

Surface Water Supply of the United States 1956

Part 10. The Great Basin

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

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1444

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



UNITED STATES DEPARTMENT OF THE INTERIOR

FRED A. SEATON, *Secretary*

GEOLOGICAL SURVEY

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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, C. G. Paulsen, chief, succeeded by L. B. Leopold, under the general direction of J. V. B. Wells, chief, Surface Water Branch, and B. J. Peterson, chief, Basic Records Section, succeeded by F. J. Flynn.

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K. N. Phillips	Portland, Oreg.
M. T. Wilson	Salt Lake City, Utah

CALENDAR FOR WATER YEAR 1956

OCTOBER 1955

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SURFACE WATER SUPPLY OF THE GREAT BASIN, 1956

SCOPE OF WORK

This volume is one of a series of 18 reports presenting measurements of stage, discharge, and content of streams, lakes, and reservoirs in the United States during the water year ending September 30, 1956. Since 1888, when the United States Geological Survey first studied streamflow in relation to problems of irrigation, similar measurements have been made at more than 13,500 gaging stations in the 48 States and at many others in the Territories of Alaska and Hawaii. On September 30, 1956, the Geological Survey and cooperating organizations were maintaining 6,910 gaging stations, including those in Alaska and Hawaii. Discharge measurements only were made at many other points in the 1956 water year. The name of each stream measured at points other than gaging stations is not listed in the index of this report. Only the major river basins in which measurements were made are listed under the item "Discharge measurements" in the index.

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 Public Works, F. B. Durkee, director, through State Department of Water Resources, H. O. Banks, director.

Idaho: State Department of Reclamation, M. R. Kulp, State reclamation engineer.

Nevada: Office of State Engineer, H. A. Shamberger.

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

Utah: Office of State Engineer, J. M. Tracy; Utah Water & Power Board, Charles Redd, chairman, and G. D. Clyde, director.

Wyoming: Office of State Engineer, L. C. Bishop.

Work in the Bear River basin (exclusive of Malad Valley) was done under cooperative agreements with the State Department of Reclamation of Idaho, the Office of State Engineer of Utah, the Office of State Engineer of Wyoming, and the Bureau of Reclamation of the United States Department of the Interior.

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 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: Walker River Irrigation District.

Idaho: Utah Power & Light Co.

Oregon: Harney and Lake Counties.

Utah: Utah Power & Light Co.

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.

<u>State</u>	<u>District office</u>	<u>Address</u>
California a/.....	Menlo Park.....	4 Homewood Place.
Idaho b/.....	Boise.....	914 Jefferson Street.
Nevada.....	Salt Lake City, Utah.....	300 Federal Building.
Oregon c/.....	Portland.....	1001 NE. Lloyd Boulevard.
Utah d/.....	Salt Lake City.....	300 Federal Building.
Wyoming.....	Denver, Colo.....	Federal Center.

a/ Except for stations in Walker Lake, Carson River, and Truckee River basins.

b/ Except for stations in Bear River basin operated in connection with Federal Power Commission projects.

c/ The work in Oregon was done in collaboration with L. A. Stanley, State engineer.

d/ 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.

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. Provisional records of discharge prior to publication, and other unpublished data concerning the gaging-station records may usually be obtained from the district office.

DEFINITION OF TERMS AND ABBREVIATIONS

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

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 (cfs/m) 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 is the depth to which an area would be covered if all the water draining from it in a given period were uniformly distributed on its surface. The term is used for comparing runoff with rainfall, which is also usually expressed in inches.

Acre-foot is the quantity of water required to cover an acre to the depth of 1 foot and is equivalent to 43,560 cubic feet. The term is commonly used in relation to storage for irrigation.

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 OF LISTING GAGING STATIONS

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.

EXPLANATION OF DATA

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. Typical structures in use at gaging stations are shown in figure 1.

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 determinations, 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,



A, DONNER UND BLITZEN RIVER NEAR FRENCHGLEN, OREG.



B, SEVIER RIVER NEAR JUAB, UTAH.



C, LOGAN RIVER NEAR LOGAN, UTAH.

FIGURE 1.—GAGING-STATION STRUCTURES.

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 and runoff 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 1956 is shown on page IV for the purpose of finding the day of the week for any date.

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 recorders, 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. Runoff 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 (whether the daily figures are figures of stage or contents) but is not published for reservoirs for which only monthly data are given.

Discharge measurements and determinations of peak flows made at sites other than gaging stations are listed at the end of each report.

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.

Runoff 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 runoff in inches are not published unless

storage or diversion records are included to indicate the extent of the regulation or diversion, or unless satisfactory adjustments can be made 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

To facilitate publication of the annual series of reports, the area of the United States is divided into 14 parts whose boundaries coincide with certain natural drainage lines. Formerly, the results of streamflow measurements were published in 14 volumes, one for each of the 14 parts. Beginning with the reports for 1951, the records are 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 2.

- 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 on 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.

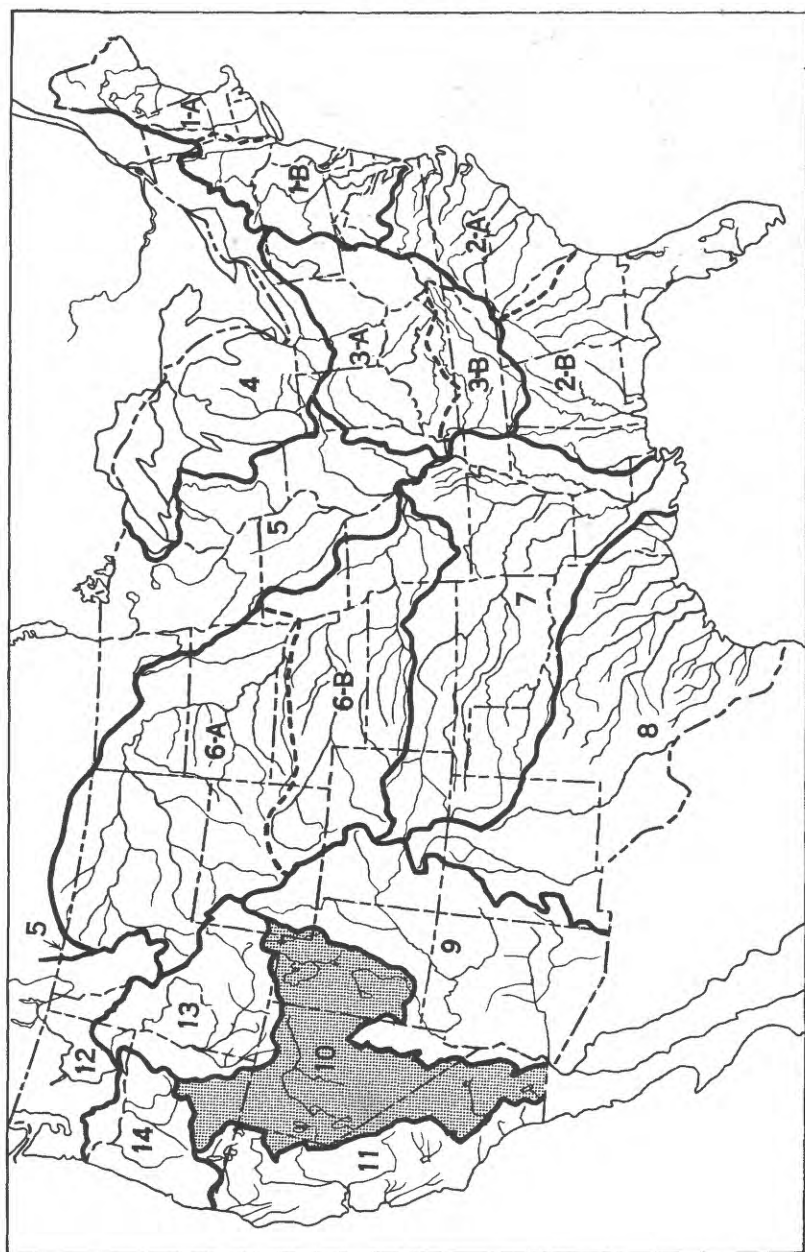


Figure 2.--Map of the United States showing areas covered by the 18 annual volumes on surface-water supply. The area covered by this report is shaded.

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

(A = Annual Reports; B = Bulletin)

Report	Character of data	Year
10th A, pt. 2	Descriptive information only.	1884 to September 1890.
11th A, pt. 2	Monthly discharge and descriptive information.....	1884 to June 30, 1891.
12th A, pt. 2	....do.....	1884-92.
13th A, pt. 3	....do.....	1888-93.
14th A, pt. 2	Monthly discharge.....	1893-94.
B 131.....	Descriptions, measurements, gage heights, and ratings.....	
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.
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.

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, 1899-1956

Year	WSP	Year	WSP	Year	WSP	Year	WSP	Year	WSP
1899	38, a39	1912	330	1925	610	1937	630	1949	1150
1900	51	1913	350	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	1264
1904	133, b134	1917	460	1930	705	1942	960	1954	1344
1905	176, b177	1918	480	1931	720	1943	980	1955	1394
1906	212, b213	1919-20	510	1932	735	1944	1010	1956	1448
1907-8	250, b251	1921	530	1933	750	1945	1040		
1909	270, b271	1922	550	1934	765	1946	1060		
1910	290	1923	570	1935	790	1947	1090		
1911	310	1924	590	1936	810	1948	1120		

a Mojave River only.

b The Great Basin in California, except Truckee and Carson River basins.

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.

The records at most of the stations discussed in these reports extend over many years. Discharge measurements at many points other than regular gaging stations have been made each year and are published at the end of each report. The streams and points of measurement are listed in the same order as the streams and gaging stations in the body of the report. An index of the records obtained before 1904 has been published in Water-Supply Paper 119.

Each of the reports on the surface-water supply for the year 1939 (Water-Supply Paper 880 for the Great Basin) contains, for the area included in that report, a summary of yearly discharge at gaging stations at which 10 or more complete years of record had been collected. These summaries were reprinted separately.

Reports also have been published that are compilations of records for various areas, usually a single State or drainage basin. These reports contain records previously published (some of which may have been revised), as well as some records not contained in the annual series of water-supply papers. The following table lists reports of the type for the Great Basin.

Reports containing compilations of discharge by States and drainage basins

WSP	Period	Report
300.....	1891-1912	Water resources of California, part 3, Stream measurements in the Great Basin and Pacific Coast river basins.
370.....	1878-1910	Surface water supply of Oregon.
517.....	1889-1920	Water powers of Great Salt Lake basin.
637-A.....	1895-1927	Surface water supply of minor San Francisco Bay, northern Pacific, and Great basins in California.
920.....	1889-1937	Utilization of surface water resources of Sevier Lake basin (Utah).

Records of discharge have been published also in State reports. Some of these are not contained in the publications of the Geological Survey or are revisions of records previously published in its water-supply papers. The following table contains a list of these reports for the area covered by this report.

State reports containing compilations of records of discharge

State	Period	Report	Issued by
Oregon....	1878-1914	Bull. 4, Water resources of the State of Oregon.	Office of the State Engineer.
Do.....	1914-24	Bull. 7, Water resources of the State of Oregon.	Do.
Do.....	1924-30	Bull. 8, Water resources of the State of Oregon.	Do.
Do.....	1930-36	Bull. 9, Water resources of the State of Oregon.	Do.
Do.....	1936-41	Bull. 10, Water resources of the State of Oregon.	Do.
Utah.....	1889-1905	5th biennial report.....	Do.
Do.....	1906-10	7th biennial report.....	Do.
Do.....	1911-16	10th biennial report.....	Do.

Note.--In addition to the records contained in the reports listed above, the States of California, Nevada, and Oregon have issued annual or biennial reports in which are contained records of discharge.

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.

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 1955 to September 1956 by agencies other than the Geological Survey. The records of these stations are not contained in publications of the Geological Survey, nor have they been published elsewhere except as noted in footnotes to the table. 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
City Creek.....	Salt Lake City, Utah, near mouth of canyon.	1898-1956a	Salt Lake City.
Cottonwood Creek.	.....do.....	1898-1956a	Do.
Donner Creek.....	Above Gold Creek near Truckee, Calif.....	1929-56	Federal Court Watermaster for Truckee River.
Emigration Creek.	.....do.....	1898-1956a	Do.
Ephraim Creek....	Near Ephraim, Utah.....	1914-56	Intermountain Forest & Range Experiment Station.
Little Cottonwood Creek.	Salt Lake City, Utah, near mouth of canyon.	1898-1956a	Salt Lake City.
Little Truckee River.	Above Boca Reservoir, near Boca, Calif.....	1942-56	Washoe County Water Conservation District.
Do.....	Below Boca Reservoir, near Boca, Calif.....	1942-56	Do.

Records of discharge collected by agencies other than the Geological Survey--Continued

Stream	Location	Period	Collected by
Mill Creek.....	Salt Lake City, Utah, near mouth of canyon.	1898-1956a.	Salt Lake City.
Otter Creek Outlet.	Antimony, Utah, at former Geological Survey gaging station near Coyote.	1920-56b	Sevier River water commissioner.
Farleys Creek....	Salt Lake City, Utah, near mouth of canyon.	1898-1956a.	Salt Lake City.
Sevier River.....	Delta, Utah, at former Geological Survey gaging station.	1920-56b	Sevier River water commissioner.
Truckee River....	At Derby Dam, Nev.....	1907-10c, 1926-56	Federal Court Water-master for Truckee River and Truckee-Carson Irrigation District.
Do.....	At Farad, Calif.....	1938-56d	Truckee-Carson Irrigation District.
Do.....	At Pyramid Dam, Nev.....	1928-56	Federal Court Water-master for Truckee River.
Do.....	At Tahoe, Calif.....	1895-96, 1900-56d	Federal Court Water-master for Truckee River and Truckee-Carson Irrigation District.
Do.....	At Vista, Nev.....	1899-1907c, 1927-56	Federal Court Water-master for Truckee River.
Walker River.....	Near Wabusha, Nev.....	1902-8c, 1920-34c, 1940-56	Walker River Irrigation District.
West Walker River	Near Hudson, Nev.....	1921-25c, 1941-56	Do.

a Records prior to 1913 are contained in water-supply papers published by the Geological Survey; those for 1913-30, in reports published by Salt Lake City.

b Published in the annual reports of Sevier River water commissioner.

c Published in water-supply papers by the Geological Survey.

d Records prior to 1944 published in water-supply papers by the Geological Survey.

HYDROLOGIC CONDITIONS

Runoff in the northern portion of the basin remained below median during October and November and above or near median during the remainder of the year. Drought conditions continued in the southeast part of the basin. Runoff of the Sevier River at Hatch, Utah, for the water year was only 42 percent of a 34-year average and the lowest of record. Except for 1952, monthly runoff in the southern part of Utah has been deficient for the past 7 years. Record-breaking floods in the Sierra-Nevada region in Nevada occurred Dec. 23. Heavy rains extended to high altitudes, and the excessive runoff that resulted was augmented by water melted from the existing snow pack. Flood peaks in the lower Carson River basin exceeded previous maximums by about 60 percent. Peaks on the upper Carson tributaries and in the Truckee and Walker Lake basins were generally of the same magnitude as the previous maximums in 1950. City of Reno was extensively damaged by flooding of Truckee River. In Nevada the December storms extended into the Humboldt River basin and ended a long period of deficient runoff; flooding occurred in northern tributaries and in Quinn River basin. The December and January storms also reached the Wasatch Mountains in Utah. It is very unusual to have rain runoff from the Wasatch Mountains during winter months. High flows occurred in the lower Weber River and Little Bear River basins. Maximum flow of the Weber River at Gateway, Utah, after adjusting for storage upstream, was twice that previously recorded during winter months in 35 years of record. Increased runoff and precipitation directly on the water surface increased the stage of Great Salt Lake 0.85 ft during December and January, the largest increase during the period of record. These floods will be described in a water-supply paper entitled, "Floods of December 1955-January 1956 in Far Western States," now in preparation.

In Oregon during May, Silver Lake, closed basin, reached its highest level in about 45 years. Also during May, minor flooding occurred in Nevada along the Carson River and in the upper reaches of the Humboldt River. Cloudbursts in July kept streams at high stages in Walker River basin in Nevada, and caused extensive damage in the northern section. On July 20, a flash flood on Galena Creek near Reno took four lives as cars were

swept off the road and on Peavine Creek a flash flood washed through large residential areas of Reno, damaging buildings, streets, and property. These later floods will be described in more detail in a summary report on floods during 1956.

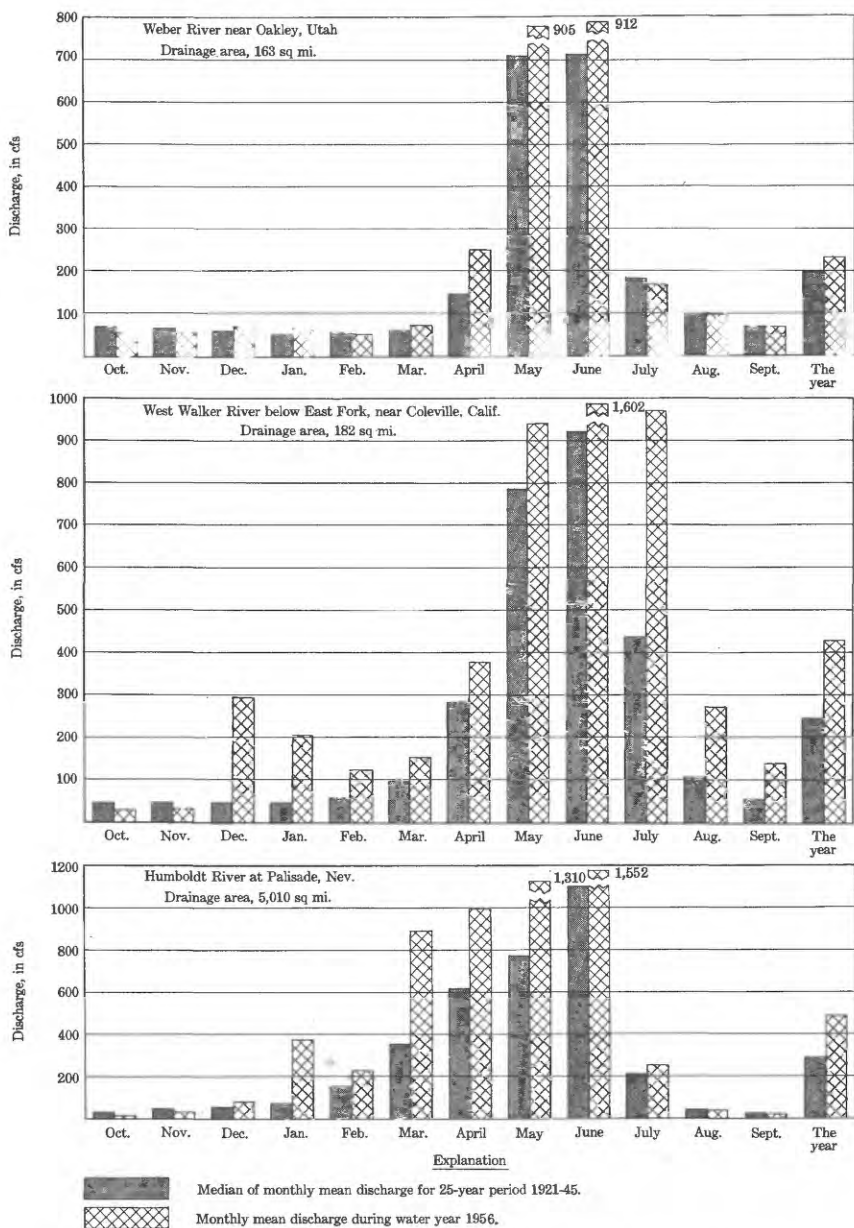


Figure 3. Comparison of discharge at three key gaging stations during 1956 water year with median discharge for 25-year period.

