diverts about 200 ft upstream from station. Elko-Lamoille powerplant diverts about 6 miles upstream but flow is returned to channel at powerplant 300 ft upstream from station.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.7	3.3	3.3	2.8	2.3	3.0	4.6	*46	70	46	11	4.7
2	4.7	3.3	3.0	b2.8	3.0	3.3	4.6	45	89	42	10	4.7
3	4.7	3.6	3.0	b2.7	3.0	3.0	6.0	37	114	40	9.6	4.4
4	4.7	3.6	3.3	b2.7	2.3	3.0	6.8	35	142	38	9.3	*4.3
5	4.4	3.6	3.3	b3.0	2.3	3.0	7.2	33	168	35	9.0	4.2
6	4.4	3.6	3.3	*b3.1	2.3	3.3	8.4	33	186	32	*8.7	4.2
7	4.4	3.6	3.3	3.0	2.3	2.8	8.4	34	176	29	8.3	4.2
8	4.4	3.6	3.3	3.0	2.6	2.8	8.8	38	167	28	7.9	4.2
9	4.4	3.6	3.6	2.8	2.6	2.8	*8.1	44	172	26	7.6	4.2
10	*4.3	3.6	3.3	2.6	2.6	2.8	8.1	50	155	25	7.6	3.9
11	4.3	3.5	3.3	2.6	2.6	2.8	8.5	60	160	23	7.2	3.9
12	4.3	3.5	3.6	2.6	2.6	3.0	9.3	81	*171	23	6.8	4.2
13	4.2	3.5	3.0	2.8	b2.5	3.6	10	112	168	22	6.7	4.2
14	4.2	4.1	3.0	2.6	b2.6	3.0	12	135	179	22	6.8	4.8
15	4.2	3.2	*3.0	2.6	2.8	3.0	12	120	159	21	6.4	4.8
16	3.3	3.2	3.0	2.6	2.6	3.0	12	102	138	19	6.3	4.8
17	3.9	b3.3	2.8	2.3	2.6	*3.0	12	95	119	18	6.1	4.8
18	3.9	b3.4	2.8	2.3	2.6	3.3	12	78	111	17	6.3	5.2
19	3.9	*3.4	2.8	2.3	2.8	3.6	10	68	109	16	7.6	7.1
20	3.9	3.3	2.8	2.3	2.8	3.0	10	61	102	16	6.8	5.9
21	3.6	3.3	2.8	2.6	2.6	3.3	10	56	98	15	6.4	5.9
22	3.6	3.3	2.8	2.3	2.6	3.6	12	52	93	15	6.1	5.6
23	3.6	3.3	2.8	2.3	2.8	3.6	12	50	80	14	5.6	5.6
24	3.9	3.3	2.6	2.3	*2.6	3.6	14	47	*71	14	5.6	5.2
25	3.9	3.3	2.8	2.6	2.6	3.6	18	48	66	13	5.6	7.5
26	3.6	3.3	2.8	2.3	2.6	3.9	24	*48	104	13	5.7	7.9
27	3.9	3.3	2.8	2.3	2.8	3.9	22	50	80	12	4.7	12
28	3.9	3.0	2.8	2.3	2.8	3.3	21	48	65	12	3.8	9.1
29	3.6	3.3	2.6	2.3	-	3.9	26	50	55	12	4.7	8.3
30	3.6	3.0	2.8	2.3	------	4.2	32	50	49	12	4.7	8.7
31	3.6	------	2.8	2.1	------	4.2	------	55	------	11	4.7	------
Total	126.0	102.2	93.2	79.2	73.2	102.2	370.1	1,861	3,616	681	213.6	168.5
Mean	4.06	3.41	3.01	2.55	2.61	3.30	12.3	60.0	121	22.0	6.89	5.62
Ac-ft	250	203	185	157	145	203	734	3,690	7,170	1,350	424	334

Calendar year 1958: Max 420 Min 2.6 Mean 45.2 Ac-ft 32,730
Water year 1958-59: Max 186 Min 2.1 Mean 20.5 Ac-ft 14,840

Peak discharge (base, 310 cfs).--No peak above base.

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

3175. North Fork Humboldt River at Devils Gate, near Halleck, Nev.

Location.--Lat 41°11', long 115°29', in SE¼ sec.13, T.38 N., R.57 E., on right bank 16 miles north of Halleck and 26 miles upstream from mouth.

Drainage area.--830 sq mi, approximately.

Records available.--November 1913 to September 1921, October 1943 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 5,368 ft above mean sea level (Geological Survey planetable bench mark). November 1913 to September 1921 at site a quarter of a mile upstream at different datum.

Average discharge.--21 years (1914-19, 1943-59), 70.4 cfs (50,970 acre-ft per year).

Extremes.--Maximum discharge during year, 69 cfs Mar. 3 (gage height, 3.12 ft); maximum gage height, 3.56 ft Feb. 9 (backwater from ice); minimum discharge, 1.6 cfs Aug. 7. 1913-21, 1943-59: Maximum discharge, 2,450 cfs Apr. 20, 1952 (gage height, 9.63 ft); minimum, 1 cfs Aug. 20-28, Sept. 30, 1913.

Remarks.--Records good except those for periods of ice effect, which are fair. Many diversions above station for irrigation.

Rating tables, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Nov. 19		Nov. 20 to Sept. 30			
2.4	10	2.0	2.0	2.8	42
2.7	23	2.2	8.7	3.1	68
		2.5	22		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	15	b22	19	b19	44	33	16	*13	7.3	2.9	*3.2
2	*10	15	*b24	*b17	b19	56	33	16	12	5.8	2.6	3.9
3	11	16	b24	b16	b21	62	38	18	12	4.8	2.3	4.5
4	11	*16	21	b16	*24	50	47	18	10	4.2	2.3	4.5
5	12	17	b19	b18	17	41	50	15	8.0	4.2	2.3	4.5
6	12	16	20	b19	b17	38	49	14	7.6	3.9	2.6	4.8
7	12	16	19	b19	b17	37	*47	*15	12	3.6	2.3	4.8
8	11	16	24	b18	b16	38	44	14	12	3.6	2.3	4.8
9	11	16	25	b19	b15	35	40	13	16	3.6	2.6	4.8
10	12	18	24	b20	b16	37	38	12	18	3.6	2.6	5.1
11	12	18	24	b21	b17	33	35	11	15	3.6	2.6	4.8
12	13	17	24	b22	b16	31	33	10	12	3.2	2.6	5.5
13	12	17	21	b22	b14	38	30	10	10	3.6	2.6	6.2
14	12	21	b19	22	b15	49	29	11	9.1	3.2	2.6	8.3
15	12	20	b18	22	b17	37	27	11	8.3	3.6	2.6	12
16	12	b18	b18	24	b19	35	26	11	7.6	3.2	2.6	16
17	12	b17	b19	24	b22	37	26	11	6.5	2.6	2.0	9.9
18	12	b18	b19	24	24	41	27	12	5.8	2.9	2.6	8.7
19	13	b19	b20	23	26	41	26	15	5.8	2.9	3.6	9.1
20	13	b20	21	b22	28	36	24	16	5.5	2.9	3.6	9.9
21	13	19	22	b22	30	33	21	16	5.5	3.2	3.6	9.5
22	13	20	25	b22	32	33	18	15	5.1	2.6	3.6	8.7
23	13	20	26	22	35	35	16	18	*4.5	2.3	3.6	8.0
24	13	22	21	22	31	35	15	16	4.5	2.6	3.2	8.0
25	13	22	21	25	28	33	15	12	4.5	2.9	3.2	8.3
26	15	21	b19	29	29	33	15	12	6.9	2.9	3.2	8.7
27	15	19	b18	29	32	33	15	14	7.3	2.9	3.2	9.1
28	15	b18	b17	28	*40	31	14	15	7.6	2.0	3.2	8.7
29	15	b18	b17	25	--	31	14	15	9.1	2.0	3.2	9.5
30	15	b18	b18	b21	-------	31	13	14	7.6	2.3	3.2	9.5
31	15	-------	20	b19	-------	33	-------	14	-------	*2.9	3.2	-------
Total	390	543	649	671	636	1,177	858	430	268.8	104.9	88.6	223.3
Mean	12.6	18.1	20.9	21.6	22.7	38.0	28.6	13.9	8.96	3.38	2.86	7.44
Ac-ft	774	1,080	1,290	1,330	1,260	2,330	1,700	853	533	208	176	443

Calendar year 1958: Max 851 Min 7.8 Mean 107 Ac-ft 77,180
Water year 1958-59: Max 62 Min 2.0 Mean 16.5 Ac-ft 11,980

Peak discharge (base, 170 cfs).--No peak above base.

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

3185. Humboldt River near Elko, Nev.

Location.--Lat 40°56', long 115°38', in SE¼NW¼ sec.11, T.35 N., R.56 E., on right bank 1 mile southwest of Ryndon, 5 miles downstream from North Fork, and 10 miles northeast of Elko.

Records available.--June 1895 to October 1902, October 1944 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 5,142.32 ft above mean sea level, datum of 1929. June 1895 to October 1902, staff gage at site 11 miles downstream at different datum.

Average discharge.--20 years (1897-1902, 1944-59), 223 cfs (161,400 acre-ft per year).

Extremes.--Maximum discharge during year, 142 cfs Mar. 3 (gage height, 2.27 ft); minimum daily, 0.8 cfs Sept. 10, 11.
1895-1903, 1944-59: Maximum discharge, 3,360 cfs Apr. 30, 1952 (gage height, 9.60 ft); no flow for many days in August and September 1948.

Remarks.--Records good except those for periods of ice effect, which are fair. Diversions above station for irrigation.

Rating table water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.8	0.4	1.2	12
.9	1.5	1.4	28
1.0	3.7	1.7	60
1.1	7.2	2.2	135

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.6	14	b20	b42	73	115	100	35	*40	6.8	1.3	1.2
2	6.8	14	b20	*b35	59	120	99	47	38	6.4	1.1	1.1
3	7.2	16	23	b33	b52	132	94	64	35	5.6	1.0	1.1
4	7.6	16	27	b35	b55	*135	93	72	31	6.0	1.1	1.1
5	8.1	16	24	52	59	123	94	73	28	5.0	*1.0	1.1
6	9.0	*16	26	52	*68	110	*93	72	24	5.0	1.0	1.0
7	8.5	16	25	42	72	105	90	*68	27	11	1.0	1.0
8	*8.1	16	*38	41	b70	102	94	64	37	6.8	1.0	*1.0
9	8.1	16	35	39	b65	99	93	59	51	5.6	1.0	1.0
10	8.5	16	33	36	b65	94	98	53	54	4.6	1.0	.8
11	9.5	17	36	37	b60	90	98	44	61	4.0	1.0	.8
12	9.5	18	34	b40	b55	90	99	37	66	3.7	1.0	1.0
13	9.5	19	31	49	b60	87	92	30	59	3.1	1.0	1.0
14	10	19	b27	64	b65	88	81	30	54	2.9	1.0	1.2
15	11	21	b25	76	b70	100	61	32	53	3.1	1.0	1.3
16	11	18	b22	79	73	93	37	29	66	3.4	1.0	1.1
17	11	b18	b21	79	77	87	33	27	58	3.4	1.0	1.1
18	10	19	b22	81	80	88	70	28	51	2.4	1.1	1.3
19	9.5	19	b27	69	93	92	73	32	41	2.0	1.2	1.3
20	9.5	20	33	b66	96	88	74	36	34	1.6	1.2	1.2
21	9.5	20	37	b70	100	86	73	40	27	1.6	1.2	1.2
22	9.5	22	45	79	105	84	70	42	24	1.5	1.2	1.5
23	11	24	48	81	112	81	60	47	*17	1.5	1.2	1.5
24	11	29	41	76	110	86	51	45	12	1.5	1.2	2.1
25	12	28	43	84	108	88	45	45	9.0	1.3	1.2	1.8
26	12	28	47	84	108	92	48	49	12	1.5	1.2	1.6
27	12	26	41	88	107	96	51	49	14	1.3	1.1	1.5
28	13	b22	38	100	107	94	47	47	11	1.2	1.1	1.5
29	14	b21	39	87	-	94	40	46	9.5	1.2	1.2	1.5
30	14	b20	42	96	-------	94	35	44	8.5	1.3	1.2	1.5
31	14	-------	52	77	-------	96	-------	42	-------	1.2	1.2	-------
Total	310.0	584	1,022	1,969	2,224	3,029	2,186	1,428	1,052.0	107.5	34.0	37.4
Mean	10.0	19.5	33.0	63.5	79.4	97.7	72.9	46.1	35.1	3.47	1.10	1.25
Ac-ft	615	1,160	2,030	3,910	4,410	6,010	4,340	2,830	2,090	213	67.4	74.2

Calendar year 1958: Max 1,600 Min 1.5 Mean 247 Ac-ft 178,500
Water year 1958-59: Max 135 Min 0.8 Mean 38.3 Ac-ft 27,750

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

3195. Huntington Creek near Lee, Nev.

Location.--Lat 40°33', long 115°43', in SW¼ sec.19 T.31 N., R.56 E., on right bank 5½ miles upstream from mouth and 6 miles west of Lee.

Records available.--December 1948 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,315 ft (from river-profile map).

Average discharge.--10 years (1949-59), 32.9 cfs (23,820 acre-ft per year).

Extremes.--Maximum discharge during year, 23 cfs Feb. 19 (gage height, 1.38 ft); minimum daily, 0.2 cfs Aug. 7.
1948-59: Maximum discharge, 1,210 cfs Apr. 29, 1952 (gage height, 6.54 ft), from rating curve extended above 530 cfs on basis of logarithmic plotting; minimum daily, that of Aug. 7, 1959.

Remarks.--Records good except those for periods of ice effect, which are fair. Diversions for irrigation of 17,700 acres above station.

Revisions (water years).--WSP 1244: 1949(M). WSP 1344: 1953.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 16-19, 22-31, Feb. 4-7, Feb. 18 Mar. 16, July 23 to Aug. 8, Sept. 4-30)

0.7	0	1.1	5.1
.8	.4	1.3	12
.9	1.3	1.5	23
1.0	2.8		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.7	7.0	b10	b11	b16	17	14	6.1	2.5	2.1	0.5	1.7
2	3.7	7.3	b10	b10	b16	17	14	7.0	*2.3	2.0	.5	1.7
3	4.0	7.3	*b11	b8.5	b17	*17	13	7.3	2.3	1.7	.3	*1.8
4	4.0	7.7	b11	b8.0	19	16	13	6.7	2.0	1.6	*.3	1.8
5	4.0	*7.7	b11	*b9.0	*18	16	14	5.7	1.8	1.4	.3	2.0
6	4.0	7.3	b11	b12	18	16	14	5.4	1.7	1.3	.3	2.1
7	4.0	8.0	b12	b14	17	16	14	5.4	2.0	1.3	.2	2.1
8	4.0	7.7	12	b14	b17	16	*13	*5.1	2.0	2.0	.9	2.3
9	*4.0	7.7	14	b13	b15	15	13	4.6	1.8	2.1	1.8	2.3
10	4.0	8.7	13	b14	b12	15	13	4.4	1.6	1.2	1.8	2.5
11	4.2	9.9	13	b14	b13	15	12	4.6	1.3	1.0	1.8	2.6
12	4.2	9.5	13	b14	b13	15	10	4.4	1.3	1.0	1.8	2.8
13	4.2	12	b12	b15	b14	16	9.5	4.4	1.2	1.1	1.8	3.0
14	4.6	10	b11	b15	b15	15	9.5	4.4	1.4	1.0	1.8	3.8
15	4.6	b9.0	b10	b16	b15	15	7.3	4.0	1.7	1.0	1.8	3.3
16	4.9	b8.6	b9.5	16	b17	14	6.7	4.6	1.8	.9	1.7	2.8
17	4.9	b8.5	b9.5	17	b20	14	6.2	4.6	1.7	.8	1.7	3.3
18	4.9	b8.5	b10	17	22	14	4.4	4.9	1.8	.9	1.8	2.8
19	4.9	b8.8	b11	17	21	14	4.6	4.6	1.8	.9	2.1	3.3
20	4.9	9.1	b11	b16	21	13	5.7	4.4	1.8	.9	2.0	3.0
21	b5.1	9.1	11	b14	20	14	6.1	3.3	1.6	.9	1.8	3.0
22	b5.4	9.9	12	14	20	15	5.7	3.3	*1.3	.9	1.7	3.3
23	5.7	10	14	15	20	12	4.6	4.2	1.3	.9	1.7	3.3
24	6.4	11	14	16	20	13	4.0	4.2	1.4	1.1	1.6	3.5
25	6.1	11	12	16	19	15	4.6	3.5	1.4	1.0	1.7	3.7
26	6.4	11	12	18	18	13	5.7	3.3	2.1	.8	1.7	4.0
27	6.1	b11	12	18	18	13	7.3	4.4	2.8	.5	1.6	4.0
28	5.7	b10	b11	19	18	12	6.4	3.5	2.8	.5	1.6	4.0
29	5.7	b9.5	b10	18	-	13	5.7	3.0	2.6	.5	1.6	4.0
30	6.7	b9.5	b11	17	-------	15	5.7	2.6	2.3	.5	1.6	4.0
31	6.7	-------	12	17	-------	17	-------	2.5	-------	.5	1.6	-------
Total	151.7	272.3	356.0	452.5	489	458	266.7	140.4	55.4	34.3	43.4	87.8
Mean	4.89	9.08	11.5	14.6	17.5	14.8	8.89	4.53	1.85	1.11	1.40	2.93
Ac-ft	301	540	706	898	970	908	529	278	110	68.0	86.1	174

Calendar year 1958: Max 215 Min 1.4 Mean 34.8 Ac-ft 25,190
Water year 1958-59: Max 22 Min 0.2 Mean 7.69 Ac-ft 5,570

Peak discharge (base, 200 cfs).--No peak above base.

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

3200. South Fork Humboldt River above Dixie Creek, near Elko, Nev.

Location.--Lat 40°41'05", long 115°48'45", in NW¼SW¼ sec.5, T.32 N., R.55 E., on left bank 1½ miles upstream from Dixie Creek and 10½ miles south of Elko.

Records available.--December 1948 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,140 ft (from topographic map).

Average discharge.--10 years (1949-59), 106 cfs (76,740 acre-ft per year).

Extremes.--Maximum discharge during year, 216 cfs June 7 (gage height, 3.43 ft); minimum daily, 0.1 cfs Sept. 9 (gage height, 1.62 ft).
1948-59: Maximum discharge, 1,700 cfs Apr. 29, 1952, June 6, 1957; maximum gage height, 5.58 ft June 6, 1957; minimum daily discharge, that of Sept. 9, 1959.

Remarks.--Records good except those for periods of ice effect, which are fair. Diversions for irrigation of 32,900 acres above station.

Revisions (water years).--WSP 1284: 1952(M).

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.6	0.1	2.0	4.3	2.6	45
1.7	.4	2.1	7.5	2.8	73
1.8	1.0	2.2	12	3.0	111
1.9	2.2	2.4	25	3.4	213

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.0	17	b24	b25	30	31	34	40	42	25	2.2	0.3
2	8.0	17	b25	b22	b29	31	32	49	*50	22	1.8	*.4
3	8.0	17	*b25	b18	b30	*30	33	46	64	19	1.4	.4
4	8.0	17	b25	b16	34	30	34	41	91	15	*1.4	.4
5	8.0	*19	b24	*b18	*33	28	38	36	120	13	1.4	.2
6	8.0	19	b25	b25	33	28	43	33	145	13	1.2	.2
7	8.8	18	b25	b29	31	29	46	30	190	9.8	1.1	.2
8	9.8	19	27	b27	32	28	*45	*29	160	8.8	1.0	.2
9	*9.8	18	27	b27	b26	27	43	25	152	6.8	.8	.1
10	9.3	21	28	b29	b25	27	42	29	150	7.1	.7	.2
11	8.8	23	27	b29	b25	26	42	33	131	8.0	.5	.2
12	9.3	21	27	b30	b26	26	43	38	133	8.4	.4	.3
13	10	21	26	b32	b26	29	44	64	143	8.0	.4	.8
14	10	25	b25	b32	b27	29	44	99	143	6.1	.3	2.2
15	11	22	b24	b30	b30	28	41	135	147	6.4	.3	4.8
16	11	22	b24	31	33	26	31	126	133	5.4	.3	4.0
17	12	b21	b26	30	b38	25	27	111	105	4.6	.4	3.6
18	11	b20	b26	31	42	27	21	95	91	3.8	.3	3.8
19	11	21	b26	30	41	28	19	86	84	3.3	.5	4.6
20	11	23	b27	b27	38	28	19	72	73	2.9	.6	3.8
21	11	23	28	b28	37	26	18	61	67	2.5	.8	3.3
22	12	21	27	31	36	26	15	52	*60	2.4	.7	2.9
23	13	22	30	30	35	26	15	53	49	2.7	.7	2.9
24	13	23	b26	30	35	26	9.3	48	40	3.6	.8	3.1
25	14	24	26	31	33	30	11	43	31	3.1	.8	3.1
26	15	24	b25	34	33	30	14	49	54	3.3	.6	2.9
27	14	24	26	33	31	30	19	50	62	3.1	.5	3.1
28	14	b23	b23	35	31	28	19	44	45	2.2	.5	3.1
29	15	b23	b21	33	-	28	21	36	38	2.2	.4	2.9
30	15	b23	b21	32	-------	30	35	35	31	2.0	.4	2.9
31	16	-------	b26	33	-------	35	-------	38	-------	2.4	.3	-------
Total	342.8	631	792	888	900	876	897.3	1,726	2,824	221.9	23.5	60.9
Mean	11.1	21.0	25.5	28.6	32.1	28.3	29.9	55.7	94.1	7.16	0.76	2.03
Ac-ft	680	1,250	1,570	1,760	1,790	1,740	1,780	3,420	5,600	440	47	121

Calendar year 1958: Max 1,100 Min 4.3 Mean 126 Ac-ft 91,480
Water year 1958-59: Max 190 Min 0.1 Mean 27.9 Ac-ft 20,200

Peak discharge (base, 400 cfs).--No peak above base.

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

3205. South Fork Humboldt River near Elko, Nev.

Location.--Lat 40°43'25", long 115°49'45", in NE¼NW¼ sec.30, T.33 N., R.55 E., on right bank 0.1 mile upstream from head of canyon, 1.7 miles downstream from highway bridge, 8.8 miles upstream from mouth, and 10 miles southwest of Elko.

Drainage area.--1,150 sq mi, approximately.

Records available.--August 1896 to September 1922, October 1923 to September 1932, October 1936 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,100 ft (from topographic map). Prior to November 1913, staff gages at several sites about 1 mile upstream at various datums. November 1913 to February 1927, water-stage recorder near present site at different datum. March 1927 to September 1932, staff gage at site 1 mile upstream at different datum. October 1932 to Oct. 12, 1955, water-stage recorder at site 900 ft upstream at datum 1.97 ft higher.

Average discharge.--51 years (1896-1903, 1904-9, 1910-18, 1923-26, 1927-32, 1936-59), 126 cfs (91,220 acre-ft per year).

Extremes.--Maximum discharge during year, 221 cfs June 7 (gage height, 3.21 ft); no flow Aug. 3 to Sept. 14.
1896-1922, 1923-32, 1936-59: Maximum daily discharge, 2,400 cfs Jan. 26, 1914; maximum gage height observed, 12.0 ft Jan. 26, 1914 (ice jam); no flow Aug. 10 to Oct. 24, 1954, Aug. 3 to Sept. 14, 1959.

Remarks.--Records good except those for periods of ice effect, which are fair. Many diversions above station for irrigation. Station is below all diversions except those of Hunter & Banks ranch 3 miles downstream.

Revisions (water years).--WSP 1090: 1932. WSP 1514: 1906, 1927-29.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.2	0	1.8	13
1.3	.2	2.0	25
1.4	.8	2.3	51
1.5	2.0	2.6	92
1.6	4.2	3.1	192
1.7	7.9		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.2	12	b18	b21	25	28	32	33	36	21	0.6	0
2	5.2	12	b19	b18	b23	28	30	41	44	20	.3	0
3	5.2	12	b20	*b15	b25	28	31	41	56	17	0	*0
4	5.2	13	b20	b12	b25	*27	32	35	78	12	0	0
5	5.5	13	b20	b14	b25	25	33	33	113	10	*0	0
6	5.5	14	b21	b18	b26	24	37	31	144	10	0	0
7	*6.3	*14	b22	b25	28	25	41	27	190	7.9	0	0
8	6.7	14	*23	b23	28	25	41	26	165	6.7	0	0
9	7.1	14	22	b24	b25	24	*38	25	150	5.2	0	0
10	6.7	15	22	b25	b23	24	38	25	148	4.8	0	0
11	6.7	18	21	b25	b24	23	38	*29	130	5.2	0	0
12	6.7	17	21	b27	*b25	24	38	33	128	5.5	0	0
13	7.1	17	20	b28	b25	26	39	50	134	5.5	0	0
14	7.5	20	b19	b28	b25	27	38	82	132	4.2	0	0
15	7.5	18	b19	b27	b26	25	36	120	142	4.5	0	2.6
16	7.1	b17	b20	27	b28	24	32	124	132	3.4	0	1.8
17	7.9	b15	b20	26	b32	24	27	104	100	2.7	0	2.0
18	7.9	b14	b20	26	b35	25	21	90	87	2.1	0	1.1
19	7.9	b15	b21	25	34	26	18	79	76	1.6	0	2.5
20	7.9	b16	b22	21	33	26	18	67	68	1.2	0	1.1
21	7.1	b16	25	b21	33	24	17	57	59	1.0	0	.6
22	7.9	b16	26	b23	31	24	14	49	54	.8	0	.3
23	9.2	b17	b25	26	31	25	14	49	45	.6	0	.1
24	8.8	18	b23	24	32	24	8.8	45	*36	1.1	0	.1
25	9.7	19	b21	25	30	27	7.9	39	29	1.1	0	.2
26	11	19	b20	27	29	27	13	*44	41	1.2	0	.2
27	11	b18	b20	27	29	27	17	46	54	1.2	0	.2
28	9.7	b18	b20	28	28	27	18	41	41	.8	0	.2
29	11	b18	b19	28	-	27	17	34	34	.5	0	.1
30	11	b18	b20	27	-------	29	29	32	28	.4	0	.2
31	12	-------	b21	27	-------	32	-------	35	-------	.5	0	-------
Total	241.2	477	650	738	783	801	813.7	1,564	2,674	159.7	0.9	13.3
Mean	7.78	15.9	21.0	23.8	28.0	25.8	27.1	50.5	89.1	5.15	0.03	0.44
Ac-ft	478	946	1,290	1,460	1,550	1,590	1,610	3,100	5,300	317	1.8	26.4

Calendar year 1958: Max 1,050 Min 2.0 Mean 126 Ac-ft 90,950
Water year 1958-59: Max 190 Min 0. Mean 24.4 Ac-ft 17,670

Peak discharge (base, 410 cfs).--No peak above base.

* Discharge measurement or observation of no flow made on this day.
b Stage-discharge relation affected by ice.

3210. Humboldt River near Carlin, Nev.

Location.--Lat 40°43'40", long 116°00'30", in sec.21, T.33 N., R.53 E., on right bank 4½ miles southwest of Moleen, 5 miles upstream from Susie Creek, 5½ miles east of Carlin, and 15 miles southwest of Elko.

Drainage area.--4,310 sq mi, approximately.

Records available.--October 1943 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 4,931.91 ft above mean sea level (levels by State Highway Department).

Average discharge.--16 years, 331 cfs (239,600 acre-ft per year).

Extremes.--Maximum discharge during year, 325 cfs June 7 (gage height, 2.08 ft); minimum, 0.1 cfs Aug. 16.
1943-59: Maximum discharge, 5,220 cfs May 1, 1952 (gage height, 9.35 ft); minimum, that of Aug. 16, 1959.
High water in February 1943 reached a stage of 9.8 ft (discharge, 5,900 cfs, by slope-area measurement of peak flow).

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Many diversions above staton for irrigation.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic-feet per second)

0.3	0	0.8	13
.4	1.0	1.0	28
.5	2.0	1.3	62
.6	4.0	1.6	110
.7	8.0	2.0	198

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	23	*62	73	112	137	140	70	62	39	0.8	0.6
2	15	22	b60	75	99	140	*140	75	61	33	.8	.8
3	15	*22	b55	b65	*89	146	137	82	68	29	1.8	.9
4	15	25	56	b68	97	148	135	78	79	26	2.2	.8
5	15	26	54	82	97	150	133	66	106	23	1.6	.7
6	15	27	57	84	105	150	135	68	142	21	1.2	.8
7	17	29	58	72	106	148	140	69	183	18	.9	.8
8	*18	29	62	69	105	142	135	66	198	16	.7	.8
9	18	29	68	66	103	137	131	65	171	16	.6	.8
10	19	32	65	66	90	135	135	61	171	14	.5	.7
11	19	35	70	69	90	135	135	62	159	12	.4	.6
12	19	37	68	73	82	135	140	59	146	12	.3	.9
13	19	36	66	82	b75	135	142	59	146	9.5	.2	1.2
14	19	49	62	90	b80	135	137	82	148	10	.3	2.1
15	19	40	b55	94	b90	129	135	106	150	9.0	.3	2.6
16	19	40	b55	94	97	129	129	146	152	5.6	.3	1.4
17	19	35	b60	99	103	135	116	133	129	4.8	.3	1.2
18	19	38	b56	103	118	133	103	123	108	4.8	.6	1.3
19	19	45	b55	105	121	129	86	112	97	5.2	1.4	1.6
20	19	50	b56	101	121	123	79	99	90	5.2	1.2	6.5
21	19	55	59	87	127	131	81	87	82	4.8	.9	9.5
22	19	55	65	90	127	131	87	78	78	3.6	.8	10
23	20	56	72	103	133	131	76	72	69	3.8	.9	10
24	20	58	73	101	133	127	68	72	61	3.8	1.0	10
25	20	62	79	105	137	129	66	65	52	4.4	1.9	12
26	20	65	73	108	137	129	61	63	47	3.0	1.8	12
27	20	65	79	108	*137	129	63	75	61	2.0	1.4	12
28	16	64	78	112	135	129	66	72	65	1.8	1.2	12
29	15	62	73	112	-	133	54	65	*52	1.5	1.0	11
30	24	62	69	116	-------	137	*54	58	44	*1.2	.6	12
31	25	-------	*72	110	-------	142	-------	*58	-------	1.1	*.5	-------
Total	570	1,273	1,992	2,782	3,046	4,197	3,239	2,444	3,177	344.1	28.4	137.6
Mean	18.4	42.4	64.3	89.7	109	135	108	78.8	106	11.1	0.92	4.59
Ac-ft	1,130	2,520	3,950	5,520	6,040	8,320	6,420	4,850	6,300	683	56.3	273

Calendar year 1958: Max 2,240 Min 5.2 Mean 372 Ac-ft 264,300
Water year 1958-59: Max 198 Min 0.2 Mean 63.6 Ac-ft 46,060

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Oct. 9-25, Nov. 17 to Dec. 1; discharge estimated on basis of 1 discharge measurement, inspection of gage-height chart, recorded range in stage, weather records, and records for nearby stations.

3225. Humboldt River at Palisade, Nev.

Location.--Lat 40°36'25", long 116°12'05", in SE¼SE¼ sec.35, T.32 N., R.51 E., on right bank a quarter of a mile downstream from Southern Pacific Railroad bridge, half a mile downstream from Palisade, and three-quarters of a mile upstream from Pine Creek.

Drainage area.--5,010 sq mi, approximately.

Records available.--November 1902 to October 1906, July 1911 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 4,825.55 ft above mean sea level, datum of 1929. Prior to Apr. 1, 1939, staff or chain gages (water-stage recorder Apr. 22 to June 3, 1935) at several sites within half a mile of present site at various datums.

Average discharge.--51 years (1903-6, 1911-59), 359 cfs (259,900 acre-ft per year).

Extremes.--Maximum discharge during year, 212 cfs June 8 (gage height, 2.51 ft); minimum daily, 7.6 cfs Aug. 12.
1902-6, 1911-59: Maximum discharge, 6,250 cfs Feb. 26, 1943 (gage height, 9.92 ft); minimum, 2 cfs Aug. 25-28, 1931.

Remarks.--Records excellent except those for period of ice effect, which are fair. Diversion above station for irrigation of about 150,000 acres of hay and pasture land.

Revisions (water years).--WSP 1514: 1903-4, 1912, 1914.

Rating table, water year 1958-59, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.4	7.0	1.8	53
1.5	14	2.1	110
1.6	24	2.5	205

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*32	39	*68	104	141	165	155	70	62	53	11	8.2
2	32	39	72	102	132	170	*150	76	62	50	10	8.8
3	33	*40	74	b85	*112	170	150	81	63	47	10	8.8
4	34	40	76	b80	121	168	150	85	67	42	10	8.2
5	33	47	78	b80	125	170	148	78	83	40	11	8.2
6	33	47	78	106	128	175	146	70	119	32	10	8.2
7	33	50	80	93	134	172	148	70	155	30	9.5	8.8
8	36	53	81	87	132	168	148	70	192	28	8.8	8.8
9	37	53	87	93	121	162	144	68	180	27	8.8	8.8
10	37	56	89	93	121	158	148	67	160	25	8.8	8.8
11	37	58	91	95	125	153	146	67	165	23	8.2	8.2
12	37	60	91	100	102	150	150	63	139	21	7.6	8.8
13	37	58	89	108	97	150	153	62	134	23	8.8	12
14	37	67	85	117	100	148	153	67	137	21	9.5	16
15	37	70	72	123	125	146	146	91	134	20	8.8	29
16	37	70	76	121	128	144	144	123	139	19	8.8	21
17	37	60	80	125	130	146	134	137	134	17	8.8	18
18	37	58	76	130	139	153	114	125	112	16	8.2	17
19	37	68	72	130	153	150	93	117	100	15	9.5	18
20	37	74	80	130	150	141	89	106	91	17	10	16
21	37	72	81	110	155	141	95	95	81	16	9.5	17
22	37	72	91	117	155	144	100	87	78	18	9.5	21
23	37	74	97	128	162	144	100	85	74	17	9.5	21
24	39	76	100	130	165	144	85	83	68	19	8.8	22
25	36	76	102	134	162	139	80	78	65	17	8.8	22
26	39	78	102	141	165	144	78	76	63	17	8.2	22
27	40	78	100	141	*165	146	72	78	60	16	8.8	22
28	37	76	108	144	162	146	74	80	65	14	8.8	22
29	36	70	102	144	-	148	74	76	*65	13	9.5	23
30	37	67	87	146	-------	150	*63	70	58	*12	8.8	*23
31	33	-------	*95	144	-------	155	-------	*65	-------	12	*8.8	-------
Total	1,118	1,846	2,660	3,591	3,807	4,760	3,630	2,566	3,105	737	235.1	464.6
Mean	36.1	61.5	85.8	116	136	154	121	82.8	104	23.8	9.20	15.5
Ac-ft	2,220	3,660	5,280	7,120	7,550	9,440	7,200	5,090	6,160	1,460	565	922

Calendar year 1958: Max 2,270 Min 22 Mean 421 Ac-ft 304,800
Water year 1958-59: Max 192 Min 7.6 Mean 78.3 Ac-ft 56,670

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

3235. Humboldt River near Argenta, Nev.

Location (revised).--Lat 40°40'45", long 116°38'45", in SE¼NW¼ sec.2, T.32 N., R.47 E., on left bank 3 miles east of Argenta and 15½ miles east of Battle Mountain.

Records available.--February 1946 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,580 ft (from topographic map).

Average discharge.--13 years, 290 cfs (210,000 acre-ft per year).

Extremes.--Maximum discharge during year, 153 cfs Mar. 9 (gage height, 3.42 ft); minimum daily, 0.3 cfs Sept. 10-12, 16.
1946-59: Maximum daily discharge, 5,700 cfs May 2, 1952 (includes flow bypassing gage outside of main channel); minimum daily, 0.2 cfs Sept. 15 to Oct. 17, 1955.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Many diversions above station for irrigation. Records do not include flow in secondary channels or ditches, much of which is used for irrigation.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.8	0.1	2.4	19
1.9	.5	2.7	47
2.0	1.3	3.0	86
2.1	3.4	3.5	168
2.2	7.2		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.1	29	b56	83	131	148	a134	57	41	*27	0.7	0.5
2	5.9	29	b58	88	127	148	a135	54	39	25	.7	.5
3	7.6	29	b60	b84	b118	148	*136	60	36	22	.7	.5
4	10	31	64	b80	117	148	134	62	*35	21	.7	.5
5	11	33	66	b78	112	148	134	64	35	20	.7	.4
6	12	34	67	b84	119	149	132	64	36	18	.7	.4
7	13	35	67	*b90	119	151	131	58	51	15	.7	.4
8	14	36	69	b88	126	149	131	49	78	13	.8	.4
9	15	37	*71	b90	b120	*149	132	43	100	9.1	.8	*.4
10	16	39	73	94	122	149	129	39	109	6.3	*.7	.3
11	17	40	76	89	117	146	127	39	96	4.8	.7	.3
12	18	42	76	88	b105	144	129	*37	90	3.4	.7	.3
13	*18	44	78	90	b92	144	129	36	85	2.1	.6	.4
14	18	48	78	96	90	141	124	35	75	1.3	.6	.5
15	18	48	b72	100	100	141	120	35	72	1.1	.7	.4
16	18	51	b68	104	*120	137	117	37	72	.9	.7	.3
17	15	b47	b66	107	120	131	115	52	75	.8	.7	.4
18	7.6	b50	b67	107	126	134	112	72	76	.8	.7	.4
19	6.3	b52	b68	111	132	139	100	73	68	.7	.6	.4
20	5.9	54	69	112	141	137	88	72	58	.7	.7	.4
21	7.2	58	71	b105	142	132	73	68	53	.6	.6	.4
22	7.6	58	76	109	142	129	72	64	47	.7	.6	.4
23	8.6	58	79	103	144	131	71	59	39	.6	.6	.4
24	25	59	83	111	144	a131	73	53	35	.6	.6	.4
25	25	60	88	115	146	a131	71	49	33	.7	.6	.4
26	26	63	88	119	146	a131	67	49	35	.7	.6	.4
27	26	63	90	126	146	a131	64	49	35	.6	.6	.4
28	27	64	90	127	148	a131	62	46	30	.6	.6	.4
29	26	b63	94	129	-	a132	59	46	28	.6	.6	.4
30	27	b60	90	131	-------	a133	59	45	29	.6	.6	.5
31	*26	-------	85	132	-------	a134	-------	43	-------	.6	.6	-------
Total	482.8	1,414	2,303	3,170	3,512	4,327	3,160	1,609	1,691	199.9	20.5	12.2
Mean	15.6	47.1	74.3	102	125	140	105	51.9	56.4	6.45	0.66	0.41
Ac-ft	958	2,800	4,570	6,290	6,970	8,580	6,270	3,190	3,350	396	40.7	24.2

Calendar year 1958: Max 1,780 Min 2.5 Mean 361 Ac-ft 261,400
Water year 1958-59: Max 151 Min 0.3 Mean 60.0 Ac-ft 43,440

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of engineers' notes, recorded range in stage, trend of flow, and records for other Humboldt River stations.
b Stage-discharge relation affected by ice.