GAGING-STATION RECORDS

GREAT SALT LAKE BASIN

Great Salt Lake, Utah

Location.--Lat 40°44'15", long 112°12'30", in NW $\frac{1}{4}$ 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; and lat 41°13', long 112°36', at Midlake, on Lucin cutoff of Southern Pacific Railroad, 30 miles west of Ogden.

Records available.--September 1875 to December 1899, March to July 1904, and October 1912 to September 1956 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. Staff gage at Midlake since October 1902 at datum 4,198.1 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.

Extremes.--Maximum elevation during year, 4,197.85 ft June 1 at Boat Harbor gage.

May 1, 15 at Midlake gage; minimum, 4,196.2 ft Sept. 15 at Midlake gage.

1851-1956: Maximum elevation, 4,211.6 ft in 1873, computed from traditional data by E. C. LaRue (see WSP 880, p. 125); minimum, 4,193.7 ft Oct. 15 and Nov. 1, 1940, at Boat Harbor gage and Oct. 15, 1940, at Midlake gage.

Remarks.--Apparent inconsistencies in readings are probably due largely to the effect of wind, as the two gages are about 40 miles apart. To compensate for wind effect, elevations given for the Boat Harbor 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.

Cooperation.--Records for Midlake gage furnished by Southern Pacific Railroad.

Gage height, in feet, water year 1955-56

Day	Boat Harbor	Midlake
Oct. 1	9.65	-1.35
15	9.55	-1.6
Nov. 1	9.5	-1.7
15	9.45	-1.75
Dec. 1	9.55	-1.6
15	9.7	-1.5
Jan. 1	9.95	-1.4
15	10.1	-1.35
Feb. 1	10.4	-1.15
15	10.5	-1.1
Mar. 1	10.6	-1.0
15	10.65	-.65
Apr. 1	10.7	-.5
15	10.85	-.4
May 1	10.85	-.25
15	10.9	-.25
June 1	10.95	-.35
15	10.85	-.35
July 1	10.6	-.5
15	10.4	-.75
Aug. 1	10.15	-1.1
15	9.8	-1.5
Sept. 1	9.45	-1.75
15	9.35	-1.9

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 (revised), three-quarters of a mile downstream from head, and 25 miles southeast of Evanston.

Records available.--October 1949 to September 1956 in reports of Geological Survey. April 1944 to September 1949 (irrigation season only) in reports of Bear River Hydrometric Data (U. S. Geological Survey open-file report).

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

Average discharge.--7 years (1949-56), 6.17 cfs (4,470 acre-ft per year).

Extremes.--1949-56: Maximum daily discharge, 42 cfs June 15, 1956; no flow during winter and at other times each year.

Remarks.--Records good. Canal diverts from East Fork Bear River for irrigation of lands in Hilliard Flat area, Wyoming.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13								0	17	25	11
2	13								0	18	24	11
3	13								9.2	24	24	11
4	*13								19	23	21	11
5	13								21	22	20	*11
6	12								24	27	19	10
7	12								24	30	18	10
8	12								30	30	*18	11
9	12								36	30	18	12
10	12								36	30	*16	11
11	13								30	*30	16	11
12	12								*36	28	17	11
13	13								35	28	17	11
14	13								38	28	18	11
15	13								42	27	18	10
16	12								39	27	16	10
17	12								37	28	17	10
18	12								35	30	16	11
19	12								36	30	22	6.9
20	16								36	29	19	*5.6
21	16								34	28	17	6.4
22	14								34	30	*15	6.4
23	14								25	28	15	6.6
24	12								15	*27	15	6.4
25	12								14	26	14	6.4
26	12								*14	25	14	6.1
27	*12								16	24	14	6.1
28	12								17	26	14	6.1
29	4.8								17	27	13	5.9
30	0								17	28	*12	6.9
31	0	-----			-----		-----		-----	27	12	-----
Total	361.8	0	0	0	0	0	0	0	766.2	832	534	269.8
Mean	11.7	0	0	0	0	0	0	0	25.5	26.8	17.2	8.99
Ac-ft	718	0	0	0	0	0	0	0	1,520	1,650	1,060	535
Calendar year 1955: Max 38 Min 0 Mean 6.76 Ac-ft 4,890												
Water year 1955-56: Max 42 Min 0 Mean 7.55 Ac-ft 5,480												

* Discharge measurement made on this day.

BEAR RIVER BASIN

Bear River near Utah-Wyoming State line

Location.--Lat 40°58', long 110°51', in SE $\frac{1}{4}$ sec. 30, T. 3 N., R. 10 E., on left bank just downstream from West Fork and 2.8 miles upstream from Utah-Wyoming State line.

Drainage area.--176 sq mi.

Records available.--July 1942 to September 1956.

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

Average discharge.--14 years, 188 cfs (136,100 acre-ft per year).

Extremes.--Maximum discharge during year, 1,940 cfs June 1 (gage height, 3.91 ft); minimum, 16 cfs Nov. 1, but may have been less during periods of ice effect.

1942-56: Maximum discharge, 2,750 cfs June 14, 1953 (gage height, 4.89 ft); minimum, 16 cfs Apr. 11, 1951, Nov. 5, 1954, Nov. 1, 1955, but may have been less during periods of ice effect or no gage-height record.

Remarks.--Records good except those for periods of ice effect, which are fair. Diversions above station for irrigation of land in drainage basin below station.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 1-14)

0.8	19	2.2	446
1.0	39	2.6	733
1.2	73	3.0	1,040
1.5	152	4.0	1,930
1.8	256		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	25	35	b34	b28	35	54	194	*1,630	367	87	27
2	33	b30	35	b32		35	50	208	1,580	334	69	26
3	32	b35	b34	b35		35	51	284	1,420	280	71	25
4	32	40	b32	b37	28	35	51	392	1,370	256	58	25
5	33	39	b28	b39		34	50	466	1,320	234	52	24
6	31	34	b28	39		b33	46	492	1,230	219	50	24
7	33	35	b30	37		b33	50	628	1,150	205	46	23
8	33	37	b32	37	30	37	51	703	1,180	198	45	24
9	31	37	b34	34		34	52	710	1,180	191	44	25
10	31	37	35	35		34	58	651	1,160	184	*42	24
11	33	37	35	35		34	69	519	1,170	*178	40	24
12	33	b35	35	35		b32	69	422	*1,110	171	42	23
13	31	b35	34	34		b31	69	357	1,040	165	42	23
14	29	b30	34	35		35	69	330	975	155	44	21
15	28	b22	34	35	32	35	69	*352	935	143	48	21
16	28	b25	33	37		34	87	472	710	135	42	21
17	27	b30	33	*37		33	*94	718	562	123	42	21
18	27	b35	33	38		34	91	959	519	110	40	20
19	27	b40	34	37		33	84	1,130	562	101	54	21
20	35	b41	34	35		33	110	1,360	562	94	54	24
21	40	42	*35	37		37	146	1,290	466	87	42	25
22	39	b38	35	37		*34	186	1,400	459	91	39	25
23	38	b35	52	35		35	208	1,570	466	87	35	25
24	33	b32	91	b35		42	219	1,420	466	*80	35	25
25	33	b32	73	b37	35	49	219	*1,450	453	80	34	25
26	33	b35	58	b35		51	252	1,510	*422	78	33	25
27	*33	37	52	b34		51	280	1,350	416	73	33	25
28	28	35	48	b32		58	256	1,280	332	80	33	26
29	32	35	b45			54	208	1,160	372	91	32	25
30	40	*34	b40	b28	-----	52	181	1,270	372	89	31	25
31	42	-----	b36	b28	-----	54	-----	1,510	-----	89	*27	-----
Total	1,011	1,034	1,227	1,085	925	1,196	3,481	26,537	25,669	4,768	1,386	717
Mean	32.6	34.5	39.6	35.0	31.9	38.6	116	856	856	154	44.7	23.9
Ac-ft	2,010	2,050	2,430	2,150	1,830	2,370	6,900	52,640	50,910	9,460	2,750	1,420
Calendar year 1955: Max 1,130 Min - Mean 136 Ac-ft 98,610												
Water year 1955-56: Max 1,630 Min - Mean 189 Ac-ft 136,900												

Peak discharge (base, 1,100 cfs).--June 1 (1:30 a.m.) 1,940 cfs (3.91 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Feb. 2 to Mar. 3; discharge estimated on basis of weather records and records for stations on nearby streams.

b Stage-discharge relation affected by ice.

Mill Creek at Utah-Wyoming State line

Location.--Lat 40°59'30", long 110°50'30", in W $\frac{1}{2}$ sec. 17, T. 3 N., R. 10 E., in Utah, on right bank 2,000 ft upstream from State line and 19 $\frac{1}{2}$ miles southeast of Evanston, Wyo.

Drainage area.--59 sq mi, approximately.

Records available.--October 1949 to September 1956.

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

Average discharge.--7 years, 32.9 cfs (23,830 acre-ft per year).

Extremes.--Maximum discharge during the year, 646 cfs May 22 (gage height, 4.33 ft); minimum, 2.4 cfs Nov. 8.

1949-56: Maximum discharge, that of May 22, 1956; minimum, 0.9 cfs Nov. 11, 1951, result of freezeup.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Three small diversions for irrigation of hay meadows above station.

Rating table, water year 1955-56, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.5	3.4	2.0	138
.6	5.0	2.5	216
.8	12	3.0	315
1.0	22	3.5	433
1.3	50		
1.6	86		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.6	4.8	9.2	b7.5			19	63	*236	16	10	4.7
2	5.6	5.9	9.6	b7.0			14	67	223	21	8.4	4.5
3	5.3	7.1	b9.5	b7.5	b6.0	8.0	16	65	206	17	9.2	4.5
4	5.3	7.4	b8.5	b6.0			14	117	194	15	7.4	4.5
5	5.6	7.1	b8.0	b6.5			13	135	185	14	6.5	4.5
6	5.6	5.9	b8.0	8.8			12	126	145	12	6.2	4.5
7	5.6	6.5	b8.5	8.4			12	160	128	12	6.5	4.8
8	5.9	5.9	b9.0	8.4	b7.0		15	185	126	11	6.5	4.5
9	5.6	8.4	b9.5	7.7			16	173	115	11	6.2	4.5
10	5.6	8.0	b10	8.0			20	137	107	10	*5.9	4.5
11	6.2	8.0	b10	7.4			28	108	98	*10	5.9	4.5
12	6.2	b7.5	10	7.7			30	111	*83	10	5.9	4.5
13	5.9	b7.0	9.2	7.7		7.5	27	65	73	11	6.2	4.5
14	5.9	b7.0	b9.0	8.8			27	72	62	9.6	7.4	4.4
15	5.6	b6.0	b9.0	8.4			27	*77	62	9.2	9.2	4.0
16	5.6	b6.5	b9.0	9.6			47	125	59	7.7	7.1	4.2
17	5.6	b7.0	9.2	*9.2	b6.0		*50	181	50	7.4	7.1	4.2
18	5.6	b8.0	9.2	8.8			40	211	45	7.1	6.5	4.4
19	5.9	b9.0	9.2	8.8			38	229	38	6.5	8.4	4.4
20	6.6	b9.0	8.4	8.8			54	244	34	6.2	8.8	4.4
21	10	b9.0	*7.7	8.8		8.0	77	238	31	6.2	7.1	4.5
22	9.6	b6.5	8.4	8.4		*8.0	90	292	29	7.1	6.5	4.7
23	9.6	b8.0	14	8.4			10	92	360	27	7.4	6.2
24	8.0	b8.0	24	b6.0			14	92	257	25	7.1	5.9
25	7.1	b8.5	22	b7.5			22	83	257	24	7.4	5.3
26	7.4	b9.5	15	b8.0	8.0		20	96	337	*23	7.7	5.0
27	*7.7	b10	13	b8.5			19	100	221	21	7.7	5.6
28	6.2	9.6	11	b8.0			22	61	202	20	10	5.0
29	6.5	8.8	9.2	b7.5			18	60	183	18	11	5.0
30	7.1	*8.8	8.8	b7.0	-----		16	48	186	16	11	5.0
31	7.4	-----	b8.0	b7.0	-----		19	-----	213	-----	9.6	*4.8
Total	203.6	230.7	323.1	252.1	217	328.5	1,338	5,435	2,503	315.9	206.7	137.2
Mean	6.57	7.69	10.4	8.13	7.46	10.6	44.6	175	83.4	10.2	6.87	4.57
Ac-ft	404	458	641	500	430	652	2,650	10,780	4,860	627	410	272
Calendar year 1955: Max	188				Min 3.3	Mean 20.8	Ac-ft 15,090					
Water year 1955-56: Max	360				Min 4.0	Mean 31.4	Ac-ft 22,780					

Peak discharge (base, 250 cfs).--May 22 (11:30 p.m.) 646 cfs (4.33 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Feb. 24 to Mar. 21; discharge estimated on basis of weather records and records for stations on nearby streams.

b Stage-discharge relation affected by ice.

Bear River above Sulphur Creek, near Evanston, Wyo.

Location.--Lat 41°08', long 110°53', in NW 1/4 sec. 6, T. 13 N., R. 119 W., on right bank 2 miles upstream from Myers Bridge, 5 1/2 miles upstream from Sulphur Creek, and 9 1/2 miles southeast of Evanston.

Drainage area.--282 sq mi.

Records available.--October 1946 to September 1956 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 7,130 ft (from river-profile map). Prior to Oct. 1, 1953, at site 1,200 ft downstream at different datum.

Average discharge.--10 years, 202 cfs (146,200 acre-ft per year).

Extremes.--Maximum discharge during year, 2,120 cfs May 23 (gage height, 5.34 ft); minimum, 3.6 cfs Sept. 19.

1946-56: Maximum discharge, 2,970 cfs June 14, 1953 (gage height, 5.73 ft, site and datum then in use); minimum, that of Sept. 19, 1956.

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 and return flow from irrigated areas.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 30

Mar. 31 to Sept. 30

1.6	16	1.4	3	2.6	243
1.8	40	1.5	6	3.2	525
2.0	76	1.6	12	4.0	1,040
2.5	210	1.7	20	5.1	1,910
3.0	420	1.9	52		
		2.2	123		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	23					160	306	1,300	243	26	9.8
2	24	28					110	310	1,720	258	24	9.3
3	22	34	60	70	55		104	365	1,640	205	23	8.8
4	21	47					100	486	1,540	177	18	8.2
5	22	39					105	652	1,460	154	14	*6.2
6	23	34					90	615	1,330	151	12	7.6
7	23	36					100	762	1,160	75	9.8	8.2
8	24	34	55		60		105	886	1,130	56	8.8	8.2
9	24	39					90	898	1,130	52	*7.6	8.8
10	23	40					100	*840	1,080	58	6.6	8.8
11	23	50				70	130	678	1,100	30	7.1	8.2
12	25	40					130	803	1,030	24	8.8	8.2
13	25	30					120	498	*926	23	10	7.6
14	25	28					115	430	840	23	12	7.1
15	24	25					110	415	820	23	17	7.1
16	22	25	60	75	65		125	525	716	23	17	7.6
17	22	30		(*)			*151	788	561	21	17	6.0
18	19	35					166	1,040	525	21	17	5.4
19	16	45					137	1,200	450	19	20	4.5
20	20	60					160	1,490	400	17	27	8.8
21	26		(*)				202	1,380	350	16	26	11
22	24	90				*70	254	1,520	325	17	17	13
23	26	200			70		80	289	1,900	300	*17	17
24	25	329					100	302	1,700	325	16	16
25	23	277					150	310	*1,690	325	15	17
26	23	65	174				210	332	1,780	310	16	13
27	*26		130				250	400	1,630	*293	15	12
28	25		96		70		200	365	1,500	276	15	11
29	26		90				175	306	1,300	254	21	12
30	30	(*)	80				160	250	1,290	250	30	11
31	36		70				196		*1,500		24	10
Total	744	1,372	2,771	2,270	1,855	3,061	5,418	30,977	23,866	1,815	462.7	315.4
Mean	24.0	45.7	89.4	73.2	64.0	98.7	181	899	796	58.5	14.9	10.5
Ac-ft	1,480	2,720	5,500	4,500	3,680	6,070	10,750	61,440	47,340	3,600	918	626
Calendar year 1955: Max			1,050		Min 4.4	Mean 125		Ac-ft 90,670				
Water year 1955-56: Max			1,900		Min 4.5	Mean 205		Ac-ft 148,600				

Peak discharge (base, 1,100 cfs).--May 23 (9 a.m.) 2,120 cfs (5.34 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 1, 2, Nov. 12 to Dec. 23, Dec. 29 to Mar. 30. No gage-height record Feb. 26 to Mar. 21, Apr. 4-16, June 19-26; discharge estimated on basis of records for other stations on Bear River.

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 1956, fragmentary prior to July 1942 (corrected).

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.

Average discharge--14 years, 22.4 cfs (16,220 acre-ft per year).

Extremes--Maximum discharge during year, 678 cfs Mar. 26 (gage height, 4.68 ft); minimum, 0.5 cfs Sept. 26-29, but may have been less during periods of ice effect. 1942-56: 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 and return flow from irrigated areas.

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

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Nov. 13, Aug. 30 to Sept. 30)

1.3	0.4	2.0	15
1.4	1.1	2.2	26
1.5	2.2	2.5	50
1.6	3.8	2.9	95
1.8	8.1	3.3	166

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
1	1.0	1.2	4.0	9.0	7.0	9.0	89	56	28	3.3	8.1	1.0	
2	1.2	1.3					45	48	22	4.6	7.9	.8	
3	1.2	1.8					37	*31	20	4.6	5.1	.8	
4	1.2	2.4					58	36	19	3.6	5.7	.8	
5	1.2	2.2					35	64	18	5.1	4.9	*.8	
6	1.2	2.2	3.0	8.0	8.0	8.5	28	58	14	4.2	5.1	.8	
7	1.1	2.4					46	58	12	2.2	5.1	.8	
8	1.2	2.1					35	61	9.3	2.8	4.9	.9	
9	1.1	2.4					34	62	7.1	2.8	4.9	.8	
10	1.0	3.5					42	*54	7.6	2.5	*4.4	.8	
11	1.0	4.0	4.0	10	9.0	9.5	44	43	5.9	2.8	4.0	.9	
12	.9	3.0					54	54	5.5	3.3	2.7	.8	
13	1.0	2.8					29	48	4.0	2.8	2.0	.8	
14	1.0	2.5					31	35	3.5	2.1	2.5	.7	
15	1.0	1.5					34	27	5.1	2.0	3.8	.8	
16	1.1	2.0	4.0	(*)	9.0	10	34	25	14	2.4	3.3	.8	
17	1.1	2.5					*37	40	15	2.1	3.2	.8	
18	1.0	3.0					41	59	18	1.8	3.0	.8	
19	1.0	4.0					50	62	9.3	1.9	3.2	.6	
20	1.5	5.0					26	70	7.4	1.9	3.2	.6	
21	1.5	7.0	(*)	12	9.0	10	29	65	10	1.9	3.0	.6	
22	1.4	6.0	6.0				*13	30	89	13	2.1	2.7	.6
23	1.4	4.5	30				18	*31	164	12	*2.7	2.4	.6
24	1.2	4.5	166				35	28	117	12	2.2	2.2	.6
25	1.2	5.5	102				125	26	98	9.3	1.9	2.1	.6
26	1.2	6.5	50	10	9.0	10	250	23	89	6.4	1.8	2.1	.5
27	*1.6	6.5	29				*158	29	76	*5.9	1.9	2.0	.5
28	1.6	6.5	25				96	39	59	7.1	2.8	1.6	.5
29	1.8	6.5	22				95	47	57	4.8	32	1.5	.5
30	1.4	*6.5	18				156	42	41	3.5	17	1.1	.5
31	1.3	-----	15				160	-----	*31	-----	9.0	1.0	-----
Total	37.6	111.8	542.0	325.0	246.0	1,289.5	1,093	1,877	328.7	134.1	108.7	21.5	
Mean	1.21	3.73	17.5	10.5	8.48	41.6	36.4	60.5	11.0	4.35	3.51	0.72	
Ac-Ft	75	222	1,080	645	488	2,560	2,170	3,720	652	266	216	45	
Calendar year 1955: Max	231												
Water year 1955-56: Max	250												
				Min 0.4		Mean 13.8		Ac-ft 10,020					
				Min 0.5		Mean 16.7		Ac-ft 12,140					

Peak discharge (base, 300 cfs)--Mar. 26 (6:30 p.m.) 678 cfs (4.68 ft).

* Discharge measurement made on this day.

Note--Stage-discharge relation affected by ice Nov. 14 to Dec. 23, Dec. 29 to Mar. 26 (no gage-height record Feb. 21 to Mar. 21; discharge estimated on basis of weather records and records for stations on nearby streams).

Yellow Creek near Evanston, Wyo.

Location.--Lat 41°09', long 111°03', in SW $\frac{1}{4}$ sec. 21, T. 5 N., R. 8 E., in Utah, on left bank 600 ft downstream from Sage Creek, $1\frac{1}{2}$ miles upstream from Coyote Creek, and $9\frac{1}{2}$ miles southwest of Evanston.

Drainage area.--80 sq mi, approximately.

Records available.--October 1944 to September 1945, October 1949 to September 1956. Records for February 1943 to September 1944 at site $1\frac{1}{4}$ miles downstream not equivalent, but would be equivalent by adding flow of Wright No. 2 and Cook Canals, in 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). Oct. 1, 1944, to Sept. 30, 1945, at site 500 ft upstream at different datum (corrected).

Average discharge.--8 years (1944-45, 1949-56), 11.2 cfs (8,110 acre-ft per year).

Extremes.--Maximum discharge during year, 68 cfs May 7 (gage height, 3.22 ft); no flow about half of the year.
1944-45, 1949-56: Maximum discharge, 477 cfs Apr. 28, 1952 (gage height, 7.04 ft); no flow at times.

Remarks.--Records good except those for period of ice effect or no gage height record, which are fair. One small diversion for irrigation of hay meadows above station.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			0				32	28	16			
2			0				22	*33	13			
3			0				16	30	12			
4			0				14	37	10			
5			0				14	49	9.9			
6			0				12	50	9.1			
7			0				12	51	7.6			
8			0				14	52	6.5			
9			0	2.0			13	50	5.8			
10			0				16	*51	5.0			
11			0			1.5	22	50	7.3			
12			0				22	46	3.3			
13			0				18	45	*3.0			
14			0		1.5		17	*36	2.3			
15			0				17	32	2.1			
16			0				18	32	2.3			
17			0	(*)			20	41	2.8			
18			0				*23	47	3.6			
19			0				20	48	3.6			
20			0				19	46	3.1			
21			0				21	39	2.3			
22			1.5			3.0	25	35	1.6			
23			8.0				*15	*32	45	1.3		
24			35	2.0			25	*32	51	.8		
25			30				35	30	43	.5		
26			15				30	31	32	.4		
27			9.0				25	35	29	.4		
28	(*)		7.0				*30	36	26	.3		
29			4.5				26	34	26	.3		
30			3.5				25	27	22	.1		
31			3.0				31	*20	-----	-----		
Total	0	0	116.5	62	43.5	276.5	654	1,222	136.3	0	0	0
Mean	0	0	3.76	2.0	1.5	5.92	22.1	39.4	4.54	0	0	0
Ac-ft	0	0	251	123	86	543	1,320	2,420	270	0	0	0
Calendar year 1955: Max 50 Min 0 Mean 3.61 Ac-ft 2,620												
Water year 1955-56: Max 52 Min 0 Mean 6.89 Ac-ft 5,000												

Peak discharge (base, 100 cfs).--No peak above base.

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

Note.--No gage-height record Dec. 21 to Jan. 16; discharge estimated on basis of observer's notes, weather records, and records for stations on nearby streams. Stage-discharge relation affected by ice Jan. 17 to Mar. 28 (no gage height record Feb. 27 to Mar. 22; discharge estimated on basis of weather records and records for stations on nearby streams).

Bear River near Evanston, Wyo.

Location.--Lat 41°19', long 111°01', in sec. 1, T. 15 N., R. 121 W., on left bank 300 ft upstream from road bridge and 3½ miles northwest of Evanston.

Drainage area.--715 sq mi.

Records available.--October 1913 to September 1956 (discontinued). Prior to 1931, monthly discharge only for winter months published in WSP 1314.

Gage.--Water-stage recorder. Altitude of gage is 6,610 ft (from river-profile map). Prior to Sept. 28, 1926, staff gage at same site and datum (corrected).

Average discharge.--43 years, 234 cfs (169,400 acre-ft per year).

Extremes.--Maximum discharge during year, 2,130 cfs May 23 (gage height, 6.11 ft); no flow Sept. 14, 15.

1913-56: Maximum discharge, 3,690 cfs June 14, 1921 (gage height, 6.35 ft), from rating curve extended above 2,700 cfs; no flow at times in 1924, 1931, 1933-34, 1939-40, 1942, 1946, 1948, 1954-56.

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 and return flow from irrigated areas.

Revisions (water years).--WSP 1010: 1942-43. WSP 1090: Drainage area. Revised figures of discharge for water years 1915 and 1927, superseding those published in WSP 410 and 650, are given herein.

Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge	Date	Discharge
1915		1915-Con.		1915-Con.		1927-Con.		1927-Con.	
July 18	64	Aug. 18	8	Sept. 20	48	Apr. 24	570	July 27	26
19	55	19	4	21	44	25	678	28	28
20	49	20	5	22	42	26	722	29	42
21	33	21	5	23	44	27	682	30	49
22	23	22	5	24	44	28	646	31	50
23	23	23	3	25	56	29	651	Aug. 1	46
24	23	24	3			30	673	2	40
25	30	25	4	1927		July 1	416	3	35
26	14	26	1	Apr. 1	442	2	336	4	34
27	17	27	1	2	431	3	289	5	30
28	16	28	5	3	578	4	289	6	30
29	14	29	1	4	522	5	336	7	34
30	12	30	3	5	466	6	272	8	35
31	11	31	3	6	473	7	215	9	33
Aug. 1		Sept. 1	3	7	501	8	184	10	31
2	10	2	3	8	629	9	162	11	30
3	11	3	4	9	423	10	150	12	28
4	8	4	6	10	272	11	123	15	23
5	13	5	26	11	258	12	97	17	25
6	18	6	18	12	228	13	74	18	25
7	30	7	16	13	228	14	57	20	23
8	25	8	20	14	233	15	50	21	23
9	14	9	17	15	233	16	39	24	25
10	13	10	21	16	236	17	35	25	26
11	9	11	35	17	236	18	28	26	27
12	11	12	49	18	233	19	25	27	34
13	13	13	49	19	260	21	15	28	46
14	11	14	46	20	277	22	14	29	56
15	5	15	60	21	274	23	17	30	49
16	6	16	62	22	272	24	17	31	40
17	8	17	52	23	408	25	19		

Month	Maximum	Minimum	Mean	Runoff in acre-feet
July 1915.....	470	11	162	9,940
August.....	30	1	8.5	524
September.....	217	3	61.1	3,640
Water year 1914-15.....	1,240	1	215	155,000
Calendar year 1915.....	-	-	211	152,000
April 1927.....	722	228	424	25,300
July.....	416	14	113	6,940
August.....	56	21	31.1	1,910
Water year 1926-27.....	1,750	10	224	162,000
Calendar year 1927.....	-	-	241	175,000

BEAR RIVER BASIN

Bear River near Evanston, Wyo.--Continued

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second) (Shifting-control method used May 22-25)

0.4	0	1.0	19	3.0	495
.5	.3	1.2	40	4.0	890
.6	1.0	1.5	86	5.0	1,330
.7	2.5	1.9	171	6.0	2,150
.8	6.0	2.4	305		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.0	10					418	380	1,610	130	7.1	0.3
2	7.6	11					290	415	1,730	146	6.0	.2
3	7.1	12	70	100	80		229	396	1,650	124	6.0	.2
4	6.6	24					203	485	1,440	99	5.0	** .2
5	6.6	33					221	667	1,320	88	4.2	.2
6		7.1	30				169	683	1,210	69	3.9	.2
7		8.2	27				185	772	1,060	43	3.6	.2
8		9.3	28	65	85		213	886	974	28	3.2	.2
9		7.6	28				171	934	970	20	*2.4	.2
10		7.6	34				200	*914	930	14	1.4	.1
11		7.1	44	105		95	224	785	946	10	1.3	.1
12		8.2	31				224	723	906	7.1	1.2	.1
13		9.3	26				211	639	*827	5.0	1.2	.1
14		8.8	23				198	534	735	4.2	1.6	0
15		9.6	20				206	485	683	3.6	1.9	0
16	11	20	70	(*)	90		213	526	655	3.9	1.9	.1
17	9.8	25					234	715	506	3.6	2.2	.1
18	7.1	30					*259	974	461	3.6	1.8	.1
19	6.6	40					234	1,160	356	3.6	.7	.2
20	6.6	60	(*)				218	1,380	299	3.9	.6	.1
21		9.9		105		150	245	1,440	254	3.2	.6	** .1
22	12		90			250	299	1,470	213	2.4	.6	.2
23	13		200			400	344	1,600	195	*1.8	.6	.2
24	17		450		95	541	362	*1,900	205	1.6	.4	.3
25	17		544			679	368	1,780	205	1.4	.4	.4
26	12	80	374			789	384	1,800	*198	1.8	.3	.4
27	12		282			723	431	1,870	181	1.6	.3	.4
28	*14		176	95	95	*471	451	*1,550	171	1.8	.3	.4
29	12		150			365	402	1,340	150	2.5	.3	.5
30	14	(*)	125		-----	418	365	1,240	133	27	.2	.6
31	16	-----	100		-----	506	-----	1,380	-----	10	.3	-----
Total	306.9	1,356	3,916	3,170	2,580	7,192	8,173	32,003	21,173	864.6	61.5	6.4
Mean	9.90	45.2	126	102	89.0	232	272	1,030	706	27.9	1.98	0.21
Ac-ft	609	2,690	7,770	6,290	5,120	14,270	16,210	63,480	42,000	1,710	122	13

Calendar year 1955: Max 937 Min 0 Mean 128 Ac-ft 93,010
 Water year 1955-56: Max 1,900 Min 0 Mean 221 Ac-ft 160,300

Peak discharge (base, 1,200 cfs).--May 25 (11:30 p.m.) 2,130 cfs (6.11 ft).

* Discharge measurement made on this day.

** Field estimate made on this day.

Note.--Stage-discharge relation affected by ice Nov. 1, 2, Nov. 13 to Dec. 24, Dec. 29 to Mar. 23 (no gage-height record Jan. 1-15, Feb. 28 to Mar. 22; discharge estimated on basis of records for other stations on Bear River).

Chapman Canal at State line, near Evanston, Wyo.

Location.--Lat 41°24', long 111°02', in SE $\frac{1}{4}$ sec. 36, T. 17 N., R. 121 W., on right bank at highway bridge, 6 $\frac{1}{2}$ miles downstream from headgates and 10 miles northwest of Evanston.

Records available.--October 1945 to September 1956 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 (U. S. Geological Survey open-file report).

Gage.--Water-stage recorder. Prior to Oct. 11, 1946, staff gage at same site and datum.

Average discharge.--11 years (1945-56), 16.4 cfs (11,870 acre-ft per year).

Extremes.--1942-56: 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 NW $\frac{1}{4}$ 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 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.1	b4.0	**0.2			0	40	39	83	42		
2	.1	b6.0	.2			0	36	*40	85	*52		
3	.5	7.7				0	32	40	86	52		
4	.5	9.4				0	32	41	86	36		
5	.2	15				0	32	46	*83	30		
6	0	20				0	30	46	*79	20		
7	.1	15				0	30	46	77	15		(*)
8	0	17				0	32	46	79	10		
9	0	15	b.2			0	30	46	85	3.8		(*)
10	0	14				0	30	44	90	**1.5		
11	0	21				0	32	*42	89	0		
12	.9	24				0	32	40	88	0		
13	1.2	16				0	32	32	*84	0		
14	.9	b14				0	32	11	80	0		
15	.8	b12	.2			0	32	10	80	0		
16	1.5	b12	.2			0	32	10	85	0		
17	1.5	b18	.3			0	34	11	76	0		
18	.9	b25	.5			0	*35	20	73	0		
19	.2	b25	.2			a5.0	33	54	56	0		
20	.2	b5.0	*0			a20	31	70	42	0		
21	.2	1.2	0			a60	32	71	37	0		
22	1.1	.9	0			b35	35	66	33	.1		
23	1.4	1.1	0			*b65	36	*83	31	*0		
24	2.8	1.1	0			51	38	78	48	0		
25	4.0	.5	0			15	40	72	52	0		
26	4.0	.5	0			27	40	71	58	0		
27	4.7	.5	0			51	40	75	51	0		
28	*5.5	.5	0			48	41	69	50	0		
29	5.8	.3	0			*39	41	67	51	0		
30	5.2	.3	0		-----	39	40	69	45	3.2		
31	6.0	-----	0		-----	41	-----	79	-----	2.2		-----
Total	51.3	302.0	4.2	0	0	496.0	1,032	1,532	2,042	267.8	0	0
Mean	1.65	10.1	0.14	0	0	16.0	34.4	49.4	68.1	8.64	0	0
Ac-ft	102	599	8.3	0	0	984	2,050	3,040	4,050	531	0	0

Calendar year 1955: Max 124 Min 0 Mean 19.8 Ac-ft 14,360

Water year 1955-56: Max 90 Min 0 Mean 15.6 Ac-ft 11,360

* 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, and records for stations on Bear River near Evanston, Wyo. and near Woodruff, Utah.

b Stage-discharge relation affected by ice.

BEAR RIVER BASIN

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 1956.

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

Average discharge.--14 years, 215 cfs (155,700 acre-ft per year).

Extremes.--Maximum discharge during year, 1,750 cfs May 25 (gage height, 4.24 ft); no flow Oct. 1-6, Aug. 27 to Sept. 30.

1942-56: 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 each year 1942-49, 1954-56.

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, including Chapman Canal which carries some water over a low divide for storage in Neponset Reservoir for irrigation in Salaratus Basin, and return flow from irrigated areas.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 2-19)

0.45	0	1.0	17	2.5	424
.5	.5	1.2	36	3.0	731
.6	1.5	1.5	84	3.5	1,080
.7	3.8	1.8	151	4.0	1,510
.8	6.7	2.1	248	4.3	1,810

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	4.0					441	308	1,350	63	3.8	
2	0	6.0					341	348	1,470	66	4.1	
3	0	9.7	65	95	75		244	346	1,520	66	3.6	
4	0	8.8					209	372	1,440	61	2.9	
5	0	5.8					193	441	1,320	56	1.5	
6	0	7.1			80		199	640	1,200	49	1.3	
7	3.8	7.6					166	647	1,080	40	1.0	
8	1.5	9.7	60		80		180	757	900	32	.9	
9	2.4	10					186	844	851	29	**8	
10	3.1	7.1					163	885	824	*24	.7	
11	3.6	8.0				90	190	830	790	21	.7	
12	3.6	13					206	751	804	19	.6	
13	4.1	11					206	705	744	16	.6	
14	4.4	10					186	608	*647	13	.6	
15	3.1	8.0					183	510	563	11	.7	
16	2.4	8.0	65	100	85		*190	480	596	9.7	.7	
17	2.0	15					206	546	498	8.4	.7	
18	2.2	25		(*)			230	771	419	7.6	.6	
19	3.1	39					237	965	337	6.4	.6	
20	4.4	50					196	1,120	252	6.1	**a.5	
21	5.8		(*)			150	199	*1,280	212	5.5	a.5	
22	5.8	80				250	237	1,350	166	5.5	a.4	
23	5.2	175				400	275	1,420	157	5.5	a.4	
24	6.1	300				550	308	1,560	126	5.0	a.3	
25	6.7	450			90	700	320	1,700	*111	6.1	a.2	
26	*7.1	75	565			844	324	1,600	104	5.8	a.1	
27	6.1		348			*754	350	1,600	104	4.7	0	
28	5.9		230		90	583	393	*1,650	90	3.3	0	
29	7.1		175			414	388	1,410	79	5.5	0	
30	6.1		150			368	354	1,160	68	7.1	0	
31	5.2		130			469	-----	*1,180	-----	4.4	0	-----
Total	107.7	1,012.8	3,931	3,015	2,435	7,312	7,500	28,782	18,822	662.6	28.8	0
Mean	3.47	33.8	127	97.3	84.0	236	250	928	627	21.4	0.93	0
Ac-ft	214	2,010	7,800	5,980	4,830	14,500	14,880	57,090	37,530	1,510	57	0

Calendar year 1955: Max 871 Min 0 Mean 105 Ac-ft 75,980

Water year 1955-56: Max 1,700 Min 0 Mean 201 Ac-ft 146,000

Peak discharge (base, 1,300 cfs).--May 25 (12 m.) 1,750 cfs (4.24 ft).

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

** Field estimate made on this day.

* No gage-height record; discharge estimated on the basis of field estimate and engineer's notes.

Note.--Stage-discharge relation affected by ice Nov. 1, 2, 13-18, Nov. 21 to Dec. 25, Dec. 29 to Mar. 25 (no gage-height record Feb. 7 to Mar. 20, discharge estimated on the basis of weather records and records for other nearby stations on Bear River).

Woodruff Creek near Woodruff, Utah

Location.--Lat 41°29', long 111°16', in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 28, T. 9 N., R. 6 E., on left bank $\frac{1}{2}$ miles upstream from Birch Creek and 6 miles southwest of Woodruff.

Drainage area.--65 sq mi, approximately.

Records available.--October 1949 to September 1956 in reports of Geological Survey. October 1937 to September 1943 records for site $\frac{1}{2}$ miles upstream available in files of Logan project office, Geological Survey, under the name of South Fork Woodruff Creek, near Woodruff.

Gage.--Water-stage recorder. Altitude of gage is about 6,600 ft (from topographic map).

Average discharge.--7 years (1949-56), 36.1 cfs (26,140 acre-ft per year).

Extremes.--Maximum discharge during year, 327 cfs May 20 (gage height, 5.11 ft); minimum, 7.1 cfs Dec. 14, but may have been less during periods of ice effect or no gage-height record.

1949-56: Maximum discharge, 528 cfs May 25, 1950 (gage height, 5.72 ft); minimum, 2.9 cfs Mar. 29, 1951, Nov. 9, 1953, result of freezeup.