3245. Rock Creek near Battle Mountain, Nev.

Location.--Lat 40°49', long 116°35', in NE¼ sec.17, T.34 N., R.48 E., on left bank at mouth of canyon, 22 miles northeast of Battle Mountain.

Records available.--March 1918 to September 1925 (fragmentary October 1923 to September 1925), March 1927 to May 1929 (fragmentary), January 1946 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,600 ft (estimated from nearby U. S. Coast and Geodetic Survey bench mark). Prior to Mar. 26, 1918, staff gage at site about 11 miles upstream at different datum. Mar. 26, 1918, to Jan. 3, 1946, water-stage recorder at present site at different datum.

Average discharge.--18 years (1918-23, 1946-59), 31.9 cfs (23,090 acre-ft per year).

Extremes.--Maximum discharge during year, 24 cfs Feb. 1 (gage height, 0.99 ft); no flow June 17, 19, July 23 to Sept. 30.
1918-25, 1927-29, 1946-59: Maximum discharge, 3,000 cfs Apr. 7, 1952 (gage height, 5.60 ft); no flow at times in July, August, September and October nearly every year.

Remarks.--Records good except those for periods of ice effect, which are fair. Several diversions for irrigation in valleys upstream. Station is above all diversions in Boulder Flat and below all tributaries. Flow slightly affected by small reservoir in Squaw Valley, 30 miles upstream.

Revisions (water years).--WSP 1214: 1950(M).

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.0	0	0.4	3.5
.1	.4	.6	7.7
.2	1.0	.8	14
.3	2.0		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.9	3.0	3.2	5.4	6.3	8.0	7.2	3.7	3.2	*1.2		
2	2.0	2.8	4.4	4.7	5.2	7.7	6.8	3.2	2.8	2.5		
3	2.0	3.0	b4.5	2.5	b4.8	7.5	6.3	5.0	2.4	2.8		
4	2.0	3.0	b5.5	b2.5	b7.0	6.8	6.6	4.6	*1.9	2.4		
5	2.1	3.2	b5.5	2.4	b6.0	8.3	8.3	4.2	1.2	1.7		
6	2.2	3.2	b5.2	3.2	b6.5	7.2	11	6.6	1.0	1.2		
7	2.2	3.2	5.2	*5.0	b6.5	7.2	12	6.1	1.5	1.0		
8	2.1	3.2	6.8	5.0	b6.0	6.3	13	6.6	1.3	.9		
9	2.1	3.2	*5.6	5.4	b5.0	*6.6	12	6.8	.8	2.0		(*)
10	2.2	3.5	5.2	5.9	4.5	6.1	10	7.0	.6	2.0	(*)	
11	2.2	3.5	5.2	5.2	b4.5	5.2	9.7	5.2	.6	1.3		
12	2.4	2.4	5.2	5.7	b4.0	5.6	9.4	*4.8	.5	1.0		
13	2.4	3.2	4.0	b7.5	b3.7	5.4	8.8	4.4	.4	.8		
14	2.4	6.1	2.9	b7.0	b4.0	4.8	*8.5	3.7	.2	.8		
15	*2.4	6.8	2.5	b7.5	6.6	5.6	8.0	5.0	.2	1.1		
16	2.5	5.4	3.3	8.0	*7.5	5.4	8.0	6.3	.1	1.2		
17	2.5	3.9	4.1	6.8	6.4	5.4	8.5	8.8	0	1.0		
18	2.5	3.8	3.9	b5.5	7.7	5.2	8.8	8.3	.1	.7		
19	2.5	7.0	4.2	b5.0	9.4	5.9	8.8	6.8	0	.4		
20	2.5	5.4	5.4	b4.3	7.2	6.1	7.7	5.6	.3	.2		
21	2.4	5.9	6.1	b5.0	9.7	6.8	6.8	5.9	.5	.2		
22	2.4	5.7	6.8	b6.0	9.1	6.3	5.9	4.6	.4	.1		
23	2.7	5.8	6.6	6.8	9.4	6.6	5.4	3.9	.6	0		
24	2.7	5.6	5.1	6.6	8.5	6.8	5.2	3.7	.6	0		
25	2.8	5.4	5.2	7.0	8.0	6.8	4.8	4.2	.5	0		
26	2.8	5.4	5.6	7.7	8.3	6.8	4.8	5.0	.6	0		
27	2.7	b4.5	6.3	7.7	8.0	6.8	5.0	5.6	1.2	0		
28	2.7	3.5	b5.5	8.0	8.0	6.6	4.6	4.4	.7	0		
29	*2.5	3.0	5.0	7.0	-	6.6	4.4	4.4	.4	0		
30	2.4	2.7	5.0	9.1	-------	6.6	4.2	3.7	.2	0		
31	2.4	-------	6.8	6.6	-------	7.2	-------	3.2	-------	0		-------
Total	73.6	126.3	155.8	182.0	187.8	200.2	230.5	161.3	24.8	26.5	0	0
Mean	2.37	4.21	5.03	5.87	6.71	6.46	7.68	5.20	0.83	0.85	0	0
Ac-ft	146	251	309	361	372	397	457	320	49	53	0	0

Calendar year 1958: Max 425 Min 0 Mean 47.5 Ac-ft 34,390
Water year 1958-59: Max 13 Min 0 Mean 3.75 Ac-ft 2,720

Peak discharge (base, 75 cfs).--No peak above base.

* Discharge measurement or observation of no flow made on this day.
b Stage-discharge relation affected by ice.

3250. Humboldt River at Battle Mountain, Nev.

Location (revised).--Lat 40°39'15", long 116°55'10", in NE¼NE¼ sec.17, T.32 N., R.45 E., on left bank 1 mile northeast of Battle Mountain. Reese River, when flowing, enters Humboldt River several miles below station.

Records available.--May 1896 to December 1879, March 1921 to April 1924, January 1946 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,500 ft (revised), from topographic map. Prior to Mar. 1, 1921, staff gage at approximately same site at different datum. Mar. 1, 1921, to Apr. 19, 1924, staff gage at site 900 ft downstream at different datum.

Average discharge.--14 years (1921-22, 1946-59), 288 cfs (208,500 acre-ft per year).

Extremes.--Maximum discharge during year, 155 cfs Mar. 7, 8 (gage height, 3.18 ft); no flow Sept. 21-27.
1921-24, 1946-59: Maximum daily discharge, 5,800 cfs May 3, 4, 1952 (includes flow bypassing gage outside of main channel); no flow Sept. 8 to Oct. 22, 1948, Sept. 21-26, 1949, Sept. 21-27, 1959.

Remarks.--Records good except those for periods of ice effect or backwater from beaver dam, which are fair. Records do not include flow in secondary channels or ditches, much of which is used for irrigation. Many diversions above station for irrigation.

Revisions (water years).--WSP 1564: 1897-98, 1923.

Rating table, water year 1958-59, except periods of ice effect and backwater from beaver dam (gage height, in feet, and discharge, in cubic feet per second)

1.0	0	1.4	2.3	2.2	39
1.1	1	1.5	4.4	2.6	76
1.2	.4	1.7	11	3.2	158
1.3	1.0	1.9	20		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.9	26	b53	83	128	152	134	56	42	*17	1.1	0.1
2	3.7	27	b55	b75	b115	152	130	61	40	16	.9	.1
3	4.2	27	b58	b64	b110	152	91	59	39	14	.8	.1
4	5.0	28	b60	b58	119	152	121	59	*36	11	.6	.1
5	5.8	29	b64	60	109	150	112	59	27	11	.5	.1
6	6.6	30	68	64	112	152	101	65	26	11	.4	.1
7	7.2	31	68	*87	116	155	108	66	31	10	*.3	.1
8	7.9	33	69	105	120	155	114	47	50	9.0	.3	.1
9	9.0	34	*70	101	b120	*153	117	42	69	8.2	.3	.1
10	12	36	71	98	124	153	119	40	95	7.6	.3	.1
11	14	36	74	93	119	152	117	39	104	6.9	.2	.1
12	16	39	76	89	b95	148	117	*35	84	6.6	.1	.1
13	17	41	78	90	b90	147	117	33	76	6.4	.1	.1
14	18	46	b72	91	b94	147	*117	33	80	6.1	.1	.1
15	*16	49	b65	96	98	147	117	32	67	5.2	.1	.1
16	16	49	b62	100	*108	144	112	32	64	5.0	.1	.1
17	16	b41	b62	104	117	139	104	33	63	4.7	.1	.1
18	15	b45	b63	104	121	136	105	51	63	4.4	.1	.1
19	12	b48	b65	105	128	140	100	76	72	4.2	.1	.1
20	13	55	b68	108	138	140	91	76	64	3.7	.1	.1
21	16	55	71	b100	144	139	82	72	48	3.5	.1	0
22	16	58	76	109	144	133	72	67	40	3.5	.1	0
23	17	58	76	100	145	133	72	62	37	3.2	.1	0
24	18	58	81	101	147	134	71	60	27	3.0	.1	0
25	26	59	84	110	150	134	70	51	17	2.6	.1	0
26	27	60	88	113	150	134	68	35	17	2.0	.1	0
27	27	62	89	119	150	133	56	40	18	1.8	.1	0
28	27	b60	90	121	152	134	63	51	18	1.6	.1	.1
29	27	b58	89	124	-	136	60	50	16	1.4	.1	.1
30	26	b54	91	126	-------	136	48	47	16	1.3	.1	.1
31	*26	-------	89	127	-------	136	-------	42	-------	1.2	.1	-------
Total	471.3	1,332	2,245	3,025	3,463	4,448	2,906	1,571	1,446	193.1	7.7	2.3
Mean	15.2	44.4	72.4	97.6	124	143	96.9	50.7	48.2	6.23	0.25	0.08
Ac-ft	935	2,640	4,450	6,000	6,870	8,820	5,760	3,120	2,870	383	15.3	4.6

Calendar year 1958: Max 1,430 Min 2.2 Mean 366 Ac-ft 265,200
Water year 1958-59: Max 155 Min 0 Mean 57.8 Ac-ft 41,870

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--Backwater from beaver dam Oct. 1-31, July 13 to Aug. 7, Aug. 15 to Sept. 15, Sept. 29, 30.

3255. Reese River near Ione, Nev.

Location.--Lat 38°51', long 117°28', in NE¼ sec.3 (revised), T.11 N., R.40 E., on right bank 2½ miles upstream from Indian Creek, 8 miles southeast of Ione, and 58 miles southwest of Austin.

Drainage area.--44 sq mi, approximately.

Records available.--August 1951 to September 1959.

Gage.--Water-stage recorder and, since Oct. 3, 1956, concrete control. Altitude of gage is 7,350 ft (from topographic map). Prior to Sept. 9, 1955, water-stage recorder at site 200 ft upstream at datum 2.85 ft higher.

Average discharge.--8 years, 11.5 cfs (8,330 acre-ft per year).

Extremes.--Maximum discharge during year, 12 cfs Nov. 23 (gage height, 0.72 ft); no flow July 19, 30, 31, Aug. 6, 7, 16-20, Sept. 4-10.
1951-59: Maximum discharge, 512 cfs July 27, 1956 (gage height, 4.86 ft), from rating curve extended above 45 cfs on basis of slope-area measurement of peak flow; no flow at times in 1956-57, 1959.

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

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.2	0
.3	0.2
.4	1.1
.5	2.7
.6	5.8

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.0	3.2	4.0	2.7		4.2	4.0	4.0	3.5	0.8	0.1	0.1
2	4.0	3.2	4.4	3.2		4.2	4.4	4.4	3.2	.7	.1	.1
3	4.0	3.5	4.4	2.7		3.8	4.7	4.4	3.2	.6	.1	.1
4	4.0	3.5	*4.0	2.7		*3.5	4.7	4.0	3.2	.6	*.2	*0
5	4.0	3.5	3.3	2.3		3.0	4.7	4.7	3.0	.5	.1	0
6	4.0	3.5	3.2	2.3		3.5	4.7	4.4	2.7	.5	0	0
7	4.0	3.5	3.5	3.0		3.7	4.7	4.0	2.7	.4	0	0
8	4.0	3.5	4.1	3.0		3.5	4.7	4.0	2.7	.4	.1	0
9	4.0	3.5	4.0	2.7		3.7	4.7	3.7	2.5	.4	.1	0
10	4.0	3.5	3.9	2.7		3.7	4.4	3.7	2.5	.4	.1	0
11	3.7	3.7	3.7	3.0		3.5	4.4	3.7	2.3	.3	.1	.1
12	3.7	3.5	3.7	3.0		4.0	4.4	*3.5	2.3	.4	.2	.4
13	3.7	3.2	2.2	3.0		4.4	4.4	3.5	2.2	.4	.2	.6
14	3.7	3.2	2.2	2.5		3.5	*4.4	3.7	2.2	.3	.1	.8
15	3.7	2.3	2.3	3.0	3.5	3.2	4.4	3.5	2.0	.2	.1	.9
16	3.7	2.0	3.5	3.0		3.2	4.0	3.7	2.0	.2	0	1.0
17	3.7	2.5	3.5	3.2		3.7	4.4	3.7	1.8	.1	0	.9
18	3.7	2.7	3.2	*3.2		3.7	4.0	3.7	1.7	.1	0	1.0
19	*3.7	3.7	3.2	3.2		*4.0	4.0	3.7	1.7	0	0	1.2
20	3.5	3.7	4.0	3.0		3.2	3.7	3.7	1.5	.1	0	1.0
21	2.7	4.1	4.4	2.7		3.7	4.0	3.7	1.4	.1	.1	.9
22	2.5	4.4	4.4	2.7		3.2	4.0	4.0	1.2	.1	.1	1.0
23	2.7	4.2	3.0	2.8		3.5	4.0	4.4	1.0	.2	.2	1.0
24	3.0	5.1	2.2	3.0		3.5	4.0	4.0	1.0	.4	.2	1.0
25	3.2	4.7	3.7	3.2		3.0	4.4	4.0	*.9	.2	.3	1.0
26	3.5	4.4	3.5	3.1		3.7	4.7	3.7	.9	.4	.2	1.0
27	3.5	4.0	4.0	3.0		3.5	4.4	3.7	.9	.3	.1	1.0
28	3.5	2.5	3.2	3.0		3.5	4.0	3.5	.9	.1	.1	1.0
29	3.5	3.2	2.3	2.9	-	3.5	4.0	3.5	.8	.1	.1	1.0
30	3.0	3.0	3.2	2.8	-------	3.7	4.0	3.5	.8	0	.1	.9
31	3.2	-------	4.0	2.7	-------	3.5	-------	3.5	-------	0	.1	-------
Total	111.1	104.5	108.2	89.3	98.0	111.5	129.3	119.2	58.7	9.3	3.2	18.0
Mean	3.58	3.48	3.49	2.88	3.5	3.60	4.31	3.85	1.96	0.30	0.10	0.60
Ac-ft	220	207	215	177	194	221	256	236	116	18	6.3	36

Calendar year 1958: Max 205 Min 2.0 Mean 27.5 Ac-ft 19,940
Water year 1958-59: Max 5.1 Min 0 Mean 2.63 Ac-ft 1,900

Peak discharge (base, 130 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--No gage-height record Jan. 19 to Mar. 3; discharge estimated on basis of weather records and recorded range in stage.

3275. Humboldt River at Comus, Nev.

Location.--Lat 41°00', long 117°19', in SE¼ sec.14, T.36 N., R.41 E., on left bank at Comus siding of Southern Pacific Railroad, 9 miles northeast of Golconda and 32 miles northwest of Battle Mountain.

Records available.--October 1894 to December 1909, September 1910 to June 1923, May 1925 to May 1926, February 1946 to September 1959. Published as "near Golconda" prior to October 1917.

Gage.--Water-stage recorder. Altitude of gage is 4,350 ft (from topographic map). Oct. 24, 1894, to Nov. 4, 1910, staff gages, and Nov. 5, 1910, to Sept. 25, 1917, chain gage, about 8 miles downstream near Golconda, at different datums. Sept. 25, 1917, to Feb. 19, 1946, staff gage at site half a mile downstream at different datum.

Average discharge.--40 years (1894-1909, 1910-22, 1946-59), 289 cfs (209,200 acre-ft per year).

Extremes.--Maximum discharge during year, 170 cfs Jan. 12 (gage height, 3.24 ft); no flow July 16-19, Sept. 17.
1894-1909, 1910-23, 1925-26, 1946-59: Maximum discharge, 5,860 cfs May 6, 1952 (gage height, 11.52 ft); no flow at times in some years.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Diversions above station for irrigation.

Revisions (water years).--WSP 1514: 1921-22, 1926. WSP 1564: 1904, 1907-8, 1911-13, 1916-17.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.5	0	2.0	24
1.6	1.6	2.3	51
1.7	5.5	2.7	97
1.8	11	3.1	154

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	13	a40	85	117	134	124	39	26	*7.7	0.1	0.1
2	.3	15	a41	b70	b105	138	126	34	24	8.7	.1	.1
3	.3	15	a43	a65	b105	138	124	34	26	6.0	.1	.1
4	.3	16	a46	a62	b112	136	121	36	26	4.6	.1	.1
5	.3	18	a50	b70	118	138	105	36	25	3.7	.1	.1
6	.3	18	a54	74	117	138	107	36	24	2.5	.1	.1
7	.3	19	a56	66	111	138	109	36	*23	1.6	.1	.1
8	.3	20	a58	63	110	138	98	36	19	.8	.1	.1
9	.3	21	a60	73	a95	140	100	38	18	.4	.1	.1
10	.3	22	a61	*89	b95	140	105	36	19	.2	*.1	.1
11	.3	23	a62	95	b90	139	107	30	28	.1	.2	.1
12	.3	*24	*64	96	b85	*139	110	29	40	.1	.2	.1
13	.3	26	65	95	b80	140	109	26	51	.1	.2	.1
14	.3	30	b58	90	b84	136	*109	24	.50	.1	.2	.2
15	.3	30	b55	90	b90	134	109	*23	41	.1	.2	.1
16	.3	29	b55	90	b100	134	107	23	45	0	.1	*.1
17	.3	b24	b56	91	109	134	107	22	41	0	.1	0
18	*.3	b26	b58	93	117	133	105	22	36	0	.1	.1
19	.4	39	b62	96	*118	130	96	21	34	0	.2	.1
20	.3	36	b65	96	118	126	95	22	34	.1	1.2	.1
21	.3	42	83	b90	120	128	93	31	35	.1	.1	.1
22	.3	42	84	b95	126	130	89	37	36	.1	.1	.1
23	.3	43	75	101	132	128	81	39	29	.1	.1	.1
24	.3	44	73	105	128	127	73	37	24	.1	.1	.1
25	.4	45	75	101	130	124	68	36	18	.1	.1	.1
26	1.6	45	77	102	132	124	64	36	16	.1	.1	.1
27	2.2	45	79	106	134	126	64	35	13	.1	.1	.1
28	2.2	a45	80	110	134	126	47	29	11	.1	.1	.1
29	8.1	a45	80	110	-	124	36	25	8.1	.1	.1	*.1
30	9.8	a40	83	113	-------	126	37	26	5.5	.1	.1	.2
31	12	-------	84	114	-------	126	-------	26	-------	.1	.1	-------
Total	43.6	898	1,982	2,796	3,112	4,112	2,825	960	825.6	37.9	4.8	3.1
Mean	1.41	29.9	63.9	90.2	111	133	94.2	31.0	27.5	1.22	0.15	0.10
Ac-ft	86	1,780	3,930	5,550	6,170	8,160	5,600	1,900	1,640	75	9.5	6.1

Calendar year 1958: Max 1,260 Min 0.3 Mean 311 Ac-ft 225,500
Water year 1958-59: Max 140 Min 0 Mean 48.2 Ac-ft 34,910

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of trend of flow, weather records, and records for nearby stations.
b Stage-discharge relation affected by ice.

3290. Little Humboldt River near Paradise Valley, Nev.

Location.--Lat 41°25', long 117°22', in SE¼ sec.20, T.41 N., R.41 E., on right bank 3½ miles downstream from Bullshead Ranch and 9½ miles southeast of Paradise Valley.

Drainage area.--1,030 sq mi, approximately.

Records available.--October 1921 to June 1928 (fragmentary), October 1943 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,470 ft (from river-profile map). Prior to Nov. 21, 1946, at site 1 mile downstream at different datum.

Average discharge.--16 years (1943-59), 25.4 cfs (18,390 acre-ft per year).

Extremes.--Maximum discharge during year, 21 cfs Apr. 7-9 (gage height, 1.66 ft); minimum, 4.6 cfs July 27, 30.
1921-28, 1943-59: Maximum discharge, 1,100 cfs Feb. 2, 1952 (gage height, 7.71 ft); minimum, 4.5 cfs Aug. 12, 1954.

Remarks.--Records good. Bullshead Ranch diverts water for irrigation above station. Station is above all diversions in Paradise Valley.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

1.4	4.6
1.5	10
1.6	16
1.7	23

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.8	7.3	8.4	9.5	11	12	11	14	19	7.8	6.2	6.8
2	7.8	7.8	7.8	9.5	10	12	11	14	18	*7.3	6.2	6.2
3	7.8	7.8	8.4	8.9	8.9	12	14	15	17	6.8	6.2	6.8
4	7.8	7.8	8.4	8.4	9.5	12	17	16	16	6.2	6.2	6.8
5	7.8	7.8	8.9	7.8	9.5	12	19	15	15	5.7	6.2	6.8
6	7.8	7.8	8.4	8.4	9.5	12	19	15	*14	5.7	6.2	6.8
7	7.8	7.8	8.9	8.9	10	12	21	15	14	5.7	6.2	6.8
8	7.8	7.8	8.9	8.9	10	12	21	14	14	5.7	6.2	6.8
9	7.8	7.8	9.5	*9.5	10	12	21	15	13	5.1	6.2	6.2
10	7.8	7.8	9.5	10	9.5	12	20	14	13	5.1	6.2	6.8
11	7.8	7.8	*9.5	10	9.5	*12	20	14	12	5.1	*6.2	6.8
12	7.8	7.8	9.5	11	8.4	12	19	14	11	5.7	6.2	6.8
13	7.8	*8.4	8.9	11	7.8	12	18	14	11	5.7	6.2	6.8
14	7.8	8.9	8.4	10	7.8	12	17	*13	9.5	5.7	5.7	7.3
15	7.8	8.9	8.4	9.5	7.8	12	*18	13	9.5	5.7	5.7	*7.3
16	7.8	8.4	8.4	10	8.9	13	18	13	8.4	5.1	5.7	7.3
17	*7.8	8.4	8.4	10	9.5	13	18	14	7.8	5.1	5.7	7.3
18	7.8	8.4	8.4	10	*10	13	18	15	7.8	5.1	6.2	7.3
19	7.8	8.4	8.4	9.5	11	13	17	16	7.3	5.1	6.8	7.3
20	7.8	8.9	8.9	8.9	12	13	15	16	6.8	5.1	6.8	7.3
21	7.8	8.4	8.9	8.4	12	13	15	16	6.2	5.1	6.8	7.3
22	7.8	8.4	9.5	8.4	13	14	15	16	6.2	5.1	6.8	7.3
23	7.8	8.4	9.5	8.4	13	13	15	16	6.2	5.1	6.8	7.3
24	7.8	8.9	9.5	8.9	13	12	14	16	6.2	5.1	6.8	7.3
25	7.8	8.9	9.5	10	12	12	14	16	6.8	5.1	6.8	7.3
26	7.8	8.9	9.5	11	12	11	14	16	7.3	5.1	6.8	7.3
27	7.8	8.9	10	12	12	11	14	17	8.4	5.1	6.2	7.3
28	7.8	8.9	10	12	12	10	15	18	7.8	5.7	6.2	7.3
29	7.8	8.4	9.5	12	-	11	16	18	7.8	5.7	6.2	7.3
30	7.8	8.4	9.5	11	-------	11	16	19	7.8	5.7	6.2	7.3
31	7.3	-------	9.5	11	-------	10	-------	19	-------	5.7	6.8	-------
Total	241.3	248.3	279.2	302.8	289.6	373	500	476	314.8	173.0	195.6	210.8
Mean	7.78	8.28	9.01	9.77	10.3	12.0	16.7	15.4	10.5	5.58	6.31	7.03
Ac-ft	479	492	554	601	574	740	992	944	624	343	388	418

Calendar year 1958 : Max 451 Min 6.8 Mean 51.3 Ac-ft 37,160
Water year 1958-59 : Max 21 Min 5.1 Mean 9.88 Ac-ft 7,150

Peak discharge (base, 35 cfs).--No peak above base.

* Discharge measurement made on this day.

3295. Martin Creek near Paradise Valley, Nev.

Location.--Lat 41°32'00", long 117°25'40", in NW¼SW¼ sec.12, T.42 N., R.40 E., on left bank 0.6 mile upstream from Humboldt County Recreation Park and 7 miles northeast of Paradise Valley.

Drainage area.--172 sq mi.

Records available.--October 1921 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,700 ft (from extension of river-profile map). Prior to Oct. 22, 1946, at several sites within 400 ft of present site at different datums.

Average discharge.--38 years, 30.7 cfs (22,230 acre-ft per year).

Extremes.--Maximum discharge during year, 71 cfs about Apr. 4 (gage height, 1.92 ft, from recorded range in stage); minimum, 4.7 cfs Feb. 1.
1921-59: Maximum discharge, 9,000 cfs Jan. 21, 1943 (gage height, 11.1 ft, site and datum then in use), by slope-area measurement of peak flow; minimum, 1.8 cfs Feb. 6, 1945.

Remarks.--Records good except those for periods of no gage-height record, which are poor.

Revisions (water years).--WSP 1514: 1925-27(M), 1930(M), 1933(M), 1940, 1945.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

1.0	4.0	1.4	20
1.1	6.0	1.5	27
1.2	9.1	1.7	45
1.3	14	1.9	68

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.8	8.0	9.1	9.0	8.7	14	32	36	33	11	5.5	5.8
2	6.8	8.4	9.4	6.9	6.3	16	37	34	33	*10	5.5	5.8
3	6.8	8.4	9.6	6.8	8.7	17	45	30	34	9.9	5.5	5.8
4	6.8	8.7	9.5	6.5	11	14	60	28	33	9.1	5.5	5.8
5	6.8	8.4	9.1	6.8	9.7	14	55	27	35	9.1	5.5	5.8
6	7.1	8.7	9.2	9.1	10	14	50	26	*36	8.4	5.5	5.8
7	7.1	8.7	9.0	9.9	9.9	14	40	25	38	8.4	5.5	5.8
8	7.1	8.7	9.5	9.9	8.0	13	33	25	35	8.0	5.5	6.0
9	7.4	8.7	9.5	*11	8.7	14	33	26	31	8.0	5.5	6.0
10	7.4	8.7	9.5	11	8.7	13	33	26	30	7.7	5.5	6.0
11	7.4	8.7	*9.1	11	8.7	*10	33	28	28	7.4	*5.5	6.0
12	7.4	8.0	9.1	10	9.9	11	33	30	26	7.1	5.5	6.0
13	7.4	*9.1	8.5	10	8.7	12	33	33	24	6.8	5.3	6.3
14	7.4	12	7.3	10	9.9	14	32	*38	23	6.5	5.5	7.1
15	7.4	9.7	7.7	9.9	12	15	*30	43	21	6.5	5.5	*7.4
16	7.4	8.4	9.8	9.5	13	17	27	39	20	6.5	5.3	7.1
17	*7.7	8.7	9.4	9.5	12	20	26	38	18	6.5	5.3	6.8
18	7.7	9.1	9.3	9.5	*12	23	26	38	17	6.3	5.3	7.1
19	8.0	10	9.7	8.6	12	22	23	36	15	6.3	6.0	7.7
20	8.0	10	9.5	7.8	11	21	21	35	15	6.3	7.4	7.4
21	8.0	9.9	9.5	6.7	11	21	22	33	14	6.3	6.8	7.1
22	7.7	9.5	9.5	11	11	20	22	34	13	6.3	6.5	7.1
23	8.0	9.5	8.4	11	11	19	25	33	12	6.3	6.3	7.1
24	8.0	9.5	8.2	10	11	18	29	33	11	6.3	6.0	7.1
25	8.0	9.5	9.4	12	10	18	32	31	11	6.3	6.0	7.1
26	8.0	9.1	9.0	12	12	18	33	33	14	6.3	6.0	7.1
27	8.0	8.5	9.5	11	12	18	31	37	23	6.0	5.8	7.4
28	8.0	7.6	9.1	11	13	19	28	36	17	5.8	5.8	7.4
29	8.0	7.9	7.6	8.6	-	21	29	36	14	5.8	5.8	7.4
30	8.0	8.2	9.5	9.9	-------	23	32	36	12	5.8	5.8	7.4
31	8.0	-------	9.1	11	-------	26	-------	34	-------	5.8	5.8	-------
Total	233.6	268.3	281.6	296.9	288.0	529	985	1,017	686	222.8	178.2	199.7
Mean	7.54	8.94	9.08	9.58	10.3	17.1	32.8	32.8	22.9	7.19	5.75	6.66
Ac-ft	463	532	559	589	571	1,050	1,950	2,020	1,360	442	353	396

Calendar year 1958: Max 624 Min 5.3 Mean 60.3 Ac-ft 43,650
Water year 1958-59: Max 60 Min 5.3 Mean 14.2 Ac-ft 10,280

Peak discharge (base, 100 cfs).--No peak above base.

* Discharge measurement made on this day.

Note.--No gage-height record Mar. 11 to Apr. 15; discharge estimated on basis of 3 discharge measurements, 7 staff-gage readings, recorded range in stage, weather records, and records for nearby stations.

3315. Humboldt River near Rose Creek, Nev.

Location.--Lat 40°52'05", long 117°59'45", in SE¼NW¼ sec.36, T.35 N., R.35 E., on right bank 5½ miles southwest of Rose Creek and 15⅔ miles southwest of Winnemucca.
Records available.--April 1948 to September 1959.
Gage.--Water-stage recorder.
Average discharge.--11 years, 235 cfs (170,100 acre-ft per year).
Extremes.--Maximum discharge during year, 230 cfs Mar. 21 (gage height, 2.68 ft); minimum, 11 cfs Aug. 10, Sept. 3, 4.
1948-59: Maximum discharge, 5,810 cfs May 8, 1952 (gage height, 11.41 ft); minimum, 5.8 cfs Dec. 4, 1955, result of freezeup.
Remarks.--Records good. Many diversions above station for irrigation.

Rating tables, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 6		Jan. 7 to Sept. 30	
1.8	31	1.5	5.0
2.0	70	1.6	16
2.2	113	1.8	46
		2.0	85
		2.4	169

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	39	66	98	125	140	121	69	27	15	13	12
2	40	39	66	b98	125	142	100	63	25	*15	13	12
3	40	40	64	b89	b121	144	100	58	24	16	13	12
4	40	42	66	b78	116	144	85	54	23	15	13	12
5	40	42	66	b89	121	146	71	54	21	15	13	12
6	39	42	68	b89	135	146	65	54	*20	15	13	12
7	39	44	72	89	140	148	56	52	21	16	13	13
8	39	46	74	87	135	146	62	50	20	17	12	13
9	39	46	78	*92	b133	142	67	48	18	18	12	12
10	39	48	83	94	131	146	62	46	18	18	12	12
11	39	48	*85	94	b129	*144	60	46	18	20	*12	12
12	39	*48	85	94	b110	142	58	46	18	20	12	12
13	39	48	85	98	b94	146	54	45	20	21	13	12
14	37	52	85	104	b114	146	56	*43	20	21	13	13
15	39	52	b85	110	129	146	*58	43	20	21	13	13
16	39	54	85	114	127	140	56	41	20	21	13	*13
17	*39	b54	80	112	140	110	48	41	20	21	13	13
18	39	b52	78	112	*142	124	45	41	20	20	13	15
19	39	54	80	112	135	121	43	41	18	20	15	15
20	38	54	83	112	133	121	43	41	17	20	16	13
21	38	56	85	b112	133	135	40	41	17	18	15	13
22	38	58	87	112	135	169	38	41	17	18	15	13
23	37	60	89	114	135	136	36	41	16	17	15	13
24	37	60	95	119	138	133	33	40	16	18	13	13
25	37	62	100	121	138	127	33	40	17	17	13	13
26	37	64	98	123	142	125	31	41	17	16	13	13
27	39	64	98	125	140	123	28	40	17	15	13	13
28	39	66	98	123	142	119	27	36	16	15	12	13
29	39	66	98	123	-	121	56	31	15	15	12	*13
30	39	b66	98	125	-------	127	79	28	15	15	12	15
31	39	-------	98	125	-------	129	-------	27	-------	15	12	-------
Total	1,203	1,566	2,578	3,287	3,638	4,229	1,711	1,382	571	544	405	385
Mean	38.8	52.2	83.2	106	130	136	57.0	44.6	19.0	17.5	13.1	12.8
Ac-ft	2,390	3,110	5,110	6,520	7,220	8,390	3,390	2,740	1,130	1,080	803	764

Calendar year 1958: Max 1,160 Min 37 Mean 332 Ac-ft 240,500
Water year 1958-59: Max 169 Min 12 Mean 58.9 Ac-ft 42,650

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

3325. Humboldt-Lovelock Irrigation, Light & Power Co.'s feeder canal near Imlay Nev.

Location.--Lat 40°40'05", long 118°11'55", in SE¼NE¼ sec.1, T.32 N., R.33 E., on left bank 3 miles northwest of Imlay and 9 miles downstream from headgates.
Records available.--October 1946 to September 1959.
Gage.--Water-stage recorder. Altitude of gage is 4,170 ft (from topographic map).
Extremes.--No flow for entire year.
1946-59: Maximum daily discharge, 153 cfs May 3, 1958 (gage height, 4.22 ft); no flow for long periods.
Remarks.--No flow since June 21, 1958. This canal diverts water from Humboldt River in NW¼ sec.29, T.33 N., R.35 E., for storage in Taylor-Pitt Reservoir near Humboldt. During irrigation season water is released about 3 miles west of Humboldt and conveyed through Humboldt-Lovelock Irrigation, Light & Power Co.'s outlet canal to Rye Patch Reservoir, from which it is later released and carried in natural river channel to Lovelock district for irrigation.

3330. Humboldt River near Imlay, Nev.

Location.--Lat 40°41'30", long 118°12'10", in SW¼SE¼ sec.25, T.33 N., R.33 E., on right bank 1 mile upstream from old Calahan Dam and 4 miles northwest of Imlay.

Drainage area.--13,500 sq mi, approximately.

Records available.--June 1935 to September 1941, April 1945 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,130 ft (from topographic map). Prior to Apr. 28, 1945, at site 1 mile downstream at different datum. Apr. 28, 1945, to Aug. 20, 1947, at present site at datum 1 ft higher.

Average discharge.--20 years, 168 cfs (121,600 acre-ft per year).

Extremes.--Maximum discharge during year, 178 cfs Mar. 23 (gage height, 2.83 ft); maximum gage height, 3.57 ft Feb. 12 (backwater from ice); minimum discharge, 0.2 cfs Aug. 11-13.
1935-41, 1945-59: Maximum discharge, 6,080 cfs May 9, 1952 (gage height, 12.15 ft); no flow at times in many years.

Remarks.--Records good except those for periods of ice effect, which are fair, and those for July 8 to Aug. 31, which are poor. Humboldt-Lovelock Irrigation, Light & Power Co.'s feeder canal diverts water from river above station to Pitt-Taylor Reservoirs (see preceding page). This water is ordinarily released during irrigation season through Rye Patch Reservoir to Humboldt River for irrigation in Lovelock district. Flow affected by many other diversions above station for irrigation.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.7	0.1	1.3	18
.8	.5	1.6	38
.9	1.9	2.0	75
1.0	4.4	2.7	162

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	40	38	b68	96	120	140	122	46	27	8.2	0.6	1.7
2	39	38	b68	b94	b111	141	116	48	25	7.8	.5	1.9
3	39	38	b64	b85	b109	142	86	47	*22	7.4	.5	*1.9
4	39	38	*b63	b80	b118	144	80	43	21	7.1	.5	1.7
5	38	39	64	b68	113	145	73	*40	21	6.7	.6	1.9
6	38	40	65	b76	116	145	65	46	20	*6.7	.4	1.7
7	38	40	65	b83	126	147	59	55	20	6.3	.4	1.5
8	38	42	68	b80	137	147	55	54	19	5.5	.3	1.4
9	38	42	69	b84	b129	147	47	49	18	5.2	.3	1.4
10	38	43	72	b88	b131	144	*49	47	18	4.1	.4	1.5
11	38	46	75	b88	b128	145	47	44	17	3.8	.3	1.4
12	38	46	77	*92	b113	145	43	42	15	4.1	.3	1.5
13	38	47	78	90	b109	142	42	42	15	3.8	.3	1.9
14	38	48	b74	94	b112	144	41	40	14	2.6	.4	2.1
15	37	50	b73	100	b126	144	40	39	14	2.4	.6	2.4
16	37	b49	b80	106	b151	144	42	39	14	2.8	.7	2.4
17	37	b43	b81	108	*137	*137	42	38	14	2.3	.7	2.4
18	37	b47	b80	107	144	109	39	38	13	1.5	.7	3.1
19	37	b53	b74	104	147	117	37	38	13	1.2	.9	3.4
20	38	56	b75	b100	141	113	35	38	13	.9	1.2	3.1
21	39	55	77	b104	137	117	31	38	12	.8	1.4	2.8
22	38	55	79	b107	137	129	28	38	11	.6	1.2	2.8
23	39	56	80	104	137	162	28	39	11	.7	1.2	2.8
24	39	59	82	106	137	135	27	38	11	.7	1.4	2.8
25	38	59	89	112	138	118	26	38	10	.7	1.5	8.1
26	38	61	93	116	138	121	27	37	11	.6	1.5	9.6
27	39	b61	93	117	141	118	26	37	11	.6	1.5	9.6
28	39	b56	92	121	140	118	24	37	10	.6	1.5	*9.2
29	*39	b56	92	118	-	114	23	34	9.6	.5	1.5	9.2
30	38	b60	94	120	-------	118	24	30	9.2	.6	1.5	9.6
31	38	-------	95	121	-------	121	-------	28	-------	*.7	1.5	-------
Total	1,184	1,461	2,399	3,069	3,623	4,153	1,424	1,267	458.8	97.5	26.3	106.8
Mean	38.2	48.7	77.4	99.0	129	134	47.5	40.9	15.3	3.14	0.85	3.56
Ac-ft	2,350	2,900	4,760	6,090	7,190	8,240	2,820	2,510	910	193	52	212

Calendar year 1958: Max 1,060 Min 37 Mean 310 Ac-ft 224,200
Water year 1958-59: Max 162 Min 0.3 Mean 52.8 Ac-ft 38,230

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

3345. Rye Patch Reservoir near Rye Patch, Nev.

Location.--Lat 40°28'15", long 118°18'30", in NW¼NE¼ sec.18, T.30 N., R.33 E., at control works at left end of Rye Patch Dam, 2 miles northwest of Rye Patch.

Drainage area.--13,700 sq mi, approximately.

Records available.--February 1936 to September 1959.

Gage.--Mercury-indicating gage. Datum of gage is at mean sea level (Southern Pacific Railroad datum).

Extremes.--Maximum contents during year, 123,200 acre-ft Mar. 14-31 (elevation, 4,127.40 ft); minimum, 18,950 acre-ft Sept. 18-30 (elevation, 4,107.55 ft).
1936-59: Maximum contents, 196,900 acre-ft Apr. 9, 1946 (elevation, 4,134.62 ft); no contents Aug. 7-11, 1955.

Remarks.--Reservoir is formed by earth-fill, rock-faced dam; storage began Feb. 20, 1936. Capacity, 179,100 acre-ft between elevations 4,072.5 (sill of trashrack structure) and 4,133.0 ft (top of spillway gates). Figures given herein represent usable contents. Dead storage negligible. Elevation of spillway (gate sill) is 4,116 ft. Water is used for irrigation in the Lovelock area.

Cooperation.--Records of daily elevation furnished by Pershing County Water Conservation District of Nevada.

Capacity table, water year 1958-59 (elevation, in feet, and contents, in acre-feet)

4,107.5	18,850	4,120	65,420
4,110	24,540	4,125	102,300
4,115	39,800	4,128	128,700

Contents, in acre-feet, at 8 a.m., water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	109,500	108,300	108,700	111,700	115,600	120,000	122,800	98,700	81,310	62,940	35,690	25,590
2	109,500	108,300	108,700	111,700	115,600	120,500	122,800	97,890	80,570	61,690	35,520	25,330
3	109,500	108,300	108,700	111,700	116,100	120,500	122,800	96,670	79,830	60,140	35,200	24,800
4	109,500	108,300	108,700	111,700	116,100	121,000	122,800	95,860	79,100	58,630	35,030	24,290
5	109,500	108,300	108,700	112,100	116,100	121,000	122,800	95,460	78,740	56,900	34,710	23,930
6	109,100	108,300	108,700	112,100	116,100	121,400	122,800	95,050	78,390	55,460	34,380	23,560
7	109,100	108,300	108,700	112,100	116,100	121,400	122,300	94,650	78,040	54,020	34,060	23,320
8	109,100	108,300	109,100	112,600	116,500	121,900	121,900	94,240	77,690	52,390	33,730	23,070
9	109,100	108,300	109,100	112,600	116,500	121,900	121,400	94,240	77,340	50,820	33,410	22,710
10	109,100	108,300	109,100	112,600	116,500	122,300	121,000	94,240	76,990	49,250	33,080	22,220
11	109,100	108,300	109,100	113,000	116,500	122,300	120,500	94,240	76,630	47,750	32,930	21,430
12	109,100	108,300	109,100	113,000	116,500	122,800	118,700	94,240	76,280	46,160	32,620	20,870
13	109,100	108,300	109,100	113,000	117,000	122,800	117,400	94,240	75,580	44,560	32,320	19,980
14	109,100	108,300	109,100	113,400	117,000	123,200	116,500	93,460	74,880	43,460	32,010	19,560
15	109,100	108,300	109,500	113,400	117,000	123,200	115,200	91,920	74,530	42,110	31,560	19,260
16	109,100	108,300	110,000	113,900	117,400	123,200	114,300	91,140	73,820	41,340	31,250	19,150
17	109,100	108,300	110,000	113,900	117,400	123,200	113,400	90,360	73,120	40,570	30,790	19,050
18	109,100	108,300	110,000	114,300	117,800	123,200	112,600	89,980	72,420	39,800	30,330	18,950
19	108,700	108,300	110,400	114,300	117,800	123,200	111,700	88,820	71,730	39,100	29,890	18,950
20	108,700	108,300	110,400	114,800	118,300	123,200	110,800	88,040	70,740	38,410	29,600	18,950
21	108,700	108,300	110,400	114,800	118,300	123,200	110,000	87,260	69,740	37,720	29,030	18,950
22	108,700	108,300	110,400	114,800	118,300	123,200	109,100	86,120	68,410	37,380	28,750	18,950
23	108,700	108,300	110,800	114,800	118,700	123,200	107,800	85,010	67,750	36,860	28,320	18,950
24	108,700	108,300	110,800	114,800	118,700	123,200	106,600	84,640	67,080	36,510	27,750	18,950
25	108,700	108,300	110,800	115,200	119,200	123,200	105,300	84,270	66,420	36,170	27,470	18,950
26	108,300	108,300	110,800	115,200	119,200	123,200	104,000	84,270	65,760	36,010	27,180	18,950
27	108,300	108,300	111,200	115,200	119,600	123,200	102,800	83,900	65,110	36,010	27,050	18,950
28	108,300	108,300	111,200	115,200	120,000	123,200	101,500	83,530	64,490	36,010	26,780	18,950
29	108,300	108,300	111,200	115,200	-	123,200	100,300	83,160	63,870	35,850	26,390	18,950
30	108,300	108,300	111,200	115,200	-------	123,200	99,100	82,790	63,250	35,850	26,120	18,950
31	108,300	-------	111,200	115,200	-------	123,200	-------	82,050	-------	35,850	25,860	-------
(†)	4,125.70	4,125.70	4,126.05	4,126.50	4,127.05	4,127.40	4,124.60	4,122.40	4,119.65	4,113.85	4,110.50	4,107.55
(‡)	-600	0	+2,900	+4,000	+4,800	+3,200	-24,100	-17,050	-18,800	-27,400	-9,990	-6,910

Calendar year 1958..... ‡ +47,770
Water year 1958-59..... ‡ -89,950

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

3350. Humboldt River near Rye Patch, Nev.

Location (revised).--Lat 40°28'00", long 118°18'20", in SE¼NE¼ sec.18, T.30 N., R.33 E., on left bank 1,000 ft downstream from Rye Patch Dam and 1½ miles northwest of Rye Patch.

Drainage area.--13,700 sq mi, approximately.

Records available.--January 1896 to December 1909, September 1910 to September 1922, September 1924 to September 1932 (fragmentary), October 1935 to September 1941, October 1943 to September 1959. Prior to October 1935, published as "near Oreana."

Gage.--Water-stage recorder. Altitude of gage is 4,050 ft (from topographic map). Prior to Oct. 1, 1935, at site 7 miles downstream at different datum. Oct. 1, 1935, to Oct. 13, 1945, at site half a mile downstream at different datum.

Average discharge.--45 years (1899-1909, 1910-16, 1917-22, 1930-32, 1935-41, 1943-59), 202 cfs (146,200 acre-ft per year).

Extremes.--Maximum discharge during year, 713 cfs July 2 (gage height, 3.95 ft); minimum not determined, occurred during period of no gage-height record.
1896-1922, 1924-32, 1935-41, 1943-59: Maximum discharge, 4,720 cfs May 11, 12, 1952 (gage height, 10.26 ft); no flow at times in some years.

Remarks.--Records good except those for periods of no gage-height record (seepage only), which are poor. Flow completely regulated by Rye Patch Reservoir (see preceding page). Many diversions above station for irrigation.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second) (Shifting-control method used May 26 to July 23, Sept. 24-30)

0.7	3.0	1.5	77
.8	5.9	2.0	179
.9	11	3.0	436
1.0	17	3.8	736
1.2	35		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.0			5.2	132		107	439	254	569	91	157
2				4.9	103		144	404	235	639	107	166
3				4.9	84		200	333	*239	677	128	*166
4			3.4	4.9	84		249	312	227	615	128	166
5	3.5		(*)	4.9	34		304	*299	209	596	126	134
6				4.9			328	269	170	*619	109	109
7				4.9			355	247	132	635	93	134
8	3.7	3.0		4.9	3.0		355	223	138	635	107	144
9	3.7			4.9		2.4	374	184	157	639	105	146
10	4.6		4.0	4.9	44		*387	197	193	656	105	202
11	5.2			5.2	67		387	225	244	635	119	247
12	5.5			5.2	59		357	225	282	573	126	256
13	8.5		4.9	5.2	6.3		344	249	284	530	123	254
14	4.3		4.9	5.9			382	282	242	433	136	200
15	4.3		4.9	6.3			416	312	223	427	151	100
16	25		4.9	6.7		45	424	341	225	385	142	
17	40		4.9	7.1	(*)	*101	407	371	256	363	168	
18	17		5.2	7.6		101	382	374	307	333	166	
19			5.2	7.6		99	382	433	325	294	166	
20			5.2	6.7		99	410	467	325	269	184	.5
21			5.2	6.3	2.4	101	506	393	328	235	193	
22			5.2	6.3		101	558	325	330	235	193	
23		3.2	5.2	6.7		101	588	242	333	214	193	
24			5.2	6.7		95	631	181	330	153	179	.6
25	3.0		4.9	70		82	695	126	401	105	155	.6
26			4.9	113		81	668	128	413	60	119	.6
27			4.9	111		81	599	172	416	27	105	.6
28	(*)		4.9	126		82	599	225	422	8.0	105	*.6
29			5.2	134	-	82	607	232	473	7.6	121	.7
30			5.2	134	-------	81	519	244	523	30	123	.7
31		-------	5.2	132	-------	81	-------	266	-------	*62	113	-------
Total	185.8	93.0	140.5	958.8	661.3	1,449.0	12,664	8,720	8,636	11,658.6	4,179	2,589.4
Mean	5.99	3.1	4.53	30.9	23.6	46.7	422	281	288	376	135	86.3
Ac-ft	369	184	279	1,900	1,310	2,870	25,120	17,300	17,130	23,120	8,290	5,140

Calendar year 1958: Max 813 Min - Mean 188 Ac-ft 136,300
Water year 1958-59: Max 695 Min - Mean 142 Ac-ft 103,000

* Discharge measurement made on this day.
Note.--No gage-height record Oct. 2-7, Oct. 19 to Dec. 12, Feb. 6-9, Feb. 14 to Mar. 15, Sept. 16-23 (water surface below intakes); discharge estimated on basis of 3 discharge measurements and flow for adjacent periods.

3360. Humboldt River near Lovelock, Nev.

Location.--Lat 40°03'05", long 118°28'05", in SE¼NW¼ (revised) sec.11, T.25 N., R.31 E., on right bank 900 ft below breached dam of Lovelock Land and Development Co. and 9 miles south of Lovelock.

Drainage area.--14,200 sq mi, approximately.

Records available.--February 1912 to September 1927, June 1950 to September 1959 (discontinued). Monthly discharge only for some periods, published in WSP 1314.

Gage.--Water-stage recorder. Altitude of gage is 3,900 ft (from topographic map). Prior to June 17, 1912, staff gage and June 17, 1912, to September 1927, water-stage recorder, at site 600 ft downstream at different datums. June 14, 1950, to Nov. 13, 1951, water-stage recorder at site 300 ft upstream at same datum.

Average discharge.--20 years (1913-16, 1918-22, 1923-27, 1950-59), 74.4 cfs (53,860 acre-ft per year).

Extremes.--Maximum discharge during year, 104 cfs Oct. 5 (gage height, 3.17 ft); minimum daily, 0.2 cfs Aug. 3.
1912-27, 1950-59: Maximum discharge, 3,540 cfs May 19, 1952 (gage height, 9.36 ft); no flow for several months in many years prior to construction of Rye Patch Dam.

Remarks.--Records fair except those affected by aquatic growth, which are poor. Flow regulated by Rye Patch Reservoir (see p. 195) since Feb. 20, 1936, and affected by irrigation in Lovelock Valley.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Nov. 5, June 17 to Sept. 30)

1.0	0.5	1.4	6.6
1.1	1.1	1.6	14
1.2	2.2	1.8	24
1.3	4.0		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.3	10	b9	15	b2.3	2.8	1.8	5.5	1.8	1.3	0.5	3.1
2	1.6	10	b9	13	b2.0	2.8	1.5	3.0	1.8	1.2	.3	3.1
3	2.3	10	10	b13	b2.4	2.6	1.5	7.8	*1.8	1.1	.2	*1.5
4	56	11	10	b12	b4.5	2.4	1.5	2.6	1.9	1.1	.9	1.0
5	100	12	*10	b14	b10	2.2	1.2	*1.9	1.8	1.2	.7	1.2
6	83	12	11	b14	b14	2.0	1.2	1.2	1.3	*1.4	1.2	1.2
7	60	12	11	b15	b3.3	1.8	2.4	1.5	1.3	1.4	1.5	1.3
8	74	12	11	b17	b2.2	1.4	3.6	2.3	1.3	1.4	1.2	2.6
9	66	12	11	17	b2.2	1.3	*3.3	2.3	1.1	1.5	.9	1.2
10	58	12	10	16	b2.0	1.3	3.3	2.6	.8	1.3	.7	1.1
11	50	12	10	16	b1.3	1.6	3.3	3.6	1.2	1.2	2.3	.9
12	44	12	10	*15	b1.2	3.8	3.6	3.0	1.4	.7	1.9	.9
13	39	11	9.6	14	b1.1	4.5	3.6	2.6	1.3	.7	18	.9
14	33	11	8.5	11	b3.0	3.6	3.6	2.6	1.3	.7	8.9	1.0
15	33	11	8.2	5.0	8.9	4.2	3.8	1.3	1.2	.8	5.5	1.2
16	30	10	b9	1.6	11	4.5	3.8	2.3	1.4	1.6	6.9	1.0
17	28	b8.5	b9	1.8	*12	*4.5	4.2	3.0	1.5	1.3	6.6	1.0
18	24	11	9.6	2.8	11	4.0	3.6	3.0	1.3	1.5	5.8	4.5
19	22	12	9.2	2.3	6.3	3.3	3.3	2.3	1.4	6.9	5.0	1.1
20	23	12	10	b2.2	3.0	2.4	3.3	2.0	1.3	13	3.8	.5
21	22	11	11	b2.0	2.8	3.0	3.3	2.0	1.3	7.9	4.0	.3
22	22	12	15	2.0	2.6	3.3	3.3	1.9	1.3	6.3	2.2	.5
23	21	12	18	1.9	2.3	3.1	3.3	2.0	1.3	6.3	1.3	.3
24	19	12	20	1.6	2.2	2.6	3.3	3.0	2.0	6.3	3.1	.4
25	18	12	21	1.5	2.3	2.6	3.1	2.3	1.9	6.3	1.3	.5
26	16	12	21	1.5	2.4	1.9	3.0	2.0	.6	11	1.2	9.2
27	14	11	19	1.5	2.6	1.8	3.3	2.2	1.0	15	2.6	8.9
28	*13	9.6	17	1.5	3.0	1.8	6.9	2.0	1.0	5.2	2.6	*16
29	12	9.6	15	b1.4	-	1.8	11	1.8	1.6	8.2	2.3	11
30	11	b9	16	b1.4	-------	1.8	7.5	1.9	1.5	3.1	2.6	8.5
31	10	-------	15	b1.6	-------	1.8	-------	1.9	-------	*1.0	2.6	-------
Total	1,007.2	333.7	383.1	235.6	123.9	82.5	105.4	79.6	41.7	117.9	98.6	85.9
Mean	32.5	11.1	12.4	7.60	4.42	2.66	3.51	2.57	1.39	3.80	3.18	2.86
Ac-ft	2,000	662	760	467	246	164	209	158	83	234	196	170

Calendar year 1958: Max 100 Min 0.3 Mean 11.2 Ac-ft 8,150
Water year 1958-59: Max 100 Min 0.2 Mean 7.38 Ac-ft 5,350

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--Backwater from aquatic growth July 7 to Sept. 30.

3365. Pyramid Lake near Nixon, Nev.

Location.--Lat 39°50'30", long 119°28'00", in SE¼SE¼ sec.24, T.23 N., R.22 E., at southwest corner of concrete bridge No. 296 B, 150 ft southwest of milepost 297, 6 miles west of Nixon, and 11.5 miles south along Southern Pacific Railroad from station at Sutcliffe.

Records available.--1867-1925 (occasional elevations in some years), June 1926 to September 1959 (occasional elevations in each year).

Gage.--Bench mark N-21 of U. S. Coast and Geodetic Survey at elevation of 3,940.29 ft above mean sea level, datum of 1929, supplementary adjustment of 1956. Prior to January 1934, elevations were determined from bench mark No. 1 of General Land Office using elevation of 3,882.36 ft, adjustment of 1912 (to convert these records to supplementary adjustment of 1956, add 0.81 ft). January 1934 to September 1955, elevations were determined from bench mark N-21 using elevation of 3,940.04 ft, datum of 1929 (to convert these records to supplementary adjustment of 1956, add 0.25 ft).

Extremes.--1926-59: Maximum elevation observed, 3,848.75 ft June 1926; minimum observed, 3,799.92 ft Sept. 21, 1959.

Revisions (water years).--WSP 880: 1934-38 (bench mark) WSP 1090: 1926(M).

Elevation, in feet, October 1958 to September 1959

Oct. 16	3,803.06	Mar. 24	3,802.06
Nov. 17	3,802.56	Apr. 25	3,801.86
Dec. 15	3,802.39	May 21	3,801.56
Jan. 14	3,802.30	June 23	3,801.44
Jan. 19	3,802.34	July 21	3,801.07
Feb. 5	3,802.21	Aug. 24	3,800.23
Mar. 5	3,802.00	Sept.21	3,799.92

3370. Lake Tahoe at Tahoe, Calif.

Location.--Lat 39°10'04", long 120°08'23", in NE¼ sec.7, T.15 N., R.17 E., at Tahoe, on pier 1,000 ft east of dam at lake outlet.

Drainage area.--519 sq mi at lake outlet.

Records available.--April 1900 to September 1943 and October 1957 to September 1959 in reports of Geological Survey. October 1943 to September 1957 in files of Truckee-Carson Irrigation District.

Gage.--Water-stage recorder. Datum of gage is 6,220.00 ft above mean sea level, datum of Bureau of Reclamation (6,219.01 ft, datum of 1929). Prior to Oct. 1, 1957, staff gages at several sites near outlet of lake at same datum. Oct. 1, 1957, to May 8, 1958, water-stage recorder on left wingwall of dam at outlet of lake at same datum.

Extremes.--Maximum elevation during year, 6,228.25 ft Oct. 1; minimum, 6,226.44 ft Sept. 30.
1900-43, 1957-59: Maximum elevation, 6,231.26 ft July 14, 15, 17, 18, 1907; minimum, 6,221.74 ft Dec. 26, 1934.

Remarks.--Lake levels regulated by a 17-gate concrete dam at outlet of lake; storage began about 1874. Figures given herein represent usable contents. Usable capacity, 744,600 acre-ft between elevations 6,223 (natural rim of lake) and 6,229.1 ft (maximum permissible elevation by Federal Court decree). Water is used for domestic and recreational purposes in Lake Tahoe area and for irrigation and power in downstream areas. Lake elevations are referred to Bureau of Reclamation datum because that datum is used as the official reference point by all local, state, and federal agencies. One intermittent transmountain diversion from Echo Lake to South Fork American River for power and irrigation. Records of chemical analyses and water temperatures for the water year 1959 are given in WSP 1644.

Capacity table, water year 1958-59 (elevation, in feet, and contents, in acre-feet)

6,226	364,800
6,227	486,800
6,228	609,300
6,229	732,300

Elevation, in feet, at 12 p.m., water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.25	7.72	7.44	7.23	7.39	7.71	7.69	7.84	8.10	8.05	7.64	6.98
2	8.22	7.71	7.43	7.21	7.38	7.71	7.69	7.86	8.11	8.02	7.61	6.95
3	8.21	7.70	7.42	7.20	7.37	7.70	7.70	7.86	8.11	8.04	7.60	6.93
4	8.20	7.69	7.41	7.16	7.37	7.69	7.70	7.85	8.12	8.01	7.58	6.91
5	8.18	7.68	7.40	7.22	7.37	7.69	7.70	7.85	8.11	8.01	7.56	6.90
6	8.17	7.67	7.40	7.24	7.37	7.69	7.70	7.85	8.11	7.97	7.55	6.88
7	8.15	7.66	7.38	7.21	7.34	7.69	7.71	7.85	8.13	7.98	7.54	6.87
8	8.14	7.65	7.37	7.22	7.32	7.69	7.71	7.85	8.11	7.95	7.52	6.85
9	8.12	7.62	7.37	7.32	7.32	7.68	7.71	7.87	8.11	7.96	7.50	6.84
10	8.10	7.63	7.36	7.36	7.48	7.67	7.71	7.88	8.13	7.95	7.48	6.84
11	8.08	7.59	7.36	7.35	7.53	7.68	7.72	7.89	8.12	7.95	7.45	6.79
12	8.07	7.59	7.35	7.39	7.55	7.67	7.72	7.90	8.12	7.93	7.42	6.78
13	8.06	7.54	7.35	7.39	7.54	7.66	7.72	7.92	8.12	7.93	7.40	6.75
14	8.05	7.61	7.34	7.39	7.52	7.67	7.73	7.92	8.12	7.91	7.38	6.70
15	8.04	7.57	7.34	7.40	7.56	7.66	7.73	7.93	8.11	7.91	7.35	6.68
16	8.02	7.54	7.33	7.40	7.65	7.67	7.74	7.93	8.11	7.90	7.34	6.68
17	7.99	7.54	7.32	7.41	7.67	7.65	7.74	7.92	8.12	7.89	7.32	6.62
18	8.00	7.54	7.32	7.42	7.70	7.65	7.74	7.94	8.11	7.87	7.28	6.71
19	7.95	7.54	7.31	7.41	7.71	7.65	7.74	7.94	8.12	7.86	7.24	6.66
20	7.90	7.56	7.28	7.38	7.70	7.66	7.75	7.93	8.12	7.84	7.20	6.65
21	7.88	7.54	7.28	7.39	7.70	7.64	7.76	7.96	8.11	7.83	7.17	6.64
22	7.87	7.52	7.30	7.39	7.70	7.64	7.77	8.02	8.11	7.82	7.15	6.61
23	7.86	7.50	7.28	7.39	7.70	7.67	7.77	8.07	8.10	7.80	7.15	6.62
24	7.85	7.48	7.27	7.43	7.70	7.67	7.77	8.08	8.10	7.81	7.12	6.58
25	7.84	7.47	7.27	7.45	7.70	7.66	7.78	8.08	8.09	7.77	7.12	6.57
26	7.83	7.48	7.25	7.45	7.70	7.67	7.82	8.08	8.06	7.77	7.09	6.54
27	7.81	7.46	7.30	7.44	7.70	7.67	7.83	8.09	8.07	7.74	7.07	6.52
28	7.80	7.45	7.29	7.44	7.71	7.66	7.84	8.09	8.07	7.73	7.04	6.49
29	7.77	7.45	7.25	7.43	-	7.65	7.85	8.09	8.06	7.71	7.03	6.46
30	7.76	7.45	7.25	7.42	-------	7.67	7.85	8.10	8.05	7.70	7.01	6.44
31	7.74	-------	7.24	7.40	-------	7.69	-------	8.10	-------	7.68	7.00	-------
(†)	577,500	541,900	516,200	535,800	573,800	571,400	590,900	621,600	615,400	570,100	486,800	418,500
(‡)	-62,500	-35,600	-25,700	+19,600	+38,000	-2,400	+19,500	+30,700	-6,200	-45,300	-83,300	-68,300

Calendar year 1958..... ‡ +4,900
Water year 1958-59..... ‡ -221,500

† Contents, in acre-feet, at end of month.
‡ Change in contents, in acre-feet.
Note.--Add 6,220 ft to obtain elevation above Bureau of Reclamation datum.

3375. Truckee River at Tahoe, Calif.

Location.--Lat 39°09'55", long 120°08'45", in NE¼NW¼ sec.7, T.15 N., R.17 E., at Tahoe, on left bank 200 ft downstream from dam at outlet of Lake Tahoe.

Drainage area.--519 sq mi.

Records available.--July 1895 to February 1896, June 1900 to December 1943, August 1957 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 6,219.17 ft above mean sea level, datum of 1929. Prior to Nov. 12, 1912, staff gage at site 100 ft upstream at different datum. Nov. 12, 1912, to Sept. 30, 1937, staff gage and Oct. 1, 1937, to Dec. 31, 1943, water-stage recorder, at same site at datum 0.16 ft lower.

Average discharge.--45 years (1900-43, 1957-59), 251 cfs (181,700 acre-ft per year).

Extremes.--Maximum discharge during year, 503 cfs July 18-20 (gage height, 4.47 ft); minimum daily, 3.6 cfs May 21, May 28 to June 14.
1895-96, 1900-43, 1957-59: Maximum discharge, 1,870 cfs Apr. 5, 6, 1958 (gage height, 7.30 ft); maximum gage height, 7.34 ft Apr. 5, 1958 (backwater from snow in channel); no flow for parts of 1900, 1901, 1914, 1918-43.

Remarks.--Records good. Flow regulated by Lake Tahoe (see preceding page).

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 14 to Aug. 28)

1.9	3.0	3.0	125
2.1	15	3.5	241
2.4	40	4.0	386
2.7	74	4.4	521

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	374	346	*288	352	331	208	7.2	*6.0	*3.6	*4.2	485	*468
2	*370	346	288	358	*331	*325	7.2	6.0	3.6	35	*482	468
3	370	*346	288	361	334	252	7.2	6.0	3.6	53	489	465
4	370	346	288	358	322	215	7.8	5.4	3.6	53	492	461
5	370	346	288	367	316	215	7.8	5.4	3.6	53	489	461
6	377	343	288	370	296	170	7.8	5.4	3.6	53	489	458
7	389	343	285	367	290	146	7.2	5.4	3.6	52	489	461
8	392	343	285	367	290	146	6.6	5.4	3.6	52	496	461
9	389	343	285	313	290	114	6.6	5.4	3.6	52	496	461
10	389	340	285	220	276	94	6.6	5.4	3.6	133	496	465
11	389	343	282	150	265	96	6.6	5.4	3.6	186	492	465
12	389	349	282	121	208	96	6.6	5.4	3.6	186	492	448
13	396	355	282	62	198	80	6.6	5.4	3.6	260	492	434
14	402	355	282	17	205	61	6.6	5.4	3.6	308	489	438
15	405	325	282	9.0	205	61	6.6	4.8	4.2	364	489	434
16	*402	296	282	8.4	94	61	6.6	4.8	4.2	412	485	438
17	393	296	282	7.8	13	61	6.6	4.8	4.8	*438	482	438
18	396	293	282	7.8	10	35	6.6	4.8	4.8	471	482	448
19	392	293	282	*7.8	9.0	9.0	6.6	4.2	4.8	503	485	441
20	399	290	282	7.2	*8.4	8.4	6.6	4.2	5.4	492	489	438
21	399	290	282	7.2	7.8	9.0	6.0	3.6	5.4	482	496	438
22	396	290	282	6.6	7.8	8.4	6.0	4.9	5.4	478	499	438
23	318	290	282	6.6	7.2	8.4	6.0	4.2	5.4	478	496	431
24	421	290	279	6.6	7.2	7.8	6.0	4.2	5.4	478	496	425
25	412	290	279	6.6	7.2	*7.2	6.0	4.2	4.8	482	492	425
26	412	290	279	6.6	7.2	7.8	6.0	4.2	4.8	482	485	421
27	408	288	279	6.6	7.2	7.8	6.0	4.2	4.8	485	485	421
28	408	288	279	6.6	7.2	7.8	6.0	3.6	4.8	492	485	421
29	408	288	355	6.0	-	7.8	6.0	3.6	4.8	489	475	418
30	370	288	405	6.0	-------	7.8	6.0	3.6	4.8	489	468	*415
31	349	-------	*374	223	-------	7.8	-------	3.6	-------	485	465	-------
Total	12,060	9,529	9,063	4,119.4	4,350.2	2,541.0	198.0	148.8	129.0	9,480.2	15,122	13,304
Mean	389	318	292	133	155	82.0	6.60	4.80	4.30	306	488	443
Ac-ft	23,920	18,900	17,980	8,170	8,630	5,040	393	295	256	18,800	29,990	26,390

Calendar year 1958 : Max 1,860 Min 3.2 Mean 436 Ac-ft 315,500
Water year 1958-59 : Max 503 Min 3.6 Mean 219 Ac-ft 158,800

* Discharge measurement made on this day.

3380. Truckee River near Truckee, Calif.

Location.--Lat 39°17'30", long 120°12'30", in SW¼NE¼ sec.28, T.17 N., R.16 E., on left bank 1.4 miles upstream from Donner Creek and 2.5 miles southwest of Truckee.

Drainage area.--565 sq mi.

Records available.--December 1944 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,860 ft, revised (from topographic map).

Average discharge.--14 years (1945-59), 364 cfs (263,500 acre-ft per year).

Extremes.--Maximum discharge during year, 576 cfs Sept. 18 (gage height, 2.58 ft); minimum, 18 cfs Jan. 31.

1944-59: Maximum discharge, 7,760 cfs Dec. 23, 1955 (gage height, 7.92 ft), from rating curve extended above 2,400 cfs on basis of slope-area measurements at gage heights 7.62 and 7.92 ft; maximum gage height, 9.69 ft Apr. 3, 1958 (backwater from snow in channel); minimum discharge, 11 cfs Jan. 27, 1948.

Remarks.--Records excellent. Flow regulated by Lake Tahoe (operating capacity, 744,600 acre-ft), see page 199. Records of chemical analyses and water temperatures for the water year 1959 are given in WSP 1644.

Revisions.--WSP 1394: Drainage area.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

1.1	21	1.7	153
1.2	36	2.0	272
1.4	73	2.5	540

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	370	350	*301	365	355	184	*104	*181	*122	*32	486	*474
2	*370	350	296	370	355	*385	119	144	131	36	*486	474
3	370	*350	296	375	*355	345	134	122	134	71	492	474
4	370	350	296	375	350	291	160	112	125	71	492	474
5	370	350	296	385	340	291	181	106	134	69	492	474
6	370	350	291	395	325	268	181	106	147	67	492	468
7	380	345	291	390	310	232	167	114	117	65	486	474
8	380	345	291	390	315	232	141	125	106	63	498	474
9	380	345	291	492	315	212	134	134	104	63	504	474
10	380	350	291	450	310	174	141	147	99	98	498	474
11	380	345	291	282	296	174	147	170	101	188	492	474
12	380	350	291	365	250	181	153	204	109	188	492	468
13	380	360	291	204	220	181	150	224	109	232	492	456
14	390	380	291	96	228	147	144	188	96	315	492	456
15	390	345	291	71	228	141	134	160	84	350	492	450
16	390	310	291	63	291	138	131	144	80	405	492	456
17	390	306	286	59	128	147	128	131	73	438	492	462
18	390	310	286	55	89	138	119	119	71	456	486	492
19	390	310	291	53	75	99	119	114	73	498	492	444
20	390	310	286	46	69	94	122	112	73	498	498	432
21	395	306	286	44	63	99	125	109	67	486	504	426
22	395	306	286	44	59	94	134	117	61	486	504	426
23	315	306	286	43	55	87	141	109	55	486	504	426
24	420	306	286	46	53	80	156	101	53	486	510	420
25	410	306	291	55	53	78	164	114	51	486	498	415
26	410	306	291	46	53	87	156	114	48	486	492	415
27	410	301	296	44	55	82	131	106	44	492	486	415
28	405	301	291	43	57	84	134	106	41	492	486	410
29	405	301	340	38	-	82	150	106	38	492	480	410
30	380	301	400	39	-------	89	184	106	34	492	474	*405
31	350	-------	*385	168	-------	89	-------	114	-------	492	468	-------
Total	11,905	9,851	9,273	5,891	5,652	5,005	4,284	4,059	2,580	9,579	15,252	13,492
Mean	384	328	299	190	202	161	143	131	86.0	309	492	450
Ac-ft	23,610	19,540	18,390	11,680	11,210	9,930	8,500	8,050	5,120	19,000	30,250	26,760

Calendar year 1958: Max 2,730 Min 19 Mean 558 Ac-ft 403,800
Water year 1958-59: Max 510 Min 32 Mean 265 Ac-ft 192,000

* Discharge measurement made on this day.

3385. Donner Creek at Donner Lake, near Truckee, Calif.

Location.--Lat 39°19'25", long 120°14'00", in SW¼NW¼ sec.17, T.17 N., R.16 E., on left bank 10 ft downstream from bridge on Donner Memorial State Park road, 0.7 mile upstream from Cold Creek, and 2½ miles west of Truckee.

Drainage area.--14.5 sq mi (revised).

Records available.--November 1909 to August 1910 (monthly discharge only), October 1958 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,930 ft (from topographic map). Nov. 1, 1909, to Aug. 31, 1910, staff gage at different datum.

Extremes.--Maximum discharge during year, 408 cfs Apr. 14 (gage height, 3.76 ft); minimum daily, 1.5 cfs Jan. 24, 29, 31, Feb. 1, Sept. 8, 9.
1909-10, 1958-59: Maximum discharge, that of Apr. 14, 1959; minimum daily, 1 cfs Nov. 1-10, 1909, July 25 to Aug. 30, 1910.

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

Cooperation.--Records for Oct. 1 to Nov. 11 and gage-height record for May 16-31 furnished by Sierra Pacific Power Co.