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 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 24-29, Jan. 11-16, May 4-12, Sept. 3-6, 14-30)

1.4	6.7	2.0	52	3.5	169
1.5	11	2.5	96	4.0	209
1.7	24	3.0	132	5.0	307

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.8	9.0	*11	a19	b12		34	69	105	24	14	10
2	9.8	9.0	11	a18	b12		30	78	94	24	13	9.4
3	9.8	9.8	9.8	a17	b12	a14	28	162	86	22	13	9.4
4	9.8	9.8	10	a17	b13		26	205	82	22	12	10
5	9.8	9.8	10		b14		28	251	74	21	12	9.8
6	9.8	9.4	10		14		25	238	68	20	12	*10
7	9.8	9.8	10	b16	13		26	244	60	19	12	10
8	9.8	9.4	9.8		13		30	220	56	18	12	10
9	9.8	9.8	9.8		b13		32	*220	55	18	*12	11
10	9.8	10	9.8		b13		39	213	52	18	11	9.8
11	10	13	9.8	16	13	a15	46	182	*49	18	11	11
12	10	9.4	9.8	16	13		48	147	46	18	11	11
13	9.8	9.8	9.8	16	13		49	122	43	17	11	10
14	9.8	11	9.8	16	13		48	105	40	17	12	9.8
15	10	9.8	10	16			47	92	42	16	12	9.4
16	10	10	9.8	*20	b13		56	88	44	16	11	9.8
17	10	10	9.8	18		a18	64	102	37	*15	11	11
18	10	9.8	10	17		a20	*77	159	34	14	11	11
19	10	10	10	16	a13	a25	91	231	33	14	11	11
20	12	12	10	16		a30	104	292	32	14	12	10
21	11	13	10	16		a34	122	268	30	14	11	11
22	12	12	*14	16		a39	142	*243	29	15	10	12
23	11	11	90	15		*a47	155	240	28	14	10	12
24	11	11	167	b15		52	164	235	28	14	10	11
25	10	11	118	16	a14	57	167	a230	28	14	10	11
26	*10	11	82	16		52	173	a222	*28	15	10	11
27	9.8	11	54	16		43	181	a220	27	14	10	11
28	9.8	11	38	b15		36	161	a230	26	14	10	11
29	9.8	11	29	b14		30	139	a200	25	16	10	12
30	9.8	11	b23	b13	-----	30	119	a150	24	17	10	12
31	9.8	-----	b21	b12	-----	35	-----	*a120	-----	14	10	-----
Total	313.6	313.6	846	498	385	783	2,451	5,778	1,405	526	347	317.4
Mean	10.1	10.5	27.3	16.1	13.3	25.3	81.7	186	46.8	17.0	11.2	10.6
Ac-ft	622	622	1,680	988	764	1,550	4,860	11,460	2,790	1,040	688	630
Calendar year 1955: Max	213			Min	-	Mean	25.5	Ac-ft	18,470			
Water year 1955-56: Max	292			Min	9.0	Mean	38.2	Ac-ft	27,690			

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for stations on nearby streams.

b Stage-discharge relation affected by ice.

Birch Creek near Woodruff, Utah

Location.--Lat 41°30'00", long 111°17'30", in NE $\frac{1}{4}$ sec. 20, T 9 N., R. 6 E., on left bank a quarter of a mile downstream from small tributary, 2 miles upstream from mouth, and 7 miles southwest of Woodruff.

Drainage area.--17 sq mi, approximately.

Records available.--October 1949 to September 1956 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 6,670 ft (from topographic map).

Average discharge.--7 years, 7.79 cfs (5,640 acre-ft per year).

Extremes.--Maximum daily discharge during year, 58 cfs May 9, 10; no flow for part of each day Sept. 21, 25.

1949-56: Maximum discharge, 172 cfs May 22, 1950 (gage height, 3.73 ft); no flow Aug. 26 to Nov. 4, 1954, part of each day Sept. 21, 25, 1956.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. No diversion above station. Flow regulated by 2 small reservoirs 1 $\frac{1}{2}$ miles upstream (capacity 2,430 acre-ft). Birch Creek Reservoir (capacity, 2,260 acre-ft) completed in November 1951.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 19-31, Sept. 11-30)

0.5	0	0.9	2.1	1.4	14
.6	.1	1.0	3.5	2.0	38
.7	.4	1.2	7.5	2.5	58
.8	.8				

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.7	0.3	*0.5				3.5	19	26	15	29	0.2
2	.7	.4	.5				3.2	17	24	16	29	.1
3	.7	.3	.4				2.8	17	18	16	28	.1
4	.7	.3	.5				2.9	19	11	16	28	.1
5	.7	.3	.5		1.0		2.9	21	16	15	27	.1
6	.7	.3		1.1			2.9	21	17	15	24	**1
7	.6	.3					3.1	25	17	15	17	.1
8	.7	.3				1.0	3.2	55	16	15	16	.1
9	.6	.3					3.2	*58	15	14	*16	.1
10	.6	.4					3.9	58	14	14	16	.1
11	.6	.4	.4				4.2	55	*13	20	15	.1
12	.6	.4		1.2			4.8	55	12	32	15	.1
13	.6	.4		1.2			4.8	55	11	33	15	.1
14	.6	.4		1.1			5.3	48	11	32	15	.1
15	.5			1.3			5.1	42	11	32	15	.1
16	.5			*1.7		1.1	6.0	38	12	32	15	.1
17	.5			1.5		1.2	6.6	37	10	*31	14	.1
18	.5			1.3		1.3	*7.5	32	9.2	30	13	.1
19	.5		.5	1.1		1.5	8.9	31	8.1	29	13	.1
20	.5	.4		1.1	1.0	1.8	9.7	33	7.5	28	12	.1
21	.5			1.1		2.2	11	36	10	30	11	.1
22	.5		**1.0			3.5	13	*37	18	33	9.7	.1
23	.4		3.0			*5.0	14	37	18	33	8.9	.1
24	.4		4.5			6.4	16	36	17	32	7.8	.1
25	.4		2.5			6.4	19	36	17	32	2.4	.1
26	*.4	.5	1.7	1.1		5.7	23	34	16	32	1.4	.1
27	.3	.5	1.6			5.3	24	33	16	31	.6	.1
28	.3	.5	1.4			4.9	22	39	16	31	.5	.1
29	.3	.5	1.3			4.2	19	36	16	31	.4	.1
30	.3	.5	1.2	1.0	-----	4.0	18	32	15	32	.3	.1
31	.3	-----	1.2	1.0	-----	3.9	-----	*28	-----	30	.3	-----
Total	16.2	11.7	28.7	35.5	29.0	73.4	273.5	1,120	437.8	797	415.3	3.1
Mean	0.52	0.39	0.95	1.15	1.0	2.37	9.12	36.1	14.6	25.7	13.4	0.10
Ac-ft	32	23	57	70	58	146	542	2,220	868	1,580	824	6.1
Calendar year 1955: Max 31 Min 0.1 Mean 4.75 Ac-ft 3,440												
Water year 1955-56: Max 58 Min 0.1 Mean 8.86 Ac-ft 6,430												

* Discharge measurement made on this day.

** Field estimate made on this day.

Note.--Stage-discharge relation affected by ice Nov. 15-25, Dec. 4 to Jan. 11, Jan. 22 to Mar. 23 (no gage-height record Feb. 10 to Mar. 23; discharge estimated on basis of weather records and records for stations on nearby streams).

Big Creek near Randolph, Utah

Location.--Lat 41°37', long 111°15', in SE $\frac{1}{4}$ sec. 10, T. 10 N., R. 6 E., on left bank $\frac{3}{4}$ miles downstream from main forks and $\frac{4}{5}$ miles southwest of Randolph.

Drainage area.--52.2 sq mi.

Records available.--October 1949 to September 1956. March 1939 to September 1944 (fragmentary), at site a quarter of a mile downstream; records equivalent except for 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 at different datum.

Average discharge.--7 years (1949-56), 22.1 cfs (16,000 acre-ft per year).

Extremes.--Maximum discharge during year, 74 cfs Apr. 28 (gage height, 1.38 ft); minimum, 3.4 cfs Oct. 29, but may have been less during periods of ice effect or no gage-height record.

1949-56: Maximum discharge, 146 cfs May 18, 1950 (gage height, 2.46 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.

Cooperation.--Records prior to April 1943 furnished by Bureau of Reclamation.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.0						15	57	40	28	23	18
2	7.0		*7.6				14	56	*40	28	23	18
3	7.0					8.4	14	59	39	28	22	18
4	7.0		7.6				14	62	39	27	21	18
5	7.0		7.6				14	64	38	27	20	18
6	7.0	7.0					14	61	37	27	20	*18
7	7.0						14	58	36	27	20	18
8	7.0			9.5			15	54	36	26	*20	18
9	7.0						15	54	35	*26	20	18
10	7.0						16	54	35	26	20	18
11	7.0		7.2		8.0		19	*51	*35	26	20	18
12	7.0					9.0	20	49	34	26	20	17
13	7.0						21	43	34	26	20	17
14	7.0						23	39	34	25	20	16
15	7.0						24	37	35	25	20	16
16	7.0	7.4					28	36	35	24	20	16
17	7.0						28	37	33	24	20	16
18	7.0			9.5		10	13	38	32	24	20	16
19	7.3		7.6			16	*51	40	32	23	20	16
20	7.8					19	40	43	31	23	20	16
21	7.8					*23	42	43	31	23	20	16
22	8.1	7.6	*13			28	48	*43	30	23	20	16
23	7.6		25			31	52	43	30	23	19	17
24	7.5		30	9.0		32	59	44	29	23	19	17
25	7.0		24			22	66	45	29	24	19	17
26	*7.3		17		8.4	18	68	44	*29	24	19	17
27	7.3		13			14	72	43	28	24	18	17
28	7.3	7.6	12			14	70	49	28	25	18	17
29	7.8		11	8.5		*14	64	43	28	25	18	16
30	7.3		10	8.0	-----	15	59	41	28	26	18	17
31	7.3	-----	9.8	8.0	-----	15	-----	40	-----	24	18	-----
Total	223.2	220.0	320.4	286.0	235.6	425.0	1,012	1,470	1,000	780	615	511
Mean	7.20	7.33	10.3	9.23	8.12	13.7	33.7	47.4	33.3	25.2	19.8	17.0
Ac-ft	443	436	636	567	467	843	2,010	2,920	1,980	1,550	1,220	1,010
Calendar year 1955: Max	35						Mean 9.80		Ac-ft 7,090			
Water year 1955-56: Max	72						Mean 19.4		Ac-ft 14,080			

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 1 to Mar. 24 (no gage-height record Nov. 24-26, Dec. 4-21, Dec. 27 to Jan. 15, Jan. 20 to Mar. 21; discharge estimated on basis of weather records and records for stations on nearby streams).

Randolph Creek near Randolph, Utah

Location.--Lat 41°40'30", long 111°14'00", in SW¹ sec. 23, T. 11 N., R. 6 E., on left bank a quarter of a mile downstream from confluence of Old Canyon and New Canyon, half a mile upstream from Randolph Dam, and 2¹/₂ miles west of Randolph.

Drainage area.--30.3 sq mi.

Records available.--October 1949 to September 1956 (discontinued)

Gage.--Water-stage recorder. Altitude of gage is 6,370 ft (from topographic map).

Average discharge.--7 years, 4.59 cfs (3,320 acre-ft per year).

Extremes.--Maximum discharge during year, 65 cfs Mar. 24 (gage height, 2.29 ft), from rating curve extended above 10 cfs by logarithmic plotting; minimum, 0.8 cfs June 22.

1949-56: Maximum discharge, that of Mar. 24, 1956; minimum, 0.5 cfs Aug. 14, 1953.

Remarks.--Records good. Several diversions for irrigation above station.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.9	4.6	4.8	5.0	4.2	4.8	5.6	1.9	4.2	6.1	5.4	4.4
2	1.8	4.6	*5.0	4.8	3.6	5.0	5.2	2.6	3.8	6.1	5.4	4.4
3	1.8	4.8	4.8	4.6	4.0	5.0	5.2	2.6	3.8	5.8	5.0	4.2
4	1.7	4.8	4.6	4.6	4.0	5.0	5.2	2.6	3.6	5.6	2.7	4.2
5	1.7	4.8	4.2	4.6	4.2	5.0	5.4	2.6	3.8	5.6	1.8	3.8
6	1.7	4.8	4.6	4.6	4.4	*5.0	5.2	2.3	3.6	5.6	1.9	2.1
7	1.8	4.8	4.6	4.6	4.4	4.8	5.2	2.1	3.4	5.8	1.9	*2.6
8	1.9	5.0	4.2	4.6	4.6	5.0	5.0	2.4	3.4	5.8	*1.3	3.1
9	1.8	5.0	4.0	4.6	4.6	4.8	5.0	5.4	3.4	5.8	1.6	3.3
10	1.5	5.2	4.0	4.4	4.6	4.8	4.6	5.6	5.2	5.8	2.8	3.4
11	1.7	5.2	4.0	4.4	4.8	4.6	3.3	*5.6	*6.1	5.8	2.8	4.4
12	2.0	4.8	4.4	4.4	4.4	4.6	3.1	3.6	6.1	5.8	2.6	4.8
13	1.7	4.4	4.4	4.4	4.6	4.6	3.3	3.4	5.0	4.8	2.3	3.8
14	1.8	4.4	4.4	4.4	4.4	4.6	3.4	2.8	3.6	2.3	2.2	2.8
15	2.3	3.8	4.0	4.8	4.4	4.6	3.4	3.3	6.3	2.4	2.3	4.6
16	1.7	3.8	4.4	*6.1	4.4	4.4	3.3	3.1	6.6	2.3	2.3	4.0
17	1.5	4.8	4.4	4.8	4.6	5.0	3.1	3.1	6.3	2.3	2.2	2.2
18	1.4	4.6	4.4	4.6	4.6	5.4	*3.3	3.1	4.6	*2.2	2.1	2.2
19	1.4	4.8	4.4	4.8	4.4	5.8	3.3	3.6	3.0	2.1	3.6	2.2
20	1.7	5.2	4.4	4.8	4.4	8.7	2.7	4.0	3.0	2.0	5.2	2.2
21	1.6	5.2	4.4	4.8	4.6	*11	2.7	6.3	3.1	2.0	5.2	2.2
22	1.5	5.0	*9.5	4.8	4.6	16	2.8	*7.8	2.1	2.1	5.0	2.2
23	1.5	5.0	14	4.8	4.6	23	3.0	7.6	2.8	2.1	5.0	3.4
24	2.4	4.8	7.1	4.8	4.8	25	2.8	7.3	3.4	2.2	4.6	3.1
25	1.8	4.8	6.3	4.8	4.8	19	3.1	7.6	3.6	2.2	3.0	2.7
26	*2.3	4.8	5.6	4.8	4.8	12	3.0	7.6	*3.0	2.1	2.0	2.1
27	2.2	4.8	5.4	5.0	4.8	7.1	2.1	7.3	3.4	2.0	2.0	2.0
28	2.2	4.8	5.2	4.6	4.8	6.1	1.8	7.6	3.3	3.8	2.6	2.1
29	2.2	4.8	5.0	4.4	4.8	*5.8	2.0	7.3	3.8	5.8	4.2	2.1
30	2.2	4.8	5.0	4.4	-----	6.3	2.0	7.1	6.1	5.6	4.2	2.4
31	2.8	-----	5.0	3.6	-----	6.1	-----	6.3	-----	5.6	4.4	-----
Total	57.5	143.0	160.5	144.7	130.2	238.9	109.2	145.5	123.4	125.3	99.6	93.0
Mean	1.85	4.77	5.18	4.67	4.49	7.71	3.64	4.69	4.11	4.04	3.21	3.10
Ac-ft	114	284	318	287	258	474	217	289	245	249	198	184

Calendar year 1955: Max	14	Min	1.4	Mean	3.95	Ac-ft	2,860
Water year 1955-56: Max	25	Min	1.3	Mean	4.29	Ac-ft	3,120

* Discharge measurement made on this day.

Diversions from Bear River between Woodruff and Randolph gaging stations, Utah

Between Woodruff and Randolph gaging stations, 12 canals divert water from Bear River for irrigation. Records available April to September 1950-52, and May to September 1953, 1955, 1956, June to September 1954, in reports of Geological Survey. Seasonal records available 1944-47, 1949, in reports of Bear River Hydrometric Data (U. S. Geological Survey open-file report). All canals equipped with water-stage recorders. Prior to 1949, 6 canals equipped with staff gages only, which were read at least 3 or 4 times weekly. Records of discharge are combined to show total diverted flow. Records good.

Discharge, in cubic feet per second, 1956

Day	May	June	July	Aug.	Sept.	Day	May	June	July	Aug.	Sept.
1	266	1,010	216	20	35	16	694	911	45	34	36
2	355	1,060	229	18	35	17	714	853	45	35	37
3	464	1,110	254	16	31	18	810	810	42	34	37
4	534	1,120	224	15	32	19	925	724	41	33	36
5	627	1,100	202	14	33	20	1,020	589	40	34	36
6	710	1,050	183	18	34	21	1,120	520	40	35	36
7	741	1,030	165	11	34	22	1,210	435	38	65	36
8	858	961	149	15	36	23	1,250	428	39	41	36
9	982	992	137	16	35	24	1,280	394	37	40	36
10	1,050	980	131	19	36	25	1,320	351	36	39	36
11	1,070	862	116	30	37	26	1,320	316	32	39	36
12	1,020	1,040	91	36	36	27	1,210	307	30	36	36
13	955	997	80	34	36	28	1,190	285	29	36	41
14	853	937	70	34	37	29	1,100	256	28	35	37
15	762	901	64	36	37	30	975	218	26	32	38
						31	969	-	22	32	-
Total	28,334	22,667	2,881	932	1,074						
Mean	914	756	92.9	30.1	35.8						
Runoff in acre-feet	56,200	44,960	5,710	1,850	2,130						
The period	Max	Min	Mean	Ac-ft	110,800						

Bear River near Randolph, Utah

Location.--Lat 41°48', long 111°06', in SE 1/4 sec. 7, T. 12 N., R. 8 E., on left bank 4.2 miles upstream from Twin Creek, 5.5 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 1956.

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

Average discharge.--12 years (1944-56), 207 cfs (149,900 acre-ft per year).

Extremes.--Maximum discharge during year, 2,350 cfs Mar. 23 (gage height, 8.44 ft);

minimum, 5.8 cfs Oct. 2.

1943-56: Maximum discharge, 2,660 cfs May 8, 1952 (gage height, 8.80 ft); minimum, 5.2 cfs Sept. 28, 1955.

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 and return flow from irrigated areas.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 15 to June 21, July 6-21)

Oct. 1 to Mar. 22

Mar. 23 to Sept. 30

1.1	4	2.5	151	1.3	6	4.0	417
1.2	7	3.0	241	1.5	16	5.0	661
1.4	17	4.0	438	1.8	40	7.0	1,390
1.9	63			2.2	88	8.0	2,070
				2.8	188		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
1	6.1	8.2	38	220	95		527	267	1,540	77	51	8.8	
2	6.1	8.0	50	200			530	229	*1,150	66	48	8.0	
3	6.4	11		180			477	183	1,060	58	47	8.4	
4	6.4	22		170			407	167	1,070	52	47	8.8	
5	6.4	21		160			365	112	1,100	44	45	10	
6	7.0	21	48		100		339	138	1,100	38	42	11	
7	7.0	23					324	199	1,030	33	36	*12	
8	6.7	23					307	242	837	31	*33	11	
9	6.7	23					286	220	684	29	34	9.2	
10	6.4	23					284	233	525	27	33	9.2	
11	6.7	26	60		115		272	299	438	25	24	9.2	
12	7.0	25					267	387	379	36	22	9.2	
13	7.0	24					269	460	403	45	20	8.8	
14	7.0	23					237	530	436	43	19	8.8	
15	7.0	20					231	530	399	42	18	8.8	
16	7.0	20	150		110		233	477	442	51	17	8.8	
17	7.4	25					224	375	489	*46	17	8.8	
18	7.4	27					226	312	*510	46	16	8.4	
19	7.4	30					*226	324	462	44	16	8.0	
20	7.4	32					222	411	389	44	16	8.0	
21	7.4	34			115		220	525	329	43	15	7.6	
22	7.8						208	*684	265	47	15	8.0	
23	7.8						849	218	46	13	8.0		
24	7.8						200	217	1,000	160	44	10	8.8
25	7.8						279	1,930	237	1,120	141	45	10	8.8
26	8.2	135					1,740	252	1,240	123	46	10	8.8
27	8.2						*1,480	246	1,470	99	44	10	8.4
28	*8.6						1,210	231	1,800	93	44	11	8.0
29	8.6						936	261	1,920	93	45	10	8.8
30	8.6						274	274	1,330	84	58	10	9.2
31	8.2	250	544	1,800	52	8.8	-----						
Total	225.5	775.2	3,832	4,740	3,110	15,131	8,605	20,433	16,078	1,393	723.8	267.6	
Mean	7.27	25.8	124	153	122	488	287	659	536	44.9	23.3	8.92	
Ac-Ft	447	1,540	7,600	9,400	6,170	30,010	17,070	40,530	31,890	2,760	1,440	531	

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 2, 3, Nov. 12 to Dec. 24, Dec. 27 to Mar. 23 (no gage-height record Feb. 11 to Mar. 20; discharge estimated on basis of weather records and records for other nearby stations on Bear River).