Rating table, Nov. 12, 1958, to Sept. 30, 1959 (gage height, in feet, and discharge, in cubic feet per second)

1.0	1.2	1.5	16
1.1	2.6	1.8	37
1.2	4.8	2.3	97
1.3	7.8	2.9	208

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	24	15	3.6	1.5	5.1	6.0	*115	*16	*13	*3.9	*2.8
2	46	23	15	3.4	*1.6	*5.7	6.3	123	16	13	6.6	2.6
3	43	23	14	3.2	1.6	5.7	7.2	94	16	13	6.6	2.4
4	43	23	14	3.0	1.6	6.0	7.8	51	15	13	6.3	2.0
5	42	23	14	2.6	1.6	6.0	8.6	23	15	12	5.7	1.8
6	41	23	14	2.4	1.6	6.0	9.3	23	15	12	5.4	1.7
7	40	23	14	2.2	1.6	6.3	9.7	43	15	12	5.1	1.6
8	38	23	13	2.0	1.6	6.3	8.9	87	14	11	4.8	1.5
9	38	22	13	2.2	1.6	6.3	*10	89	20	11	4.5	1.5
10	38	21	12	2.2	1.7	6.3	11	74	24	12	11	25
11	35	20	12	2.4	1.7	6.3	11	74	24	11	13	39
12	34	*20	*12	2.4	1.6	6.3	10	74	24	11	12	37
13	34	19	12	2.6	1.6	6.3	80	87	20	11	11	37
14	34	19	11	*2.4	1.6	6.3	*190	93	13	10	10	39
15	34	19	11	2.4	1.6	6.3	161	70	13	10	9.3	37
16	33	19	10	2.2	1.8	6.3	78	58	12	10	8.9	35
17	33	18	10	2.0	*2.6	6.3	47	51	11	10	8.2	35
18	32	18	10	1.8	3.4	6.3	38	29	11	9.7	8.2	36
19	31	18	9.7	1.8	3.8	6.3	37	17	14	9.3	8.2	41
20	34	18	9.3	1.7	4.0	6.3	36	14	20	9.3	7.8	40
21	49	18	8.9	1.7	4.0	6.3	47	19	19	8.6	8.6	40
22	*29	17	8.9	1.6	4.5	6.3	68	47	19	8.2	8.9	39
23	32	17	8.9	1.6	4.5	6.0	89	75	19	7.8	7.5	38
24	31	17	8.6	1.6	4.8	6.0	99	69	18	7.5	10	37
25	31	17	7.5	1.6	4.8	6.0	99	52	16	7.2	13	36
26	30	16	6.6	1.7	4.8	6.0	99	47	15	7.2	13	35
27	28	16	4.8	1.7	5.1	6.0	*107	40	15	6.9	13	35
28	27	16	4.5	1.6	5.1	6.3	78	31	14	7.2	13	40
29	26	15	4.2	1.5	-	6.3	64	24	13	6.9	7.7	49
30	25	15	4.0	1.6	-------	6.0	79	19	13	6.9	3.6	*50
31	25	-------	3.8	1.5	-------	*6.0	-------	16	-------	6.9	3.0	-------
Total	1,082	580	315.7	66.1	77.3	189.9	1,601.8	1,728	489	304.6	260.8	817.9
Mean	34.9	19.3	10.2	2.13	2.76	6.13	53.4	55.7	16.3	9.83	8.41	27.3
Ac-ft	2,150	1,150	626	131	153	377	3,180	3,430	970	604	517	1,620

Calendar year 1958: Max - Min - Mean - Ac-ft -
Water year 1958-59: Max 190 Min 1.5 Mean 20.6 Ac-ft 14,910

* Discharge measurement made on this day.
Note.--Records of discharge Oct. 1 to Nov. 11 furnished by Sierra Pacific Power Co.

3394. Martis Creek near Truckee, Calif.

Location.--Lat 39°20'20", long 120°07'00", in SE¼NW¼ sec.8, T.17 N., R.17 E., on left bank three-quarters of a mile upstream from mouth and 3½ miles northeast of Truckee.

Drainage area.--40.4 sq mi.

Records available.--October 1958 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,700 ft (from topographic map).

Extremes.--Maximum discharge during year, 232 cfs Feb. 16 (gage height, 3.05 ft); minimum, 1.7 cfs July 29, 30.

Remarks.- Records good except those for periods of ice effect, which are fair.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.9	1.7	1.6	26
1.0	3.1	2.0	58
1.1	5.1	2.4	108
1.3	11		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.2	9.6	9.3	b8.5	12	23	31	19	8.2	2.6	2.0	2.4
2	8.2	9.6	9.6	b8.5	b11	27	34	20	7.3	2.5	2.0	2.4
3	8.2	9.6	9.6	b7.5	b11	b30	36	19	6.7	2.4	2.0	*2.4
4	8.2	9.6	9.6	b8	b11	b27	40	18	6.7	2.4	2.1	2.5
5	8.6	9.6	b9.3	8.9	b11	b28	43	15	6.1	2.4	2.0	2.5
6	8.6	9.6	9.3	8.9	b11	b30	42	14	5.6	2.4	2.0	2.6
7	9.3	9.6	9.3	b9	b10	b32	38	13	5.6	*2.4	*2.0	2.8
8	9.3	9.9	9.3	9.6	b11	b32	33	13	5.4	2.5	2.1	2.6
9	9.3	9.9	9.6	97	b8	b32	*32	12	5.4	2.5	2.4	2.5
10	9.3	*11	9.6	75	b10	b30	31	12	*5.1	2.4	2.1	2.5
11	9.3	9.9	*9.6	32	b13	b30	32	11	4.9	2.5	2.0	2.6
12	9.3	9.9	9.6	53	b11	32	32	11	4.7	2.2	2.0	3.0
13	9.3	10	8.9	*29	b10	37	31	*12	4.4	2.2	2.1	3.5
14	8.9	13	b8.5	18	11	32	29	13	4.2	2.2	2.1	3.1
15	8.9	b12	b8	16	12	29	27	12	3.8	2.4	2.1	3.3
16	9.3	b11	b9	14	100	29	26	11	3.6	2.2	2.1	3.5
17	9.3	b9	b9	14	65	32	24	11	3.0	2.2	2.0	3.6
18	9.9	b11	b9	13	40	33	23	11	2.4	2.2	2.0	28
19	9.6	14	b8	12	32	31	22	10	2.5	2.4	2.1	9.6
20	9.6	12	b8.5	b10	b28	29	21	9.9	2.6	2.2	2.2	5.6
21	9.6	11	9.3	b11	25	31	21	11	2.6	2.1	2.4	5.4
22	9.6	11	9.9	12	22	30	21	20	2.6	2.1	2.2	5.4
23	11	9.9	9.9	12	b20	31	19	27	2.5	2.1	2.2	5.1
24	10	11	b8	17	b19	29	18	18	2.5	2.1	2.5	4.9
25	9.9	11	10	b25	*b18	*25	20	14	2.6	2.1	2.5	4.9
26	9.9	11	9.9	16	b19	27	30	12	2.6	2.0	2.4	5.1
27	9.9	11	b13	15	b19	25	*21	11	2.6	2.0	2.4	5.4
28	9.6	b9.5	b10	14	b20	25	19	11	2.8	2.0	2.2	5.1
29	9.6	b8.5	b7.6	b11	-	25	18	9.9	2.6	1.8	2.4	4.9
30	9.6	b8	b9	b12	-------	27	18	9.9	2.8	1.8	2.4	5.1
31	9.6	-------	b9	b10	-------	27	-------	9.3	-------	2.0	2.4	-------
Total	288.9	311.7	288.2	606.9	590	907	832	420.0	124.4	69.3	67.4	142.3
Mean	9.32	10.4	9.30	19.6	21.1	29.3	27.7	13.5	4.15	2.24	2.17	4.74
Ac-ft	573	618	572	1,200	1,170	1,800	1,650	833	247	137	134	282

Calendar year 1958: Max - Min - Mean - Ac-ft -
Water year 1958-59: Max 100 Min 1.8 Mean 12.7 Ac-ft 9,220

Peak discharge (base, 170 cfs).--Jan. 9 (4 p.m.) 176 cfs (2.79 ft); Feb. 16 (2 p.m.) 232 cfs (3.05 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

3397. Prosser Creek at Hobart Mills, Calif.

Location.--Lat 39°24'00", long 120°12'00", in NE¼NE¼ sec.21, T.18 N., R.16 E., on left bank 0.8 mile west of Hobart Mills, 3 miles upstream from Alder Creek, and 5 miles north of Truckee.

Drainage area.--27.3 sq mi.

Records available.--October 1958 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,840 ft (from topographic map).

Extremes.--Maximum discharge during year, 262 cfs Jan. 10 (gage height, 2.93 ft, affected by ice); maximum gage height, 2.94 ft Jan. 10 (backwater from ice); minimum discharge, 3.1 cfs Sept. 5.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.8	2.8	1.6	43
.9	4.4	2.0	98
1.1	10	2.5	189
1.3	19		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a7	7.7	b8	b12	b13	b31	73	135	94	23	4.6	3.5
2	a7	7.7	b8	b11	b13	b38	96	114	101	22	4.6	3.5
3	a7	7.7	9.3	b9	b12	b43	108	94	103	21	4.4	3.4
4	a7	7.7	9.3	b8	b14	b43	133	82	96	20	4.4	3.4
5	a6.8	7.7	b9	*b7.5	b17	b44	149	79	103	18	4.4	3.2
6	6.8	7.7	8.3	b7.5	b18	b42	151	79	114	17	*1.2	3.2
7	6.5	7.7	8.3	b8.5	15	46	*131	88	92	16	4.0	3.2
8	6.8	7.7	8.3	b9.5	b16	46	108	100	*83	15	4.2	*3.2
9	6.5	7.7	8.3	b58	b16	48	106	108	80	14	4.2	3.4
10	*6.8	9.3	8.3	b189	b19	47	*112	117	75	*14	4.0	3.4
11	a6.8	9.0	*8.3	109	b22	44	126	129	79	14	3.9	3.4
12	a6.8	*8.3	9.0	149	b20	53	129	147	90	13	3.7	3.5
13	a6.8	8.6	8.3	92	b18	62	122	*172	92	12	3.7	3.9
14	a6.5	b15	b8	*54	b17	62	112	149	84	12	3.7	3.9
15	6.5	b14	b8	37	b18	55	106	122	73	10	3.7	4.4
16	6.8	b12	b8	30	b43	53	103	108	65	10	3.7	4.4
17	6.8	b11	b7.5	27	108	*64	98	101	59	9.0	3.5	4.4
18	9.0	b12	b7.5	25	64	66	89	88	62	8.3	3.5	30
19	9.3	b14	b8.5	b23	39	62	89	86	66	8.0	3.4	23
20	9.3	15	b8.5	b21	*b35	58	94	82	66	7.7	3.7	14
21	8.3	12	9.0	b21	31	66	96	84	65	7.1	3.9	9.0
22	8.0	b11	9.7	b19	29	59	103	101	58	6.5	4.0	7.7
23	8.3	b11	9.7	b16	b26	53	*111	100	53	6.8	4.0	6.5
24	8.3	11	b8.5	b19	b25	47	119	84	49	6.5	4.2	6.0
25	8.0	10	9.3	22	b24	43	133	86	46	6.0	5.1	5.8
26	8.0	10	b8	b20	b24	52	128	94	38	5.8	4.4	5.8
27	8.3	10	b10	b18	b24	49	106	82	34	5.5	4.0	5.5
28	8.0	b10	12	b17	b26	52	111	80	30	5.3	4.0	5.3
29	7.7	b9	b14	b14	-	51	126	79	26	5.3	3.7	5.3
30	7.7	b9	b14	b15	-------	54	147	77	24	5.1	3.7	5.3
31	7.7	-------	b12	b14	-------	53	-------	86	-------	5.1	3.5	-------
Total	231.1	300.5	282.9	1,082.0	746	1,586	3,415	3,133	2,100	349.0	124.0	190.5
Mean	7.45	10.0	9.13	34.9	26.6	51.2	114	101	70.0	11.3	4.00	6.35
Ac-ft	458	596	561	2,150	1,480	3,150	6,770	6,210	4,170	692	246	378

Calendar year 1958: Max - Min - Mean - Ac-ft -
Water year 1958-59: Max 189 Min 3.2 Mean 37.1 Ac-ft 26,860

Peak discharge (base, 200 cfs).--Jan. 10, 262 cfs; May 12 (12 p.m.) 200 cfs (2.55 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of trend of flow and records for station near Boca.
b Stage-discharge relation affected by ice.

3399. Alder Creek near Truckee, Calif.

Location.--Lat 39°22'10", long 120°10'50", in SE¼NE¼ sec.34, T.18 N., R.16 E., on right bank 2 miles upstream from mouth and 2½ miles north of Truckee.

Drainage area.--7.4 sq mi.

Records available.--October 1958 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,800 ft (from topographic map).

Extremes.--Maximum discharge during year, 37 cfs Jan. 10 (gage height, 2.29 ft), from rating curve extended above 13 cfs by logarithmic plotting; maximum gage height, 2.46 ft Feb. 20 (backwater from ice); no flow July 25 to Aug. 23, Aug. 27 to Sept. 14.

Remarks.--Records good except those for periods of ice effect, which are fair.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.9	0	1.4	2.4
1.0	.2	1.6	5.2
1.1	.5	1.8	10
1.2	.9	2.0	18
1.3	1.5	2.2	30

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a1	0.9	b0.7	b1	1.2	2.2	8.4	8.4	2.6	0.5	0	0
2	a1	.9	b.7	b1	b1.0	2.5	10	8.7	2.5	.5	0	0
3	a1	.9	.8	b.9	b1.2	2.8	11	7.6	2.3	.5	0	0
4	a.9	.9	.8	b.7	b1.2	b2.5	14	7.1	2.2	.4	0	0
5	a.9	.9	.8	*b.5	b1.2	2.6	15	6.5	2.1	.4	0	0
6	.8	.8	b.8	b.7	b1.2	*2.8	15	6.0	1.9	.3	*0	0
7	.7	.9	b.8	b.6	1.2	3.0	*13	5.8	1.9	*.3	0	0
8	.8	.8	b.8	b.6	b1.0	b3.0	12	5.8	1.7	.3	0	0
9	.9	.8	b.8	b4.4	b1.1	3.1	12	5.6	*1.7	.3	0	0
10	.8	1.0	b.8	b27	b1.2	3.1	12	5.6	1.7	.3	0	0
11	a.8	.9	*b.8	17	b1.5	3.1	13	5.6	1.6	.2	0	0
12	a.8	b.7	1.0	b9.5	b1.7	3.6	14	5.4	1.4	.3	0	0
13	a.7	1.0	b.7	5.6	1.5	4.6	13	*5.8	1.3	.2	0	0
14	a.7	1.7	b.6	*b3.4	1.2	4.6	12	5.6	1.2	.2	0	0
15	*.7	1.0	b.9	2.2	b1.0	4.1	11	5.0	1.2	.2	0	0.1
16	.6	1.0	b.9	b1.9	b7.6	4.2	10	4.7	1.1	.2	0	.2
17	a.7	b.9	1.0	b1.8	b5.2	4.9	10	4.4	1.0	.1	0	.2
18	a.8	1.4	1.0	b1.7	*b3.9	5.4	9.2	4.2	1.0	.1	0	1.4
19	a.8	1.6	b.7	b1.5	b3.5	5.4	8.9	3.9	.9	.1	0	.9
20	.9	1.2	b.7	b1.2	b3.0	5.4	8.7	3.8	.9	.1	0	.5
21	.9	b1.0	1.0	1.6	b2.5	5.8	8.4	3.9	.8	.1	0	.4
22	.9	b1.0	1.0	1.4	2.3	5.8	8.4	5.8	.7	.1	0	.3
23	.9	*b1.0	b.9	b1.2	2.0	4.9	*8.1	6.5	.6	.1	0	.3
24	.8	1.0	b.6	b1.4	1.9	a4.5	7.8	5.4	.6	.1	.1	.2
25	.8	1.0	b.8	b1.4	1.8	a4.5	8.9	4.4	.6	0	.3	.2
26	.8	1.0	b.8	b1.4	1.7	a4.5	11	3.9	.6	0	.1	.2
27	.8	b.9	b.9	b1.4	1.7	a4.5	9.7	3.6	.6	0	0	.2
28	.8	b.6	b.9	b1.3	1.9	a4.5	9.5	3.4	.6	0	0	.2
29	.8	b.6	b.9	b1.2	-	4.7	8.9	3.2	.5	0	0	.2
30	.8	b.6	b.9	b1.4	-------	5.8	8.4	3.0	.5	0	0	.3
31	1.0	-------	b1.0	b1.2	-------	*6.0	-------	2.9	-------	0	0	-------
Total	25.6	28.9	25.8	98.1	57.4	128.4	321.3	161.5	38.3	5.9	0.5	5.8
Mean	0.83	0.96	0.83	3.16	2.05	4.14	10.7	5.21	1.28	0.19	0.02	0.19
Ac-ft	51	57	51	195	114	255	637	320	76	12	1.0	12

Calendar year 1958 : Max - Min - Mean - Ac-ft -
Water year 1958-59 : Max 27 Min 0 Mean 2.46 Ac-ft 1,780

Peak discharge (base, 25 cfs).--Jan. 10 (6 p.m.) 37 cfs (2.29 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of records for nearby streams.
b Stage-discharge relation affected by ice.

3405. Prosser Creek near Boca, Calif.

Location.--Lat 39°22'10", long 120°07'10", in SW¼NW¼ sec.32, T.18 N., R.17 E., on left bank a quarter of a mile upstream from mouth and 2 miles southwest of Boca.

Drainage area.--53.5 sq mi.

Records available.--October 1902 to June 1903 (gage heights only), June 1951 to September 1959. Records for April 1889 to November 1890, previously published in the 11th and 12th Annual Reports, Pt. 2, have been found to be unreliable and should not be used.

Gage.--Water-stage recorder. Datum of gage is 5,572.66 ft above mean sea level (levels by Bureau of Reclamation). June 1951 to September 1956 at datum 2.00 ft higher. April 1889 to November 1890 and October 1902 to June 1903, staff gages at same site at different datums.

Average discharge.--8 years, 95.2 cfs (68,920 acre-ft per year).

Extremes.--Maximum discharge during year, 264 cfs Jan. 12 (gage height, 3.11 ft); maximum gage height, 3.77 ft Jan. 10 (backwater from ice); minimum discharge, 3.6 cfs Aug. 18.
1951-59: Maximum discharge, 4,560 cfs Dec. 23, 1955 (gage height, 10.13 ft, present datum), from rating curve extended above 910 cfs on basis of slope-area measurement of peak flow; minimum, that of Aug. 18, 1959.
Flood of Nov. 20, 1950, reached a stage of 11.0 ft (present datum), from floodmarks (discharge, 4,320 cfs by slope-area measurement).

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor.

Revisions (water years).--WSP 1564: Drainage area. See also Records available.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.09	3.8	1.7	37
1.1	4.0	2.0	69
1.3	11	2.5	144
1.5	22	2.9	223

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	12	b15	b20	a30	44	98	153	90	28	5.0	4.4
2	12	13	b16	b20	a30	53	125	124	99	27	4.8	4.6
3	12	13	b16	b15	a30	57	136	104	100	26	4.8	4.4
4	12	12	b15	b14	a32	56	158	90	95	24	4.6	4.4
5	11	12	b15	b15	a35	54	177	85	100	22	4.6	4.4
6	11	12	b15	b20	a38	58	181	83	114	20	4.4	4.4
7	11	13	b15	b30	a38	61	158	88	92	19	4.4	4.6
8	12	12	b14	b110	a35	62	130	104	78	17	4.8	4.4
9	11	12	b14	b150	a32	65	125	113	78	16	4.8	4.6
10	11	14	b14	b170	a32	64	132	119	74	15	4.2	4.4
11	11	14	15	137	a33	62	144	132	76	14	4.0	4.4
12	11	14	14	208	a40	73	151	155	85	14	3.8	4.6
13	11	14	b14	*124	a35	92	144	183	89	14	3.8	5.0
14	10	27	b14	70	a25	89	130	158	83	13	4.0	5.4
15	11	b21	b14	56	a30	78	122	127	70	12	4.2	6.2
16	11	b17	b15	47	a50	79	121	110	65	12	4.0	6.6
17	11	b14	b14	45	a100	96	113	102	59	11	4.0	6.2
18	12	b20	b14	42	a80	108	105	88	61	10	3.8	25
19	14	b22	b16	40	a70	96	102	85	64	9.8	4.0	32
20	14	23	b17	37	a60	90	105	82	64	9.4	4.4	20
21	12	20	17	40	a50	104	111	88	63	9.0	*4.6	*14
22	12	18	16	35	a45	88	113	110	58	*8.2	4.6	12
23	13	b17	*16	33	a45	76	124	117	52	8.2	4.4	10
24	14	17	b16	36	a45	72	130	95	*49	7.8	4.8	9.4
25	13	17	16	42	*40	*70	151	*88	48	7.4	6.2	9.4
26	13	17	17	37	38	85	155	96	42	6.6	5.0	9.0
27	*13	17	21	37	38	78	*117	83	39	6.6	4.6	8.6
28	13	*b17	b17	32	40	78	117	81	36	6.2	4.6	8.6
29	12	b15	b22	31	-	76	129	82	33	5.8	4.4	8.2
30	12	b14	b23	a30	-------	88	158	78	30	5.8	4.6	8.6
31	12	-------	b20	a30	-------	82	-------	83	-------	5.0	4.4	-------
Total	370	480	497	1,753	1,196	2,334	3,962	3,286	2,086	409.8	138.6	257.8
Mean	11.9	16.0	16.0	56.5	42.7	75.3	132	106	69.5	13.2	4.47	8.59
Ac-ft	734	952	986	3,480	2,370	4,630	7,860	6,520	4,140	813	275	511

Calendar year 1958: Max 805 Min 10 Mean 122 Ac-ft 88,360
Water year 1958-59: Max 208 Min 3.8 Mean 45.9 Ac-ft 33,270

Peak discharge (base, 300 cfs).--No peak above base.

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for nearby streams.
b Stage-discharge relation affected by ice.

3420. Little Truckee River near Hobart Mills, Calif.

Location.--Lat 39°30'05", long 120°16'35", in NE¼NE¼ sec.14, T.19 N., R.15 E., on right bank half a mile upstream from Independence Creek and 7½ miles northwest of Hobart Mills.

Drainage area.--33 sq mi, approximately.

Records available.--December 1946 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 6,290 ft (from topographic map).

Average discharge.--12 years (1947-59), 92.1 cfs (66,680 acre-ft per year).

Extremes.--Maximum discharge during year, 289 cfs May 12 (gage height, 2.88 ft); minimum, 1.8 cfs July 24.
1946-59: Maximum discharge, 7,010 cfs Nov. 20, 1950 (gage height, 7.53 ft), from rating curve extended above 1,100 cfs on basis of slope-area measurement of peak flow; minimum, 1.1 cfs Aug. 19, 20, 23, 24, 1949.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. One transmountain diversion to Sierra Valley above station.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 26 to Aug. 25)

0.7	1.3	1.5	46
.8	2.8	2.0	107
.9	5.0	2.5	197
1.0	8.2	2.8	268
1.2	19		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.0	7.4	b6.8	8.2	b20	a31	70	199	110	5.6	2.6	2.4
2	4.0	7.4	7.8	b6.2	b20	a32	84	166	122	5.3	2.6	2.4
3	4.0	7.4	7.8	b5.9	b21	a34	99	132	129	4.7	2.6	2.4
4	4.0	7.4	7.8	b9.0	b22	*b36	122	114	122	4.4	2.4	2.4
5	4.0	7.4	7.8	9.4	b22	b36	152	108	119	4.2	2.6	2.4
6	4.0	7.1	7.8	13	b21	b39	172	106	132	3.6	2.2	2.4
7	3.8	7.1	7.4	11	b19	b38	174	118	112	*3.4	*2.4	2.4
8	3.8	7.1	7.4	11	b22	b42	153	*137	96	3.2	2.4	*2.4
9	3.6	7.1	7.8	49	a23	b42	150	155	*88	3.2	2.4	2.4
10	3.6	9.0	7.8	84	a24	b42	*161	174	76	3.2	2.4	2.4
11	3.6	8.6	7.8	80	a26	b42	178	195	76	3.2	2.4	2.4
12	4.2	8.2	7.8	116	a25	46	199	229	84	3.2	2.4	2.4
13	7.1	8.6	7.1	93	a23	53	204	258	87	3.0	2.4	3.2
14	6.8	19	b5.6	74	a21	54	193	224	75	3.0	2.4	4.2
15	6.8	11	b6.2	62	a25	52	168	186	62	2.8	2.4	4.7
16	6.8	b8.6	b7.1	54	a50	54	153	165	52	2.6	2.4	4.4
17	6.8	b8.6	b6.8	48	a70	59	146	148	41	2.6	2.2	4.4
18	9.0	10	7.1	43	a55	62	136	132	41	2.6	2.2	38
19	9.0	18	b5.9	38	a45	64	132	124	42	3.0	2.4	20
20	*8.2	15	b6.2	b30	a38	62	130	114	41	3.0	2.6	11
21	7.8	12	7.1	*b32	a33	67	137	110	37	2.8	2.6	7.8
22	7.8	10	7.4	29	a30	66	153	129	29	2.6	2.4	6.5
23	8.2	*9.4	*6.8	28	a28	62	180	143	21	2.4	2.2	5.9
24	8.2	9.8	b5.6	29	a28	60	189	124	17	2.2	2.4	5.3
25	7.8	9.8	7.1	31	a28	55	219	122	15	2.2	2.4	5.3
26	7.8	9.8	b7.4	32	a28	60	210	122	14	2.2	2.4	4.7
27	7.8	9.4	7.4	27	a29	57	159	114	12	2.6	2.4	4.7
28	7.8	b7.8	7.1	22	a30	59	146	110	7.4	2.6	2.4	4.7
29	7.4	b7.1	8.2	b21	-	58	163	101	6.8	2.8	2.4	4.7
30	7.1	b6.2	8.2	b20	-------	60	197	93	6.2	2.8	2.4	4.7
31	7.4	-------	7.8	b20	-------	59	-------	100	-------	2.6	2.4	-------
Total	192.2	281.3	223.9	1,135.7	826	1,583	4,729	4,452	1,872.4	97.6	74.8	173.0
Mean	6.20	9.38	7.22	36.6	29.5	51.1	158	144	62.4	3.15	2.41	5.77
Ac-ft	381	558	444	2,250	1,640	3,140	9,380	8,830	3,710	194	148	343

Calendar year 1958 : Max 991 Min 3.3 Mean 124 Ac-ft 89,890
Water year 1958-59 : Max 258 Min 2.2 Mean 42.9 Ac-ft 31,020

Peak discharge (base, 500 cfs).--No peak above base.

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for nearby stations.
b Stage-discharge relation affected by ice.

3435. Sagehen Creek near Truckee, Calif.

Location.--Lat 39°25'50", long 120°14'10", in NE¼NE¼ sec.7, T.18 N., R.16 E., on left bank 1.5 miles upstream from bridge on State Highway 89 and 7.5 miles north of Truckee.

Drainage area.--10.9 sq mi (revised).

Records available.--October 1953 to September 1959.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 6,400 ft (from topographic map). Prior to Dec. 2, 1953, staff gage at site 100 ft upstream at different datum.

Average discharge.--6 years, 11.4 cfs (8,250 acre-ft per year).

Extremes.--Maximum discharge during year, 38 cfs Apr. 5 (gage height, 2.48 ft); minimum, 0.7 cfs Aug. 6, result of temporary regulation.
1953-59: Maximum discharge, 495 cfs Dec. 23, 1955 (gage height, 4.28 ft), from rating curve extended above 70 cfs on basis of slope-area measurement of peak flow; minimum, that of Aug. 6, 1959.

Remarks.--Records good except those for periods of ice effect, which are fair. No storage or diversion above station.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

1.4	1.3	1.9	9.5
1.5	2.0	2.1	17
1.6	2.9	2.3	28
1.7	4.5		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.7	2.8	2.9	2.8	b3.0	5.4	14	20	7.3	2.2	1.4	1.4
2	2.7	2.9	3.0	2.7	b3.2	6.1	16	18	7.1	2.1	1.4	1.4
3	2.7	2.8	3.2	b2.5	b3.4	6.1	21	15	6.8	2.1	1.4	1.4
4	2.7	2.9	3.2	b2.5	3.6	5.6	25	14	6.3	2.0	1.4	1.4
5	2.7	2.8	3.2	*2.9	3.6	5.6	28	13	6.3	2.0	1.4	1.5
6	2.6	2.8	3.0	3.4	3.6	5.8	28	13	6.3	2.0	1.3	1.5
7	2.6	2.8	2.9	3.0	3.4	6.1	24	13	5.8	*1.9	*1.3	1.5
8	2.6	2.8	3.0	3.4	3.3	6.3	21	*13	5.6	1.9	1.4	*1.5
9	2.7	2.8	3.2	15	b3	6.6	21	13	*5.4	1.9	1.4	1.5
10	2.7	3.2	3.2	21	4.5	6.6	24	13	5.1	1.9	1.3	1.5
11	2.7	2.9	3.2	14	7.6	6.6	26	13	4.9	1.9	1.3	1.5
12	2.6	2.8	3.0	24	6.3	7.6	26	13	4.7	1.9	1.3	1.6
13	2.6	2.9	2.9	12	b4.5	8.4	24	14	4.5	1.9	1.3	1.6
14	2.6	4.5	2.7	8.1	b4	8.1	*22	13	4.1	1.9	1.3	1.7
15	2.6	3.4	*2.8	6.3	3.4	7.6	22	11	3.9	1.9	1.3	1.7
16	2.7	3.2	2.9	5.4	10	8.1	20	10	3.8	1.8	1.3	1.7
17	2.7	b2.5	2.9	5.4	*11	*9.2	19	9.5	3.4	1.8	1.3	1.6
18	3.4	b3	2.9	4.9	7.1	9.5	18	8.9	3.3	1.7	1.3	6.1
19	2.9	3.9	2.8	4.5	5.6	8.9	18	8.4	3.2	1.7	1.4	2.5
20	*2.8	3.4	2.8	3.9	4.9	9.2	18	8.1	3.0	1.7	1.4	2.0
21	2.8	3.3	2.9	3.9	4.7	10	18	8.4	2.9	1.6	1.4	1.9
22	2.8	3.2	3.0	3.9	4.5	9.5	18	14	2.8	1.6	1.4	1.8
23	2.9	*3.2	2.9	3.9	4.3	8.7	18	16	2.6	1.6	1.4	1.8
24	3.0	3.4	2.7	4.3	b4	7.8	20	15	2.6	1.6	1.6	1.8
25	2.9	3.4	2.9	4.7	b4	8.1	22	12	2.6	1.6	1.6	1.7
26	2.9	3.6	2.9	4.1	4.3	8.9	26	10	2.6	1.6	1.5	1.7
27	2.9	3.3	3.0	4.1	4.5	8.7	20	9.5	2.5	1.5	1.4	1.7
28	2.8	3.0	2.9	3.8	4.9	9.2	20	8.7	2.4	1.5	1.4	1.7
29	2.8	2.9	2.9	b3.6	-	8.9	20	8.4	2.3	1.5	1.4	1.7
30	2.8	2.9	2.9	b3.4	-------	9.5	21	7.8	2.2	1.5	1.4	1.8
31	2.8	-------	2.9	b3.0	-------	10	-------	7.3	-------	1.4	1.4	-------
Total	85.7	93.3	91.6	190.4	134.2	242.7	638	371.0	126.3	55.2	42.8	54.2
Mean	2.76	3.11	2.95	6.14	4.79	7.83	21.3	12.0	4.21	1.78	1.38	1.81
Ac-ft	170	185	182	378	266	481	1,270	736	251	109	85	108

Calendar year 1958: Max 149 Min 2.5 Mean 17.5 Ac-ft 12,640
Water year 1958-59: Max 28 Min 1.3 Mean 5.82 Ac-ft 4,220

Peak discharge (base, 50 cfs).--No peak above base.

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

3444. Little Truckee River above Boca Reservoir, near Boca, Calif.

Location.--Lat 39°26'10", long 120°05'00", in SW¼SW¼ sec 3, T.18 N., R.17 E., on left bank 1 mile upstream from Boca Reservoir, 1½ miles upstream from Dry Creek, and 3½ miles north of Boca.

Drainage area.--146 sq mi.

Records available.--June 1903 to October 1910, October 1957 to September 1959. Published as "at Pine Station" June 1903 to December 1907 and as "at Starr" January 1908 to October 1910. Monthly discharge only for some periods, published in WSP 1314.

Gage.--Water-stage recorder. Datum of gage is 5,618.67 ft above mean sea level (Bureau of Reclamation bench mark). June 1903 to October 1910, staff gages at different sites and datums.

Average discharge.--9 years, 254 cfs (183,900 acre-ft per year).

Extremes.--Maximum discharge during year, 390 cfs Jan. 12 (gage height, 1.88 ft); minimum, 5.7 cfs July 28.

1903-10, 1957-59: Maximum daily discharge, 1,920 cfs Jan. 15, 16, 1909; minimum, that of July 28, 1959.

Maximum discharge for flood of Dec. 23, 1955, about 9,500 cfs (computed from change in contents of Boca Reservoir).

Remarks.--Records good except those for periods of ice effect, which are fair. Flow slightly regulated by Independence Lake (capacity, about 17,500 acre-ft) and one trans-mountain diversion to Sierra Valley.

Revisions (water years).--WSP 1564: 1903-4, 1906-7, 1910, drainage area at site used 1903-7.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.3	3.5	1.0	70
.4	6.8	1.2	112
.6	18	1.5	209
.8	39	1.8	350

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	103	120	b65	b21	b35	78	179	276	128	15	6.8	19
2	103	120	67	b17	*b34	85	205	240	142	14	6.8	19
3	105	117	*72	b16	b29	94	218	201	*152	13	6.8	19
4	105	117	74	b28	b34	87	258	171	149	13	6.8	19
5	107	120	72	49	b32	83	300	*155	139	12	6.8	17
6	107	120	74	52	b34	*89	320	142	152	11	6.8	17
7	107	120	74	50	b33	96	315	149	142	9.8	*6.1	16
8	110	120	74	46	b33	96	272	161	117	9.2	6.8	*18
9	110	120	74	80	b27	103	258	182	110	*9.2	7.8	21
10	110	120	72	b201	b17	103	267	201	98	9.2	7.8	21
11	112	120	72	186	17	98	286	222	89	8.7	7.8	21
12	112	115	72	305	33	110	310	253	94	9.2	13	58
13	112	110	72	201	b40	139	310	315	96	9.2	15	96
14	112	100	b68	126	b32	149	295	281	96	9.2	15	100
15	112	b85	b67	105	b40	131	272	240	80	9.2	20	103
16	115	b80	b68	91	b107	134	240	201	67	8.7	19	103
17	115	b72	70	81	165	171	227	186	55	8.2	17	103
18	123	b80	68	b74	126	190	209	165	49	8.2	16	160
19	123	87	b68	b67	107	179	201	155	49	8.2	17	142
20	120	89	b68	b49	b100	168	198	142	49	7.8	20	123
21	117	83	68	b46	b91	198	198	139	46	6.4	18	112
22	120	80	68	b52	83	194	213	179	40	7.3	19	112
23	120	76	65	52	74	165	240	235	31	7.8	19	112
24	120	76	b56	56	65	145	253	227	26	7.3	22	112
25	117	76	58	63	62	134	295	201	23	7.3	23	110
26	117	74	55	53	63	161	330	179	22	7.3	22	107
27	115	74	47	56	65	155	258	158	22	6.8	21	107
28	117	70	b33	49	70	155	222	149	19	5.7	20	107
29	115	b67	b24	b32	-	152	227	139	16	6.4	20	110
30	*117	b65	b26	b38	-------	152	262	120	16	6.8	20	110
31	123	-------	*b25	b28	-------	*152	-------	120	-------	6.8	19	-------
Total	3,521	2,873	1,936	2,370	1,648	4,146	7,638	5,884	2,314	277.9	452.1	2,294
Mean	114	95.8	62.5	76.5	58.9	134	255	190	77.1	8.96	14.6	76.5
Ac-ft	6,980	5,700	3,840	4,700	3,270	8,220	15,150	11,670	4,590	551	897	4,550

Calendar year 1958: Max 1,490 Min 14 Mean 264 Ac-ft 191,000
Water year 1958-59: Max 330 Min 5.7 Mean 96.9 Ac-ft 70,120

Peak discharge (base, 500 cfs).--No peak above base.

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

3444.9. Boca Reservoir at Boca, Calif.

Location.--Lat 39°23'20", long 120°05'40", in NE¼NW¼ sec.28 (revised), T.18 N., R.17 E., in control house at Boca Dam, 1,800 ft upstream from mouth of Little Truckee River and half a mile northwest of Boca.

Drainage area.--172 sq mi (revised).

Records available.--October 1957 to September 1959.

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

Extremes.--Maximum contents during year, 22,220 acre-ft June 8 (elevation, 5,583.08 ft); minimum, 659 acre-ft Sept. 10 (elevation, 5,529.10 ft).
1957-59: Maximum contents, 41,150 acre-ft June 22, 1958 (elevation, 5,605.25 ft); minimum, that of Sept. 10, 1959.
Maximum contents known, 41,440 acre-ft Dec. 23, 1955 (elevation, 5,605.55 ft).

Remarks.--Reservoir is formed by earth-fill, rock-faced dam. Storage began Dec. 8, 1938. Usable capacity, 40,900 acre-ft between elevations 5,521 (outlet sill) and 5,605 ft. Dead storage, 240 acre-ft. Figures given herein represent usable contents. Water is used for irrigation in the State of Nevada and for power development.

Cooperation.--Daily elevations furnished by Washoe County Conservation District. Capacity table and maximum elevation for Dec. 23, 1955, furnished by Bureau of Reclamation.

Capacity table, water year 1958-59 (elevation, in feet, and contents, in acre-feet)

5,529	648	5,550	4,970
5,532	1,010	5,560	8,790
5,535	1,440	5,570	13,760
5,540	2,340	5,580	20,020
5,545	3,510	5,584	22,880

Contents, in acre-feet, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,480	8,460	10,720	9,010	4,530	1,670	2,030	15,260	21,780	11,530	1,340	1,010
2	4,630	8,660	10,690	9,060	4,610	1,580	2,000	15,740	21,780	10,720	1,310	967
3	4,760	8,810	10,640	9,060	4,690	1,760	2,220	16,190	21,890	9,900	1,280	922
4	4,900	8,990	10,620	9,100	4,780	1,950	2,460	16,560	22,070	9,150	1,260	885
5	4,980	9,190	10,540	9,150	4,880	1,990	3,050	16,630	22,070	8,420	1,240	842
6	5,070	9,420	10,520	9,260	4,960	2,020	3,710	16,690	22,070	7,640	1,200	800
7	5,150	9,560	10,480	9,280	5,060	2,080	4,380	16,750	22,140	6,870	1,170	766
8	5,220	9,790	10,420	9,330	5,150	2,150	5,000	16,850	22,220	6,140	1,150	725
9	5,330	9,950	10,380	9,460	5,200	2,220	5,540	17,000	21,930	5,320	1,140	686
10	5,470	10,040	10,320	9,760	5,170	2,260	5,840	17,380	21,740	4,460	1,100	659
11	5,570	10,160	10,280	10,210	5,130	2,240	6,300	17,810	21,600	3,660	1,080	670
12	5,680	10,280	10,240	10,690	5,070	2,220	6,810	18,260	21,350	3,080	1,060	720
13	5,820	10,380	10,160	11,380	4,940	2,260	7,420	18,820	21,180	2,570	1,050	866
14	5,920	10,520	10,090	11,600	4,720	2,360	7,950	19,470	21,040	2,180	1,040	1,060
15	6,030	10,640	10,020	11,480	4,470	2,410	8,500	19,980	20,860	1,860	1,040	1,270
16	6,140	10,790	9,930	11,230	4,380	2,450	9,010	20,320	20,400	1,660	1,040	1,470
17	6,250	10,820	9,880	10,930	4,560	2,530	9,480	20,780	20,020	1,540	1,030	1,660
18	6,360	10,790	9,810	10,620	4,750	2,720	9,880	21,000	19,600	1,470	1,020	1,860
19	6,470	10,820	9,740	10,300	4,840	2,890	10,110	21,120	19,160	1,420	1,020	2,230
20	6,580	10,880	9,670	9,900	4,760	2,980	10,300	21,070	18,660	1,440	1,010	2,530
21	6,690	10,960	9,600	9,330	4,560	3,020	10,500	21,000	18,200	1,450	1,000	2,760
22	6,930	10,960	9,540	8,790	4,320	3,100	10,900	20,960	17,680	1,470	1,010	2,980
23	7,020	10,960	9,460	8,360	4,060	3,120	11,180	21,180	17,200	1,440	1,020	3,220
24	7,000	10,960	9,400	7,930	3,740	3,060	11,680	21,600	16,470	1,440	1,020	3,470
25	7,160	10,930	9,300	7,560	3,300	2,890	12,220	21,780	15,830	1,420	1,020	3,660
26	7,280	10,930	9,240	7,160	2,890	2,740	12,780	22,000	15,170	1,420	1,020	3,900
27	7,460	10,900	9,170	6,750	2,460	2,640	13,400	22,140	14,470	1,390	1,020	4,120
28	7,680	10,880	9,060	6,380	2,080	2,500	13,870	22,180	13,790	1,370	1,020	4,340
29	7,890	10,840	8,900	5,870	-	2,400	14,270	22,140	13,100	1,360	1,020	4,560
30	8,080	10,790	8,880	5,300	-------	2,240	14,730	22,070	12,300	1,360	1,020	4,760
31	8,230	-------	8,940	4,740	-------	2,140	-------	21,930	-------	1,360	1,020	-------
(†)	5,558.70	5,564.30	5,560.35	5,549.25	5,538.70	5,539.00	5,571.70	5,582.70	5,567.30	5,534.50	5,532.15	5,549.35
(‡)	+3,830	+2,560	-1,850	-4,200	-2,660	+60	+12,590	+7,200	-9,630	-10,940	-340	+3,740

Calendar year 1958..... † -1,820
Water year 1958-59..... ‡ +360

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

3445. Little Truckee River at Boca, Calif.

Location.--Lat 39°23'10", long 120°05'40", in NE¼NW¼ sec.28, T.18 N., R.17 E., on right bank 1,000 ft downstream from Boca Dam and 800 ft upstream from mouth.

Drainage area.--172 sq mi.

Records available.--April to October 1890 (monthly discharge only), January 1911 to September 1915, October 1957 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 5,500 ft (from topographic map). Jan. 1, 1911, to Sept. 30, 1915, staff gage at site 650 ft downstream at different datum.

Average discharge.--6 years (1911-15, 1957-59), 195 cfs (141,200 acre-ft per year).

Extremes.--Maximum discharge during year, 460 cfs July 8 (gage height, 3.29 ft); minimum daily, 0.1 cfs Sept. 27-30.
1890, 1911-15, 1957-59: Maximum discharge observed, 2,870 cfs May 6, 1890; no flow Sept. 26 to Oct. 5, Oct. 10, 1911, Sept. 6, 7, Oct. 6-13, 1913.
Maximum discharge during flood in December 1955, 8,800 cfs, from records of Washoe County Water Conservation District.

Remarks.--Records good. Flow regulated by Boca Reservoir (see preceding page), Independence Lake (capacity, about 17,500 acre-ft), and one transmountain diversion to Sierra Valley.

Revisions.--1564: Drainage area.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.05	0.1	0.7	9.0
.1	.2	.9	20
.2	.5	1.4	60
.3	.9	2.0	147
.4	1.8	2.5	247
.5	3.2	3.2	430
.6	5.6		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	20	96	0.6	0.5	215	227	0.6	152	406	17	35
2	38	20	96	.6	.5	21	164	.6	105	415	17	33
3	45	20	*96	.6	*.4	19	124	.6	65	386	17	33
4	56	20	96	.6	.4	*61	58	101	102	367	17	33
5	58	20	96	.6	.4	82	.6	*128	142	369	17	33
6	59	20	96	.6	.4	82	.5	114	116	378	17	33
7	59	20	96	.6	.4	82	.5	114	93	380	17	33
8	59	33	96	.7	.4	82	.5	112	188	400	17	32
9	58	42	96	.7	34	100	62	43	200	*406	17	33
10	50	43	96	.6	53	132	65	1.2	*188	400	17	22
11	44	43	104	.6	52	132	40	1.1	202	287	17	.2
12	44	42	108	.6	66	144	17	1.1	186	261	16	.2
13	52	43	106	4.8	138	149	.6	1.2	173	225	16	.2
14	55	43	106	166	158	149	.6	1.2	173	163	16	.2
15	56	43	106	221	127	147	.6	1.1	252	131	16	.2
16	56	43	106	232	91	145	.5	1.1	254	62	16	.2
17	56	68	106	232	92	145	.5	31	265	*40	16	.2
18	56	85	106	234	92	147	54	77	275	29	16	.2
19	57	63	106	256	136	151	100	135	289	14	16	.2
20	57	47	106	304	196	180	100	182	294	.4	16	.2
21	39	66	106	324	217	202	65	182	292	.3	*16	*.2
22	30	82	106	294	217	204	14	132	289	8.3	16	.2
23	112	82	106	270	219	204	14	67	345	15	16	.2
24	71	82	105	270	252	225	6.3	78	350	14	16	.2
25	52	82	105	270	270	245	.6	103	342	15	16	.2
26	30	82	105	265	270	240	.6	81	356	15	16	.2
27	8.2	82	105	263	268	238	*.6	126	358	11	16	.1
28	15	92	105	270	268	238	.6	160	358	5.6	16	.1
29	20	96	75	306	-	236	.6	160	392	5.6	16	.1
30	*20	96	.6	319	-------	238	.6	180	400	5.6	16	.1
31	20	-------	*.6	253	-------	*238	-------	196	-------	12	24	-------
Total	1,478.2	1,620	2,939.2	4,761.2	3,219.4	4,873	1,118.8	2,511.8	7,196	5,226.8	515	323.6
Mean	47.7	54.0	94.8	154	115	157	37.3	81.0	240	169	16.6	10.8
Ac-ft	2,930	3,210	5,830	9,440	6,390	9,670	2,220	4,980	14,270	10,370	1,020	642

Calendar year 1958: Max 1,500 Min 0.6 Mean 300 Ac-ft 217,500
Water year 1958-59: Max 415 Min 0.1 Mean 98.0 Ac-ft 70,970

* Discharge measurement made on this day.

3460. Truckee River at Farad, Calif.

Location.--Lat 39°25'41", long 120°01'59", in NE¼ sec.12, T.18 N., R.17 E., on left bank 0.7 mile downstream from Farad powerplant, 2.5 miles north of Floriston, 3.4 miles downstream from Bronco Creek, and 3.5 miles upstream from California-Nevada State line.

Drainage area.--940 sq mi.

Records available.--March to October 1890 (monthly discharge only), September 1899 to December 1943, August 1957 to September 1959. Published as "near Boca" March to October 1890; "at or near Nevada-California State line" September 1899 to August 1912; "at Iceland" August 1912 to December 1937. Monthly discharge only for some periods, published in WSP 1314.

Gage.--Water-stage recorder. Datum of gage is 5,153.21 ft above mean sea level (Bureau of Reclamation bench mark). March to October 1890, staff gage at site about 7 miles upstream at different datum. Sept. 7, 1899, to May 31, 1909, staff gage at approximately same location at different datum. June 1, 1909, to July 31, 1912, staff gage at site about 2½ miles downstream at different datum. Aug. 1, 1912, to Dec. 31, 1937, water-stage recorder at site 4.1 miles upstream at different datum. Jan. 1, 1938, to Dec. 31, 1943, water-stage recorder at approximately same location at different datum.

Average discharge.--46 years (1899-1943, 1957-59), 807 cfs (584,200 acre-ft per year).

Extremes.--Maximum discharge during year, 1,050 cfs Jan. 12 (gage height, 3.76 ft); minimum daily, 382 cfs Feb. 19.
1899-1943, 1957-59: Maximum daily discharge, 15,300 cfs Mar. 18, 1907 (gage height, 11.5 ft, datum then in use); minimum, 28 cfs Dec. 18, 1930.
Maximum discharge known, 17,500 cfs Nov. 21, 1950 (gage height, 14.5 ft, present datum, from floodmarks), from slope-area measurement of peak flow.

Remarks.--Records excellent. Flow regulated by Lake Tahoe (see p. 199), Boca Reservoir (see p. 210), Donner and Independence Lakes, and by several powerplants. Records of chemical analyses and water temperatures for the water year 1959 are given in WSP 1644.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

2.4	365
3.0	632
3.5	895

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	530	463	*476	433	441	468	*539	*670	*534	*534	*548	*539
2	*512	463	481	433	*433	*557	562	585	516	544	544	534
3	516	463	481	424	433	571	539	508	494	553	539	534
4	526	*463	481	433	441	503	557	498	494	534	544	530
5	530	463	476	459	424	539	576	498	548	530	544	530
6	526	459	476	468	420	553	594	468	576	530	539	530
7	534	459	472	*454	390	503	571	494	503	530	539	530
8	539	468	472	459	390	498	472	562	512	548	544	534
9	539	476	476	656	407	516	490	567	548	557	548	530
10	530	481	472	895	454	508	521	512	516	553	544	534
11	516	481	476	585	420	490	521	553	521	567	544	544
12	516	476	481	741	428	516	534	618	539	534	544	548
13	521	485	481	571	424	576	526	736	530	503	544	516
14	534	534	476	441	472	548	618	675	508	544	544	521
15	539	498	476	441	450	503	637	562	512	534	544	521
16	539	441	476	424	638	490	530	494	530	521	539	521
17	539	433	476	411	599	526	459	485	503	534	534	521
18	539	490	476	399	411	548	463	485	512	526	534	618
19	539	494	472	399	382	490	516	485	534	567	539	618
20	544	468	472	420	416	476	530	530	548	548	548	562
21	571	463	472	446	433	526	521	530	544	530	553	544
22	508	476	476	433	407	521	494	562	521	534	557	544
23	557	476	472	386	390	490	544	562	539	544	553	534
24	585	476	468	399	411	485	557	494	562	544	567	521
25	571	476	476	441	433	490	613	526	534	544	567	521
26	548	476	468	403	433	521	618	498	534	544	548	516
27	521	472	498	394	433	512	521	485	534	539	548	512
28	521	472	476	399	441	508	516	516	521	539	544	512	512
29	521	476	463	411	-	503	508	508	530	539	539	530
30	512	476	476	446	-------	512	594	498	544	539	526	*526
31	468	-------	472	428	-------	516	-------	539	-------	544	521	-------
Total	16,491	14,197	14,742	14,532	12,254	15,963	16,241	16,703	15,841	16,731	16,870	16,075
Mean	532	473	476	469	438	515	541	539	528	540	544	536
Ac-ft	32,710	28,160	29,240	28,820	24,310	31,660	32,210	33,130	31,420	33,190	33,460	31,880

Calendar year 1958: Max 5,920 Min 361 Mean 1,233 Ac-ft 893,000
Water year 1958-59: Max 895 Min 382 Mean 511 Ac-ft 370,200

Peak discharge (base, 1,600 cfs).--No peak above base.
* Discharge measurement made on this day.

3473. Dog Creek near Verdi, Nev.

Location.--Lat 39°33'55", long 120°01'25", in SW¼SW¼ sec.30, T.20 N., R.18 E., on left bank 3½ miles upstream from mouth and 4 miles northwest of Verdi.

Drainage area.--16.2 sq mi.

Records available.--October 1956 to September 1959.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 5,660 ft (from topographic map).

Extremes.--Maximum discharge during year, 35 cfs Mar. 12 (gage height, 0.92 ft); minimum, 0.1 cfs Aug. 7-18.
1956-59: Maximum discharge, 550 cfs Feb, 1958 (gage height, 2.75 ft), from rating curve extended above 250 cfs; minimum, that of Aug. 7-18, 1959.
Maximum discharge known, 880 cfs Dec. 23, 1955, from slope-area measurement of peak flow.

Remarks.--Records good.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.1	0.1	0.5	5.4
.2	.3	.6	11
.3	.8	.7	17
.4	2.0		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	.3	0.5	0.6	0.8	3.8	5.4	0.9	0.9	0.2	0.2	0.2
2	.3	.3	.5	.5	.7	5.9	*6.4	1.1	.7	.2	.2	.2
3	.3	.3	.5	.3	.7	7.4	6.4	1.2	.7	.2	.2	.2
4	.3	.3	.4	.3	1.0	5.9	6.4	1.1	.6	.2	.2	.2
5	.3	.3	.4	.4	1.1	7.4	6.4	1.1	.6	.2	.2	.2
6	.3	.3	.4	.5	1.2	9.8	5.9	1.0	.6	.2	.2	.2
7	.3	.3	.4	.5	.9	9.8	4.6	.9	.6	.2	.1	.2
8	.3	.3	.4	.6	.7	11	4.2	.9	.5	.2	.1	.2
9	.3	.3	.5	8.6	.6	13	3.5	.9	.5	.2	.1	.2
10	.3	.3	.5	12	.6	*9.8	3.2	.8	.5	.2	.1	.2
11	.3	.3	.5	4.2	.6	9.2	2.6	.7	.4	.2	.1	.2
12	.3	.3	.5	8.0	.7	15	2.3	.7	.4	.2	.1	.2
13	.3	.3	.5	2.0	.8	16	2.3	.9	.3	.2	.1	.2
14	.3	.6	.4	1.1	.9	12	1.8	.9	.3	.2	.1	.2
15	.3	.5	*.5	1.0	.9	9.2	1.6	.8	.3	.2	.1	.2
16	.3	.5	.5	.9	4.4	*9.2	1.6	.8	.3	.2	.1	.2
17	.3	.4	.5	.9	6.9	10	1.6	.7	.3	.2	.1	.2
18	.3	.6	.5	.8	5.9	9.2	1.4	.7	.3	.2	.1	.2
19	.3	.7	.5	.7	4.6	7.4	1.4	.7	.3	.2	.2	.2
20	.3	.6	.5	.6	3.8	6.4	1.3	.7	.2	.2	*.2	.2
21	.3	.5	.5	*.7	3.2	6.9	1.2	.9	.2	.2	.2	*.2
22	.3	.5	.6	.9	2.6	6.4	*1.2	4.6	.2	*.2	.2	.2
23	.3	.5	.6	.8	2.0	6.9	1.2	7.4	.2	.2	.2	.2
24	.3	.5	.5	1.2	1.8	5.9	1.1	2.9	*.2	.2	.2	.2
25	.3	.5	.7	1.8	1.8	5.0	1.2	1.8	.2	.2	.2	.2
26	.3	.5	.7	1.4	1.8	5.9	2.3	1.6	.2	.2	.2	.2
27	.3	.5	.9	1.8	2.0	5.0	1.3	1.6	.2	.2	.2	.2
28	.3	.4	.6	1.1	2.6	5.0	1.1	*1.2	.2	.2	.2	.2
29	.3	.4	.5	.9	-	4.6	1.0	1.1	.2	.2	.2	.2
30	.3	.5	.6	.9	------	5.0	.9	1.0	.2	.2	.2	.2
31	.3	------	.6	.8	------	4.6	------	.9	------	.2	.2	------
Total	9.3	12.6	16.2	56.8	55.6	248.6	82.8	42.5	11.3	6.2	5.0	6.0
Mean	0.30	0.42	0.52	1.83	1.99	8.02	2.76	1.37	0.38	0.20	0.16	0.20
Ac-ft	18	25	32	113	110	493	164	84	22	12	9.9	12

Calendar year 1958: Max 190 Min 0.2 Mean 11.6 Ac-ft 8,370
Water year 1958-59: Max 16 Min 0.1 Mean 1.51 Ac-ft 1,090

Peak discharge (base, 40 cfs).--No peak above base.

* Discharge measurement made on this day.

3480. Truckee River at Reno, Nev.

Location (revised).--Lat 39°31'55", long 119°47'05", in NW¼ sec.7, T.19 N., R.20 E., on left bank 400 ft downstream from Kietzke Lane bridge, half a mile east of Reno, and 5 miles upstream from Steamboat Creek.

Drainage area.--1,070 sq mi, approximately.

Records available.--July 1906 to September 1919, January 1947 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 4,431.97 ft above mean sea level (levels by Corps of Engineers). July 1906 to September 1919, staff gage at site 1 mile upstream at different datum.

Average discharge.--25 years, 806 cfs (583,500 acre-ft per year).

Extremes.--Maximum discharge during year, 1,050 cfs Feb. 17 (gage height, 3.89 ft); minimum, 90 cfs June 8.
1906-19, 1947-59: Maximum discharge, 20,800 cfs Dec. 23, 1955, from rating curve extended above 14,000 cfs; maximum gage height, 13.83 ft Nov. 21, 1950; mirimum discharge observed, 18 cfs July 2, 3, 1912.

Remarks.--Records good. Flow regulated by Lake Tahoe (see p. 199), Boca Reservoir (see p. 210), Donner and Independence Lakes, and by several powerplants. Many diversions above station.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

1.8	100
2.0	139
2.5	320
3.0	550
3.6	905

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	296	348	465	428	432	485	428	284	186	173	144	176
2	288	348	465	410	428	565	446	272	150	158	147	180
3	280	378	465	400	414	628	414	208	135	163	147	183
4	292	396	465	405	428	550	441	208	112	166	144	180
5	300	436	460	423	414	565	418	276	137	161	144	169
6	304	432	460	450	410	590	423	191	180	158	147	169
7	292	432	460	428	392	560	364	132	155	158	147	169
8	296	428	470	441	382	540	268	163	110	158	147	169
9	292	446	465	565	387	555	183	212	166	176	176	176
10	300	446	460	879	446	565	240	142	150	183	155	169
11	280	460	460	644	450	540	186	180	130	193	158	220
12	280	460	470	622	475	550	212	*240	147	183	155	176
13	280	465	460	691	441	*595	173	396	137	147	166	180
14	312	510	460	446	520	595	224	475	132	169	*173	186
15	320	500	465	441	500	545	*260	340	108	161	166	*193
16	332	446	480	432	646	530	208	183	128	*142	163	204
17	332	418	480	410	*782	550	155	150	110	152	163	224
18	336	450	465	387	525	570	139	144	*117	137	158	292
19	382	475	450	*378	423	545	163	115	130	152	180	387
20	414	470	450	392	441	485	176	158	147	166	204	316
21	418	441	450	432	475	505	155	152	152	176	197	284
22	348	465	460	450	446	505	139	304	150	144	186	272
23	360	460	450	396	423	495	135	410	158	173	190	264
24	387	460	441	396	414	480	144	300	173	186	200	252
25	405	460	455	450	455	480	186	312	161	150	208	244
26	387	460	455	428	465	460	224	276	166	183	190	244
27	*356	455	485	392	460	475	200	224	166	152	183	236
28	356	*446	465	387	465	446	155	200	161	150	183	236
29	360	460	*441	387	-	450	142	180	150	144	180	260
30	360	460	450	428	-------	480	174	163	158	150	180	268
31	348	-------	455	418	-------	485	-------	180	-------	147	169	-------
Total	10,293	13,311	14,282	14,236	12,939	16,369	7,175	7,170	4,362	5,011	5,250	6,678
Mean	332	444	461	459	462	528	239	231	145	162	169	223
Ac-ft	20,420	26,400	28,330	28,240	25,660	32,470	14,230	14,220	8,650	9,940	10,410	13,250

Calendar year 1958: Max 5,750 Min 151 Mean 1,092 Ac-ft 790,400
Water year 1958-59: Max 879 Min 108 Mean 321 Ac-ft 232,200

Peak discharge (base, 1,600 cfs).--No peak above base.

* Discharge measurement made on this day.

3500. Truckee River at Vista, Nev.

Location.--Lat 39°31'10", long 119°41'10", in NE¼NW¼ sec.13, T.19 N., R.20 E., on left bank 150 ft upstream from Southern Pacific railroad bridge, three-quarters of a mile southeast of Vista, 1 mile downstream from Steamboat Creek, and 3½ miles southeast of Sparks.

Drainage area.--1,439 sq mi (revised).

Records available.--August 1899 to December 1907, October 1958 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 4,374.22 ft above mean sea level, datum of 1929, supplementary adjustment of 1956. May to December 1907 reference point on railroad bridge. Prior to Apr. 16, 1907, staff gages at several sites within 300 ft of present site at various datums.

Average discharge.--9 years, 1,100 cfs (796,400 acre-ft per year).

Extremes.--Maximum discharge during year, 1,810 cfs Feb. 17 (gage height, 5.34 ft); minimum, 204 cfs June 18, July 28.
1899-1908, 1958-59: Maximum daily discharge, 17,000 cfs Mar. 18, 1907; minimum daily, 38 cfs July 20-22, 1900.

Remarks.--Records excellent except those based on staff gage readings, which are fair. Flow regulated by Lake Tahoe (see p. 199), Boca Reservoir (see p. 210), and other lakes. Several powerplants and many diversions above station.

Revisions (water years).--Revised figures of discharge, in cubic feet per second, for the water year 1904, superseding those published in WSP 133, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1904		1904-Con.		1904-Con.		1904-Con.		1904-Con.	
Jan. 1	507	Jan. 7	507	Jan. 13	466	Jan. 19	427	Jan. 25	427
2	507	8	550	14	466	20	466	26	427
3	507	9	550	15	466	21	427	27	427
4	550	10	507	16	466	22	427	28	427
5	550	11	427	17	390	23	427	29	427
6	507	12	427	18	427	24	427	30	427
								31	390

Month	Maximum	Minimum	Mean	Runoff in acre-feet
January 1904.....	550	390	461	28,340
Water year 1903-04.....	8,940	330	1,894	1,375,000
Calendar year 1904.....	8,940	390	1,971	1,431,000

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	462	517	566	544	544	584	526	436	354	280	230	g261
2	448	517	569	517	544	649	526	474	285	254	226	g255
3	453	526	569	500	529	705	508	410	252	304	233	g264
4	462	535	569	497	535	636	520	376	230	280	235	g264
5	465	559	566	529	535	646	503	401	226	270	244	g267
6	*468	553	566	597	526	656	520	348	277	267	252	g261
7	459	550	559	556	514	630	471	272	275	250	247	g270
8	468	544	569	556	494	607	398	290	262	260	252	g258
9	471	556	562	649	497	613	328	345	270	275	267	g264
10	476	559	559	958	556	616	340	309	277	283	262	g282
11	462	575	559	800	535	591	315	315	240	280	247	g341
12	462	*575	569	684	550	597	317	*373	244	296	254	g292
13	465	578	562	852	529	*636	*298	509	260	277	260	g298
14	485	607	562	562	591	643	320	616	247	290	*260	g304
15	488	620	*562	553	613	603	376	503	242	296	262	*g301
16	503	575	572	544	961	594	348	373	*219	*290	262	g327
17	503	541	572	526	*1,560	597	288	323	219	260	264	g366
18	500	559	562	511	932	623	267	312	219	240	g261	*g428
19	529	597	544	*497	653	610	270	283	221	242	g255	g490
20	562	616	550	511	603	550	288	296	230	270	g273	g408
21	566	575	550	541	610	572	264	304	247	277	g292	g363
22	529	584	572	559	575	587	260	604	247	244	g292	g359
23	535	581	562	517	544	581	250	842	254	250	g276	g356
24	562	578	550	514	526	556	267	692	250	296	g298	g352
25	575	575	556	575	556	559	301	569	247	252	g324	*g378
26	572	572	556	569	562	550	376	514	257	275	g298	g348
27	547	566	594	529	559	556	379	465	260	242	g295	g334
28	529	562	575	517	586	535	320	410	262	221	g289	g352
29	538	566	556	520	-	538	309	384	260	235	g295	g378
30	544	562	556	547	-------	566	301	382	264	233	g286	g393
31	523	-------	566	544	-------	566	-------	354	-------	235	g267	-------
Total	15,611	16,980	17,461	17,875	17,299	18,552	10,754	13,084	7,597	8,224	8,258	9,814
Mean	504	566	563	577	618	598	358	422	253	265	266	327
Ac-ft	30,960	33,680	34,630	35,450	34,310	36,800	21,330	25,950	15,070	16,310	16,380	19,470

Calendar year 1958: Max - Min - Mean - Ac-ft -
Water year 1958-59: Max 1,560 Min 219 Mean 442 Ac-ft 320,300

Peak discharge (base, 1,800 cfs).--Feb. 17 (3 a.m.) 1,810 cfs (5.34 ft).

* Discharge measurement made on this day.
g Computed from mean daily gage heights estimated from once-daily temporary staff-gage readings.

3516. Truckee River below Derby Dam, near Wadsworth, Nev.

Location.--Lat 39°35'05", long 119°26'25", in NW¼SE¼ sec.19, T.20 N., R.23 E., on right bank 1,500 ft downstream from Derby Dam, 3¼ miles downstream from Clark, and 9 miles southwest of Wadsworth.

Drainage area.--1,680 sq mi.

Records available.--October 1958 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,200 ft (from topographic map).

Extremes.--Maximum discharge during year, 1,430 cfs Feb. 17 (gage height, 5.47 ft); minimum daily, 1.4 cfs Apr. 11.

Remarks.--Records good except those for period of no gage-height record, which are fair. Flow regulated by Lake Tahoe, (see p. 199), Boca Reservoir, (see p. 210), other lakes, powerplants, many diversions for irrigation, and by Derby Dam. Truckee Canal diverts water at Derby Dam to Lahontan Reservoir.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

0.8	1.0	2.0	77
.9	2.0	2.5	160
1.0	3.9	3.0	275
1.1	7.0	3.5	425
1.4	20	4.1	675
1.7	44		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.8	14	9.4	5.5	3.3	6.2	3.5	29	18	23	24	25
2	9.0	14	9.4	5.5	3.5	7.0	3.1	55	18	23	23	24
3	12	14	9.4	5.2	3.3	8.2	2.9	15	18	23	23	24
4	16	15	9.4	5.5	3.1	8.6	2.7	15	18	21	23	24
5	15	15		3.3	*3.1	6.6	2.9	16	17	24	24	25
6	15	16		6.6	3.1	6.2	3.3	16	18	29	24	32
7	14	*16		9.0	2.9	6.2	5.2	16	18	28	25	31
8	14	15	a9	9.0	2.7	5.5	3.9	16	18	29	24	25
9	14	14		9.4	2.3	5.2	2.7	18	18	29	25	24
10	15	14		220	2.5	4.9	1.6	30	20	28	26	25
11	15	14		225	2.7	4.9	1.4	17	19	29	24	34
12	15	13		54	2.5	4.6	1.6	20	18	27	24	24
13	15	12		74	2.5	5.2	*2.5	33	18	26	24	15
14	15	12		*12	2.1	6.2	2.3	20	18	24	27	15
15	15	39		8.2	2.9	7.4	5.2	14	18	27	25	15
16	15	71	a7	7.4	17	6.6	5.8	16	18	24	24	16
17	14	69		7.0	662	6.2	4.1	16	18	23	25	21
18	14	69		6.2	*285	6.2	2.7	16	20	24	25	14
19	14	69		5.2	24	6.6	2.1	16	21	24	24	24
20	14	70		4.3	11	6.2	2.0	16	27	26	33	12
21	15	70		4.6	9.4	5.2	2.3	*22	26	*24	33	*9.8
22	15	69		4.6	7.8	5.2	2.3	34	23	21	27	8.6
23	14	69		4.6	6.6	4.9	13	51	*24	20	26	7.4
24	15	69		3.9	5.8	4.6	*20	33	20	24	*27	7.0
25	15	60	a6	4.1	5.5	4.6	18	35	20	22	26	6.6
26	15	*48		4.6	5.8	4.3	24	14	20	21	24	6.2
27	15	32		3.7	5.8	4.3	19	16	21	24	23	5.8
28	15	18		3.3	5.8	4.3	18	18	21	24	22	6.2
29	14	18	*5.5	3.3		4.1	18	18	21	24	22	6.6
30	15	16	5.5	3.3	-------	3.9	17	18	21	24	26	7.0
31	15	-------	5.5	3.5	-------	4.1	-------	18	-------	24	25	-------
Total	442.8	1,054	228.1	725.8	1,094.0	174.2	213.1	687	593	763	777	520.2
Mean	14.3	35.1	7.36	23.4	39.1	5.62	7.10	22.2	19.8	24.6	25.1	17.3
Ac-ft	878	2,090	452	1,440	2,170	346	423	1,360	1,180	1,510	1,540	1,030

Calendar year 1958: Max - Min - Mean - Ac-ft -
Water year 1958-59: Max 662 Min 1.4 Mean 19.9 Ac-ft 14,420

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for upstream stations.

3517. Truckee River near Nixon, Nev.

Location.--Lat 39°46'40", long 119°20'10", in SW¼NW¼ sec.18, T.22 N., R.24 E., on right bank 1 mile upstream from Pyramid Indian Reservation diversion dam, 4 miles south of Nixon, and 13 miles upstream from mouth.

Drainage area.--1,880 sq mi, approximately.

Records available.--October 1957 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 3,940 ft (from topographic map).

Extremes.--Maximum discharge during year, 726 cfs Feb. 17 (gage height, 4.81 ft); minimum, 13 cfs July 2.
1957-59: Maximum discharge, 5,160 cfs May 21, 1958 (gage height, 8.77 ft); minimum, that of July 2, 1959.
Flood of Dec. 24, 1955, reached a stage of 14.1 ft, from floodmarks (discharge, 14,000 cfs by flow-over-dam measurement of peak flow).

Remarks.--Records good. Flow regulated by Lake Tahoe (see p. 199), Boca Reservoir (see p. 210), Donner Lake, and Independence Lake. Truckee-Carson Canal often diverts practically all flow about 25 miles upstream out of basin to Lahontan Reservoir. Several diversions for irrigation between station and Truckee-Carson Canal. One irrigation canal diverts between station and mouth of river.

Rating table, water year 1958-59 (gage height, in feet and discharge, in cubic feet per second)

2.3	14	3.5	189
2.5	27	4.0	348
2.7	45	4.4	520
3.0	85		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	40	47	33	33	33	29	18	21	15	19	26
2	29	40	42	32	33	33	31	18	26	15	20	29
3	25	41	39	32	32	32	30	37	23	15	21	27
4	23	40	39	30	31	32	29	33	23	15	24	26
5	22	40	38	31	*31	*32	29	26	21	16	25	25
6	23	41	37	31	30	32	26	25	20	14	24	24
7	24	41	38	31	29	31	26	24	19	18	24	23
8	24	42	38	34	29	31	24	24	19	19	24	24
9	24	42	37	34	29	31	26	23	19	21	25	26
10	25	43	37	48	29	30	26	23	20	21	24	26
11	24	43	38	264	29	29	23	29	17	22	24	37
12	26	42	35	164	29	29	22	24	17	24	21	35
13	31	41	34	95	28	28	20	21	15	25	20	40
14	30	39	34	*96	27	28	19	24	15	26	20	33
15	30	42	*34	56	27	28	18	23	15	29	24	30
16	*28	57	35	46	29	29	18	26	16	32	23	30
17	26	*85	35	43	214	30	17	25	19	31	21	32
18	29	87	34	41	488	30	17	22	19	24	25	36
19	29	88	33	40	165	29	19	21	20	22	26	38
20	29	90	33	39	70	29	17	22	22	21	26	40
21	29	91	33	37	51	30	16	*21	21	*18	29	*37
22	33	91	33	37	44	30	16	19	25	18	32	35
23	36	91	33	36	40	29	16	28	*23	23	33	33
24	35	91	33	36	37	*29	*15	43	19	21	*31	32
25	36	91	32	35	35	29	14	42	19	20	33	30
26	36	85	32	34	34	29	15	35	15	20	30	26
27	35	76	31	34	33	29	16	30	16	19	29	25
28	35	65	32	33	33	29	19	26	16	18	29	24
29	39	52	32	33	-	29	19	26	14	20	29	24
30	38	49	32	33	-------	29	18	29	16	24	29	25
31	38	-------	32	33	-------	29	-------	26	-------	20	28	-------
Total	920	1,806	1,092	1,601	1,719	927	630	814	570	646	792	898
Mean	29.7	60.2	35.2	51.6	61.4	29.9	21.0	26.3	19.0	20.8	25.5	29.9
Ac-ft	1,820	3,580	2,170	3,180	3,410	1,840	1,250	1,610	1,130	1,280	1,570	1,780

Calendar year 1958: Max 5,100 Min 21 Mean 719 Ac-ft 520,700
Water year 1958-59: Max 488 Min 14 Mean 34.0 Ac-ft 24,460

* Discharge measurement made on this day.

3525. McDermitt Creek near McDermitt, Nev.

Location.--Lat 41°58', long 117°50', in SE¼SE¼ sec.8, T.47 N., R.37 E., on left bank 6½ miles southwest of McDermitt.

Drainage area.--225 sq mi.

Records available.--October 1948 to September 1959.

Gage.--Water-stage recorder and concrete control.

Average discharge.--11 years, 32.2 cfs (23,310 acre-ft per year).

Extremes.--Maximum discharge during year, 52 cfs May 26 (gage height, 2.36 ft); no flow for several days in August and September.
1948-59: Maximum discharge, 2,100 cfs Jan. 15, 1956 (gage height, 8.60 ft, from floodmark), from rating curve extended above 460 cfs on basis of slope-area measurements at gage heights 7.74 and 8.60 ft; no flow for part of Aug. 12, 1954, Sept. 8-15, 1955 (result of temporary dams upstream), and several days in August and September 1959.

Remarks.--Records good except those for periods of ice effect, which are fair.

Revisions (water years).--WSP 1214: 1949-50(P).

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.1	0	1.7	4.5
1.2	.1	1.8	7.7
1.3	.2	1.9	14
1.4	.5	2.1	30
1.5	1.3	2.3	52
1.6	2.6	3.0	198

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.3	7.3	7.8	8.6	9.2	11	15	14	18	2.8	1.8	0
2	4.3	7.3	9.0	4.8	7.6	12	23	18	17	2.3	1.5	0
3	4.3	7.7	9.2	b4.5	8.3	12	28	18	15	*2.0	1.0	0
4	4.1	7.7	9.7	4.3	12	10	30	15	15	2.5	.6	0
5	4.1	7.7	8.1	4.5	8.6	9.2	34	15	*15	3.0	.4	0
6	4.1	7.7	9.2	b5.0	8.2	9.7	33	16	15	3.0	.3	0
7	4.1	7.7	8.6	b6.0	11	10	26	15	19	2.6	.2	0
8	4.3	7.7	9.7	*b7.5	9.2	10	18	13	18	2.8	.2	0
9	4.5	7.7	9.7	b8.5	5.4	10	17	12	15	2.8	.2	0
10	4.5	7.7	*9.2	b9.0	6.9	*9.7	15	12	14	2.6	.2	0
11	4.5	7.3	9.2	b9.0	11	8.6	13	12	12	2.6	.1	0
12	4.5	6.5	9.2	b9.0	b11	10	14	12	10	2.5	*.1	0
13	4.5	8.2	7.4	b8.5	b10	12	14	*12	8.6	2.6	.1	0
14	4.5	9.7	4.0	7.9	b7.5	11	14	14	7.3	3.5	0	0
15	4.5	7.2	6.4	9.2	9.7	9.7	13	20	6.9	4.7	0	0
16	*4.7	5.7	9.2	8.6	12	10	*13	21	7.3	4.3	0	.1
17	5.0	5.2	8.6	8.6	*13	12	13	23	6.9	3.9	0	*.3
18	5.2	7.7	8.2	8.6	10	10	13	25	5.8	3.7	0	.5
19	5.2	9.7	8.6	8.2	10	9.7	12	21	5.0	3.5	0	.9
20	5.5	9.2	8.6	3.6	9.7	9.2	11	18	4.3	3.3	0	1.6
21	5.5	9.2	9.7	5.2	9.7	9.7	9.7	18	4.3	3.1	.1	2.0
22	5.5	9.2	9.2	8.2	9.7	10	7.7	21	3.9	2.8	.2	2.0
23	5.8	8.6	6.4	10	9.2	11	6.9	18	3.3	2.6	.2	2.0
24	5.8	9.2	6.7	11	8.6	12	6.2	23	3.0	2.8	.1	2.0
25	5.8	8.2	9.2	10	8.6	10	5.8	20	3.3	2.8	.1	2.0
26	6.2	7.5	6.9	9.2	9.7	8.2	6.5	30	4.7	2.6	.1	2.3
27	6.2	5.9	7.7	9.7	9.7	6.2	8.2	36	5.5	2.5	0	2.0
28	5.8	4.5	8.2	10	9.7	7.3	9.2	26	5.0	2.3	0	2.0
29	5.8	5.5	7.0	7.3	-	9.2	8.6	23	4.5	2.0	0	2.0
30	*6.2	6.2	10	9.2	-------	13	9.7	21	3.7	2.0	0	2.2
31	6.9	-------	8.2	9.2	-------	15	-------	19	-------	2.0	0	-------
Total	156.2	226.6	258.8	242.9	265.2	317.4	447.5	581	276.3	88.5	7.5	23.9
Mean	5.04	7.55	8.35	7.84	9.47	10.2	14.9	18.7	9.21	2.85	0.24	0.80
Ac-ft	310	449	513	482	526	630	888	1,150	548	176	14.9	47.4

Calendar year 1958: Max 882 Min 0.5 Mean 53.9 Ac-ft 39,060
Water year 1958-59: Max 36 Min 0 Mean 7.92 Ac-ft 5,730

Peak discharge (base, 150 cfs).--No peak above base.