BEAR RIVER BASIN

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 at Sage, 5 miles upstream from mouth.

Drainage area.--246 sq mi.

Records available.--April 1943 to September 1956.

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.--13 years, 20.6 cfs (14,910 acre-ft per year).

Extremes.--Maximum discharge during year, 584 cfs Mar. 24 (gage height, 5.85 ft); minimum, 1.3 cfs Nov. 6.
1943-56: 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, which are fair. Many diversions for irrigation above station.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.7	4.1					76	36	25	8.3	5.0	3.4
2	4.7	5.5					44	38	23	9.2	5.3	4.2
3	4.4	4.9	6.0	10	7.0	8.5	33	*38	21	9.2	5.0	3.6
4	3.8	8.0				(*)	26	38	19	8.7	5.3	3.4
5	3.8	6.2					33	40	18	7.9	5.8	3.1
6	3.8	6.9					25	39	15	7.5	5.8	2.9
7	4.1	6.6					22	38	14	7.5	5.5	*2.9
8	4.4	7.6	5.0		8.0		34	35	12	7.1	*5.3	2.9
9	4.4	11					32	30	9.6	6.6	5.3	2.9
10	4.1	6.2					37	31	9.6	6.6	5.3	2.9
11	4.1	6.0					45	38	9.6	6.2	5.5	2.9
12	4.1	5.5				8.0	44	50	9.6	*6.6	5.8	2.9
13	4.1	5.2					44	51	9.6	6.2	5.8	3.1
14	3.8	4.9					46	42	9.2	6.6	6.2	3.4
15	3.5	3.5					47	38	*11	7.5	5.5	2.8
16	4.1	4.0	6.5				*50	36	12	6.6	4.4	2.8
17	5.2	5.0					47	33	14	6.2	3.9	2.9
18	4.1	6.0		(*)		15	46	29	15	5.5	4.4	2.9
19	4.1	7.0				40	*41	28	16	5.3	5.0	3.1
20	4.9	8.5	(*)		8.5	100	41	27	13	5.3	4.4	3.1
21	4.9	8.0		14		*300	42	26	12	5.0	5.0	3.4
22	4.9	7.5	10			400	44	*26	11	5.0	5.3	3.1
23	4.9	7.0	50			450	44	28	11	5.5	4.4	3.4
24	4.9	7.0	170			502	45	26	9.6	5.5	4.2	3.9
25	*4.7	7.5	93			*402	45	29	8.7	5.5	3.9	3.9
26	4.4	8.0	83			318	45	28	9.2	5.3	3.9	3.9
27	4.7	8.0	50			*155	41	28	9.6	5.0	3.6	3.9
28	4.9	8.0	27	11		82	42	28	9.6	5.0	3.4	4.2
29	4.9	*8.0	22			*54	39	52	8.7	6.2	3.4	3.9
30	4.9	8.0	18			70	35	45	8.7	5.8	3.4	3.6
31	5.2	-----	15			94	-----	29	-----	5.3	3.6	-----
Total	137.5	199.6	664.5	376	236.5	3,120.5	1,235	1,080	383.3	199.7	148.6	99.3
Mean	4.44	6.65	21.4	12.1	8.16	101	41.2	34.8	12.8	6.44	4.79	3.31
Ac-ft	273	396	1,320	746	469	6,190	2,450	2,140	760	396	295	197

Calendar year 1955: Max 94 Min 1.0 Mean 12.1 Ac-ft 8,740

Water year 1955-56: Max 502 Min 2.8 Mean 21.5 Ac-ft 15,630

Peak discharge (base, 200 cfs).--Mar. 24 (10 a.m.) 584 cfs (5.85 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 11, 12, Nov. 15 to Dec. 24, Dec. 29 to Mar. 23 (no gage-height record Feb. 10-15).

Bear River below Pixley Dam, near Cokeville, Wyo.

Location.--Lat 41°56'20", long 110°59'05", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 25, T. 23 N., R. 120 W., 800 ft downstream from Pixley Dam, 17.5 miles downstream from Twin Creek, and 11 miles south of Cokeville.

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

Records available.--October 1941 to November 1943, October 1952 to September 1956 (discontinued). Published as "near Cokeville" 1941-43.

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

Average discharge.--5 years (1943, 1952-56), 129 cfs (93,390 acre-ft per year).

Extremes.--Maximum daily discharge during year, 2,300 cfs Mar. 25; minimum daily 6.1 cfs Sept. 13-15. 1941-43, 1952-56: Maximum daily discharge, that of Mar. 25, 1956; minimum, 4.6 cfs May 25, 1954.

Remarks.--Records good except those for Nov. 14 to Mar. 20, Mar. 30 to June 28, which are fair, and Mar. 21-29, which are poor. 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, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	26	43	250			795	232	1,400	103	75	20
2	19	23	61	225			758	200	1,340	109	70	19
3	18	23		210	110	130	693	96	1,250	126	68	19
4	18	27		190			614	77	1,140	148	66	18
5	18	34		180			541	72	1,080	116	62	13
6	18	34	55	170			501	65	*1,050	100	60	8.2
7	19	34					464	77	1,040	91	*59	*8.6
8	19	35			115		439	86	972	83	54	6.4
9	19	34					422	94	760	77	48	6.4
10	18	34					402	105	464	72	48	6.4
11	17	37					402	124	312	68	47	6.4
12	18	35					386	174	276	*61	38	6.4
13	20	34	70			130	378	394	270	68	34	6.1
14	21	32					360	504	242	71	32	6.1
15	21	28					324	504	224	68	32	6.1
16	21	35		165	125		322	510	230	66	31	6.4
17	21	87					322	488	265	64	30	6.7
18	21	65					316	431	*366	71	28	6.7
19	22	40	80	(*)			316	334	400	87	28	7.0
20	24	38	(*)				*312	234	450	76	28	6.7
21	25	44				200	308	243	398	67	27	7.4
22	25	51	80			400	301	314	338	81	26	7.8
23	24	42	150			1,400	293	*550	285	71	26	11
24	24	43	225			2,000	291	914	247	65	24	10
25	*23	41	275			2,300	299	909	184	64	23	10
26	22	35	300		130		2,100	308	909	132	65	21
27	23	34	350				*1,800	312	927	111	65	21
28	24	40	375	150			1,600	289	1,010	59	62	21
29	26	*43	350				1,350	166	1,160	100	61	12
30	28	41	325				1,160	178	1,360	108	65	20
31	26	-----	300				922	-----	1,440	-----	91	20
Total	659	1,149	4,104	5,260	3,545	17,832	11,812	14,537	15,493	2,480	1,188	294.8
Mean	21.3	38.3	132	170	122	575	394	469	516	80.0	38.3	9.83
Ac-ft	1,310	2,280	8,140	10,430	7,030	35,370	23,430	28,830	30,730	4,920	2,360	585
Calendar year 1955: Max			475		Min 8.6	Mean 57.6		Ac-ft 41,730				
Water year 1955-56: Max			2,300		Min 6.1	Mean 214		Ac-ft 155,400				

* Discharge measurement made on this day.

Note.--No gage-height record Mar. 7-29; discharge estimated on basis of 1 discharge measurement, weather records, and records for other nearby stations on Bear River. Stage-discharge relation affected by ice Nov. 14-17, Dec. 3 to Mar. 6.

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 Hobbie Creek, and 12 miles northeast of Border.

Drainage area.--165 sq miles.

Records available.--May 1942 to September 1956.

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.--14 years, 196 cfs (141,900 acre-ft per year).

Extremes.--Maximum discharge during year, 1,260 cfs June 2 (gage height, 4.29 ft); minimum, 44 cfs Jan. 29, but may have been less during periods of ice effect or no gage-height record.

1942-56: Maximum discharge, 1,360 cfs May 29, 1951 (gage height, 4.56 ft); minimum, 35 cfs Mar. 21, 1955 (result of freezeup), but may have been less during periods of no gage-height record.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. One small diversion for irrigation of about 150 acres above station.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 16 to May 28)

Oct. 1 to Apr. 15

Apr. 16 to Sept. 30

1.7	54	2.4	181
1.9	82	2.7	259
2.1	118		

1.9	94	3.3	640
2.1	134	3.8	945
2.4	223	4.3	1,280
2.8	384		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	82	72	67	b76		b84	103	449	1,180	454	206	119
2	80	b71	69	b74		b64	99	483	1,220	435	193	116
3	79	76	70	b70	b60	b62	96	513	1,220	416	193	114
4	79	74	b66	b70		b60	96	566	1,170	398	190	114
5	79	74	b62	b74		b60	99	a560	1,130	380	187	114
6	80	70	b64	b74		b58	92	a840	*1,100	366	181	114
7	79	73	b64	b74		b56	97	a820	1,020	353	*178	112
8	79	73	b66	b72	b62	b59	110	a800	984	340	172	112
9	79	73	b66	b68		b62	112	a780	971	332	169	110
10	78	79	b66	b72		b60	134	742	964	323	166	107
11	79	82	b70	b74	b63	b58	163	*700	984	315	160	*112
12	79	79	b72	73		b57	183	617	964	*306	157	108
13	78	b72	67	72		b58	210	544	926	298	155	108
14	78	76	b64	70		a58	242	493	886	290	155	108
15	78	b65	b62	73		a57	248	459	868	286	155	107
16	76	b58	b66	72	b65	a58	323	478	832	278	152	107
17	76	b63	b66	70		a60	349	555	736	271	152	105
18	74	b67	b66	*70		a61	371	688	676	271	147	103
19	78	b71	b67	70		a62	*435	826	*658	263	147	101
20	82	b76	*67	70		*a62	503	978	652	255	150	101
21	79	76	67	b68		60	582	1,040	634	252	139	101
22	79	73	76	b70		63	628	1,060	577	252	137	101
23	79	b72	114	b70		66	617	*1,130	555	259	134	101
24	*76	b72	172	b69		70	623	1,140	550	245	130	101
25	76	b69	130	b68	b67	78	571	1,220	544	237	127	99
26	76	70	110	b70		84	582	1,190	533	230	125	99
27	76	72	103	70		87	646	1,110	518	220	125	99
28	79	68	92	68	b64	90	555	1,090	503	220	125	101
29	79	*67	87	66		87	483	1,090	483	216	123	103
30	78	67	b80	b84	-----	89	449	1,040	473	213	121	99
31	78	-----	b80	b61	-----	96	-----	1,080	-----	210	121	-----
Total	2,427	2,150	2,437	2,182	1,850	2,066	9,801	25,091	24,511	9,184	4,772	3,196
Mean	78.3	71.7	78.6	70.4	63.8	66.6	327	809	817	296	154	107
Ac-ft	4,810	4,260	4,830	4,330	3,670	4,100	19,440	49,770	48,620	18,220	9,470	6,340

Calendar year 1955: Max 574 Min - Mean 141 Ac-ft 102,000
Water year 1955-56: Max 1,220 Min - Mean 245 Ac-ft 177,900

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for stations on nearby streams.

b Stage-discharge relation affected by ice.

Bear River below Smiths Fork, near Cokeville, Wyo.

Location.--Lat 42°07'30", long 110°58'20", in SE $\frac{1}{4}$ NE $\frac{1}{4}$ 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 1956.

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

Extremes.--Maximum discharge during year, 3,780 cfs Mar. 26 (gage height, 7.54 ft); minimum, 77 cfs Nov. 2.

1954-56: Maximum discharge, that of Mar. 26, 1956; minimum, 68 cfs Sept. 12, 1954.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are fair. Natural flow of stream affected by diversions for irrigation and return flow from irrigated areas.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 15

Dec. 16 to Sept. 30

2.3	85	2.3	87	5.0	1,500
2.4	102	2.6	151	6.0	2,320
2.7	174	3.0	285	7.3	3,540
		4.0	790		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	115	128	163	b325	b160	211	1,490	850	2,500	515	211	132
2	119	106	150	b275		211	1,270	862	2,640	510	194	139
3	117	128	160	b230		211	1,130	808	2,700	500	191	132
4	117	128	b150	b250		214	1,020	778	2,630	521	188	121
5	117	128	b140	239		*214	904	844	2,460	479	184	121
6	119	128	b135	242	b170	b205	802	890	*2,310	445	178	119
7	121	135	b140	b280		b200	781	898	*2,210	416	*175	114
8	121	130	b145	b260		207	732	910	2,090	402	170	112
9	121	133	145	b250		207	704	945	1,940	376	167	110
10	119	140	b150	b240		b200	699	987	1,680	350	159	110
11	119	152	b155	b230	b190	b200	726	1,010	1,440	354	159	102
12	119	140	155	242		b200	738	1,030	1,280	342	151	104
13	119	130	b155	224		b205	749	1,190	1,230	*329	144	*95
14	119	b110	b150	239		211	767	1,300	1,200	305	159	95
15	121	b85	b145	242		b210	721	1,230	1,120	305	159	96
16	121	b90	151	254	b210	b215	761	1,180	1,160	285	139	95
17	123	112	159	254		228	802	1,200	1,080	266	141	95
18	123	142	162	254		228	802	1,200	1,080	246	144	91
19	125	155	*164	*258		*228	844	1,230	*1,110	224	146	91
20	130	147	167	266		254	*904	1,180	1,130	204	149	95
21	130	158	173	b260	b220	380	966	1,240	1,130	188	146	93
22	130	152	184	277	b220	684	1,020	1,340	1,020	178	139	91
23	128	152	242	289	228	880	1,040	*1,590	910	200	129	91
24	128	140	313	b255	224	966	1,070	2,010	850	191	127	89
25	*128	b130	338	b255	221	2,030	1,060	2,120	773	188	125	91
26	128	140	354	258	221	3,460	1,040	2,210	686	188	123	96
27	128	152	371	232	217	2,970	1,110	2,210	819	184	123	98
28	130	*168	380	b230	b215	*a2,700	1,110	2,170	580	184	127	100
29	130	160	b400	b225	b210	a2,350	952	2,250	500	184	132	100
30	133	160	b375	b200	-----	a2,050	820	2,330	532	194	136	100
31	133	-----	b375	b175	-----	1,850	-----	2,370	-----	194	129	-----
Total	3,831	4,057	6,546	7,670	5,626	24,559	27,514	42,352	42,590	9,447	4,702	3,116
Mean	124	135	211	247	194	792	917	1,366	1,420	305	152	104
Ac-ft	7,600	8,050	12,980	15,210	11,160	48,710	54,470	84,000	84,480	18,740	9,330	6,180

Calendar year 1955: Max 825 Min 85 Mean 214 Ac-ft 155,100
 Water year 1955-56: Max 3,460 Min 85 Mean 497 Ac-ft 361,000

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of 1 discharge measurement, weather records, and records for station at Border.

b Stage-discharge relation affected by ice.

BEAR RIVER BASIN

Bear River at Border, Wyo.

Location--Lat 42°11', long 111°03', in NE 1/4 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 1956.

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

Average discharge--19 years, 409 cfs (296,100 acre-ft per year).

Extremes--Maximum discharge during year, 3,620 cfs Mar. 27 (gage height, 8.62 ft); minimum, 88 cfs Sept. 21.
1937-56: 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 periods of ice effect or no gage-height record, which are fair. Natural flow of stream affected by diversions for irrigation and return flow from irrigated areas.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 14 to May 21)

Oct. 1 to Mar. 25			Mar. 26 to Sept. 30		
1.3	126		1.1	82	4.2 900
1.8	212		1.5	144	5.5 1,460
2.5	379		2.2	281	7.0 2,200
3.2	630		3.0	484	8.4 3,400

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
1	131	145	180	340	175	230	1,590	904	2,450	493	234	134	
2	137	129	170	280			1,350	924	2,620	490	220	141	
3	148	140	180	250			a1,200	860	2,830	484	212	141	
4	156	144	170	260			a1,080	836	2,860	481	210	127	
5	150	140	160	260			a960	892	2,690	467	205	117	
6	145	142	150	270	185	220	a850	944	*2,390	430	*199	116	
7	145	142	155	280			a810	952	2,210	403	193	113	
8	145	140	160	280			a770	956	2,080	390	195	113	
9	144	140	165	270			a740	1,010	1,930	372	190	110	
10	142	150	165	265			733	1,040	1,720	340	182	105	
11	140	160	170	250	205	230	754	1,080	1,460	333	176	102	
12	139	158	170	260			776	1,110	1,280	322	171	102	
13	137	145	170	260			783	1,240	1,220	303	173	*98	
14	137	125	165	260			805	1,380	1,170	281	166	96	
15	139	105	160	260			779	1,300	1,090	270	164	95	
16	139	110	165	275	230	230	794	1,240	1,140	263	157	96	
17	139	130	170	275			840	1,240	1,060	*253	153	98	
18	140	160	175	275			852	1,230	1,060	228	141	96	
19	142	170	180	*280			868	1,250	1,060	197	144	93	
20	145	165	*185	280			*230	*924	1,220	1,060	178	149	95
21	148	170	190	270	240	1,600	350	988	1,240	1,110	166	149	90
22	148	165	200	290			550	1,060	1,290	1,020	160	144	93
23	147	165	250	290			800	1,100	1,450	924	175	137	98
24	*144	155	330	290			900	1,130	*1,770	840	188	136	102
25	142	145	350	290			1,600	1,130	1,990	779	186	137	104
26	142	155	370	280	240	*2,880	1,100	2,080	690	184	136	102	
27	142	170	390	260			3,380	1,180	2,150	622	184	132	108
28	144	180	400	260			*3,120	1,180	2,140	*583	191	130	116
29	145	*180	400	250			2,460	1,020	2,180	511	201	136	110
30	145	180	380	230			2,140	896	2,300	511	220	141	113
31	147	-----	380	210	-----	1,920	-----	2,390	-----	218	134	-----	
Total	4,434	4,505	7,005	8,350	6,135	24,600	29,042	42,588	42,970	9,051	5,146	3,224	
Mean	143	150	226	269	212	794	968	1,374	1,432	292	166	107	
Ac-ft	8,790	8,940	13,890	16,560	12,170	48,790	57,600	84,470	85,230	17,950	10,210	6,390	

Calendar year 1955: Max 726 Min 90 Mean 212 Ac-ft 153,400
Water year 1955-56: Max 3,380 Min 90 Mean 511 Ac-ft 371,000

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for station below Smiths Fork near Cokeville.

Note--Stage-discharge relation affected by ice Nov. 13 to Mar. 25 (no gage-height record Feb. 11 to Mar. 19; discharge estimated on basis of weather records and records for station below Smiths Fork near Cokeville).

Thomas Fork near Wyoming-Idaho State line

Location.--Lat 42°24', long 111°01', in NW¼ sec. 19, T. 28 N., R. 119 W., in Wyoming, on left bank 1.3 miles downstream from Giraffe Creek, 1.5 miles upstream from State line, and 3½ miles northeast of Geneva, Idaho.

Drainage area.--113 sq mi.

Records available.--October 1949 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 6,290 ft (from topographic map). Prior to Sept. 22, 1950, at datum 0.68 ft higher.

Average discharge.--7 years, 56.7 cfs (41,050 acre-ft per year).

Extremes.--Maximum discharge during year, 634 cfs Apr. 24; maximum gage height, 4.39 ft Apr. 21; minimum discharge, 2.6 cfs Mar. 2, result of freezeup.
1949-56: Maximum discharge, 869 cfs May 18, 1950 (gage height, 5.55 ft, datum then in use); minimum, that of Mar. 2, 1956.