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

3530. East Fork Quinn River near McDermitt, Nev.

Location.--Lat 41°59', long 117°35', in sec.9, T.47 N., R.39 E., on right bank 1 mile downstream from South Fork and 7 miles east of McDermitt.

Drainage area.--140 sq mi, approximately.

Records available.--October 1948 to September 1959.

Gage.--Water-stage recorder.

Average discharge.--11 years, 27.6 cfs (19,980 acre-ft per year).

Extremes.--Maximum discharge during year, 53 cfs May 27 (gage height, 3.84 ft); minimum, 0.7 cfs Aug. 19.
1948-59: Maximum discharge, 1,270 cfs Jan. 15, 1956 (gage height, 3.52 ft); minimum, 0.1 cfs Sept. 6, 7, 1955.

Remarks.--Records good except those for periods of indefinite stage-discharge relation, which are fair. No diversion above station.

Rating table, water year 1958-59, except periods of indefinite stage-discharge relation (gage height, in feet, and discharge, in cubic feet per second)

2.9	0.2	3.4	14
3.0	1.0	3.6	27
3.1	2.6	3.8	43
3.2	5.3		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.4	4.1	5.3	5.8	7.0	7.4	24	15	21	3.8	1.2	1.2
2	3.4	4.1	5.6	4.2	4.8	7.8	28	15	20	3.5	1.3	1.2
3	3.4	4.5	5.6	3.8	5.3	7.8	32	15	18	*3.3	1.2	1.2
4	3.4	4.5	5.6	3.6	7.0	7.0	32	14	17	3.3	1.2	1.2
5	3.4	4.5	5.3	4.3	6.3	7.8	31	14	*15	3.0	1.3	1.2
6	3.4	4.5	5.7	4.8	7.0	7.8	28	14	15	2.6	1.2	1.2
7	3.4	4.6	6.0	5.0	7.0	8.1	24	13	15	2.6	1.0	1.3
8	3.7	4.6	6.0	*6.3	4.6	7.7	21	13	14	2.4	1.0	1.2
9	3.5	4.6	6.0	6.6	4.7	7.3	20	13	13	2.2	1.0	1.2
10	3.5	5.2	*5.4	7.3	5.9	*7.7	18	12	13	2.1	1.0	1.2
11	3.5	4.6	5.5	7.3	5.9	7.2	18	11	12	1.7	1.0	1.2
12	3.3	4.2	5.5	7.6	4.7	7.6	17	11	11	1.7	*1.2	1.4
13	3.5	5.0	4.6	8.4	5.0	8.0	17	*9.8	10	1.7	1.3	1.4
14	3.5	6.3	4.2	7.6	5.9	7.6	17	9.8	9.3	1.9	1.3	2.6
15	3.5	5.0	4.2	7.6	6.9	7.6	17	11	8.8	1.7	1.0	2.4
16	*3.8	4.3	4.9	7.5	7.2	8.4	*16	11	8.0	1.6	1.0	1.9
17	3.8	4.3	4.9	7.2	*7.2	8.4	16	12	7.6	1.4	.9	*1.7
18	4.2	4.7	5.0	6.8	7.2	8.4	16	13	6.8	1.4	1.0	1.9
19	4.4	5.4	5.4	6.2	7.2	8.4	15	13	6.4	1.4	1 3	1.9
20	4.7	5.4	5.0	5.5	7.2	8.4	14	13	5.7	1.4	1.7	1.9
21	4.5	5.7	5.5	5.3	7.5	8.8	14	13	5.0	1.3	1.4	1.9
22	4.3	5.7	5.1	7.2	7.1	9.3	13	13	5.0	1.3	1.3	1.9
23	4.3	5.7	4.4	7.2	7.1	9.3	14	13	4.4	1.3	1.2	1.9
24	4.4	5.7	4.6	7.4	7.1	9.8	14	13	4.4	1.4	1.3	1.9
25	4.1	5.8	5.2	7.8	6.7	9.8	14	13	5.0	1.3	1.3	2.1
26	4.1	5.5	5.0	7.8	7.1	11	15	20	6.0	1.3	1.3	2.4
27	4.2	4.5	6.2	7.4	7.1	11	15	39	6.0	1.3	1.2	2.6
28	4.2	4.0	5.7	7.4	7.1	11	15	37	5.7	1.3	1.2	2.4
29	4.2	4.5	5.1	6.1	-	11	14	32	5.3	1.3	1.0	2.4
30	*4.0	4.5	6.0	7.1	-------	12	14	28	5.0	1.3	1.0	2.8
31	3.8	-------	5.7	7.1	-------	14	-------	25	-------	1.3	1.0	-------
Total	118.8	146.0	164.2	201.2	180.8	273.4	563	498.6	298.4	59.1	36.3	52.7
Mean	3.83	4.87	5.30	6.49	6.46	8.82	18.8	16.1	9.95	1.91	1.17	1.76
Ac-ft	236	290	326	399	359	542	1,120	989	592	117	72	105

Calendar year 1958: Max 520 Min 2.6 Mean 42.7 Ac-ft 30,900
Water year 1958-59: Max 39 Min 0.9 Mean 7.10 Ac-ft 5,150

Peak discharge (base, 100 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--Stage-discharge relation indefinite Oct. 1-29, Nov. 1 to Feb. 16, Feb. 20 to Mar. 10; discharge estimated on basis of 4 discharge measurements, gage-height records, trend of flow, and records for McDermitt Creek.

3535. Quinn River near McDermitt, Nev.

Location.--Lat 41°47', long 117°48', in SW¼ sec.15, T.45 N., R.37 E., on left bank 1½ miles upstream from Flat Creek and 15½ miles south of McDermitt.

Drainage area.--1,100 sq mi, approximately.

Records available.--October 1948 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,240 ft (from river-profile map).

Average discharge.--11 years, 37.8 cfs (27,370 acre-ft per year).

Extremes.--Maximum discharge during year, 5.0 cfs Feb. 19 (gage height, 0.59 ft); minimum, 0.4 cfs July 26.
1948-59: Maximum discharge, 1,580 cfs Apr. 27, 1952 (gage height, 8.39 ft); minimum, 0.2 cfs Dec. 22, 1948, Sept. 6, 7, 8, 1955.

Remarks.--Records good. Several diversions above station for irrigation.

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 10-12, Aug. 16 to Sept. 17)

0.2	0.2
.3	.8
.4	1.8
.5	3.4
.6	5.4

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.3	0.9	1.0	1.8	2.7	2.7	2.2	1.8	1.3	0.6	0.6	1.1
2	1.3	.9	1.0	1.8	2.4	2.7	2.1	1.8	1.2	.6	.6	1.1
3	1.3	.9	1.0	1.7	2.5	2.7	2.0	2.0	1.2	.6	.7	1.0
4	1.3	.9	1.0	1.6	2.7	2.5	2.0	1.8	1.2	*.7	.8	1.0
5	1.3	.9	1.0	1.6	2.8	2.5	1.8	1.8	*1.0	.7	.8	1.0
6	1.3	1.0	1.0	1.8	2.8	2.5	1.7	1.8	1.0	.6	.8	1.0
7	1.3	1.0	1.0	1.7	2.8	2.5	1.6	1.7	1.1	.7	.8	.9
8	1.3	1.0	1.0	*1.7	2.7	2.5	1.6	1.5	1.0	.7	.8	.9
9	1.3	1.0	1.0	2.0	2.7	2.4	1.7	1.5	1.0	.6	.8	.9
10	1.3	1.1	*1.0	2.1	2.8	*2.2	1.8	1.5	1.0	.6	.8	.9
11	1.2	1.1	1.1	2.1	3.2	2.2	1.8	1.5	1.0	.6	.8	.9
12	1.2	1.0	1.2	2.1	2.7	2.2	1.7	1.4	.9	.6	*.7	.9
13	1.2	*1.0	1.3	2.1	2.7	2.4	1.7	*1.2	.9	.7	.9	.9
14	1.2	1.0	1.3	2.0	2.5	2.2	1.7	1.1	.9	.7	.9	1.1
15	1.2	1.0	1.3	2.0	2.1	2.1	1.6	1.3	.9	.6	.9	1.0
16	*1.2	1.0	1.4	2.0	2.5	2.1	*1.6	1.3	.9	.6	.9	1.0
17	1.2	1.0	1.5	2.0	*3.5	2.1	1.8	1.5	.8	.6	.8	*.8
18	1.2	.9	1.6	2.0	4.3	2.2	2.0	1.6	.7	.6	.9	.9
19	1.3	.9	1.6	2.1	4.7	2.4	1.8	1.6	.7	.6	1.0	.8
20	1.3	.9	1.6	2.0	4.3	2.2	1.8	1.5	.7	.6	1.0	.8
21	1.3	.9	1.7	1.8	4.1	2.2	1.8	1.4	.7	.6	1.0	.8
22	1.2	.9	1.7	1.8	3.9	2.4	1.7	1.4	.6	.6	1.0	.8
23	1.2	.9	1.6	2.0	3.7	2.4	1.7	1.5	.6	.6	1.0	.8
24	1.1	.9	1.5	2.1	3.5	2.4	1.7	1.6	.6	.6	1.0	.7
25	.9	.9	1.6	2.5	3.2	2.2	1.8	1.5	.8	.6	1.0	.6
26	.9	1.0	1.6	2.5	3.2	2.4	1.8	2.0	.8	.6	1.0	.7
27	.9	1.0	1.7	2.5	3.2	2.2	2.0	2.0	.7	.6	1.0	.8
28	.9	1.0	1.7	2.8	2.8	2.1	1.8	1.7	.6	.6	1.1	.8
29	.9	1.0	1.6	2.7	-	2.1	1.8	1.4	.6	.6	1.1	.8
30	.9	1.0	1.6	2.7	-------	2.8	1.8	1.3	.7	.6	1.1	.9
31	.9	-------	1.7	2.7	-------	2.7	-------	1.3	-------	.6	1.1	-------
Total	36.3	28.9	41.9	64.3	87.0	73.2	53.9	48.3	26.1	19.2	27.7	26.6
Mean	1.17	0.96	1.35	2.07	3.11	2.36	1.80	1.56	0.87	0.62	0.89	0.89
Ac-ft	72	57	83	128	173	145	107	96	52	38	55	53

Calendar year 1958: Max 873 Min 0.9 Mean 85.9 Ac-ft 62,200
Water year 1958-59: Max 4.7 Min 0.6 Mean 1.46 Ac-ft 1,060

* Discharge measurement made on this day.

3565. Susan River at Susanville, Calif.

Location.--Lat 40°25', long 120°40', in NE¼ sec.31, T.30 N., R.12 E., on left bank 0.5 mile west of Susanville and 1.1 miles upstream from Piute Creek.

Drainage area.--192 sq mi.

Records available.--June 1900 to December 1905 (gage heights only August 1901 to January 1903), March to May 1913 (gage heights only), February 1917 to June 1921, October 1950 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 4,225.72 ft above mean sea level, datum of 1929. Prior to Oct. 1, 1950, staff gages at several sites in vicinity of old powerplant about 0.9 mile upstream at various datums.

Average discharge.--15 years (1900-1901, 1903-5, 1917-20, 1950-59), 102 cfs (73,840 acre-ft per year).

Extremes.--Maximum discharge during year, 708 cfs Jan. 12 (gage height, 4.21 ft); minimum, 2.4 cfs Aug. 3.
1900-1905, 1913, 1917-21, 1950-59: Maximum discharge, 3,540 cfs Dec. 23, 1955 (gage height, 6.62 ft), from rating curve extended above 840 cfs on basis of slope-area measurement of peak flow; minimum, 0.8 cfs Aug. 10, 1918 (site and datum then in use).

Remarks.--Records good except those for periods of ice effect, which are fair. Flow regulated by McCoy Flat and Hot Flat Reservoirs (combined capacity, 25,300 acre-ft). Diversions for irrigation of about 1,400 acres above station. Records of chemical analyses and water temperatures for the water year 1959 are given in WSP 1644.

Revisions (water years).--WSP 1444: 1951, 1953-54(P). WSP 1564: 1900-1901, 1903-4.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.4	2.4	2.0	57
.6	4.8	2.4	97
.9	9.7	3.0	202
1.2	18	3.5	320
1.6	34	4.0	560

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.2	11	b13	16	29	106	118	108	27	95	3.4	3.3
2	7.3	12	14	b12	23	120	136	82	23	89	2.8	3.6
3	8.4	12	13	b10	27	114	149	75	*24	80	2.6	3.9
4	*8.4	12	14	b12	26	96	163	70	22	63	*2.7	3.4
5	7.8	11	*14	15	24	90	165	66	21	27	2.6	3.4
6	8.4	11	14	16	23	93	154	65	19	15	2.6	3.4
7	8.8	*11	14	16	24	90	133	62	17	11	2.7	3.6
8	7.9	11	14	16	20	85	117	61	17	9.7	3.1	3.9
9	8.6	12	15	95	26	*85	108	156	17	8.6	3.1	4.3
10	9.1	26	14	96	21	80	102	163	18	7.6	3.1	4.4
11	9.7	18	14	111	22	72	102	167	16	6.2	3.1	4.3
12	8.7	15	14	350	b25	76	102	167	15	5.1	3.1	4.4
13	8.8	15	13	141	b25	97	98	165	17	4.4	3.1	4.5
14	8.1	40	13	70	b25	91	95	167	14	4.5	3.3	4.9
15	7.6	24	b14	*51	23	80	89	163	13	4.3	3.4	6.2
16	8.8	17	14	45	144	77	82	159	13	4.3	3.5	6.4
17	9.1	b15	14	40	151	93	77	158	12	4.2	3.5	6.4
18	15	15	14	37	100	85	71	154	12	4.2	3.4	12
19	15	19	14	33	81	84	69	149	11	4.3	3.6	9.7
20	13	20	14	28	72	77	66	145	9.3	4.3	4.4	7.8
21	12	17	18	30	63	81	*65	142	8.4	4.2	4.4	7.5
22	12	16	18	28	59	89	66	149	7.6	4.3	4.3	7.3
23	12	15	16	26	56	87	67	159	49	4.4	4.2	7.2
24	12	15	15	32	54	80	68	161	89	4.5	4.5	7.0
25	11	15	16	39	53	76	72	145	100	4.4	4.4	6.8
26	11	15	17	36	55	91	95	149	103	4.4	3.4	6.8
27	11	15	36	36	63	83	75	156	106	4.2	3.4	7.2
28	11	13	24	49	81	81	70	142	104	4.2	3.1	7.5
29	11	b13	18	38	-	86	68	140	103	4.3	3.3	6.8
30	11	b13	18	34	-------	104	90	72	98	4.0	3.5	7.2
31	11	-------	17	28	-------	106	-------	32	-------	3.9	3.3	-------
Total	310.7	474	490	1,586	1,395	2,755	2,932	3,949	1,105.3	498.5	104.9	175.1
Mean	10.0	15.8	15.8	51.2	49.8	88.9	97.7	127	36.8	16.1	3.38	5.84
Ac-ft	616	940	972	3,150	2,770	5,460	5,820	7,830	2,190	989	208	347

Calendar year 1958: Max 1,360 Min 7.2 Mean 137 Ac-ft 99,460
Water year 1958-59: Max 350 Min 2.6 Mean 43.2 Ac-ft 31,290

Peak discharge (base, 300 cfs).--Jan. 12 (12 m.) 708 cfs (4.21 ft); Feb. 16 (5 p.m.) 380 cfs (3.65 ft).

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

3585. Willow Creek near Susanville, Calif.

Location.--Lat 40°29', long 120°32', in NW¼ sec.5, T.30 N., R.13 E., on left bank 4 miles upstream from Peters Valley Creek and 8 miles northeast of Susanville.

Drainage area.--92.5 sq mi, excludes that of Eagle Lake basin.

Records available.--October 1950 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 4,836.27 ft above mean sea level, unadjusted.

Average discharge.--9 years, 32.6 cfs (23,600 acre-ft per year).

Extremes.--Maximum discharge during year, 163 cfs Feb. 17 (gage height, 3.63 ft); minimum, 13 cfs June 26 and for some days in July, August, and September.
1950-59: Maximum discharge, 712 cfs Dec. 23, 1955 (gage height, 5.36 ft), from rating curve extended above 420 cfs on basis of logarithmic plotting; minimum, 8.1 cfs Nov. 16, 1951.

Remarks.--Records good. Diversions for irrigation of about 5,200 acres above station. Some flow at times enters Willow Creek from Eagle Lake through abandoned tunnel.

Revisions (water years).--WSP 1445: 1952(M).

Rating table, water year 1958-59 (gage height, in feet, and discharge, in cubic feet per second)

2.2	12	3.0	70
2.3	15	3.5	139
2.5	26	4.0	240
2.7	41		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	24	29	46	43	101	15	18	22	14	13	13
2	20	24	29	35	40	101	17	18	22	14	13	13
3	18	23	29	29	39	91	19	19	18	14	13	13
4	18	23	30	34	41	79	18	20	18	14	*13	13
5	*18	23	*34	32	39	69	18	20	17	14	13	13
6	18	26	36	32	38	64	17	19	16	14	13	13
7	18	30	36	34	36	60	16	20	16	15	13	13
8	17	*31	36	36	36	55	16	19	15	15	13	14
9	17	32	37	49	35	51	16	18	14	15	14	14
10	17	36	36	57	28	*46	16	18	14	15	14	14
11	16	36	36	54	32	43	17	20	14	15	14	14
12	16	36	36	57	35	42	17	22	14	15	14	14
13	16	38	35	55	34	40	16	20	14	14	14	14
14	16	40	33	51	35	32	15	18	14	14	14	14
15	16	40	34	*50	37	18	15	18	14	14	14	14
16	16	35	33	47	69	16	15	18	14	14	13	14
17	17	36	34	46	137	17	16	18	14	14	14	14
18	17	37	34	44	150	26	16	17	14	14	14	15
19	18	39	34	43	139	23	16	16	14	14	14	15
20	18	39	34	40	119	18	17	16	14	14	14	15
21	18	38	36	38	110	18	*18	16	14	14	13	15
22	19	38	36	38	106	18	18	16	14	14	13	15
23	20	32	36	38	92	32	18	16	14	14	13	15
24	20	31	35	43	81	42	16	18	14	14	13	15
25	20	30	35	49	76	35	14	19	14	13	13	15
26	20	30	36	50	74	31	16	*21	14	13	13	16
27	21	30	42	48	85	33	17	22	14	13	13	16
28	21	28	43	47	94	32	17	23	14	13	14	18
29	21	28	38	46	-	30	18	23	14	13	14	20
30	22	28	36	46	-------	28	18	22	14	13	14	22
31	24	-------	39	44	-------	16	-------	21	-------	13	13	-------
Total	580	961	1,087	1,358	1,880	1,307	498	589	452	433	417	443
Mean	18.7	32.0	35.1	43.8	67.1	42.2	16.6	19.0	15.1	14.0	13.5	14.8
Ac-ft	1,150	1,910	2,160	2,690	3,730	2,590	988	1,170	897	859	827	879

Calendar year 1958: Max 371 Min 14 Mean 47.3 Ac-ft 34,220
Water year 1958-59 : Max 150 Min 13 Mean 27.4 Ac-ft 19,850

Peak discharge (base, 200 cfs).--No peak above base.

* Discharge measurement made on this day.

3595. Pine Creek near Westwood, Calif.

Location.--Lat 40°35', long 121°06', in SE¼ sec.5, T.31 N., R.8 E., on right bank 1 mile southwest of Bogard Guard Station and 19 miles north of Westwood.

Drainage area.--22.6 sq mi.

Records available.--October 1950 to September 1959.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 5,700 ft (from topographic map).

Average discharge.--9 years, 7.97 cfs (5,770 acre-ft per year).

Extremes.--Maximum discharge during year, 28 cfs Apr. 26 (gage height, 3.25 ft); no flow Sept. 12.
1950-59: Maximum discharge, 174 cfs Dec. 23, 1955 (gage height, 3.95 ft), from rating curve extended above 90 cfs by logarithmic plotting; no flow Sept. 1, 2, 6-9, 11-13, 1955, Sept. 12, 1959.

Remarks.--Records good except those for periods of ice effect, which are fair. No regulation or diversion above station.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.45	0.1	2.9	6.6
2.55	.3	3.0	11
2.6	.6	3.1	16
2.7	1.6	3.2	23
2.8	3.4	3.3	33

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.9	1.8	b1.6	b1.2	b2.0	1.9	4.2	19	4.2	1.7	0.6	0.1
2	1.9	1.8	1.7	b1.0	b2.3	2.2	5.5	15	3.9	1.7	.6	.1
3	1.9	1.8	b1.6	b.7	b2.1	2.2	6.3	13	3.4	1.7	.6	.2
4	1.9	1.7	*1.6	b.6	2.0	2.0	7.7	11	3.4	1.7	*.5	.2
5	1.9	1.7	b1.7	b1.2	1.7	1.9	8.9	11	3.4	1.6	.5	.3
6	1.8	1.8	b1.7	b1.4	1.7	1.9	11	11	3.4	1.4	.5	.3
7	1.7	1.7	1.6	b1.4	1.7	2.0	11	11	3.4	1.3	.6	.3
8	1.7	*1.7	1.7	b1.4	2.2	1.9	9.8	12	3.4	1.3	.6	.3
9	1.7	1.8	1.7	b7.0	b1.6	1.9	9.3	13	3.1	1.3	.6	.3
10	1.7	4.6	1.6	b8.0	b1.5	1.9	11	12	3.1	1.2	.5	.2
11	1.7	2.2	1.6	14	1.4	1.9	12	11	2.8	1.3	.4	.1
12	1.7	2.0	1.6	b25	1.3	1.9	13	11	2.6	1.2	.5	.2
13	1.6	2.2	b1.5	b12	1.3	2.4	13	11	2.6	1.2	.5	.2
14	1.6	4.8	b1.5	b9.6	1.3	2.2	14	12	2.4	1.2	.5	.3
15	1.6	3.1	b1.5	7.7	1.1	2.2	12	10	2.4	1.0	.4	.6
16	1.6	b2.5	b1.5	6.9	1.8	2.2	11	8.5	2.0	1.0	.4	.6
17	1.6	b2.2	1.4	5.5	2.6	2.6	11	8.1	2.2	.9	.4	.5
18	5.2	b2.5	1.3	4.6	1.9	*2.8	10	8.1	2.0	.8	.3	3.5
19	3.6	3.4	1.4	3.6	1.8	2.8	11	6.9	2.0	1.0	.3	1.9
20	2.6	2.8	1.4	3.6	1.8	2.8	*13	6.6	2.2	1.0	.4	1.0
21	2.2	2.0	1.6	3.4	1.9	3.1	14	6.3	2.6	.9	.5	.8
22	2.0	1.9	1.7	2.6	2.4	3.1	16	6.3	2.2	.8	.6	.7
23	2.0	1.9	1.7	2.2	2.2	2.6	17	7.3	1.9	.9	.5	.6
24	1.9	1.9	1.4	2.2	1.9	2.4	18	6.9	1.9	.8	.3	.5
25	2.0	1.8	1.3	2.4	1.8	2.2	19	*6.3	2.0	.8	.4	.5
26	2.0	b1.8	1.4	1.9	1.8	2.4	23	5.8	2.0	.6	.3	.6
27	1.9	b1.6	1.3	1.9	1.8	2.4	16	6.3	2.4	.6	.3	.6
28	1.9	b1.6	1.3	1.9	1.8	2.4	14	5.2	2.0	.7	.3	.4
29	1.9	b1.6	b1.4	2.8	-	2.4	17	4.8	1.9	.7	.3	.5
30	1.8	b1.6	b1.4	2.2	-------	2.6	18	4.8	1.7	.6	.3	.6
31	1.8	-------	b1.3	b2.3	-------	1.9	-------	4.6	-------	.6	.2	-------
Total	62.3	65.8	47.0	142.2	50.7	71.1	376.7	285.8	78.5	33.5	13.7	17.0
Mean	2.01	2.19	1.52	4.59	1.81	2.29	12.6	9.22	2.62	1.08	0.44	0.57
Ac-ft	124	131	93	282	101	141	747	567	156	66	27	34

Calendar year 1958: Max 122 Min 1.1 Mean 10.7 Ac-ft 7,750
Water year 1958-59: Max 25 Min 0.1 Mean 3.41 Ac-ft 2,470

Peak discharge (base, 35 cfs).--No peak above base.

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

3660. Twentymile Creek near Adel, Oreg.

Location.--Lat 42°04', long 119°57', in NW¼ sec.25, T.40 S., R.23 E., on left bank 8 miles downstream from confluence of Twelvemile and Fifteenmile Creeks and 8 miles southwest of Adel.

Drainage area.--194 sq mi, including 46 sq mi in Cowhead Lake area.

Records available.--March 1910 to July 1916, December 1917 to September 1919, and March 1921 to June 1922 (published as "near Warner Lake"), September 1940 to November 1944, March 1945 to September 1959.

Gage.--Water-stage recorder and concrete control. Datum of gage is 4,560.83 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Sept. 21, 1940, staff gage or water-stage recorder at sites within 1 mile downstream at various datums. Sept. 21, 1940, to Nov. 30, 1944, water-stage recorder at site 1¼ miles upstream at different datums. Mar. 12, 1945, to June 28, 1952, water-stage recorder at site 70 ft upstream at datum 0.88 ft higher.

Average discharge.--24 years (1910-15, 1918-19, 1940-44, 1945-59), 50.0 cfs (36,200 acre-ft per year).

Extremes.--Maximum discharge during year, 204 cfs Mar. 13 (gage height, 3.53 ft); minimum, 1.1 cfs sometime during period Nov. 17 to Dec. 15, July 24, 25, 27.
1910-19, 1921-22, 1940-59: Maximum discharge, 3,260 cfs Dec. 23, 1955 (gage height, 14.20 ft), from rating curve extended above 630 cfs on basis of contracted-opening measurement of peak flow; no flow part of Sept. 7, 1955.

Remarks.--Records fair except those for periods of ice effect or no gage-height record, which are poor. No regulation. Diversions for irrigation of 240 acres above station.

Revisions (water years).--WSP 1090: 1945. WSP 1514: 1951-53, 1954(M).

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.0	0.8	2.3	7.0
2.1	1.9	2.5	25
2.2	3.5	3.0	100

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.5	5.2	a3	b6	b6	a40	42	52	22	5.2	1.7	2.4
2	3.3	5.2	a3	5.6	b5	a60	36	44	22	4.6	1.7	*2.4
3	3.3	5.6	a3.5	a5.5	b5.5	a50	30	40	23	4.6	1.7	2.4
4	3.3	5.6	a4	a5.5	b6	a40	*30	36	25	4.2	1.8	2.4
5	3.2	5.6	a4	a5	b7	a35	40	*32	25	3.8	1.8	2.4
6	3.2	4.9	a4	a5	*b7	*43	42	34	30	3.5	1.8	2.5
7	3.2	5.2	a4	a5.5	b6.5	49	31	31	28	3.8	1.8	2.5
8	3.3	5.6	a5	*7.0	6.0	50	28	28	*24	3.5	1.8	2.5
9	3.5	5.2	a7	15	b6	46	34	31	22	*3.5	1.9	2.5
10	3.5	7.8	a9	24	b5.5	32	26	30	20	3.3	1.9	2.5
11	3.8	6.6	a8	23	b5	22	30	34	18	3.2	1.9	2.9
12	3.8	*5.6	a7	82	b5	40	34	37	16	3.2	1.8	2.9
13	4.6	b5.5	a6.5	38	b5	97	34	44	15	3.0	1.9	2.9
14	4.2	b5.5	a6	20	b5.5	34	31	44	13	3.0	1.9	3.0
15	3.5	5.6	6.3	18	b8	22	30	43	12	3.0	1.9	3.2
16	3.5	5.6	7.8	16	11	22	26	36	10	2.9	1.9	3.2
17	3.3	a5.5	7.0	13	14	47	28	42	9.4	2.7	1.9	3.2
18	3.8	a5	b6	13	12	28	24	38	7.0	2.7	1.9	3.8
19	4.2	a5	b6	12	12	21	25	36	6.6	2.5	2.1	4.6
20	4.9	a5.5	6.6	7.8	a12	18	25	31	6.0	2.7	2.2	3.5
21	4.9	a5.5	b6	6.3	a14	17	25	26	5.6	2.7	2.4	3.3
22	4.9	a5.5	b5	b8	a14	16	34	28	4.6	2.5	2.5	3.2
23	4.9	a5	5.6	9.4	a13	16	37	26	4.2	2.4	2.4	3.2
24	5.2	a5	6.6	13	a12	19	42	25	3.8	1.8	2.4	3.2
25	5.2	a4.5	7.0	15	a10	22	52	23	4.2	1.6	*2.5	3.2
26	5.2	a4	7.0	12	a12	18	52	26	4.9	1.7	2.4	3.3
27	5.2	a3.5	b6.5	26	a14	26	42	31	4.9	1.7	2.4	3.3
28	5.2	a3.5	b6	31	a20	19	38	30	4.2	1.7	2.4	3.3
29	5.2	a3	6.6	14	-	17	43	30	3.8	1.8	2.4	3.3
30	5.2	a3	b6.5	b10	-------	22	44	26	4.6	1.8	2.4	3.5
31	5.2	-------	b6	b8	-------	63	-------	23	-------	1.9	2.4	-------
Total	129.2	153.8	182.5	479.6	259.0	1,051	1,035	1,037	398.8	90.5	63.9	90.5
Mean	4.17	5.13	5.89	15.5	9.25	33.9	34.5	33.5	13.3	2.92	2.06	3.02
Ac-ft	256	305	362	951	514	2,080	2,050	2,060	791	180	127	180

Calendar year 1958: Max 1,200 Min 2.4 Mean 86.0 Ac-ft 62,230
Water year 1958-59: Max 97 Min 1.6 Mean 13.6 Ac-ft 9,860

Peak discharge (base, 510 cfs, revised).--No peak above base.

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of records for Deep Creek above Adel.
b Stage-discharge relation affected by ice.

3700. Camas Creek near Lakeview, Oreg.

Location.--Lat 42°13', long 120°06', in N½ sec.2, T.39 S., R.22 E., on left bank 0.2 mile downstream from Blue Creek and 12 miles east of Lakeview.

Drainage area.--63 sq mi, approximately.

Records available.--September 1912 to November 1914, March to May 1915, December 1949 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 5,472.41 ft above mean sea level (State Highway Department bench mark). Sept. 11, 1912, to May 9, 1915, water-stage recorder or staff gage at site 500 ft upstream at different datum.

Average discharge.--11 years (1912-14, 1950-59), 49.6 cfs (35,910 acre-ft per year).

Extremes.--Maximum discharge during year, 168 cfs Jan. 12 (gage height, 2.29 ft); minimum, 1.4 cfs Aug. 16, 17, 26, 28 (gage height, 0.27 ft).
1912-15, 1949-59: Maximum discharge, 1,630 cfs Dec. 22, 1955 (gage height, 5.15 ft), from rating curve extended above 340 cfs on basis of slope-area measurement of peak flow; minimum, that of Aug. 16, 17, 26, 28, 1959.

Remarks.--Records good except those for periods of ice effect, which are poor. No regulation. Diversions for irrigation of 1,200 acres above station.

Revisions.--WSP 410: Drainage area.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.2	0.8	1.0	28
.3	1.7	1.4	57
.4	3.1	1.6	76
.5	5.0	2.0	127
.7	12		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.9	7.4	b7.5	b10	b12	b22	69	40	16	3.9	2.4	1.8
2	5.9	7.4	b8	b16	b12	b28	94	44	14	3.7	2.4	*2.0
3	5.9	7.7	b9	8.0	b11	33	87	35	12	3.5	2.4	2.1
4	5.9	8.0	b12	7.1	b10	32	89	31	12	3.3	2.4	2.0
5	5.9	9.6	b8	12	b12	31	100	*29	11	3.1	2.4	2.3
6	5.9	9.6	b7	10	b12	*32	*114	28	12	3.0	2.3	2.3
7	5.9	10	9.2	7.4	b12	32	97	24	12	3.0	2.3	2.1
8	6.2	10	14	6.8	b12	35	83	21	*11	3.0	2.1	2.1
9	6.2	10	27	10	b12	37	77	24	8.4	3.1	2.1	2.1
10	6.2	19	18	30	11	32	75	20	8.0	2.8	2.0	2.1
11	6.5	12	16	40	b9.6	31	77	18	8.0	2.8	2.0	2.0
12	6.2	10	16	112	b8.8	41	80	16	7.1	2.8	1.8	2.1
13	6.2	16	11	b46	10	47	72	14	6.2	2.8	1.8	2.1
14	5.9	b25	b8	*b29	8.4	38	62	14	5.6	3.0	1.8	2.4
15	5.9	b14	*b10	b24	8.0	35	55	14	5.6	3.0	1.7	3.7
16	5.9	b12	10	23	10	39	50	14	5.6	*2.8	1.6	3.7
17	6.5	b10	11	22	13	54	47	28	5.3	2.5	1.5	2.8
18	7.4	10	12	20	12	49	40	45	5.0	2.4	1.5	3.1
19	11	*12	11	b12	13	42	39	41	4.8	2.4	1.6	5.0
20	11	b18	10	b12	b12	35	37	34	4.8	2.5	*2.3	5.0
21	8.8	b18	14	b10	b13	44	35	27	4.4	2.4	2.3	3.9
22	8.0	b17	b11	8.8	b14	38	34	27	4.2	2.4	2.0	3.5
23	8.0	b14	b10	9.6	b15	36	32	27	4.0	2.5	1.8	3.1
24	8.0	14	b9	16	b16	30	31	33	4.0	2.5	1.8	3.1
25	8.0	14	b9	14	b15	35	41	27	4.2	2.5	1.8	3.1
26	8.0	b11	b8.5	b10	b14	49	60	26	4.8	2.4	1.6	3.5
27	8.4	b8	b9	b14	14	47	62	33	4.6	2.4	1.7	3.7
28	8.0	b8	b9.5	b15	b12	47	43	30	4.6	2.3	1.8	3.1
29	7.7	b7.5	b10	b17	-	40	34	25	4.4	2.3	1.8	3.0
30	8.8	b7	9.2	16	------	42	30	21	4.0	2.4	1.8	3.3
31	7.4	------	b9	b14	------	49	------	18	------	2.4	1.8	------
Total	221.5	354.2	342.9	601.7	333.8	1,182	1,846	828	217.6	85.9	60.6	86.1
Mean	7.15	11.8	11.1	19.4	11.9	38.1	61.5	26.7	7.25	2.77	1.95	2.87
Ac-ft	439	703	680	1,190	662	2,340	3,660	1,640	432	170	120	171

Calendar year 1958: Max 526 Min 5.0 Mean 65.4 Ac-ft 47,370
Water year 1958-59: Max 114 Min 1.5 Mean 16.9 Ac-ft 12,210

Peak discharge (base, 290 cfs, revised).--No peak above base.

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

3710. Drake Creek near Adel, Oreg.

Location.--Lat 42°12', long 120°00', near center of sec.9, T.39 S., R.23 E., on left bank 400 ft downstream from highway bridge, 700 ft downstream from Parsnip Creek, 1 mile upstream from mouth, and 6½ miles west of Adel.

Drainage area.--47 sq mi, approximately.

Records available.--March to May 1915, December 1922 to May 1923, December 1949 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 5,076.42 ft above mean sea level (State Highway Department bench mark). Mar. 18 to May 10, 1915, and Dec. 21, 1922, to May 9, 1923, staff gage at site 400 ft upstream at different datums. Dec. 16, 1949, to June 21, 1951, water-stage recorder at site 900 ft upstream at different datum.

Average discharge.--9 years (1950-59), 14.9 cfs (10,790 acre-ft per year).

Extremes.--Maximum discharge during year, 83 cfs June 10 (gage height, 1.52 ft); minimum, 2.1 cfs June 8, 9.

1915, 1922-23, 1949-59: Maximum discharge, 1,100 cfs Dec. 23, 1955 (gage height, 3.93 ft), from rating curve extended above 300 cfs by logarithmic plotting; minimum, 1.9 cfs Mar. 1, 1955 (gage height, 0.44 ft).

Remarks.--Records fair except those for periods of ice effect, which are poor. Diversions for irrigation of about 620 acres above station.