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

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	12	15	b22	b12	15	81	392	164	59	32	19
2	11	12	15	b22		15	76	394	155	58	30	19
3	11	12	14	b22	a12	14	68	394	150	56	27	19
4	10	12	12	23		14	59	*417	147	54	27	19
5	10	13	b10	25		13	78	486	139	52	26	19
6	11	12	b10	22		12	74	475	131	50	*26	19
7	11	12	b11	21		13	90	444	*126	48	26	19
8	11	12	b11	21	a13	14	115	422	120	47	25	19
9	11	12	b11	18		15	123	403	117	46	24	19
10	11	17	b12	19		14	160	387	111	45	24	19
11	11	21	13	19	a16	12	191	381	107	44	23	20
12	11	13	14	20	a16	13	191	*340	101	42	23	20
13	11	12	13	20		14	237	312	99	41	23	*19
14	11	12	11	19		14	272	285	96	39	23	18
15	11	b10	11	19		13	310	261	99	38	24	18
16	11	b10	13	21		14	334	255	108	*38	24	18
17	11	b12	13	20	b16	14	338	261	93	37	24	18
18	11	14	13	18		14	368	274	90	36	24	18
19	12	14	*13	*19		*15	390	282	*83	35	24	18
20	13	15	13	17		16	*447	285	82	34	27	18
21	13	16	13	17		18	497	274	83	33	23	18
22	13	16	23	18		19	504	257	78	33	22	18
23	13	14	100	17		23	531	249	76	33	21	18
24	*12	14	186	17	a17	32	*554	*241	72	32	21	18
25	11	13	100	16		39	*486	241	71	32	20	18
26	11	a14	72	17		45	520	219	67	31	20	18
27	11	a15	57	18	a16	50	586	208	66	30	20	18
28	12	*16	36	15	*15	48	504	221	63	30	20	19
29	12	15	27	b14	14	51	444	221	60	30	20	20
30	13	15	b24	b13	-----	62	403	189	58	31	20	19
31	13	-----	b23	b12	-----	74	-----	175	-----	30	20	-----
Total	355	407	909	581	431	739	9,041	9,645	3,012	1,244	733	559
Mean	11.5	13.6	29.3	18.7	14.9	23.8	301	311	100	40.1	23.6	18.6
Ac-ft	704	807	1,800	1,150	855	1,470	17,930	19,130	5,970	2,470	1,450	1,110

Calendar year 1955: Max 131 Min 8.0 Mean 26.0 Ac-ft 18,810

Water year 1955-56: Max 586 Min 10 Mean 75.6 Ac-ft 54,850

Peak discharge (base, 150 cfs).--Dec. 24 (5 a.m.) 246 cfs (3.83 ft); Apr. 24 (12:30 a.m.) 634 cfs (4.16 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for stations on nearby streams.

b Stage-discharge relation affected by ice.

BEAR RIVER BASIN

Bear River at Harer, Idaho

Location--Lat 42°11'50", long 111°10'05", in NW¹ 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 1956.

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--40 years, 515 cfs (372,800 acre-ft per year).

Extremes--Maximum discharge during year, 3,810 cfs Mar. 28 (gage height, 10.82 ft); minimum, 111 cfs Sept. 17.
1913-16, 1919-56: 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 for irrigation above station.

Cooperation--Records collected by Utah Power and Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project. Three discharge measurements were made by Geological Survey in addition to those made by the power company.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 3-14 and June 14-29)

Oct. 1 to Dec. 31

Jan. 1 to Sept. 30

2.6	104	2.6	111	5.0	961
3.0	189	3.0	196	7.0	1,710
3.5	331	3.5	332	9.0	2,470
4.0	524	4.0	521	10.7	3,640

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	147	175	228	390	200	240	2,000	1,450	2,460	583	284	150
2	141	*172	215	370	190	235	1,650	1,450	2,500	*570	284	*152
3	145	158	210	360	190	235	1,440	1,430	2,580	556	253	160
4	158	172	190	315	195	240	1,300	1,370	2,680	547	245	162
5	167	177	170	310	195	245	*1,190	1,360	2,720	565	240	148
6	163	172	*161	325	200	245	1,080	1,430	*2,690	*539	235	142
7	165	177	170	320	200	245	988	*1,460	2,510	500	228	146
8	172	175	180	305	200	245	969	1,480	2,340	513	228	144
9	170	177	190	300	200	255	953	1,500	2,180	508	230	148
10	172	175	190	295	200	265	949	1,520	2,020	443	225	142
11	172	184	190	295	205	270	973	1,550	1,750	409	213	129
12	167	196	190	300	210	270	1,010	1,590	1,520	394	201	123
13	167	170	190	310	215	280	1,020	1,630	1,480	375	201	123
14	167	140	220	305	225	255	1,060	1,740	1,400	342	206	119
15	167	106	185	305	225	250	1,090	1,760	1,310	326	203	119
16	167	110	180	310	225	250	1,070	1,670	1,310	*329	203	117
17	167	120	175	315	225	260	1,140	1,610	1,280	313	191	117
18	167	145	190	315	225	275	1,180	1,590	1,230	325	196	121
19	167	155	200	315	225	280	1,190	1,590	1,200	284	184	123
20	175	175	205	320	225	290	1,260	1,580	1,170	258	187	121
21	177	190	210	325	225	310	1,340	*1,540	1,200	220	*187	127
22	177	190	225	*328	225	440	1,440	1,570	1,170	213	184	125
23	175	205	240	330	225	640	1,520	*1,640	1,070	*218	178	127
24	170	200	270	315	230	810	*1,610	1,820	977	*238	171	127
25	170	190	320	300	230	1,160	1,670	*2,080	*896	269	167	131
26	170	180	375	300	230	1,670	1,680	2,220	838	258	158	133
27	170	195	435	300	235	2,560	1,680	2,310	791	250	156	133
28	170	205	440	285	245	3,540	1,740	*2,350	710	248	156	139
29	175	215	435	275	*244	3,190	1,720	2,350	644	250	156	144
30	175	228	395	235	-----	3,010	1,570	2,380	588	272	160	139
31	175	-----	390	205	-----	2,380	-----	2,440	-----	284	165	-----
Total	5,187	5,228	7,564	9,578	6,264	24,820	39,482	53,460	47,214	11,401	6,275	4,031
Mean	167	174	244	309	216	801	1,316	1,725	1,574	368	202	134
Ac-ft	10,290	10,370	15,000	19,000	12,420	49,230	78,310	106,000	93,650	22,610	12,450	8,000
Calendar year 1955: Max	630				Min 105		Mean 244		Ac-ft 176,800			
Water year 1955-56: Max	3,540				Min 105		Mean 602		Ac-ft 437,300			

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 13-29, Dec. 2 to Mar. 25.

Rainbow inlet canal near Dingle, Idaho

Location.--Lat 42°13'00", long 111°17'30", in SE $\frac{1}{4}$ sec. 3, T. 14 S., R. 44 E., on left bank $\frac{1}{2}$ miles west of Dingle and $\frac{1}{4}$ miles downstream from headworks at Stewart Dam.

Records available.--October 1945 to September 1956 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.--34 years, 303 cfs (219,400 acre-ft per year).

Extremes.--Maximum discharge during year, 3,380 cfs Mar. 30 (gage height, 8.00 ft); minimum daily, 6.5 cfs Sept. 24.

1945-56: Maximum discharge, 4,180 cfs May 7, 1952 (gage height, 8.62 ft); minimum daily, that of 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 NE $\frac{1}{4}$ 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. One discharge measurement made by Geological Survey in addition to those made by the power company.

Rating tables, water year 1955-56, except periods of ice effect and backwater from Mud Lake (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 16, 17, 29, Jan. 25, 26, 30, Feb. 3-15, Feb. 17 to Mar. 5, Mar. 8-10, 13, 14, 16-18 and Apr. 21)

Oct. 1 to Dec. 31

Jan. 1 to Sept. 30

1.1	58	2.1	303	0.5	5.0	1.5	166	4.0	978
1.4	113	2.5	429	.6	14	2.0	280	6.0	2,020
1.7	187			.8	38	3.0	585	8.0	3,350
				1.1	88				

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	72	129	144	322	b120	166	2,190	1,400	1,880	268	140	72
2	74	134	134	280	b100	188	1,800	1,360	1,940	258	142	85
3	69	124	131	270	109	166	1,480	1,320	2,020	258	166	62
4	83	118	120	223	111	170	1,310	1,260	2,120	254	168	67
5	120	120	b114	218	116	179	1,190	1,240	2,150	258	180	25
6	131	118	109	237	124	b176	1,100	1,280	2,160	263	158	7.3
7	136	120	115	250	124	b174	970	1,320	2,150	249	152	7.3
8	141	120	b122	214	126	170	911	1,320	1,990	242	146	7.3
9	144	124	129	b210	126	185	899	1,250	1,830	249	146	7.3
10	141	122	127	207	124	194	887	1,270	1,690	273	140	7.3
11	141	127	127	202	138	b200	895	1,300	1,480	275	134	7.3
12	138	134	124	211	136	b200	932	1,320	1,160	251	134	7.3
13	141	122	b124	218	146	187	940	1,340	940	223	132	7.3
14	138	94	b154	218	154	183	974	1,420	903	202	136	7.3
15	138	60	b118	218	158	b180	999	1,450	850	179	136	7.4
16	136	66	113	220	b160	179	974	1,410	826	136	126	7.4
17	134	76	109	225	162	187	999	1,350	830	130	120	7.5
18	131	96	120	227	158	211	1,050	1,300	747	128	115	7.5
19	134	79	129	227	160	216	1,060	1,240	692	136	118	7.3
20	138	94	134	232	150	202	1,120	1,210	654	120	113	7.2
21	141	105	138	239	154	223	1,210	1,180	681	109	101	7.0
22	127	107	151	230	162	270	1,230	1,130	685	94	89	6.8
23	127	122	166	246	156	429	1,360	1,140	636	86	83	6.7
24	124	113	192	b230	168	677	1,430	1,240	560	84	90	6.5
25	122	105	234	216	162	850	1,510	1,390	509	72	86	6.7
26	120	96	288	214	164	995	1,580	1,580	423	77	79	6.9
27	120	115	340	b215	168	1,340	1,560	1,740	378	74	67	7.1
28	120	127	340	b200	181	2,360	1,590	1,800	328	77	68	7.4
29	120	136	340	b190	178	3,010	1,650	1,840	306	88	63	7.6
30	122	100	154	154	-----	3,200	1,550	1,830	280	109	47	7.8
31	122	-----	300	b125	-----	2,790	-----	1,850	-----	146	41	-----
Total	3,845	3,344	5,286	6,868	4,193	19,835	37,380	43,080	33,788	5,368	3,595	471.5
Mean	124	111	171	222	145	640	1,246	1,390	1,126	173	116	15.7
Ac-ft	7,630	6,630	10,480	13,620	8,320	39,340	74,140	85,450	67,020	10,650	7,130	935
Calendar year 1955: Max	740			Min 13		Mean 133		Ac-ft 96,470				
Water year 1955-56: Max	3,200			Min 6.5		Mean 456		Ac-ft 351,500				

b Stage-discharge relation affected by ice.

Note.--Stage-discharge relation affected by backwater from Mud Lake Sept. 6-30; discharge computed on basis of 3 discharge measurements, recorder chart, records of gate changes, and engineers notes.

BEAR RIVER BASIN

Bear River below Stewart Dam, near Montpelier, Idaho

Location.--Lat 42°15'30", long 111°17'30", in NE $\frac{1}{4}$ sec. 34, T. 13 S., R. 44 E., on right bank 300 ft downstream from Stewart Dam and $4\frac{1}{2}$ miles south of Montpelier.

Records available.--October 1945 to September 1956 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.--34 years, 69.4 cfs (unadjusted), (50,240 acre-ft per year).

Extremes.--Maximum daily discharge during year, 54 cfs Sept. 9; minimum daily, 0 cfs July 15.

1922-56: Maximum daily discharge, 3,050 cfs June 3, 1923; minimum daily, that of July 15, 1956.

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

Cooperation.--Records collected by Utah Power & Light Co., under general supervision of Geological Survey, in connection with a Federal Power Commission project. One discharge measurement made by Geological Survey in addition to those made by the power company.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Dec. 31 and Sept. 28-30)

Oct. 1 to Dec. 31

Jan. 1 to Sept. 30

0.9	7.8	0.77	0	1.4	27
1.0	12	.80	.9	1.8	54
1.3	29	1.0	8.1		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	17	19	22	21	22	25	21	29	27	3.3	17
2	10	18	19	22	22	22	19	20	29	25	7.7	1.6
3	11	17	18	24	24	22	19	20	33	24	8.1	1.9
4	12	17	17	24	24	21	19	20	34	24	8.5	1.2
5	13	18	18	22	23	21	18	20	34	23	8.5	38
6	14	17	16	22	20	21	17	20	34	23	8.9	50
7	14	17	18	23	20	22	19	20	34	20	9.4	53
8	14	17	18	23	20	22	20	20	34	17	8.9	51
9	15	18	18	23	21	22	21	21	32	17	9.4	54
10	16	18	17	23	21	23	20	22	31	19	9.8	48
11	16	19	16	23	19	23	21	22	28	16	10	47
12	16	19	16	23	18	23	21	23	26	14	9.8	41
13	15	19	16	23	19	23	21	23	26	11	10	35
14	15	17	17	23	19	23	21	24	26	4.3	11	32
15	16	14	16	23	20	23	21	25	26	0	11	32
16	16	15	16	23	20	22	20	26	25	12	11	29
17	18	15	16	23	20	22	20	25	28	25	11	27
18	20	16	17	24	20	23	19	24	25	25	11	24
19	20	15	17	23	20	23	20	24	29	24	11	21
20	19	16	18	23	20	24	20	24	30	24	11	20
21	19	17	16	23	20	25	20	24	30	24	11	20
22	19	17	16	23	20	27	21	24	30	24	11	20
23	18	18	18	23	20	30	22	25	29	24	11	21
24	17	18	19	23	20	30	22	27	30	24	10	18
25	17	17	22	23	20	30	22	27	30	20	10	19
26	17	16	25	23	21	30	22	27	31	21	10	21
27	18	16	24	22	21	30	22	27	33	16	9.8	19
28	18	17	24	22	21	30	22	27	32	9.8	10	15
29	17	19	22	22	21	30	22	28	31	9.4	10	13
30	17	19	21	21	-----	30	21	28	28	9.4	22	13
31	17	-----	21	21	-----	30	-----	28	-----	5.8	29	-----
Total	494	513	569	705	595	769	617	736	895	561.7	333.1	802.7
Mean	15.9	17.1	18.4	22.7	20.5	24.8	20.6	23.7	29.8	18.1	10.7	26.8
Ac-ft	980	1,020	1,130	1,400	1,180	1,530	1,220	1,460	1,780	1,110	661	1,590

Calendar year 1955: Max 27 Min 3 Mean 13.7 Ac-ft 9,940
Water year 1955-56: Max 54 Min 0 Mean 20.7 Ac-ft 15,080

Note.--No gage-height record Dec. 4, 7, Mar. 24 to Apr. 5; discharge estimated on basis of 2 discharge measurements, weather records, and records for other stations on the Bear River.

Montpelier Creek at irrigators weir, near Montpelier, Idaho

Location.--Lat 42°20', long 111°14', in SE $\frac{1}{4}$ sec. 31, T. 12 S., R. 45 E., on right bank 3 miles east of Montpelier and $3\frac{1}{2}$ miles downstream from South Fork.

Drainage area.--50.9 sq mi.

Records available.--December 1942 to September 1956.

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

Average discharge.--13 years (1943-56), 22.3 cfs (16,140 acre-ft per year).

Extremes.--Maximum discharge during year, 124 cfs Apr. 24 (gage height, 1.81 ft); minimum, 1.8 cfs Mar. 6, result of freezeup, but may have been less during period of no gage-height record.

1942-56: Maximum discharge, 224 cfs May 18, 1950 (gage height, 2.91 ft); minimum, 1.4 cfs Feb. 22, 1951, result of freezeup.

Remarks.--Records good except those for periods of no gage-height record, which are fair. One small diversion for irrigation above station.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 26,
Sept. 12 to Sept. 30

Mar. 26 to Sept. 12

0.8	5.1	1.4	15	0.3	9.0	1.0	55
.9	6.6	1.8	24	.4	14	1.5	93
1.1	9.8			.6	25	1.8	118

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.5	7.4	7.8	12	6.3	6.9	21	90	68	29	17	9.9
2	7.5	7.0	7.8	12		6.8	21	90	66	29	15	9.4
3	7.5	7.4	7.4	9.7		6.4	20	90	64	28	15	9.4
4	7.5	7.4	6.0	11		6.1	21	*90	84	27	15	9.4
5	7.4	7.5	5.6	12		6.1	21	92	60	26	14	9.9
6	7.4	7.4	7.4	11		5.6	21	99	58	24	*14	9.9
7	7.5	7.2	7.7	9.8		6.4	22	95	*56	24	13	10
8	7.5	7.0	6.8	9.8		6.9	26	91	53	23	14	9.9
9	7.4	7.2	8.0	8.5		6.8	28	89	52	22	14	9.9
10	7.4	8.0	7.7	*10		6.9	34	88	49	22	13	9.9
11	7.4	11	7.4	10		5.7	40	91	47	22	13	9.9
12	7.4	8.2	7.8	9.8		7.0	41	86	44	21	11	9.8
13	7.2	6.6	7.5	9.7		6.6	47	82	44	21	10	9.7
14	7.4	7.7	5.1	9.5		6.6	53	77	44	20	11	*9.7
15	7.4	5.7	6.4	9.8		6.0	56	73	46	20	12	9.7
16	7.4	5.4	7.7	11		6.6	67	71	47	*19	13	9.7
17	7.4	6.9	7.7	10		6.9	72	70	43	17	13	9.7
18	7.2	7.7	7.5	9.3		7.0	80	71	41	17	12	9.7
19	7.4	8.7	*7.4	9.3		7.4	88	71	40	17	12	9.7
20	8.0	8.5	7.2	9.2		8.0	*95	73	38	17	12	9.5
21	7.7	8.8	7.2	9.0		8.3	102	75	41	18	12	9.5
22	7.8	8.7	9.7	9.2		9.0	107	77	38	18	11	9.7
23	7.7	7.8	17	9.2		10	112	78	*36	19	10	9.8
24	*7.5	7.5	23	8.5		12	115	*80	34	18	10	9.8
25	7.4	6.8	18	8.8		14	*106	83	34	18	10	9.8
26	7.4	7.5	18	9.0		*16	106	80	33	17	9.9	9.7
27	7.4	8.3	17	9.2	6.8	15	112	79	32	17	9.9	9.7
28	7.5	*8.7	14	6.9	*6.5	15	102	81	31	16	10	9.8
29	7.5	8.0	9.8	6.5	8.3	15	97	79	31	16	10	10
30	8.0	7.7	10	7.0	-----	16	92	73	30	16	9.9	10
31	7.8	-----	13	6.5	-----	19	-----	71	-----	16	9.9	-----
Total	232.5	229.7	300.6	293.2	196.9	281.9	1,925	2,535	1,364	634	375.6	292.5
Mean	7.50	7.66	9.70	9.46	6.79	9.09	64.2	81.8	45.5	20.5	12.1	9.75
Ac-ft	461	456	596	582	391	559	3,820	5,030	2,710	1,260	745	580

Calendar year 1955: Max 52 Min 4.0 Mean 12.1 Ac-ft 8,740
Water year 1955-56: Max 115 Min 5.1 Mean 23.7 Ac-ft 17,190

* Discharge measurement made on this day.

Note.--No gage-height record Jan. 29 to Feb. 28; discharge estimated on basis of weather records and records for stations on nearby streams.

Bear Lake outlet canal near Paris, Idaho

Location.--Lat 42°13'00", long 111°20'30", in SW $\frac{1}{4}$ sec. 8, T. 14 S., R. 44 E., on right bank 2,000 ft downstream from head (at dike) and 3 miles southeast of Paris.