Revisions (water years).--WSP 1564: 1923.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.4	1.5
.5	3.0
.6	6.0
.7	9.5
.8	15

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.8	8.1	6.7	7.4	7.4	12	5.4	6.7	4.5	3.6	2.7	3.9
2	8.1	7.8	7.0	7.4	b7.5	15	5.4	5.4	4.2	3.9	2.7	*3.9
3	8.4	7.8	7.0	b7	b7.5	13	5.7	4.8	4.5	3.9	2.6	3.9
4	8.4	b8.1	6.7	b7	7.8	7.4	5.7	5.1	4.5	3.6	2.8	3.9
5	8.4	8.1	7.0	b7	8.1	6.7	5.4	*5.7	4.8	3.3	2.8	3.9
6	8.4	7.8	7.4	b7	*7.4	6.4	*4.8	5.4	5.1	3.9	3.0	4.2
7	8.4	7.8	7.4	b7.5	7.8	6.0	4.8	5.4	8.2	4.2	3.0	4.2
8	8.1	7.8	7.8	*7.8	9.5	6.0	5.1	5.4	*3.6	3.3	2.8	3.6
9	8.1	8.1	7.8	9.2	8.4	5.4	5.1	5.7	2.6	3.3	2.8	3.6
10	8.1	8.8	7.8	8.8	8.4	4.2	5.4	6.0	11	3.6	2.8	3.9
11	8.1	7.8	7.8	8.4	7.8	5.1	5.4	5.1	7.8	3.9	3.0	3.9
12	8.1	7.0	7.4	8.8	b7.5	5.1	5.7	5.4	5.1	3.9	3.9	3.9
13	8.1	8.8	7.0	7.8	b7	5.1	4.8	4.8	4.5	4.2	4.2	3.9
14	7.8	8.8	b7	7.8	b7	4.5	4.8	5.4	4.2	3.9	3.9	4.2
15	7.8	b7	7.0	6.4	6.4	4.8	5.1	5.1	4.2	4.5	4.2	5.1
16	7.4	b7.5	7.4	6.7	b7	5.1	5.1	4.8	4.2	*3.6	3.6	4.5
17	7.8	b7.5	7.4	7.0	b7.5	4.8	5.1	5.4	4.2	3.0	3.3	4.2
18	8.1	8.1	7.8	7.0	7.4	4.5	4.5	5.1	4.2	3.0	3.6	4.8
19	8.8	*8.8	7.4	6.7	7.0	4.5	5.1	5.1	4.2	3.0	*3.9	5.7
20	8.1	7.4	7.4	b6.5	7.4	4.5	5.4	5.1	3.9	3.3	3.9	4.8
21	7.8	6.7	7.8	b7	7.8	4.5	5.7	5.1	3.9	3.6	3.9	4.2
22	7.8	6.7	b8	7.4	6.7	4.8	5.4	5.4	3.6	3.3	3.9	4.5
23	7.8	6.7	b7.5	7.0	7.0	5.1	4.8	5.7	8.1	3.9	3.9	5.1
24	7.4	6.4	7.4	8.4	b7	5.7	5.1	5.4	8.8	3.6	3.6	3.6
25	7.4	6.7	7.4	7.8	6.7	4.8	6.0	5.4	9.2	2.8	3.6	3.6
26	7.0	7.0	7.4	7.8	7.4	5.4	6.4	5.7	8.8	3.6	4.2	4.5
27	7.4	b6	7.8	8.4	7.8	5.1	5.7	6.4	8.4	3.0	3.9	4.2
28	7.0	b6.5	b7	8.1	8.8	5.4	5.4	5.4	7.4	2.8	4.2	4.2
29	7.4	b7	b7.5	b8	-	5.1	5.1	6.4	5.7	2.7	4.2	4.2
30	7.4	7.0	7.4	7.8	-------	5.4	5.1	4.8	4.2	2.7	4.2	4.8
31	7.8	-------	7.8	7.8	-------	5.7	-------	4.5	-------	2.7	3.9	-------
Total	245.5	225.6	229.2	234.7	211.0	187.1	158.5	167.1	167.6	107.6	109.0	126.9
Mean	7.92	7.52	7.39	7.57	7.54	6.04	5.28	5.39	5.59	3.47	3.52	4.23
Ac-ft	487	447	455	466	419	371	314	331	332	213	216	252

Calendar year 1958: Max 301 Min 6 Mean 20.9 Ac-ft 15,160
Water year 1958-59: Max 15 Min 2.6 Mean 5.94 Ac-ft 4,300

Peak discharge (base, 150 cfs).--No peak above base.

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

3715. Deep Creek above Adel, Oreg.

Location.--Lat 42°11', long 119°59', in E½ sec.15, T.39 S., R.23 E., on right bank a third of a mile downstream from Drake Creek and 5 miles west of Adel.

Drainage area.--249 sq mi.

Records available.--September 1922 to September 1923 and October 1932 to September 1959 in reports of Geological Survey. September 1922 to September 1923 and October 1929 to September 1941 in reports of State engineer.

Gage.--Water-stage recorder. Datum of gage is 4,966.7 ft above mean sea level (State Highway Department bench mark). Prior to Dec. 21, 1922, staff gage and Dec. 21, 1922, to Sept. 30, 1923, water-stage recorder, at same site at different datum.

Average discharge.--31 years (1922-23, 1929-59), 120 cfs (86,880 acre-ft per year).

Extremes.--Maximum discharge during year, 332 cfs Jan. 12 (gage height, 2.54 ft); minimum, 4.0 cfs July 30, Aug. 1-3, 8, 10, 11, 17 (gage height, 0.36 ft).
1922-23, 1929-59: Maximum discharge, 5,030 cfs Dec. 11, 1937 (gage height, 7.5 ft, from floodmark), from rating curve extended above 1,200 cfs on basis of velocity-area studies and verified by slope-area measurement at gage height 7.3 ft for peak of Dec. 23, 1955; minimum, 1.7 cfs July 20, 27-29, 1934.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. No regulation. Diversions for irrigation of 5,500 acres above station.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.3	2.5	1.2	58
.4	5.0	1.5	95
.5	8.5	2.0	188
.7	18	2.5	320
.9	31		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	24	b25	b30	b40	78	145	201	102	14	4.5	a5.2
2	27	23	b28	b28	38	86	215	208	100	13	4.5	*5.0
3	27	24	31	27	b40	83	215	163	100	11	4.5	5.4
4	27	25	37	25	44	*66	225	147	102	9.4	4.8	5.0
5	26	25	34	b25	44	68	250	*139	106	8.5	4.8	5.4
6	26	*26	32	b25	*b40	69	*260	151	128	8.5	4.8	5.4
7	26	25	33	b28	41	69	210	134	117	8.2	4.5	5.4
8	26	28	44	b30	41	70	182	123	*101	7.4	4.5	5.0
9	26	28	66	b40	b40	74	175	145	83	*7.8	4.5	5.0
10	27	50	51	74	b35	63	169	126	83	7.4	4.5	5.0
11	27	40	51	107	b30	64	171	123	76	7.1	4.8	5.0
12	27	33	b45	224	b28	75	188	121	66	6.8	5.0	5.0
13	25	43	43	*164	b28	95	178	132	59	6.8	5.0	5.4
14	24	68	38	93	b30	77	161	143	53	6.4	5.0	5.4
15	24	41	*45	81	30	75	143	149	50	7.4	5.0	8.5
16	24	b40	40	72	b35	78	126	134	46	6.0	4.8	10
17	25	b38	38	68	b40	101	126	199	44	5.0	4.5	12
18	26	b35	39	63	47	96	112	218	41	4.5	4.8	12
19	30	b36	38	49	51	85	110	192	43	4.8	*5.0	20
20	31	b40	37	b45	51	75	108	165	38	5.0	7.1	23
21	25	43	38	b40	54	87	108	141	34	5.4	6.8	16
22	25	40	37	b40	51	83	114	143	30	4.5	6.4	14
23	25	37	38	46	48	82	132	147	30	5.0	6.0	14
24	25	37	38	57	43	76	145	153	30	5.0	5.7	12
25	25	34	33	52	44	75	184	134	29	4.5	5.7	12
26	25	32	35	47	45	96	235	151	34	5.0	5.7	13
27	25	30	37	62	49	96	230	201	34	4.8	a5.5	15
28	24	b28	38	b55	62	96	173	163	30	4.5	a5.5	14
29	24	b26	b36	48	-	90	157	141	22	4.5	a5.5	13
30	24	b25	b35	b40	-------	90	153	123	16	4.8	a5.5	14
31	24	-------	b32	b42	-------	121	-------	110	-------	4.8	a5.4	-------
Total	800	1,024	1,192	1,827	1,169	2,539	5,100	4,720	1,827	207.8	160.6	295.1
Mean	25.8	34.1	38.5	58.9	41.8	81.9	170	152	60.9	6.70	5.18	9.84
Ac-ft	1,590	2,030	2,360	3,620	2,320	5,040	10,120	9,360	3,620	412	319	585

Calendar year 1958: Max 1,310 Min 20 Mean 209 Ac-ft 151,300
Water year 1958-59: Max 260 Min 4.5 Mean 57.2 Ac-ft 41,380

Peak discharge (base, 600 cfs).--No peak above base.

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of records for Camas Creek near Lake Creek and Drake Creek near Adel.
b Stage-discharge relation affected by ice.

3785. Honey Creek near Plush, Oreg.

Location.--Lat 42°25', long 119°55', in NW¼ sec.29, T.36 S., R.24 E., on right bank at mouth of canyon, 1 mile northwest of Plush, and 4 miles downstream from Twelvemile Creek.

Drainage area.--156 sq mi.

Records available.--May 1909 to September 1914 (prior to January 1910, gage heights only), March to May 1915, March to September 1921, March to June 1922, and October 1949 to September 1959 in reports of Geological Survey. May 1930 to September 1941 in reports of State engineer. October 1941 to September 1949 in files of State engineer.

Gage.--Water-stage recorder. Datum of gage is 4,536.47 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Feb. 24, 1910, staff gage at site half a mile downstream at different datum. Feb. 24, 1910, to Jan. 12, 1912, staff gage, Jan. 13, 1912, to May 16, 1915, water-stage recorder, Mar. 15 to Apr. 6, 1921, staff gage, Apr. 7 to Sept. 30, 1921, water-stage recorder, and Mar. 19 to June 30, 1922, staff gage, all at site half a mile upstream from present site at different datums. May 1, 1930, to Aug. 30, 1959, water-stage recorder at site 10 ft upstream at datum 1.53 ft higher.

Average discharge.--29 years (1910-14, 1930-41, 1945-59), 26.6 cfs (19,260 acre-ft per year).

Extremes.--Maximum discharge during year, 92 cfs Apr. 5 or 6 (gage height, 1.57 ft); minimum, 0.2 cfs July 17-22.

1910-15, 1921-22, 1930-59: Maximum discharge, 3,840 cfs Apr. 15, 1915 (gage height, 9.20 ft, site and datum then in use), from rating curve extended above 2,300 cfs by logarithmic plotting (flood caused by failure of storage dam on Snyder Creek); maximum discharge due to natural causes, 2,240 cfs Feb. 24, 1910 (gage height, 6.30 ft, site and datum then in use); no flow at times.

Remarks.--Records fair except those for periods of ice effect or no gage-height record, which are poor. No regulation. Diversions for irrigation of about 2,300 acres above station.

Revisions (water years).--WSP 410: Drainage area. WSP 1564: 1911-12.

Rating tables, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 4-15)

Oct. 1 to Aug. 30				Aug. 31 to Sept. 30	
-0.4	0.2	0.2	10	1.1	0.1
-.3	.7	.5	23	1.2	.5
-.2	1.6	1.0	54		
-.1	3.0	1.5	96		
0.0	5.0				

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.5	3.6	4	5.7	5	12	30	31	17	3.4	0.5	0.5
2	1.5	3.6	5	3.6	4.7	15	35	35	16	2.7	.6	.5
3	1.3	3.8	5.5	3.0	5	10	40	31	15	2.6	.6	.5
4	1.1	4.0	6	3	*5.5	9	*42	29	15	2.9	.6	.4
5	1.6	4.0	6.3	3.5	6	8	55	*26	15	3.0	.6	.4
6	1.3	4.2	5.9	4	6	*8.6	56	26	17	2.4	.6	.4
7	1.1	4.2	5.9	5	5	9.2	41	24	18	2.0	.6	.4
8	1.0	4.2	6.1	6.8	4.5	9	33	21	15	1.9	.6	.4
9	1.0	4.2	7.5	7.8	5.5	8	32	22	9.2	1.7	.6	.3
10	1.0	5.2	7.5	8.3	6	7	30	22	11	1.4	.6	.3
11	1.1	5.7	6	8.0	5	7	32	20	*12	.9	.6	.3
12	1.1	*4.6	5	12	4	8	30	18	11	.5	.6	.3
13	1.1	4.4	4.5	19	5	7	27	18	9.2	.3	.6	.3
14	1.1	6.1	3.8	11	6	6	24	18	8.5	.3	.6	.4
15	1.1	4.4	5.0	12	7	5.4	21	18	7.8	.3	.6	.5
16	1.1	2.9	5.9	11	8	6	19	19	7.8	.3	.6	.5
17	1.2	2.5	5.2	9.7	8	9	10	22	7.2	.2	.6	.5
18	1.2	2.5	5.2	9	7.5	12	15	28	6.8	.2	.6	.5
19	1.2	3	5.2	8	7.5	14	16	25	7.0	.2	.6	.5
20	1.4	3.5	5.2	7	7.5	12	17	24	7.0	.2	.6	.5
21	1.6	4	5.0	6	7.5	12	13	20	5.2	.2	.6	.5
22	2.9	4	4.8	6.5	7	12	15	18	4.8	.2	.7	.5
23	3.2	4	3.4	7.0	7	14	16	18	4.6	.3	.7	.5
24	3.2	3.5	5.2	8.9	7	16	18	21	4.6	.3	.7	.5
25	3.0	3.5	5.0	9.4	7	18	29	12	4.8	.3	.7	.5
26	3.0	3.5	5.0	7.0	7.5	18	38	22	6.1	.4	.6	.4
27	3.0	3	5.4	8.3	9	20	38	25	7.0	.5	.6	.4
28	3.0	3	4.4	8.9	10	18	30	24	5.0	.5	.5	.4
29	3.0	3	4.6	6.4	-	15	26	22	4.6	.6	.5	.4
30	3.0	3.5	5.7	6	-------	20	25	20	3.8	.5	.5	.4
31	3.2	-------	*5.2	5.5	-------	25	-------	18	-------	.5	*.5	-------
Total	56.1	115.6	164.4	237.3	180.7	370.2	853	697	283.0	31.7	18.5	12.9
Mean	1.81	3.85	5.30	7.65	6.45	11.9	28.4	22.5	9.43	1.02	0.60	0.43
Ac-ft	111	229	326	471	358	734	1,690	1,380	561	63	37	26

Calendar year 1958: Max 352 Min 0.9 Mean 40.1 Ac-ft 29,070
Water year 1958-59: Max 56 Min 0.2 Mean 8.28 Ac-ft 5,990

Peak discharge (base, 200 cfs).--No peak above base.

* Discharge measurement made on this day.

Note.--No gage-height record Nov. 17 to Dec. 4, Jan. 19-22, Feb. 5 to Mar. 5, Mar. 8-14, Mar. 16 to Apr. 3, Apr. 5, June 14, July 18-28; discharge estimated on basis of weather records and records for Deep Creek above Adel and Twentymile Creek near Adel. Stage-discharge relation affected by ice Dec. 11-13, Jan. 4-7, 18, Jan. 30 to Feb. 1, Feb. 3, 4.

3840. Chewaucan River near Paisley, Oreg.

Location.--Lat 42°42', long 120°35', in SW¼NW¼ sec.26, T.33 S., R.18 E., on left bank 1½ miles downstream from Mill Creek and 1½ miles southwest of Paisley.

Drainage area.--275 sq mi.

Records available.--April 1912 to September 1921, May 1924 to September 1959. Published as "above Conn ditch, near Paisley" April to September 1912 and May 1924 to September 1955, as "above Mill Creek, near Paisley" October 1912 to December 1913, and as "at Chewaucan Land & Cattle Co.'s gage, near Paisley" January to September 1914.

Gage.--Water-stage recorder. Datum of gage is 4,430 ft above mean sea level (river-profile survey). Prior to July 14, 1912, reference point at site 1¼ miles upstream at different datum. Nov. 6, 1912, to Jan. 19, 1914, staff gage and Jan. 20, 1914, to Sept. 30, 1921, water-stage recorder, at various sites within half a mile upstream from Mill Creek at various datums. May 1, 1924, to Jan. 26, 1956, water-stage recorder at sites about 1¼ miles upstream at different datums. Jan. 27 to Oct. 6, 1956, staff gage at sites about 1 mile downstream at different datums.

Average discharge.--44 years, 136 cfs (98,460 acre-ft per year).

Extremes.--Maximum discharge during year, 336 cfs Apr. 5 or 6 (gage height, 3.33 ft); maximum gage height, 3.65 ft Jan. 5 (ice jam); minimum discharge, 14 cfs Jan. 4.
1912-21, 1924-59: Maximum discharge, 3,260 cfs Dec. 22, 1955 (gage height, 7.8 ft, from floodmarks); no flow part of each day Dec. 7, 1927, Dec. 12, 1932, result of freezeup.
Maximum discharge known, 4,000 cfs Nov. 23, 1909, from records at site 1 mile downstream, below Conn ditch, where records are equivalent at high flows.

Remarks.--Records fair except those for periods of ice effect or no gage-height record, which are poor. No regulation. Diversions for irrigation of about 2,500 acres above station.

Revisions.--WSP 860: Drainage area.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.9	18	2.5	105
2.0	29	3.0	225
2.2	52	3.5	400

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	42	46	a40	b40	b42	a90	a150	280	125	39	29	29
2	42	46	a42	b35	b40	a100	a180	255	125	37	29	28
3	42	47	a45	28	b45	a90	a200	228	130	36	29	*28
4	42	50	a55	b30	b50	a80	a230	218	130	37	29	27
5	42	52	a52	b35	b45	*72	a250	210	125	36	29	28
6	42	52	a50	b40	b40	a70	a270	218	150	33	29	29
7	42	*51	a70	b50	b30	a70	a250	*200	142	33	27	28
8	44	51	a100	71	36	72	a220	195	130	31	26	28
9	44	51	a120	83	b45	76	*200	205	123	31	25	28
10	44	64	a100	99	b50	72	198	192	117	30	24	28
11	44	55	a70	99	b40	71	210	190	111	29	24	29
12	44	48	a55	222	b35	87	231	195	103	29	24	29
13	42	60	b50	150	b35	87	228	202	99	*29	24	30
14	42	85	b45	93	a40	69	212	215	93	28	24	33
15	42	a70	b50	101	a45	74	205	220	87	29	25	40
16	42	a60	*69	a85	a50	81	188	205	85	29	25	40
17	44	a55	61	*72	a60	93	190	249	80	29	24	38
18	47	a50	60	69	b65	97	170	243	72	28	21	39
19	58	a50	60	56	a70	87	170	210	67	28	21	56
20	56	a55	60	b45	a80	83	170	192	61	29	27	47
21	50	a60	64	b40	a80	93	178	175	55	29	*38	39
22	48	a60	61	b45	a80	89	188	180	51	28	36	38
23	48	a55	50	b60	a75	95	202	175	48	29	31	37
24	47	a55	b55	80	a65	95	218	165	44	30	29	36
25	48	a50	60	76	a60	a90	280	155	44	29	30	37
26	48	a48	b60	64	a65	a95	290	158	48	30	30	37
27	48	a45	b60	89	a70	a100	269	150	50	29	29	38
28	48	a42	b55	99	a80	a100	240	140	45	29	29	38
29	47	a40	b55	56	-	a100	231	140	44	29	29	36
30	45	a40	b58	b50	-------	a110	240	*132	41	29	29	37
31	47	-------	b50	b45	-------	a120	-------	130	-------	29	29	-------
Total	1,411	1,593	1,882	2,207	1,518	2,708	6,458	6,022	2,625	950	854	1,035
Mean	45.5	53.1	60.7	71.2	54.2	87.4	215	194	87.5	30.6	27.5	34.5
Ac-ft	2,800	3,160	3,730	4,380	3,010	5,370	12,810	11,940	5,210	1,880	1,690	2,050

Calendar year 1958: Max 1,910 Min 39 Mean 230 Ac-ft 166,200
Water year 1958-59: Max 290 Min 21 Mean 80.2 Ac-ft 58,030

Peak discharge (base, 500 cfs).--No peak above base.

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, records for Deep Creek above Adel, and Silver Creek near Silver Lake.
b Stage-discharge relation affected by ice.

3880. Ana River near Summer Lake, Oreg.

Location.--Lat 43°00', long 120°45', in SE¼ sec.6, T.30 S., R.17 E., on left bank 300 ft downstream from diversion dam and 2 miles northeast of Summer Lake Post Office.

Records available.--June 1951 to September 1959 in reports of Geological Survey. October 1929 to September 1939 (river only), May to September 1928, April 1931 to July 1941 (fragmentary records for Summer Lake Canal only) in reports of State engineer.

Gage.--Water-stage recorder. Altitude of gage is 4,160 ft (from plans of Ana River diversion dam). Oct. 1, 1929, to Sept. 30, 1939, at site 80 ft downstream at different datum.

Average discharge.--11 years (1930-32, 1935-36, 1951-59), 91.7 cfs (66,390 acre-ft per year).

Extremes.--Maximum discharge during year, 137 cfs Aug. 20; minimum daily, 48 cfs Apr. 19. 1929-39, 1951-59: Maximum discharge, 186 cfs Sept. 15, 1936 (gage height, 3.87 ft), no flow in canal; minimum daily, 6 cfs May 16, 1952.

Remarks.--Records good. All records given herein include flow in Summer Lake Canal which diverts 300 ft above station for irrigation of lands along west side of Summer Lake. Flow regulated by gates at diversion dam. Source of stream is Ana River Springs, three-quarters of a mile above station, which are flooded over by pondage behind diversion dam.

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	95	102	102	101	102	102	101	84	94	85	95	88
2	95	102	102	101	102	102	101	84	93	85	104	88
3	94	102	102	101	102	102	101	83	92	83	98	*89
4	94	102	102	101	102	102	101	*83	90	83	90	89
5	94	102	102	101	102	102	101	83	82	84	85	89
6	93	102	102	101	102	102	101	83	82	83	77	91
7	93	*102	102	101	102	102	101	83	82	83	77	91
8	92	102	102	101	102	102	101	83	81	84	79	91
9	92	102	102	*102	102	102	101	83	81	85	83	90
10	92	104	102	102	102	102	101	81	82	85	105	90
11	92	104	102	102	102	102	101	81	85	79	100	89
12	92	104	102	102	102	102	101	82	88	79	82	89
13	92	104	102	102	102	102	83	82	90	86	83	89
14	92	104	102	102	102	102	72	82	76	87	83	89
15	89	104	102	102	102	102	76	83	77	87	84	92
16	100	104	102	102	102	102	72	83	83	92	84	92
17	114	105	102	102	*102	102	57	83	79	96	84	92
18	108	*105	102	102	102	102	50	86	78	95	84	90
19	105	105	104	102	102	102	48	90	88	91	84	90
20	102	104	102	102	102	102	50	90	82	91	91	90
21	100	104	102	102	102	102	52	88	81	91	84	90
22	99	104	102	102	102	102	61	88	85	*92	94	90
23	99	104	102	102	102	102	*84	*87	85	87	91	90
24	111	104	102	102	102	102	80	88	80	85	*88	84
25	116	104	102	102	102	*102	88	89	*95	85	85	84
26	111	104	102	102	102	102	84	90	90	83	86	90
27	107	104	102	102	102	102	83	86	86	83	86	106
28	105	102	101	102	102	101	85	84	86	84	86	*106
29	104	102	101	102	-	101	84	83	86	80	86	106
30	102	102	101	102	-------	101	84	86	85	76	88	106
31	102	-------	101	102	-------	101	-------	94	-------	79	88	-------
Total	3,076	3,099	3,160	3,154	2,856	3,158	2,505	2,635	2,544	2,648	2,714	2,750
Mean	99.2	103	102	102	102	102	83.5	85.0	84.8	85.4	87.5	91.7
Ac-ft	6,100	6,150	6,270	6,260	5,660	6,260	4,970	5,230	5,050	5,250	5,380	5,450

Calendar year 1958: Max 118 Min 42 Mean 96.6 Ac-ft 69,920
Water year 1958-59: Max 116 Min 48 Mean 94.0 Ac-ft 68,030

* Discharge measurement made on this day.

3900. Silver Creek near Silver Lake, Oreg.

Location.--Lat 43°07', long 121°04', in SW¼ sec.28, T.28 S., R.14 E., on right bank 1½ miles downstream from diversion dam of Silver Lake Irrigation District, 1½ miles southwest of town of Silver Lake, and 3 miles upstream from Bridge Creek.

Drainage area.--221 sq mi.

Records available.--January 1905 to March 1907, January 1909 to September 1927, February to December 1928, February 1929 to September 1959.

Gage.--Water-stage recorder. Concrete control since Sept. 15, 1932. Datum of gage is 4,361.22 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to May 24, 1932, staff gage or water-stage recorder at practically same location at datum 1.00 ft higher, or staff gage at diversion dam outlet 1½ miles upstream at different datum.

Average discharge.--47 years (1905-6, 1909-27, 1929-41, 1943-59), including diversion by Silver Lake Irrigation District Canal, 28.5 cfs (20,630 acre-ft per year).

Extremes.--Maximum discharge during year, 42 cfs May 1, 2 (gage height, 2.36 ft); maximum gage height, 2.84 ft Jan. 4 (anchor ice); minimum discharge, 3.0 cfs Feb. 13 (gage height, 1.63 ft).
1905-7, 1909-59: Maximum discharge, 1,800 cfs Mar. 20, 1907 (gage height, 10.08 ft, present datum), from rating curve extended above 700 cfs; no flow at times in 1931-32, 1934, 1937.

Remarks.--Records good except those for periods of ice effect, which are fair. Flow regulated by reservoir (capacity, 800 acre-ft) above diversion dam 1½ miles above station and by Thompson Valley Reservoir (capacity, 17,400 acre-ft) 11 miles above station. Silver Lake Irrigation District Canal diverted 1½ miles above station in 1923-43.

Revisions (water years).--WSP 1564: 1906, 1910, 1921(M).

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.6	2.3	2.0	18
1.7	4.5	2.2	30
1.8	8.0	2.5	53
1.9	12		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	11	12	11	b11	14	15	40	30	34	16	6.2
2	19	11	12	b9	b10	16	16	41	30	34	16	5.9
3	19	11	12	b8.5	11	18	17	39	30	34	16	*5.9
4	19	11	11	b8	12	17	18	*39	30	34	16	5.9
5	19	11	9.8	b8	b11	17	19	37	30	33	16	5.6
6	17	11	11	8.4	b10	17	19	34	31	33	16	5.6
7	14	*11	11	9.4	b9	16	17	31	32	33	16	5.6
8	12	11	12	11	b9	16	17	31	34	33	16	5.2
9	12	11	12	14	b10	17	16	30	34	33	16	5.2
10	12	11	12	16	b10	17	15	30	34	33	16	5.2
11	11	12	12	16	10	15	17	30	34	33	16	4.8
12	11	12	12	17	b10	17	23	30	34	33	16	4.8
13	11	12	11	b15	b9.5	18	23	31	34	33	15	4.5
14	11	12	9.8	13	b10	16	23	31	33	33	15	4.5
15	11	12	9.8	15	b11	15	26	32	33	33	15	4.5
16	11	11	11	15	12	15	29	32	33	27	15	4.5
17	11	9.8	12	14	*12	15	30	31	33	20	15	4.5
18	11	9.8	11	12	13	17	30	31	33	18	15	4.5
19	11	11	11	12	13	16	31	29	33	17	15	4.5
20	12	12	11	b11	12	15	*34	*28	33	17	18	4.5
21	12	12	11	b10	12	15	34	28	34	17	20	4.5
22	*12	12	b10	10	12	15	34	29	34	17	19	4.3
23	12	11	b9.5	12	12	16	36	31	34	17	15	4.3
24	12	11	9.8	14	b11	16	36	31	34	17	*10	4.1
25	12	11	11	16	12	*15	38	31	*34	17	8.4	4.1
26	12	10	11	15	12	15	39	30	34	17	7.3	4.1
27	12	9.8	12	14	12	15	39	30	34	16	7.0	3.8
28	12	b9	11	b14	12	13	39	31	34	16	7.0	3.8
29	11	9.4	10	14	-	11	39	30	34	16	6.6	*3.8
30	11	11	11	13	-------	11	38	30	34	16	6.6	3.6
31	11	-------	11	b12	-------	13	-------	30	-------	16	6.2	-------
Total	402	329.8	342.7	387.3	310.5	479	807	988	988	780	428.1	142.3
Mean	13.0	11.0	11.1	12.5	11.1	15.5	26.9	31.9	32.9	25.2	13.8	4.74
Ac-ft	797	654	680	768	616	950	1,600	1,960	1,960	1,550	849	282

Calendar year 1958 : Max 510 Min 6.5 Mean 72.0 Ac-ft 52,130
Water year 1958-59 : Max 41 Min 3.6 Mean 17.5 Ac-ft 12,670

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

3935. Silvies River near Burns, Oreg.

Location.--Lat 43°43', long 119°11', in NW¼ sec.31, T.21 S., R.30 E., on left bank 5 miles downstream from Emigrant Creek and 11 miles northwest of Burns.

Drainage area.--934 sq mi.

Records available.--May 1903 to July 1906, December 1908 to December 1912, March 1913 to September 1917 (irrigation seasons only), March 1918 to October 1920, March 1921 to July 1922 (irrigation seasons only), October 1922 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 4,195 ft above mean sea level, datum of 1929, supplementary adjustment of 1947 (from river-profile survey). Prior to Dec. 1, 1911, and June 24, 1917, to Apr. 6, 1922, staff gage at site 3 miles downstream at different datums. Dec. 1, 1911, to June 23, 1917, water-stage recorder at site 1¾ miles downstream at different datum. Apr. 7, 1922, to Oct. 1, 1941, water-stage recorder at present site and datum. Oct. 2, 1941, to Oct. 3, 1951, water-stage recorder at site 400 ft downstream at same datum.

Average discharge.--46 years (1903-5, 1909-12, 1917-21, 1922-59), 163 cfs (118,000 acre-ft per year).

Extremes.--Maximum discharge during year, 447 cfs Apr. 6 (gage height, 4.80 f.); minimum, 2.1 cfs Aug. 8, 9 (gage height, 0.71 ft).
1903-6, 1908-59: Maximum discharge, 4,960 cfs about Apr. 6, 1952 (gage height, 15.2 ft); no flow July 19 to Sept. 22, 1934.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. No regulation. Diversions for irrigation above station primarily by flooding during high flow.

Revisions (water years).--WSP 860: Drainage area. WSP 1564: 1909, 1911-12 1929, 1938, 1940(M).

Rating tables, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 12		Jan. 13 to Sept. 30			
1.3	20	0.7	2.0	1.5	38
1.5	33	.8	4.0	2.0	85
2.0	80	.9	7.0	3.0	203
3.0	192	1.0	11	4.6	419
		1.2	20		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a25	32	40	b55	b90	103	208	159	77	13	4.2	*5.6
2	a25	32	39	b50	84	122	259	191	70	12	4.2	5.3
3	a25	32	40	a45	b80	*131	320	182	58	12	4.2	5.0
4	a25	32	b40	a40	b70	119	331	179	42	11	4.0	5.0
5	a26	34	b35	a35	b80	112	367	177	37	11	3.8	5.3
6	a28	34	43	a45	b70	99	419	176	37	11	2.9	5.9
7	a30	37	49	a60	b80	97	*401	167	32	11	2.5	6.2
8	a30	39	50	a80	b75	94	371	154	31	11	2.1	5.6
9	a30	39	50	a100	b70	92	353	147	31	11	2.1	5.3
10	a30	40	49	a130	b70	89	327	138	32	11	3.1	5.3
11	a30	*42	53	a130	b65	84	298	126	35	11	*6.2	5.3
12	a30	41	61	a120	a60	84	290	115	32	11	4.2	5.0
13	a30	43	b55	a120	a50	86	277	106	29	9.8	4.0	5.3
14	a30	52	b50	130	a50	90	267	*94	26	9.0	4.0	5.6
15	a30	45	b45	150	a70	88	251	99	*24	8.6	4.4	9.0
16	a30	42	b50	142	a90	85	*233	97	24	8.6	4.2	12
17	a30	a40	b60	131	a110	94	221	98	24	8.2	4.0	12
18	a32	a35	62	125	a105	110	210	108	24	7.8	4.0	13
19	a35	a40	62	116	a100	120	188	109	23	9.0	4.2	14
20	*44	a50	62	107	96	112	178	110	22	8.6	7.0	17
21	40	a55	b50	102	96	111	168	109	21	7.0	8.6	14
22	38	54	b45	96	90	110	162	107	20	*6.2	9.4	13
23	38	52	*b40	95	87	114	161	111	20	5.6	8.2	13
24	38	57	b45	95	73	116	148	118	19	5.9	7.0	13
25	36	44	b45	107	79	118	150	120	18	5.6	6.2	13
26	35	b40	48	120	84	128	154	106	16	5.6	5.9	13
27	34	b35	b45	*136	83	117	166	98	16	5.3	5.6	12
28	34	b35	b50	138	92	123	167	96	15	5.0	5.3	12
29	32	b36	53	122	-	142	160	87	14	4.7	5.3	12
30	32	38	54	b110	------	164	158	84	13	4.4	5.3	*11
31	31	------	54	b100	------	200	------	83	----	4.4	5.6	------
Total	983	1,227	1,524	3,132	2,249	3,454	7,363	3,851	882	265.3	151.7	278.7
Mean	31.7	40.9	49.2	101	80.3	111	245	124	29.4	8.56	4.89	9.29
Ac-ft	1,950	2,430	3,020	6,210	4,460	6,850	14,600	7,640	1,750	526	301	553

Calendar year 1958 : Max 2,390 Min 18 Mean 324 Ac-ft 234,900
Water year 1958-59 : Max 419 Min 2.1 Mean 69.5 Ac-ft 50,290

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for Malheur River near Drewsey and Silver Creek near Riley.
b Stage-discharge relation affected by ice.

3960. Donner und Blitzen River near Frenchglen, Oreg.

Location.--Lat 42°47', long 118°52', in NW¼ sec.20, T.32 S., R.32½ E., on left bank 1½ miles upstream from upper diversions for Malheur Migratory Waterfowl Refuge, 2 miles downstream from Fish Creek, and 3½ miles southeast of Frenchglen.

Drainage area.--180 sq mi, approximately.

Records available.--March 1911 to September 1913, March 1914 to September 1916, April 1917 to September 1921, and December 1937 to September 1959 in reports of Geological Survey. August to November 1929 and April to September 1930 in reports of State engineer. Published as "near Diamond" 1911-21, and as "at P ranch, near Diamond" 1929-30. Records of discharge for January 1909 to September 1910 (published in WSP 370 as "at mouth of canyon, near Diamond") and February 1909 to July 1910 (published in WSP 270, 290, and 370, for a nonequivalent site as "near Diamond") have been found to be unreliable and should not be used.

Gage.--Water-stage recorder. Concrete control since Nov. 27, 1937. Datum of gage is 4,254 ft above mean sea level (levels by Fish and Wildlife Service). Prior to December 1937, staff gage at several sites within 2 miles downstream at different datums.

Average discharge.--29 years (1911-13, 1914-16, 1917-21, 1938-59), 126 cfs (91,220 acre-ft per year).

Extremes.--Maximum discharge during year, 331 cfs May 14 (gage height, 3.29 ft); minimum, 14 cfs Feb. 2 (gage height, 1.67 ft), result of freezeup.
1911-21, 1929-30, 1937-59: Maximum discharge, 2,750 cfs May 19, 1953 (gage height, 6.29 ft); minimum, 8 cfs Jan. 14, 1940, result of ice jam upstream.

Remarks.--Records excellent except those for periods of ice effect, which are good. No regulation or diversion above station.

Revisions (water years).--WSP 330: Drainage area (former site). WSP 860: Drainage area (present site). WSP 1564: 1938-39(M), 1942-43(M), 1948(M), 1951(P), 1952-53. See also Records available.

Rating table, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.8	19	2.5	88
2.0	30	2.8	154
2.2	48	3.2	292

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*46	44	45	46	41	47	63	124	124	64	22	25
2	46	44	44	35	b24	47	93	113	149	63	22	25
3	46	44	45	b24	b40	48	115	104	178	61	22	*24
4	46	44	45	b26	50	*43	138	101	191	56	22	24
5	45	45	b38	58	b36	48	160	102	221	55	24	25
6	45	46	48	59	43	46	157	102	261	54	24	25
7	45	46	44	50	44	49	115	102	204	47	22	24
8	45	47	48	48	b30	46	*102	104	166	45	22	24
9	45	46	48	48	b38	47	99	113	154	44	24	24
10	45	50	46	52	45	45	101	110	126	42	24	24
11	45	46	49	49	45	45	106	121	133	42	24	24
12	45	*44	93	52	b28	49	110	141	163	41	24	24
13	45	50	52	56	b30	50	115	228	169	47	24	24
14	45	54	b42	45	50	42	101	269	149	44	24	25
15	45	45	b48	48	45	46	97	235	124	41	24	31
16	45	b40	53	47	45	48	85	178	113	39	24	29
17	45	b26	49	49	47	56	88	187	106	37	24	27
18	45	b50	48	47	45	52	82	181	110	36	24	31
19	46	50	48	44	44	50	74	157	*126	34	24	56
20	48	50	48	41	41	47	78	138	113	32	25	47
21	47	47	48	b34	44	54	78	136	126	32	28	36
22	45	45	44	53	44	50	86	136	113	31	27	32
23	46	44	b36	46	44	52	101	138	99	*31	26	31
24	46	45	*50	46	37	50	110	138	88	32	25	31
25	46	44	47	46	40	47	126	144	82	29	27	40
26	46	42	46	45	44	54	126	*128	85	27	26	77
27	46	b36	47	47	44	50	108	136	86	26	26	66
28	46	b30	46	*45	45	52	101	128	73	25	25	45
29	45	b42	42	38	-	50	106	119	73	25	25	41
30	44	44	49	49	-------	56	119	115	68	24	25	41
31	44	-------	48	46	-------	55	-------	113	-------	24	25	-------
Total	1,409	1,330	1,484	1,419	1,153	1,521	3,140	4,341	3,973	1,230	754	1,002
Mean	45.5	44.3	47.9	45.8	41.2	49.1	105	140	132	39.7	24.3	33.4
Ac-ft	2,790	2,640	2,940	2,810	2,290	3,020	6,230	8,610	7,880	2,440	1,500	1,990

Calendar year 1958: Max 827 Min 26 Mean 148 Ac-ft 107,000
Water year 1958-59: Max 269 Min 22 Mean 62.3 Ac-ft 45,140

Peak discharge (base, 650 cfs).--No peak above base.

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

3970. Bridge Creek near Frenchglen, Oreg.

Location.--Lat 42°50', long 118°51', in NW¼ sec.33, T.31 S., R.32½ E., on right bank at mouth of canyon, 3½ miles northeast of Frenchglen.

Drainage area.--30 sq mi, approximately.

Records available.--March to August 1911, January 1912 to September 1916, and December 1937 to September 1959 in reports of Geological Survey. April to June 1930 in reports of State engineer. Published as "near Diamond" 1911-16, 1930.

Gage.--Water-stage recorder. Concrete control since Oct. 31, 1939. Datum of gage is 4,184.93 ft above mean sea level (levels by Fish and Wildlife Service). Prior to Dec. 21, 1937, staff gage at site within 1 mile upstream at different datums. Dec. 21, 1937, to May 17, 1938, staff gage at site 1,000 ft downstream at different datum. May 18, 1938, to Aug. 22, 1939, staff gage at present site and datum.

Average discharge.--25 years (1912-16, 1938-59), 14.2 cfs (10,280 acre-ft per year).

Extremes.--Maximum discharge during year, 13 cfs Oct. 1 to Nov. 14; maximum gage height, 1.11 ft June 29; minimum discharge, 8.3 cfs July 29 to Sept. 18.
1911-16, 1930, 1937-39: Maximum discharge, 301 cfs May 19, 1953 (gage height, 2.73 ft), from rating curve extended above 65 cfs by logarithmic plotting; minimum observed, 7 cfs Feb. 24, 25, 1912, Dec. 30, 1937, to Jan. 4, 1938.

Remarks.--Records excellent except those for periods of backwater from moss, which are good. No regulation or diversion above station. Low-water flow is sustained by large springs.

Revisions (water years).--WSP 1514: 1941-43(M), 1953(M), 1955(M).

Rating table, water year 1958-59, except periods of backwater from moss (gage height, in feet, and discharge, in cubic feet per second)

0.9	6.8
1.0	10
1.1	15

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*13	13	12	12	11	11	11	11	10	11	8.3	8.3
2	13	13	12	12	11	11	11	11	10	11	8.3	8.3
3	13	13	12	12	11	11	11	11	10	11	8.3	*8.3
4	13	13	12	12	11	*11	11	11	10	11	8.3	8.3
5	13	13	12	12	11	11	12	11	10	11	8.3	8.3
6	13	13	12	12	11	11	12	11	10	11	8.3	8.3
7	13	13	12	12	11	11	12	11	10	11	8.3	8.3
8	13	13	12	12	11	11	11	11	10	11	8.3	8.3
9	13	13	12	12	11	11	*11	11	10	11	8.3	8.3
10	13	13	12	12	11	11	11	11	10	11	8.3	8.3
11	13	13	12	12	11	11	11	10	10	11	8.3	8.3
12	13	*13	12	12	11	11	12	10	10	10	8.3	8.3
13	13	13	12	12	11	11	12	10	10	10	8.3	8.3
14	13	13	12	12	11	11	12	10	10	10	8.3	8.3
15	13	12	12	12	11	11	12	10	10	9.6	8.3	8.3
16	13	12	12	11	11	11	12	10	10	9.6	8.3	8.3
17	13	12	12	11	11	11	12	10	10	9.2	8.3	8.3
18	13	12	12	12	11	11	12	10	*10	9.2	8.3	8.3
19	13	12	12	12	11	11	11	10	10	9.2	8.3	8.6
20	13	12	12	12	11	11	11	10	10	9.2	8.3	8.6
21	13	12	12	11	11	11	11	10	11	9.2	8.3	8.6
22	13	12	12	11	11	11	11	10	11	9.2	8.3	8.6
23	13	12	12	11	11	11	11	10	11	*8.9	8.3	8.6
24	13	12	*12	11	11	11	11	10	11	8.9	8.3	8.6
25	13	12	12	11	11	11	11	10	11	8.6	8.3	8.6
26	13	12	12	11	11	11	11	*10	11	8.6	8.3	8.6
27	13	12	12	11	11	11	12	10	11	8.6	8.3	8.6
28	13	12	12	11	11	11	11	10	11	8.6	8.3	8.6
29	13	12	12	*11	-	11	11	10	11	8.3	8.3	8.6
30	13	12	12	11	-------	11	11	10	11	8.3	8.3	8.6
31	13	-------	12	11	-------	11	-------	10	-------	8.3	8.3	-------
Total	403	374	372	359	308	341	341	320	310	302.5	257.3	252.6
Mean	13.0	12.5	12.0	11.6	11.0	11.0	11.4	10.3	10.3	9.76	8.30	8.42
Ac-ft	799	742	738	712	611	676	676	635	615	600	510	501

Calendar year 1958: Max 50 Min 12 Mean 15.1 Ac-ft 10,940
Water year 1958-59: Max 13 Min 8.3 Mean 10.8 Ac-ft 7,820

Peak discharge (base, 30 cfs).--No peak above base.

* Discharge measurement made on this day.
Note.--Backwater from moss Oct. 1-17, Nov. 21 to Dec. 26, May 6 to July 23, Aug. 9 to Sept. 30.

4030. Silver Creek near Riley, Oreg.

Location.--Lat 43°41', long 119°39', in E½ sec.1, T.22 S., R.25 E., on right bank 0.4 mile downstream from Rough Creek, 1.4 miles upstream from Nicoll Creek, and 14 miles northwest of Riley.

Drainage area.--228 sq mi.

Records available.--June 1951 to September 1959.

Gage.--Water-stage recorder. Altitude of gage is 4,450 ft (by barometer).

Average discharge.--8 years, 50.3 cfs (36,420 acre-ft per year).

Extremes.--Maximum discharge during year, 155 cfs Apr. 6 (gage height, 3.00 ft); minimum, 0.2 cfs Aug. 3-18.
1951-59: Maximum discharge, 1,300 cfs Apr. 6, 1952 (gage height, 6.65 ft); no flow Dec. 3, 1957, result of freezeup.

Remarks.--Records good except those for periods of ice effect, which are fair. Diversions above station for irrigation of 500 acres.

Rating tables, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 5				Apr. 6 to Sept. 30			
1.3	3.0	2.0	30	0.9	0.1	1.6	10
1.4	4.6	2.3	56	1.0	.4	1.8	18
1.5	7.0	2.6	95	1.1	.9	2.1	37
1.7	14	2.9	140	1.2	1.8	2.5	80
				1.3	3.2	2.9	140
				1.4	5.0		

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*3.2	4.4	4.2	b4.6	b8.0	14	51	25	11	2.9	0.3	0.7
2	3.2	4.2	b4.4	b4.0	b7.0	13	104	25	9.8	2.8	.3	*.6
3	3.1	4.2	4.6	b3.6	b8.0	*13	134	23	9.5	2.6	.3	.6
4	3.2	4.2	b4.2	7.2	b9.0	b11	136	24	9.2	2.5	.2	.6
5	3.2	4.4	b4.4	9.0	b8.0	12	136	24	8.9	2.3	.2	.9
6	3.2	4.8	4.4	10	b8.5	b11	136	30	10	2.2	.2	1.1
7	3.1	5.5	4.8	11	b8.0	14	110	26	9.5	2.2	.2	1.0
8	3.2	5.8	b5.0	12	b7.5	12	*98	23	8.6	2.2	.2	.8
9	3.2	5.2	5.5	14	b7.0	13	84	24	8.3	2.0	.2	.8
10	3.5	5.2	5.0	11	b8.0	13	76	22	8.0	1.7	.2	.7
11	3.4	*4.8	b5.5	8.6	b7.5	b11	71	20	7.4	1.5	.2	.7
12	3.2	4.2	b5.0	10	b6.5	16	68	18	6.6	1.3	.2	.8
13	3.1	5.8	b4.6	b7.5	b6.5	16	62	17	6.2	1.2	.2	.8
14	3.1	7.2	b4.4	b8.5	b10	b11	53	*17	5.6	1.1	.2	.8
15	3.1	6.2	5.0	b9.0	13	b13	48	17	5.2	.9	.2	1.5
16	3.0	6.2	b5.5	9.6	12	16	42	16	5.2	.8	.2	2.3
17	3.0	4.8	b5.0	9.3	10	21	42	20	5.0	.7	.2	2.1
18	3.1	4.6	b5.5	8.6	8.6	22	39	25	*4.8	.6	.3	2.9
19	5.0	5.8	5.0	b8.0	9.0	20	36	22	4.6	.5	.3	3.8
20	5.8	7.0	5.0	b7.5	b8.5	17	33	19	5.4	.5	.4	3.5
21	4.4	b6.5	5.0	b7.0	b8.5	22	31	18	5.0	.5	1.2	2.9
22	4.0	6.0	b4.6	7.5	b8.5	20	30	18	4.0	*.4	1.8	2.6
23	4.0	5.5	*4.0	7.5	b8.0	21	29	18	3.4	.4	1.5	2.2
24	4.0	6.0	4.4	7.2	b7.5	21	28	18	3.4	.6	1.1	2.1
25	3.8	5.0	b4.6	8.4	b8.5	21	26	16	3.4	.7	.9	2.0
26	4.0	b5.0	4.8	b8.0	b9.0	26	28	15	3.5	.6	.8	2.2
27	4.0	b4.0	5.0	b8.5	9.6	22	28	14	3.6	.4	.8	2.6
28	4.0	4.2	b4.6	*b8.0	10	28	25	14	3.5	.4	.7	2.3
29	3.8	4.2	b4.8	b7.0	-	30	23	14	3.4	.4	.8	2.2
30	3.7	4.4	5.0	b7.5	-------	33	22	13	3.2	.4	.7	*2.2
31	3.8	-------	5.0	b8.0	-------	34	-------	12	-------	.3	.7	-------
Total	111.4	155.3	148.8	257.6	240.2	567	1,829	607	185.2	37.6	15.7	50.3
Mean	3.59	5.18	4.80	8.31	8.58	18.3	61.0	19.6	6.17	1.21	0.51	1.68
Ac-ft	221	308	295	511	476	1,120	3,630	1,200	367	75	31	100

Calendar year 1958: Max 789 Min 2.8 Mean 71.5 Ac-ft 51,740
Water year 1958-59: Max 136 Min 0.2 Mean 11.5 Ac-ft 8,330

Peak discharge (base, 350 cfs).--No peak above base.

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

4065. Trout Creek near Denio, Oreg.

Location.--Lat 42°10', long 118°28', in SW¼ sec.26, T.39 S., R.36 E., on right bank 0.4 mile upstream from bridge at mouth of canyon, 5 miles east of Trout Creek Ranch, and 14 miles northeast of Denio.

Drainage area.--79 sq mi, approximately.

Records available.--March 1911 to March 1912, April 1922 to November 1923, March 1925 to September 1931 (irrigation seasons only), April 1932 to September 1959.

Gage.--Water-stage recorder. Datum of gage is 4,351.52 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Mar. 25, 1911, to Mar. 31, 1912, staff gage at bridge 0.4 mile downstream at different datum. Apr. 28, 1922, to June 14, 1932, water-stage recorder at site 10 ft upstream at datum 0.50 ft higher.

Average discharge.--28 years (1922-23, 1932-59), 15.0 cfs (10,860 acre-ft per year).

Extremes.--Maximum discharge during year, 35 cfs May 26 (gage height, 2.47 ft); minimum, 1.4 cfs Jan. 3, 20.

1911-12, 1922-23, 1925-59: Maximum discharge, 470 cfs Aug. 1, 1933 (gage height, 5.26 ft), from rating curve extended above 230 cfs by logarithmic plotting; minimum observed, 0.1 cfs Aug. 4, 1930, Aug. 1, Sept. 12, 28, 1934. Probably no flow at times Sept. 1-19, 1931.

Maximum stage known, 6.0 ft (caused by cloudburst), probably occurred in 1924 or 1925.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. No regulation. Diversions for irrigation of 800 acres above station.

Revisions (water years).--WSP 1564: 1932, 1933-34(M), 1938(M).

Rating tables, water year 1958-59, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Nov. 16		Nov. 17 to Sept. 30			
1.8	5.5	1.5	1.6	2.0	10
2.0	9.5	1.6	2.7	2.2	19
		1.8	5.5	2.4	30

Discharge, in cubic feet per second, water year October 1958 to September 1959

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.0	6.2	6.7	5.9	6.9	6.9	6.7	11	24	5.5	1.7	2.2
2	*6.0	6.4	6.7	3.8	4.0	6.9	10	9.3	24	6.5	1.6	2.2
3	6.0	6.4	6.9	3.6	b5	7.1	14	9.3	a25	4.4	1.7	2.0
4	6.0	6.2	6.9	4.0	b6	5.5	18	9.0	a26	4.4	1.8	1.9
5	5.8	6.4	6.3	6.9	b5.5	6.9	21	8.7	a28	4.3	1.8	2.0
6	5.6	6.4	6.9	13	b6	6.5	22	9.6	a30	3.7	a1.8	2.0
7	5.8	6.4	6.9	11	b5	7.1	18	8.4	a25	3.7	a1.8	2.2
8	5.8	6.4	7.3	9.3	3.5	6.5	15	7.5	a20	4.6	a1.8	2.3
9	6.0	6.4	7.5	7.8	b3	6.3	*13	7.5	a16	4.2	a1.9	2.3
10	6.1	7.5	7.1	7.5	b2.8	5.9	13	8.7	a14	4.0	a1.9	2.0
11	6.2	6.6	7.1	7.3	b2.5	5.5	14	9.9	a12	3.7	a1.9	1.8
12	6.1	6.4	8.7	7.1	b2.5	7.1	13	11	a11	3.0	*1.9	1.8
13	6.1	7.2	6.3	7	b2.5	7.1	14	13	*9.9	3.1	2.2	2.0
14	6.1	8.8	5.5	b6.5	b4	5.4	11	18	10	4.6	2.3	2.6
15	6.1	6.1	7.5	7.1	b5	5.0	9.9	18	11	4.4	2.3	3.4
16	6.1	6.2	7.3	6.9	b6	5.7	8.7	13	a10	3.5	2.2	3.2
17	6.1	4.9	6.9	7.1	b7	6.5	9.3	20	a9.5	3.1	2.0	3.1
18	6.1	11	6.9	6.9	7.1	6.7	8.1	18	a8.5	3.7	1.9	3.4
19	6.6	9.0	6.9	6.1	7.1	6.5	6.9	17	a9.5	3.7	2.0	4.3
20	6.8	8.1	6.7	3.1	6.7	5.5	6.5	16	a9.5	3.6	2.5	4.0
21	*6.7	7.3	6.7	b4	6.7	6.5	6.5	16	a9	3.4	3.4	3.9
22	6.7	6.9	6.5	b6	6.7	6.5	7.3	15	a8	3.0	3.0	3.7
23	6.7	6.9	4.9	b6.5	6.3	6.7	7.8	13	a7	2.8	2.6	3.6
24	7.0	6.7	7.1	6.9	5.5	6.7	9.3	16	a6.5	*3.0	2.4	3.5
25	6.8	6.5	*6.3	6.9	5.9	6.1	9.9	14	a6.5	2.5	2.5	3.6
26	6.7	6.3	6.1	6.7	b6	6.5	10	24	a7	2.4	2.4	3.9
27	6.6	5.7	6.3	6.7	6.5	6.3	7.5	24	a6.5	2.0	2.0	4.3
28	6.6	4.9	6.3	6.9	6.7	6.3	6.7	24	a6	1.9	1.9	4.0
29	6.4	7.3	5.5	5.4	-	6.1	6.9	25	a6	2.0	1.9	4.0
30	6.2	7.8	6.5	7.8	-------	6.3	8.7	25	a5.5	2.0	1.9	4.3
31	6.2	-------	6.1	6.9	-------	6.3	-------	25	-------	1.9	1.9	-------
Total	194.0	205.3	207.3	208.6	148.4	196.9	332.7	463.9	400.9	108.6	64.9	89.5
Mean	6.26	6.84	6.69	6.73	5.30	6.35	11.1	15.0	13.4	3.50	2.09	2.98
Ac-ft	385	407	411	414	294	391	660	920	795	215	129	178

Calendar year 1958: Max 126 Min 3.8 Mean 23.0 Ac-ft 16,680
Water year 1958-59: Max 30 Min 1.6 Mean 7.18 Ac-ft 5,200

Peak discharge (base, 50 cfs).--No peak above base.

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of records for Malheur River near Drewsey, Twentymile Creek near Adel, and Donner und Blitzen River near Frenchglen.
b Stage-discharge relation affected by ice.

As the number of streams on which streamflow information is likely to be desired far exceeds the number of stream-gaging stations feasible to operate at one time, the Geological Survey collects limited streamflow data at sites other than stream-gaging stations. When limited streamflow data are collected on a systematic basis over a period of years for use in hydrologic analyses, the site at which the data are collected is called a partial-record station. Data collected at these partial-record stations are usable in low-flow or flood-flow analyses, depending on the type of data collected. In addition, discharge measurements are made at other sites not included in the partial-record program. These measurements are generally made in times of drought or flood to give better areal coverage to those events. Those measurements and others collected for some special reason are called measurements at miscellaneous sites.

Records collected at partial-record stations are generally presented in two tables. However, no records at low-flow partial-record stations are available for the 1959 water year. A table of annual maximum discharge at crest-stage stations is given first, followed by a table of measurements made at miscellaneous sites for both low flow and high flow.

Crest-stage partial-record stations

The following table contains annual maximum discharges for crest-stage stations. A crest-stage gage is a device which will register the peak stage occurring between inspections of the gage. A stage-discharge relation for each gage is developed from discharge measurements made by indirect measurements of peak flow or by current meter. The date of the maximum discharge is not always certain but is usually determined by comparison with nearby continuous-record stations, weather records, or local inquiry. Only the maximum discharge for each water year is given. Information on some lower floods may have been obtained but is not published herein. The years given in the period or record represent water years for which the annual maximum has been determined.

Annual maximum discharge at crest-stage partial-record stations

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Death Valley					
2510	Big Dip Creek near Stovepipe Wells, Calif.	Lat 36°55'05", long 117°17'35", in Death Valley, at culvert on Scotty's Castle road, 21 miles northwest of Stovepipe Wells.	0.95	1959	11-11-58a	11.39	15
2512	Spring Creek at Furnace Creek Inn, Calif.	S½ sec.23, T.27 N., R.1 E., at culvert on State Highway 190, 0.8 mile southeast of Furnace Creek Inn.	-	1959	9-12-59	10.30	b.5
2514	Ibex Creek near Tecopa, Calif.	Lat 35°47'15", long 116°20'00", at culvert on State Highway 127, 7.5 miles southwest of Tecopa.	-	1959	9-13-59	(c)	b.1
2515	Yucca Creek near Yucca Grove, Calif.	SE¼ sec.2, T.15 N., R.11 E., at culvert on U. S. Highways 91 and 466, 2.5 miles northeast of Yucca Grove.	-	1959	8- 7-59	10.66	b5
2516	Salsberry Creek near Shoshone, Calif.	Lat 35°55'10", long 116°26'05", at culvert on Shoshone-Death Valley road 10 miles southwest of Shoshone.	-	1959	1959	-	(d)
		Bristol Lake basin					
2527	Creosote Creek near Cadiz, Calif.	NE¼ sec.35, T.6 N., R.14 E., at culvert on U. S. Highway 66, 4 miles northeast of Cadiz.	-	1959	8-17-59	11.46	9.2
2530	Gourd Creek near Ludlow, Calif.	SW¼ sec.23, T.7 N., R.9 E., at culvert on U. S. Highway 66, 8.5 miles southeast of Ludlow.	-	1959	1959	-	(d)
		Mojave River basin					
2618	Beacon Creek at Helendale, Calif	SE¼ sec.29, T.8 N., R.4 W., at culvert on U. S. Highways 66 and 91, 0.5 mile northeast of Helendale.	0.72	1959	9-13-59	13.12	28
2626	Boom Creek near Barstow, Calif.	NW¼NE¼ sec.2, T.9 N., R.1 W., at culvert on U. S. Highways 91 and 466, 4 miles east of Barstow.	.24	1959	9-13-59	12.93	36
2631	Zzyzx Creek near Baker, Calif.	Lat 35°11'40", long 116°09'05", at culvert on U. S. Highways 91 and 466, 6.5 miles southwest of Baker.	-	1959	1959	-	(d)

a Prior to installation of gage; peak discharge computed from highwater marks along highway embankment at culvert.
b Estimated.
c Peak did not reach bottom of gage.
d No evidence of any flow during 1959 water year.

Annual maximum discharge at crest-stage partial-record stations--Continued

Station No.	Station name	Location	Drainage area (sq mi)	Period of record	Annual maximum		
					Date	Gage height (feet)	Discharge (cfs)
		Antelope Valley					
2645.2	Amargosa Creek tributary near Palmdale, Calif.	SE¼ sec.2, T.6 N., R.14 W., at culvert on Pine Canyon road, 12.5 miles northwest of Palmdale.	-	1959	2-11-59	10.72	b2.7
2645.3	Pine Creek near Palmdale, Calif.	SW¼ sec.15, T.6 N., R.13 W., at culvert on Pine Canyon road, 7½ miles northwest of Palmdale.	-	1959	1- 6-59	10.41	b.8
2645.6	Spencer Canyon Creek near Fairmont, Calif.	SW¼ sec.15, T.8 N., R.16 W., at culvert on State Highway 138, 8.5 miles northwest of Fairmont.	-	1959	1- 6-59	(c)	b10
2646.05	Joshua Creek near Mojave, Calif.	SW¼ sec.26, T.11 N., R.14 W., at culvert on Willow Springs road, 10 miles southwest of Mojave.	-	1959	1- 6-59	10.63	b3
		Koehn Lake basin					
2647	Pewee Creek near Randsburg, Calif.	SW¼NE¼ sec.34, T.28 S., R.40 E., at culvert on U. S. Highway 395, 6.5 miles north of Randsburg.	-	1959	1959	-	(d)
		Indian Wells Valley					
2648.75	Sand Creek near Inyokern, Calif.	SW¼SE¼ sec.33, T.26 S., R.38 E., at culvert on U. S. Highway 6, 4.8 miles southwest of Inyokern.	-	1959	2-16-59	(c)	b0.5
2649	Salt Wells Creek near Westend, Calif.	NE¼NW¼ sec.27, T.26 S., R.42 E., at culvert on Trona road, 4.8 miles southwest of Westend.	61.6	1959	2-16-59	10.36	b10
2649.15	Crust Creek near Westend, Calif.	NW¼ sec.8, T.26 S., R.43 E., at culvert on Trona RR., 1.2 miles southeast of Westend.	-	1959	9-13-59	(c)	b.2

b Estimated.
c Peak did not reach bottom of gage.
d No evidence of any flow during 1959 water year.

Measurements at miscellaneous sites

Measurements of streamflow at points other than gaging stations or partial-record stations are given in the following table. Those that are measurements of base flow are designated by an asterisk (*); measurement of peak flow by a dagger (†).

Discharge measurements made at miscellaneous sites during water year 1959

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Bear River basin						
Bear River.	Great Salt Lake	Lat 41°08', long 110°53', in NW¼NE¼ sec.6, T.13 N., R.11 9 W., 2 miles above Meyers bridge, 5¾ miles above Sulphur Creek, and 9½ miles southeast of Evanston, Wyo.	282	1946-56	7-22-59	*72.8
Sulphur Creek.	Bear River....	NE¼SE¼ sec.7, T.14 N., R.119 W., at mouth 6½ miles southeast of Evanston, Wyo.	a85	1958	7- 7-59	*42.5
Smiths Fork	....do.....	Lat 42°14'03", long 110°52'20", in SW¼ sec.16, T.26 N., R.118 W., 300 ft above Coal Creek and 11 miles northeast of Cokeville, Wyo.	174		11- 7-58 12- 4-58	*85.9 *72.4
Do.....	....do.....	Lat 42°14'00", long 110°52'20", in SW¼ sec.16, T.26 N., R.118 W., 400 ft below Coal Creek and 11 miles northeast of Cokeville, Wyo.	182		2-20-59	*66.2
Logan River	Little Bear River.	SW¼NW¼ sec.36, T.12 N., R.1 E., 100 ft above Logan Northern Canal, 300 ft below State dam, and 2½ miles east of Logan, Utah.	219	1913-14, 1956-58	4-23-59 7- 7-59	*171 *202
Malad River	Bear River....	Sec.10, T.14 S., R.35 E., at springs 1 mile above dam on Samaria Reservoir No. 2, 5¾ miles northwest of Malad City, Idaho, and 8¾ miles above Little Malad River.	ab3.3	1948-58	10-28-58 12- 8-58 1-14-59 2-18-59 3-26-59 4-29-59 5-24-59 6-22-59 8- 7-59	*8.71 *6.38 *8.18 *11.6 *11.9 *13.0 *10.7 *10.8 *8.48
Jordan River basin						
Nebo Creek.	Thistle Creek.	SW¼ sec.11, T.11 S., R.4 E., 2 miles above mouth and 6 miles northwest of Indianola, Utah.	-		9-21-59	*5.34
Deer Creek.	Provo River...	NE¼ sec.7, T.2 S., R.4 E., 2 miles northeast of Wildwood, Utah.	b26	1938-45‡, 1945-50‡	9-18-59	*8.20
Dry Creek..	Utah Lake.....	NE¼ sec.18, T.4 S., R.2 E., 3½ miles above mouth and 2 miles northeast of Alpine, Utah.	9.82	1947-55‡	9-18-59	*4.38
Fort Creek.	Dry Creek.....	SE¼ sec.13, T.4 S., R.1 E., 1½ miles above mouth and ¾ mile north of Alpine, Utah.	6.55	1947-55‡	9-18-59	*2.39
Tooele Valley						
Middle Creek Canyon.	Great Salt Lake.	Sec.6, T.4 S., R.3 W., 3¾ miles southeast of Tooele, Utah.	-		9-25-59	*0.46
South Willow Creek.	....do.....	SE¼ sec.1, T.4 S., R.7 W., 9 miles southeast of Grantsville, Utah.	-		9-25-59	*1.11
North Willow Creek.	....do.....	NW¼ sec.30, T.3 S., R.6 W., 7 miles southwest of Grantsville, Utah.	-		9-25-59	*.24
Great Salt Lake Desert						
Little Valley Wash.	Great Salt Lake Desert.	Lat 40°10'50", long 113°51'35", 2 miles northwest of Gold Hill, Utah.	a0.9		8-19-59	†2,570
Thousand Spring Creek.	....do.....	Sec. 20, T.41 N., R.64 E., 5 miles southeast of Wilkins, Nev.	-		8-20-59	0
Do.....	....do.....	Sec.31, T.43 N., R.67 E., 24 miles northwest of Tacoma, Nev.	-		8-20-59	0
Sevier Lake basin						
Rock Canyon.	Sevier River..	Lat 37°42', long 112°26', 2 miles above mouth and 3 miles north of Hatch, Utah.	a36		8- 2-59	†5,230
Spring Creek.	San Pitch River.	Sec.14, T.14 S., R.4 E., 2 miles south of Fairview, Utah.	-		9-21-59	*2.25
Manti Creek	....do.....	SW¼ sec.11, T.18 S., R.3 E., 5 miles east of Manti, Utah.	-		9-22-59	*3.76
Oak Creek..	Oak Creek Sinks.	Sec.10, T.17 S., R.4 W., 3½ miles east of Oak City, Utah.	-		9-14-59	*1.38

* Base flow.
† Peak flow.
‡ Operated as a continuous-record gaging station.
a Approximately.
b Flow derived largely from springs.

Discharge measurements made at miscellaneous sites during water year 1959--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Pavant Valley						
Meadow Creek.	Pavant Valley.	Sec.17, T.22 S., R.4 W., 4 miles east of Meadow, Utah.	-	1944-46, 1954, 1957	9-17-59	*1.30
Corn Creek.	....do.....	Sec.35, T.23 S., R.5 W., 4 miles southeast of Konosh, Utah.	-	1944-46, 1954, 1957	9-17-59	*4.16
Beaver River basin						
North Fork North Creek.	Beaver River..	NE¼ sec.10, T.28 S., R.6 W., 11 miles northeast of Beaver, Utah.	-		9-22-59	*1.09
South Creek.	....do.....	SE¼ sec.17, T.30 S., R.6 W., 7 miles southeast of Beaver, Utah.	-		9-23-59	*.27
Parowan Valley						
Center Creek.	Parowan Valley	SW¼ sec.31, T.34 S., R.8 W., 2½ miles south of Parowan, Utah.	-		9-23-59	*5.08
Bowery Creek.	Center Creek..	Sec.31, T.34 S., R.8 W., 3 miles south of Parowan, Utah.	-		9-23-59	*1.47
Pump Well Stream.	....do.....	SE¼ sec.24, T.34 S., R.9 W., 1½ miles southeast of Parowan, Utah.	-		9-23-59	*.72
Center Creek.	Parowan Valley.	SE¼ sec.24, T.34 S., R.9 W., 1½ miles south of Parowan, Utah.	-	1943-50‡	9-23-59	*7.50
Snake Valley						
Baker Creek.	Snake Valley..	Sec.22, T.13 N., R.69 E., 4¾ miles west of Baker, Nev.	12.8	1947-55‡	9-17-59	*3.20
Lehman Creek.	Baker Creek...	Sec.10, T.13 N., R.69 E., 4¾ miles west of Baker, Nev.	a11	1916, 1947-55‡	9-17-59	*3.34
Clover Valley						
Steels Creek.	Clover Valley.	Sec.15, T.35 N., R.61 E., 14 miles south of Wells, Nev.	-		8-21-59	*0.87
Steptoe Valley						
Duck Creek.	Steptoe Valley	SE¼ sec.24, T.17 N., R.64 E., 6 miles southeast of McGill, Nev.	-		8-22-59	0
Spring Valley						
Cleve Creek.	Spring Valley.	Sec.24, T.16 N., R.66 E., 11 miles northwest of Osceola, Nev., at site of areal primary gaging station established Oct. 21, 1959.	-		8-23-59	*4.90
Railroad Valley						
Currant Creek.	Railroad Valley.	Sec.16, T.11 N., R.59 E., 8 miles northeast of Currant, Nev.	-		8-22-59	*0.15
Walker Lake basin						
Rough Creek.	East Walker River.	SW¼SW¼ sec.14, T.6 N., R.27 E., 2½ miles northwest of Fletcher, Nev.	-	1953	9-11-59	*1.06
Carson River basin						
East Fork Carson River.	Carson River..	Sec.28, T.8 N., R.21 E., ½ mile below Murray Canyon Creek, 2 miles southwest of Soda Springs ranger station, and 14 miles southeast of Markleeville, Calif.	-	1946-51‡	9-25-59	11.3
Silver King Creek.	East Fork Carson River	Sec.30, T.9 N., R.22 E., ¼ mile below Poison Valley, 2½ miles east of Soda Springs ranger station, and 6½ miles southeast of Coleville, Calif.	a30	1946-51‡	9-25-59	11.5
Wolf Creek.	East Fork Carson River	Lat 38°32', long 119°43', ½ mile below Canyon Creek and 12 miles southwest of Markleeville, Calif.	-	1946-51‡	9-11-59	*3.85
Hot Springs Creek.	....do.....	SE¼NE¼ sec.23, T.10 N., R.19 E., ½ mile above Buck Creek, 4 miles above mouth, and 4 miles west of Markleeville, Calif.	a14	1946-57‡	9-11-59	*.33
Pleasant Valley Creek.	Markleeville Creek.	Lat 38°39', long 119°50', 1¼ miles above Raymond Canyon Creek, 4½ miles above mouth, and 5 miles southwest of Markleeville, Calif.	-	1946-50‡	9-11-59	*1.25

* Base flow.
‡ Operated as a continuous-record gaging station.
a Approximately.

Discharge measurements made at miscellaneous sites during water year 1959--Continued

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Measurements	
					Date	Discharge (cfs)
Humboldt River basin						
Bishop Creek.	East Fork Humboldt River.	Sec.10, T.39 N., R.63 E., 11 miles south of Wilkins, Nev.	-		8-20-59	0
Marys River.	Humboldt River.	Sec.10, T.42 N., R.59 E., 34 miles north of Deeth, Nev.	-		8-20-59	*.43
North Fork Humboldt River.	....do.....	SE¼ sec.32, T.43 N., R.54 E., 8 miles northwest of North Fork, Nev.	-		8-19-59	*.65
Conners Creek.	Huntington Creek.	Sec.23, T.25 N., R.55 E., 40 miles north of Eureka, Nev.	-		8-22-59	*3.23
Rock Creek.	Humboldt River.	Sec.21, T.39 N., R.47 E., 7 miles east of Midas, Nev.	-		8-19-59	0
Pyramid and Winnemucca Lakes basin						
Upper Truckee River.	Lake Tahoe.....	S½NE¼ sec.20, T.12 N., R.18 E., near Meyers, Calif.	-		9-11-59	*4.45
Squaw Creek.	Truckee River..	SE¼NW¼ sec.28, T.16 N., R.16 E., ½ mile above mouth. near Tahoe, Calif.	-		9-11-59	*.36
Franktown Creek (Head of Steamboat Creek).	....do.....	Sec.9, T.16 N., R.19 E., ½ mile west of Franktown, Nev. and 3 miles above Washoe Lake.	a14	1948-55‡	9-11-59	*1.80
Steamboat Creek.	....do.....	NW¼NW¼ sec.23, T.19 N., R.20 E., below Hidden Valley near Sparks, Nev., 1¼ miles above mouth.	-		8-14-59 8-15-59	95.1 68.0
Malheur and Harney Lakes basin						
Krumbo Creek.	Donner und Blitzen River	SW¼ sec.20, T.30 S., R.32 E., 10 miles northeast of Frenchglen, Oreg.	a28		9- 2-59	*2.40
Kiger Creek.	....do.....	SW¼ sec.3, T.30 S., R.33 E., at former gaging station 2 miles southeast of Diamond, Oreg.	a75	1907, 1909-13‡, 1914-15, 1916-21‡, 1930, 1939-41, 1955, 1958	9- 3-59	*3.43
Cucamonga Creek.	....do.....	NW¼ sec.8, T.30 S., R.33 E., at former gaging station 2 miles south of Diamond, Oreg.	a15	1911-13‡, 1914-15, 1911‡, 1930	9- 3-59	0
McCoy Creek.	Kiger Creek....	SE¼ sec.2, T.30 S., R.32 E., at former gaging station 3 miles southwest of Diamond, Oreg.	a45	1907, 1910-14‡, 1915, 1916-21‡, 1930, 1941, 1955, 1958	9- 3-59	*1.28
Donner und Blitzen River.	Malheur Lake...	SW¼ sec.2, T.27 S., R.31 E., at former gaging station 2 miles southwest of Voltage, Oreg.	a760	1938-46‡, 1947-49, 1951-55, 1957-58	9- 2-59	10.8
Malheur Lake Outlet.	Harney Lake....	Sec.26, T.26 S., R.31 E., at former gaging station at highway bridge in town of Narrows, Oreg.	a2,150	1916‡, 1943, 1952-53, 1955-58	3- 3-59 9- 2-59	43.8 0

* Base flow.
‡ Operated as a continuous-record gaging station.
a Approximately.

A series of discharge measurements was made Sept. 29, 1959, on the Humboldt River, in Nevada, in a reach about 40 miles in length, between the gaging stations at Comus and near Rose Creek. The investigations were made during a period of fairly constant stage and very low flow at which time no diversions were being made. Indicated gains or losses may be substantially in error due to small inaccuracies in measurements.

Miles above Rose Creek station	Location	Discharge, in cubic feet per second	
		Measured discharge	Gain or loss
45.5	Gaging station at Comus	0.06	-
43.5	Above RR. bridge 1.0 mile below Comus gaging station	.12	+0.06
41.0	2.0 miles above Preble ranch	*.004	-.12
39.0	At old wagon bridge at Preble ranch	0	0
37.5	1.0 mile below bridge at Preble ranch	.04	+.04
36.0	At Stall dam 2 miles above Golconda	.19	+.15
34.0	At Golconda	.87	+.68
33.3	At Eden Valley road bridge	1.03	+.16
32.0	At Diamond S ranch	.57	-.46
30.7	At diversion dam below Diamond S ranch	1.22	+.65
26.7	At Bullhead ranch footbridge	1.08	-.14
22.0	200 ft below bridge and dam at Kearn ranch	1.68	+.60
17.5	At Rinehart ranch road bridge	3.50	+1.82
16.0	Above Bridge Street bridge at Winnemucca	5.01	+1.51
12.0	At dam at Harrer ranch	2.13	-2.88
10.2	At bridge at upper Hilyer ranch	3.26	+1.13
7.0	At dam above lower Hilyer ranch	9.35	+6.09
5.5	At lower Hilyer ranch	12.9	+3.55
4.0	At lower McNinch ranch	14.8	+1.9
3.4	Below lower McNinch ranch	14.8	0
0	Gaging station near Rose Creek	13.4	-1.4

* Field estimate.

Note.--Mileage indicated is from topographic maps, is generalized, and does not include the numerous meanders which occur throughout the reach.

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