Records available.--October 1945 to September 1956 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.--34 years, 345 cfs (249,800 acre-ft per year).

Extremes.--Maximum discharge during year, 1,210 cfs July 19 (gage height, 17.96 ft); minimum daily, 9 cfs Jan. 3-6.
1922-56: Maximum daily discharge, 1,870 cfs Aug. 8, 1924; minimum daily, 1 cfs for many days in 1937 and 1954.

Remarks.--Records good except those for periods of indefinite stage-discharge relation 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. Three discharge measurements made by Geological Survey in addition to those made by the power company.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	432	18	14	10	14	14	14	15	15	578	1,030	172
2	434	11	14	10	14	14	14	15	15	592	1,030	198
3	263	4	14	9	14	14	14	15	15	692	1,010	202
4	23	4	14	9	14	14	14	15	15	848	1,010	483
5	23	4	15	9	14	14	14	15	15	897	1,010	753
6	23	4	15	9	14	14	14	15	15	968	1,010	750
7	23	4	15	10	14	14	14	15	15	984	1,000	732
8	22	4	15	10	14	14	14	15	15	980	993	741
9	22	4	15	11	14	14	14	15	321	1,010	993	729
10	22	4	15	11	14	14	14	15	832	1,110	987	724
11	21	4	15	12	14	14	14	15	716	1,130	929	657
12	21	4	15	12	14	14	14	15	412	1,130	854	412
13	20	4	15	12	14	14	14	15	262	1,120	854	258
14	20	4	14	13	14	14	14	15	252	1,130	854	217
15	20	410	14	13	14	14	14	15	256	1,110	869	219
16	20	786	14	14	14	14	14	15	269	1,110	826	228
17	20	807	14	14	14	14	14	15	271	1,150	762	217
18	19	807	14	14	14	14	14	15	277	1,190	718	202
19	19	280	14	14	14	14	14	15	271	1,200	675	207
20	19	14	14	14	14	14	14	15	333	1,190	686	214
21	19	14	14	14	14	14	14	201	430	1,190	677	214
22	19	14	14	14	14	14	14	479	430	1,190	732	212
23	18	14	13	14	14	14	14	479	430	1,130	786	214
24	18	14	13	14	14	14	14	516	414	1,050	783	219
25	18	14	13	14	14	14	330	241	411	1,010	786	222
26	18	14	12	14	14	14	622	15	446	952	768	222
27	18	14	12	14	14	14	276	15	534	980	771	224
28	18	14	12	14	14	14	15	15	581	993	795	226
29	18	14	11	14	14	14	15	15	595	1,010	758	228
30	18	14	11	14	-----	14	15	15	586	1,040	706	231
31	18	-----	10	14	-----	14	-----	15	-----	1,030	453	-----
Total	1,686	3,321	424	384	406	434	1,609	2,306	9,449	31,694	26,113	10,527
Mean	54.4	111	13.7	12.4	14.0	14.0	53.6	74.4	315	1,022	842	351
Ac-ft	3,340	6,590	841	762	805	861	3,190	4,570	18,740	62,860	51,790	20,880
Calendar year 1955:	Max 1,370	Min 2					Mean 242		Ac-ft 175,000			
Water year 1955-56:	Max 1,200	Min 4					Mean 241		Ac-ft 175,200			

Note.--Stage-discharge relation indefinite Oct. 4 to Nov. 1. No gage-height record Nov. 2-15, Nov. 19 to Apr. 24, Apr. 28 to May 20, May 26 to June 8; discharge computed on basis of 11 discharge measurements, records of headgate changes and field notes.

Georgetown Creek near Georgetown, Idaho

Location.--Lat 42°30', long 111°19', in NE $\frac{1}{4}$ sec. 4, T. 11 S., R. 44 E., on left bank 150 ft downstream from Little Right Hand Fork and 3 miles northeast of Georgetown.

Drainage area.--22.2 sq mi.

Records available.--October 1911 to September 1914 (fragmentary), November 1939 to September 1956 (discontinued).

Gage.--Water-stage recorder. Altitude of gage is 6,350 ft (from topographic map). October 1911 to September 1914 staff gage at site 0.7 mile downstream at different datum.

Average discharge.--16 years (1940-56), 31.1 cfs (22,520 acre-ft per year).

Extremes.--Maximum discharge during year, 69 cfs May 24 (gage height, 2.33 ft); minimum daily, 23 cfs many days.
1911-14, 1939-56: Maximum discharge observed, 162 cfs June 8, 1912; minimum daily, 18 cfs for many days February to May 1941.

Remarks.--Records good except those for period of no gage-height record, which are fair. No diversion above station. At one time a small storage reservoir was operated about $\frac{1}{2}$ miles above station but dam is now breached and no longer operative.

Rating table, water year 1955-56 (gage height, in feet,
and discharge, in cubic feet per second)

1.7	20
1.9	32
2.1	50
2.3	70

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1					23	23	24	41	59	45	36	34
2					23	23	24	41	58	44	35	34
3		27		24	23	23	23	42	57	44	35	34
4					23	23	23	42	56	44	35	33
5			24		23	23	23	44	54	43	35	33
6				23	23	23	23	46	53	43	*35	33
7				23	23	23	23	48	52	42	35	33
8			26	23	23	23	24	49	*51	42	35	34
9				23	23	23	24	52	52	41	35	34
10			25	*23	23	23	24	53	53	40	35	34
11				23	23	23	24	54	52	40	35	34
12				23	23	23	24	52	51	39	35	34
13				24	23	23	24	51	51	38	35	34
14			25	24	23	23	24	49	50	37	35	*34
15				24	23	23	24	48	51	37	35	34
16		28		24	23	23	25	47	50	*37	35	34
17				24	23	23	25	48	49	37	35	34
18				*24	23	23	25	48	48	38	35	34
19			(*)	*24	23	23	25	50	48	37	35	34
20				24	23	23	27	54	48	37	35	35
21			27	24	23	23	29	59	47	37	35	35
22			29	24	23	23	32	61	46	37	34	35
23			31	24	23	23	34	63	*45	37	34	35
24	(*)	24	34	24	23	23	*35	*67	45	37	34	35
25			33	24	23	24	36	68	45	37	34	34
26			31	24	23	24	38	67	45	36	34	34
27			29	24	23	23	39	66	45	36	34	34
28			(*)	28	23	*23	40	65	45	36	34	34
29			25	23	23	23	41	63	45	36	34	34
30			24	23	-----	23	41	61	45	36	34	33
31			24	23	-----	24	-----	60	-----	36	34	-----
Total	868	753	817	733	667	716	847	1,659	1,496	1,206	1,076	1,020
Mean	28.0	25.1	26.4	23.6	23.0	23.1	26.2	53.5	49.9	36.9	34.7	34.0
Ac-ft	1,720	1,490	1,620	1,450	1,320	1,420	1,680	3,290	2,970	2,590	2,130	2,020
Calendar year 1955: Max	36				Min	23	Mean	26.5	Ac-ft	19,170		
Water year 1955-56: Max	68				Min	23	Mean	32.4	Ac-ft	23,500		

* Discharge measurement made on this day.

Note.--No gage-height record Oct. 1 to Jan. 9; discharge estimated on basis of 3 discharge measurements, weather records and records for stations on nearby streams.

Bear River at Soda Springs, Idaho

Location.--Lat 42°36'50", long 111°35'00", in NW $\frac{1}{4}$ 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 and June 1898, October 1953 to September 1956. 1944-49, 1950-53 (irrigation season only) in reports on 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.
1944-49, 1950-53, water-stage recorder at site 800 ft downstream at different datum.

Extremes.--Maximum discharge during year, 1,340 cfs Apr. 27 (gage height, 4.71 ft); minimum daily, 80 cfs Nov. 13, 14.

1896, 1898, 1944-49, 1950-56: Maximum discharge, 6,380 cfs June 9, 15, 1896 (gage height, 8.40 ft, datum then in use); minimum daily, that of 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. One discharge measurement was made by Geological Survey in addition to those made by the power company.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 31

Jan. 1 to Sept. 30

2.1	74	3.5	535	2.6	179	4.0	831
2.3	103	4.0	835	3.0	306	4.8	1,400
2.6	170	5.0	1,560	3.5	527		
3.0	304						

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	514	131	195	420	185	215	1,000	713	852	798	1,110	604
2	525	129	187	380	185	215	885	663	738	791	1,095	329
3	514	129	170	305	185	210	811	616	694	798	1,070	302
4	425	*135	160	350	190	*210	738	604	706	928	1,060	292
5	212	133	160	305	190	205	719	645	676	1,050	1,050	449
6	149	126	160	295	185	205	639	706	610	1,100	1,040	791
7	140	129	150	270	185	205	604	719	610	1,130	1,040	831
8	137	131	155	255	185	205	*565	719	694	1,140	1,040	831
9	135	129	*155	240	185	205	549	*713	633	1,120	1,030	839
10	133	135	155	230	185	205	543	719	900	*1,150	1,030	831
11	135	140	160	225	190	205	538	726	1,270	1,200	1,020	831
12	133	129	160	220	195	200	522	732	1,130	1,240	956	751
13	133	80	140	230	195	200	522	676	852	1,230	900	559
14	131	80	140	235	190	205	522	616	670	1,200	886	412
15	129	85	140	240	185	215	532	570	610	1,170	900	337
16	129	100	140	250	185	220	543	538	604	1,170	907	322
17	129	375	145	280	190	220	565	538	587	1,180	859	326
18	129	760	160	265	190	230	576	538	565	1,220	804	326
19	131	935	165	260	195	250	570	517	538	1,260	764	306
20	144	916	184	*260	195	274	576	502	522	1,270	732	302
21	149	488	184	260	195	274	576	517	559	1,270	738	299
22	149	225	248	255	200	284	610	663	670	1,250	*732	306
23	142	200	475	245	200	329	*694	886	*676	1,250	777	306
24	140	195	640	240	205	395	700	1,050	651	1,180	831	306
25	137	170	546	225	205	527	688	*1,130	622	1,110	824	310
26	140	215	664	210	210	627	956	1,040	663	1,060	818	299
27	144	215	676	204	210	663	1,300	886	700	1,030	798	302
28	142	215	610	220	210	758	1,100	1,000	745	1,050	804	310
29	144	220	345	215	210	751	804	1,050	804	1,070	831	306
30	137	220	360	205	-----	852	745	998	811	1,090	798	314
31	135	-----	465	205	-----	1,020	-----	921	-----	1,120	777	-----
Total	5,766	7,270	8,392	7,979	5,615	10,779	20,693	23,009	21,362	34,625	28,016	13,628
Mean	186	242	271	257	194	348	690	742	712	1,117	904	454
Ac-ft	11,440	14,420	16,650	15,830	11,140	21,380	41,040	45,640	42,370	68,680	55,570	27,030

Calendar year 1955: Max 1,420 Min 80 Mean 416 Ac-ft 300,900
Water year 1955-56: Max 1,300 Min 80 Mean 511 Ac-ft 371,200

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 13-19, Nov. 22 to Dec. 1, Dec. 3-19, Dec. 28 to Jan. 26, Jan. 28 to Mar. 19.

Bear River at Alexander, Idaho

Location.--Lat 42°39', long 111°42', in NW¼ sec. 17, T. 9 S., R. 41 E., on right bank 800 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 1956.

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

Average discharge.--41 years (1911-16, 1919-20, 1921-56), 754 cfs (545,900 acre-ft per year).

Extremes.--Maximum daily discharge during year, 1,360 cfs July 26; minimum daily, 121 cfs Oct. 27 and Dec. 18.

1911-16, 1919-56: 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. One discharge measurement made by Geological Survey in addition to those made by power company.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Dec. 5,
June 30 to Sept. 30)

0.4	96	1.5	579
.7	189	2.0	945
1.0	310	2.5	1,400

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	284	210	284	411	437	367	1,250	851	900	881	1,130	795
2	263	185	261	429	242	317	1,350	752	870	1,000	1,040	394
3	355	190	281	392	257	*219	1,300	747	680	1,310	986	384
4	536	187	216	371	232	316	1,200	649	840	1,120	1,240	777
5	498	*202	192	512	171	419	891	610	760	1,330	862	883
6	354	179	261	519	292	371	917	763	820	1,350	1,100	1,040
7	324	202	213	171	215	221	689	957	850	1,170	1,120	876
8	224	196	225	318	368	293	661	904	970	1,100	1,010	544
9	251	246	236	301	157	301	*802	924	725	1,340	1,090	442
10	316	207	*287	298	307	279	517	*772	725	1,310	931	625
11	294	227	197	316	300	251	587	915	820	*1,340	714	583
12	243	350	297	320	237	434	700	684	830	1,300	1,020	490
13	265	231	261	371	343	369	807	771	845	1,280	1,110	636
14	169	265	226	250	331	272	585	865	720	1,110	1,000	464
15	172	596	409	388	242	383	503	747	665	1,100	1,040	288
16	172	576	179	439	233	338	851	821	570	1,310	901	288
17	279	385	182	342	297	258	601	740	580	1,280	816	689
18	179	402	121	345	198	182	789	815	625	1,280	792	424
19	194	261	245	*335	281	255	749	505	575	1,170	868	470
20	175	842	215	333	356	451	721	525	615	1,160	947	456
21	211	625	304	325	337	387	630	1,140	620	1,010	985	379
22	175	327	316	357	194	550	640	1,140	610	995	1,030	518
23	175	376	806	360	366	756	819	1,110	*550	1,250	988	284
24	172	229	722	336	385	568	839	765	554	1,020	987	413
25	124	235	658	263	246	609	870	790	651	1,170	873	378
26	213	292	541	405	285	784	649	710	651	1,360	500	590
27	121	298	884	416	385	930	960	715	825	1,350	1,030	583
28	169	276	765	250	339	911	984	1,020	744	1,230	*803	709
29	167	304	485	185	223	973	736	1,100	906	888	721	271
30	168	380	519	274	-----	953	928	1,010	838	1,120	704	259
31	152	-----	475	337	-----	989	-----	1,090	-----	1,130	919	-----
Total	7,394	9,461	11,284	10,669	8,258	14,686	24,525	25,707	21,734	36,744	29,267	15,932
Mean	239	315	363	344	285	474	818	829	724	1,185	944	531
Ac-ft	14,670	18,770	22,340	21,160	16,380	29,130	48,640	50,990	43,110	72,880	58,050	31,600

Calendar year 1955: Max 1,530 Min 121 Mean 486 Ac-ft 351,800
Water year 1955-56: Max 1,360 Min 121 Mean 589 Ac-ft 427,700

* Discharge measurement made on this day.

Note.--No gage-height record May 17 to June 23; discharge estimated on basis of 1 discharge measurement and records of powerplant output.

Cottonwood Creek near Cleveland, Idaho

Location.--Lat 42°20', long 111°46', in SW $\frac{1}{4}$ sec. 34, T. 12 S., R. 40 E., on right bank 500 ft upstream from Cleveland irrigation canal, $\frac{2}{3}$ miles west of Cleveland, and 4 miles downstream from proposed Cottonwood Dam.

Drainage area.--61.7 sq mi.

Records available.--November 1938 to September 1956.

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.--17 years (1939-56), 30.1 cfs (21,790 acre-ft per year).

Extremes.--Maximum discharge during year, 260 cfs Apr. 22 (gage height, 2.41 ft); minimum, 1.4 cfs Sept. 18.

1938-56: 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 or no gage-height record, 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 SE $\frac{1}{4}$ sec. 8, T. 12 S., R. 39 E., for irrigation in Battle Creek basin in vicinity of Treasureton.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 20-26, May 29 to July 24)

Oct. 1 to July 25

July 25 to Sept. 30

0.3	0.7	1.0	22	0.4	1.2
.4	1.7	1.3	42	.6	2.7
.5	3.2	1.7	86	.9	6.7
.6	5.4	2.1	157		
.8	12	2.5	247		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.0	a3.5	11	14		14	128	115	34	3.2	5.2	3.3
2	1.7	a4.0	9.5	15	b12	13	98	111	31	3.2	5.0	3.4
3	1.6	a4.5	9.9	10		14	85	106	28	5.0	4.8	a3.5
4	1.5	*5.0	b9.0	12	a12	14	81	113	26	6.0	4.8	a3.5
5	1.6	4.7	b7.5	14	a12	13	88	129	*15	6.3	4.6	a3.5
6	1.8	4.3	6.6	16		b13	76	116	14	*6.0	5.0	a3.0
7	1.8	4.5	6.9	13		b14	81	*111	13	5.7	5.2	*2.5
8	2.0	3.6	b7.0	12	a13	15	94	106	12	5.7	5.3	1.8
9	1.8	4.1	7.2	14		14	108	86	11	5.4	5.3	1.7
10	1.7	4.3	8.1	*13		14	141	86	9.5	5.0	5.2	1.8
11	2.3	5.0	8.8	14	a14	b14	153	101	8.8	5.0	5.2	1.6
12	2.3	3.2	*10	16	a15	a14	137	85	8.4	5.0	5.2	1.7
13	2.2	b3.0	10	18	a16	a14	151	70	9.5	5.0	5.8	1.8
14	2.3	b3.5	b9.0	18	*16	a14	159	60	7.5	4.7	5.7	1.7
15	2.0	b2.5	b8.5	20	16	a14	155	54	7.5	4.3	5.8	1.6
16	2.0	b3.0	9.5	38	a16	b14	180	50	9.5	4.3	6.2	1.6
17	3.6	b3.5	10	30	a16	b14	*193	46	8.4	4.1	8.2	1.6
18	5.2	b4.5	11	24	a16	16	207	45	7.5	4.5	5.8	1.6
19	5.4	b4.5	11	23	a15	23	214	46	6.3	4.7	5.8	1.7
20	7.5	b6.0	12	22	a15	26	218	44	6.0	4.5	6.2	2.1
21	3.9	b10	12	20	a15	33	223	*42	6.9	4.7	5.8	2.3
22	5.2	9.1	15	20	a15	48	228	42	6.3	5.0	5.8	2.4
23	4.3	8.4	*32	19	15	72	*221	38	5.7	4.7	5.7	1.9
24	3.6	8.4	73	14	15	115	200	38	5.2	4.5	3.4	1.8
25	3.4	b8.0	58	16	15	161	174	41	4.5	*4.3	2.8	1.8
26	3.2	8.8	47	16	14	157	185	29	4.3	4.1	2.8	1.7
27	3.2	11	39	19	14	111	182	27	4.0	4.2	2.8	*1.7
28	3.6	15	29	17	14	*90	165	52	3.9	4.6	2.9	1.7
29	3.6	12	b22	b16	b14	89	141	56	3.9	5.3	2.8	1.8
30	a3.5	11	b20	b14	---	113	124	52	---	5.3	2.6	---
31	a3.5	---	22	b13	---	143	---	44	---	5.0	3.0	---
Total	93.3	182.9	549.5	539	412	1,433	4,588	2,151	321.0	149.5	148.7	63.9
Mean	3.01	6.10	17.7	17.4	14.2	46.2	153	69.4	10.7	4.82	4.80	2.13
Ac-ft	185	363	1,090	1,070	817	2,840	9,100	4,270	637	297	295	127

Calendar year 1955: Max 182 Min 1.5 Mean 16.9 Ac-ft 12,250
Water year 1955-56: Max 228 Min 1.5 Mean 29.0 Ac-ft 21,090

Peak discharge (base, 150 cfs).--Mar. 25 (8 p.m.) 214 cfs (2.28 ft); Apr. 22 (1:30 a.m.) 260 cfs (2.41 ft).

* Discharge measurement made on this day.

No gage-height record; discharge estimated on basis of recorded range in stage, weather records, and records for stations on nearby streams.

b Stage-discharge relation affected by ice.

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 1956 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.--34 years, 778 cfs (563,200 acre-ft per year).

Extremes.--Maximum daily discharge during year, 1,690 cfs Mar. 26; minimum daily, 74 cfs Nov. 2
1922-56: Maximum daily discharge, 5,480 cfs May 8, 1922; minimum daily, 15 cfs May 3, 4, 1925.

Remarks.--Records excellent. 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. One discharge measurement was made by Geological Survey in addition to those made by power company.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

1.1	62	3.0	673
1.3	93	4.0	1,210
1.5	134	5.0	1,900
2.0	274		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	290	700	744	545	568	512	1,580	1,260	901	502	1,290	879
2	338	74	460	449	317	541	1,570	1,170	847	712	962	575
3	573	304	534	735	462	396	1,230	1,060	318	1,130	993	390
4	476	379	391	550	522	369	1,650	1,050	586	928	1,480	602
5	561	499	586	747	310	543	1,530	950	504	993	172	1,020
6	513	122	160	785	356	638	1,090	738	485	1,080	*1,190	1,160
7	460	644	468	821	530	454	1,180	1,220	476	1,120	*1,020	790
8	479	751	364	179	385	458	761	1,310	421	686	715	639
9	380	518	474	514	504	508	889	1,170	290	1,200	720	363
10	330	280	486	*533	370	417	1,400	1,090	286	839	1,130	555
11	468	499	394	563	447	513	1,130	1,190	738	1,020	747	557
12	462	682	451	539	483	720	836	1,070	411	1,010	989	730
13	466	187	535	610	469	472	1,050	824	433	1,120	1,500	523
14	433	1,000	653	688	*799	298	1,100	1,120	399	1,050	985	672
15	416	323	678	544	371	619	742	937	457	480	830	403
16	343	151	519	1,020	341	373	1,070	811	501	1,010	792	369
17	314	611	121	738	638	394	1,010	972	342	805	759	449
18	495	993	207	482	262	360	1,380	422	311	1,280	669	*790
19	583	305	690	538	233	352	1,430	468	*470	1,020	765	549
20	168	517	384	550	761	575	1,190	358	485	1,040	895	418
21	304	1,330	446	589	334	579	1,090	1,110	353	1,290	985	478
22	527	697	529	338	502	1,220	996	1,110	456	294	877	552
23	88	645	1,220	587	593	1,220	1,110	593	429	1,050	969	519
24	474	310	1,550	653	577	1,050	1,290	817	320	679	1,070	307
25	*294	491	1,280	493	445	970	1,350	500	357	1,300	742	448
26	316	493	771	644	350	1,690	1,180	550	465	1,120	820	555
27	546	528	1,140	577	463	*925	1,240	185	644	1,050	692	819
28	395	468	1,300	614	568	1,290	1,270	1,040	429	999	981	631
29	183	*450	908	166	584	1,120	1,320	958	536	996	594	668
30	247	557	1,000	435	-----	1,320	973	791	848	696	722	312
31	269	-----	782	361	-----	1,390	-----	770	-----	1,010	891	-----
Total	12,189	15,708	20,225	17,587	13,564	22,486	35,617	27,634	14,298	29,509	27,926	17,722
Mean	393	524	652	567	468	725	1,187	891	477	952	901	591
Ac-ft	24,180	31,160	40,120	34,880	26,900	44,600	70,650	54,810	28,360	58,530	55,390	35,150
Calendar year 1955: Max			1,870	Min	44	Mean	573	Ac-ft	414,700			
Water year 1955-56: Max			1,690	Min	74	Mean	695	Ac-ft	504,700			

* Discharge measurement made on this day.

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 1956.

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

Average discharge.--6 years, 84.8 cfs (61,390 acre-ft per year).

Extremes.--Maximum discharge during year, 506 cfs May 25 (gage height, 3.77 ft); minimum daily, 20 cfs Sept. 1, 16, 17, 19, 25, 26.
1947-52, 1955-56: Maximum discharge, 600 cfs May 29, 1948; maximum gage height, that of May 25, 1956; minimum daily discharge, 20 cfs Sept. 22, 23, 1952, Sept. 1, 16, 17, 19, 25, 26, 1956.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Three diversions for irrigation above station, one of which first diverted water Sept. 24, 1949, for irrigation in vicinity of Preston, being routed through Glendale Reservoir in Worm Creek basin.

Rating table, water year 1955-56 (gage height, in feet,
and discharge, in cubic feet per second)

1.7	20	2.8	160
2.0	45	3.3	321
2.4	91	3.8	528

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	34	34	44	35	30	77	154	392	78	34	20
2	27	33	34	42	34	30	74	152	396	74	34	24
3	29	33	34	40	35	31	70	156	380	71	34	25
4	29	*33	35	40	35	31	66	174	360	67	35	24
5	29	33	32	39	34	31	63	216	*344	64	30	24
6	29	33	33	38	34	31	58	233	321	*63	29	23
7	28	32	32	38	34	30	57	*236	a270	63	28	*23
8	35	31	32	36	34	30	57	253	a240	59	29	22
9	37	31	32	36	34	31	59	286	a240	56	28	23
10	37	31	31	35	33	30	66	305	a235	55	28	23
11	38	31	31	34	34	30	73	290	a230	54	27	24
12	37	31	31	34	34	30	77	253	a220	53	29	24
13	38	32	31	*35	34	30	81	230	a210	50	28	23
14	34	32	31	35	34	*30	87	201	a200	46	26	22
15	35	31	31	39	*33	30	90	187	*184	44	24	22
16	33	31	31	49	33	30	94	179	170	42	24	20
17	30	32	31	44	33	30	*98	182	156	40	25	20
18	31	32	30	44	32	31	102	207	143	41	24	21
19	35	32	30	43	31	34	110	260	135	37	24	20
20	37	33	30	42	31	40	118	337	130	39	25	21
21	36	35	30	41	30	47	132	*380	123	38	26	21
22	36	34	40	40	30	56	158	408	116	36	26	23
23	35	33	*59	40	31	64	160	420	110	36	26	22
24	35	32	82	40	30	74	167	462	105	*36	26	21
25	35	32	72	39	30	84	162	484	99	36	26	20
26	34	34	70	40	30	87	165	488	97	38	26	20
27	34	37	65	39	30	81	198	475	90	39	28	*21
28	34	35	57	38	30	74	190	*475	84	36	24	21
29	34	*34	51	37	30	70	174	454	83	37	23	21
30	34	34	48	37	-----	71	162	450	81	35	22	23
31	34	-----	46	36	-----	74	-----	388	-----	34	21	-----
Total	1,033	981	1,254	1,214	942	1,402	3,245	9,375	5,944	1,497	837	659
Mean	33.3	32.7	40.5	39.2	32.5	45.2	108	302	198	48.3	27.0	22.0
Ac-ft	2,050	1,950	2,490	2,430	1,870	2,780	6,440	18,600	11,790	2,970	1,660	1,310
Calendar year 1955: Max	-	-	-	Min	-	Mean	-	Ac-ft	-	-	-	-
Water year 1955-56: Max	488	-	-	Min	20	Mean	77.5	Ac-ft	56,320	-	-	-

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for Cub River near Preston.

Bear River near Preston, Idaho

Location.--Lat 42°10', long 111°51', in NW $\frac{1}{4}$ sec. 36, T. 14 S., R. 39 E., on left bank 600 ft downstream from headgates of West Cache Canal, 5 miles downstream from Mink Creek, 5 miles north of Preston, and 5 $\frac{1}{2}$ miles upstream from Battle Creek.

Drainage area.--4,500 sq mi, approximately.

Records available.--October 1889 to September 1917 (gage heights only, January to September 1917), January 1944 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 4,540 ft (from topographic map). October 1889 to September 1917 staff gage at site 5 miles downstream at different datum.

Average discharge.--12 years (1944-56), 896 cfs (648,700 acre-ft per year).

Extremes.--Maximum discharge during year, 3,160 cfs May 21 (gage height, 4.75 ft); minimum, 20 cfs Mar. 17, June 21 (gage height, 0.58 ft); minimum daily, 171 cfs Nov. 2. 1889-1917, 1944-56: 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 discharge, 0.6 cfs June 14, 1949; minimum daily, 14 cfs July 4, 1944, July 4, 1945, July 5, 1947, May 11, 1953.

Remarks.--Records good except those for period of no gage-height record, which are fair. Station is below all irrigation diversions from Bear River in Idaho except Cub River pumps in SE $\frac{1}{4}$ 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.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	251	696	715	545	648	582	1,590	1,180	1,030	366	1,130	725
2	353	171	438	608	270	560	1,600	1,100	790	535	962	485
3	544	290	568	754	584	461	1,350	1,150	499	943	824	266
4	507	*403	a420	529	596	407	1,680	1,060	643	844	1,280	384
5	527	513	a600	802	421	645	1,590	1,190	*615	736	251	797
6	723	180	a250	846	473	677	1,000	782	583	*894	*960	1,010
7	451	588	a500	785	570	513	1,290	1,300	555	922	935	*864
8	418	751	a400	310	479	528	956	1,420	339	826	614	514
9	487	520	a500	507	614	516	954	1,350	262	958	505	212
10	323	320	a500	*577	456	434	1,400	1,200	294	534	879	434
11	*409	420	a420	569	439	535	1,220	1,440	653	826	560	522
12	480	760	a475	548	645	809	771	1,260	294	850	924	510
13	464	255	582	609	577	432	1,210	981	354	982	1,120	360
14	420	1,020	668	740	*838	*330	1,180	1,160	278	921	984	661
15	461	362	673	581	431	535	664	1,100	*368	262	719	287
16	286	218	627	1,150	428	331	922	987	348	847	610	298
17	350	584	215	687	698	428	1,210	994	312	675	561	337
18	492	1,060	262	673	325	373	1,380	492	192	1,080	461	647
19	576	585	690	605	329	571	1,410	713	270	948	733	458
20	196	489	400	610	775	463	1,340	603	400	808	727	369
21	227	1,230	452	562	348	614	1,290	1,180	202	1,200	822	410
22	460	857	582	464	824	1,070	1,150	1,420	272	367	704	484
23	279	561	1,360	608	623	1,300	1,180	742	376	753	823	335
24	389	357	1,650	752	677	1,100	1,520	1,010	189	588	847	358
25	296	432	1,680	557	462	1,220	1,350	840	214	1,040	635	350
26	393	563	1,020	674	402	1,720	1,370	575	282	1,210	598	499
27	477	550	1,160	584	569	1,090	1,450	654	602	964	584	764
28	441	485	*1,450	701	576	1,380	1,390	1,200	203	650	734	552
29	189	472	985	278	665	1,380	1,580	1,350	375	961	494	593
30	262	573	1,090	513	-----	*1,330	1,170	1,040	611	714	377	268
31	256	-----	984	437	-----	1,470	-----	1,120	-----	809	991	-----
Total	12,387	16,265	22,316	19,165	15,622	23,804	38,227	32,593	12,385	24,833	23,346	14,553
Mean	400	542	720	618	539	768	1,274	1,051	413	801	753	485
Ac-ft	24,570	32,260	44,260	38,010	30,990	47,210	75,820	64,650	24,570	49,260	46,310	28,870
Calendar year 1955: Max	1,680			Min 25		Mean 551		Ac-ft 399,000				
Water year 1955-56: Max	1,720			Min 171		Mean 698		Ac-ft 506,800				

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for station at Oneida.

Cub River near Preston, Idaho

Location.--Lat 42°08', long 111°41', in SW¹ sec. 5, T. 15 S., R. 41 E., on right bank 0.2 mile upstream from head gates 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 1956.

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

Average discharge.--13 years, 87.5 cfs (63,350 acre-ft per year).

Extremes.--Maximum discharge during year, 695 cfs May 25 (gage height, 3.29 ft); minimum, 19 cfs Mar. 11-16.

1940-52, 1955-56: Maximum discharge, 705 cfs June 2, 1943 (gage height, 3.83 ft); minimum, 11 cfs Jan. 22, 1951.

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 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 23, 24)

Oct. 1 to May 24

May 25 to Sept. 30

1.0	18	2.5	275	0.9	23	2.5	340
1.2	28	3.0	475	1.2	47	3.0	557
1.5	58	3.4	664	1.5	60	3.3	700
2.0	130			2.0	172		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	23	22	31	b24	20	61	145	539	108	51	35
2	25	23	22	30	b22	20	56	145	515	105	51	35
3	24	22	21	28	a23	20	52	157	502	100	50	35
4	24	*22	21	28	a23	20	48	196	475	97	49	35
5	24	22	21	28	a22	20	46	255	*453	94	49	35
6	25	22	21	27	a22	20	44	275	414	*92	48	34
7	25	22	*21	26	a22	20	44	*279	360	90	49	33
8	25	22	21	26	a22	20	46	304	332	89	48	32
9	25	22	21	25	a22	20	50	349	329	84	48	*32
10	*25	22	21	25	a22	20	58	381	325	82	48	32
11	26	22	21	24	a22	20	67	319	321	80	47	32
12	26	22	21	24	a22	20	70	268	306	77	46	32
13	26	22	21	*25	a22	20	73	231	288	75	45	32
14	25	22	b21	26	a22	*20	79	199	277	74	45	31
15	26	b21	b21	33	*21	20	79	175	*263	71	44	31
16	26	b21	21	62	b21	19	84	173	242	68	44	31
17	24	b22	21	44	b21	20	*89	190	216	67	43	31
18	24	22	21	38	21	20	97	241	194	66	42	30
19	26	21	20	36	21	23	112	349	186	64	42	30
20	26	21	20	34	20	30	145	506	178	62	41	30
21	24	23	21	32	20	37	178	*520	170	62	41	30
22	24	22	28	31	20	44	205	534	158	60	40	30
23	24	21	*58	31	20	53	*205	566	147	58	39	30
24	24	21	70	28	20	63	211	629	143	*58	39	29
25	24	21	61	28	20	72	202	652	139	57	38	28
26	24	21	52	28	20	70	199	642	133	56	38	*28
27	24	24	48	28	20	58	234	623	127	54	37	28
28	24	22	40	26	20	53	224	*604	124	53	37	29
29	23	21	37	26	20	49	196	595	118	53	37	29
30	23	21	34	26	-----	52	162	545	115	52	36	28
31	23	-----	34	b25	-----	58	-----	529	-----	52	36	-----
Total	765	656	903	929	617	1,021	3,416	11,564	8,090	2,259	1,348	937
Mean	24.7	21.9	29.1	30.0	21.3	32.9	114	373	270	72.9	43.5	31.2
Ac-ft	1,520	1,300	1,790	1,840	1,220	2,030	6,780	22,940	16,050	4,490	2,670	1,860

Calendar year 1955: Max - Min - Mean - Ac-ft -
Water year 1955-56: Max 652 Min 19 Mean 88.8 Ac-ft 64,480

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for stations on nearby streams.

b Stage-discharge relation affected by ice.

Little Bear River near Paradise, Utah

Location.--Lat 41°35'25", long 111°51'10", in SE $\frac{1}{4}$ 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 1956 in reports of Geological Survey. January 1936 to October 1939 (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. 27, 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.--18 years (1938-56), 87.6 cfs (63,420 acre-ft per year).

Extremes.--Maximum discharge during year, 1,830 cfs Dec. 23 (gage height, 6.03 ft); minimum, 13 cfs Sept. 7, 9.
1938-56: Maximum discharge, that of Dec. 23, 1955; minimum, 4 cfs Aug. 14, 1940.

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. Natural flow of stream affected by diversions for irrigation and return flow from irrigated areas. No diversion between station and Hyrum Reservoir.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-3, Jan. 17 to Feb. 23, Mar. 18-28, Aug. 18 to Sept. 30)

Oct. 1 to Dec. 22				Dec. 23 to Sept. 30			
2.1	20	2.3	12	4.0	465		
2.3	42	2.6	34	4.5	725		
2.6	92	3.0	94	5.0	1,010		
		3.5	230				

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	38	58	134	895	70	250	254	134	30	20	16
2	26	43	59	120	b88	73	216	230	125	30	20	16
3	28	43	55	107	81	84	198	234	115	29	20	16
4	28	46	52	102	b80	96	195	242	107	26	20	14
5	28	45	42	98	b85	96	220	254	86	26	18	15
6	29	43	53	90	b85	79	186	246	75	26	18	15
7	28	41	50	86	88	73	198	246	69	25	17	14
8	26	41	41	79	86	83	226	250	58	25	16	16
9	26	41	52	85	b85	88	230	238	61	24	15	16
10	23	45	49	70	b85	92	279	238	58	25	16	15
11	24	52	48	65	83	81	292	266	53	24	16	18
12	25	46	50	65	84	73	270	288	46	24	16	17
13	28	41	53	69	84	86	279	258	41	23	16	17
14	28	53	45	72	81	88	270	254	40	23	16	16
15	30	35	45	198	77	83	266	242	38	21	17	16
16	31	38	49	456	73	84	335	230	49	20	16	17
17	31	41	50	155	75	94	350	220	45	20	16	17
18	31	43	50	132	75	113	370	226	45	21	17	17
19	34	48	52	125	70	165	395	234	43	23	16	17
20	40	56	55	122	72	198	390	242	41	21	17	15
21	40	71	55	115	72	223	390	238	40	22	17	16
22	38	64	92	104	72	258	400	230	36	21	17	16
23	36	52	704	122	75	315	380	230	35	20	18	15
24	36	50	669	104	77	325	335	230	37	20	18	16
25	36	50	871	102	73	350	266	223	37	20	18	16
26	36	52	445	98	75	330	274	209	37	20	17	15
27	38	59	370	155	73	250	288	202	34	20	17	15
28	37	56	242	a135	72	223	306	189	31	19	18	17
29	37	53	186	a120	70	209	310	180	30	21	18	18
30	35	53	160	a110	-----	209	279	171	30	20	18	18
31	36	-----	157	a105	-----	246	-----	152	-----	19	17	-----
Total	975	1,439	4,959	3,680	2,291	4,837	8,643	7,146	1,676	708	536	482
Mean	31.5	48.0	160	119	79.0	156	288	231	55.9	22.8	17.3	16.1
Ac-ft	1,930	2,850	9,840	7,300	4,540	9,590	17,140	14,170	3,320	1,400	1,060	956

Calendar year 1955: Max 871 Min 12 Mean 86.9 Ac-ft 62,870
Water year 1955-56: Max 871 Min 14 Mean 102 Ac-ft 74,100

Peak discharge (base, 400 cfs).--Dec. 23 (9 p.m.) 1,830 cfs (6.03 ft); Jan. 16 (3 a.m.) 1,090 cfs (5.20 ft); Mar. 24 (7 p.m.) 495 cfs (4.23 ft).

a No gage-height record; discharge estimated on basis of weather records and records for stations on nearby streams.

b Stage-discharge relation affected by ice.

Hyrum Reservoir near Hyrum, Utah

Location.--Lat 41°37'30", long 111°52'30", in SE 1/4 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 1956.

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

Extremes.--Maximum contents observed during year, 15,710 acre-ft June 1 (elevation, 4,672.9 ft); minimum observed, 3,170 acre-ft Oct. 1 (elevation, 4,642.0 ft).
1938-56: Maximum contents observed, 16,100 acre-ft June 12, 13, 1953 (elevation, 4,673.7 ft); minimum, 1,130 acre-ft Oct. 5, 1940 (elevation, 4,634.7 ft).

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). Figures given herein represent usable contents. Elevation of spillway crest, 4,660 ft. Water used for irrigation on Hyrum project.

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

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

Capacity table, water year 1955-56 (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

Usable contents, in acre-feet, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,170	-	-	-	-	-	-	-	15,710	12,210	8,340	5,150
2	-	-	-	-	-	-	-	-	15,680	12,080	8,220	5,110
3	-	-	-	-	-	-	-	-	15,620	11,940	8,140	5,080
4	-	-	-	-	-	-	-	-	15,570	11,780	8,060	4,970
5	-	-	-	-	-	-	-	-	15,520	11,580	7,860	4,940
6	-	-	-	-	-	-	-	-	15,420	11,400	7,660	4,870
7	-	-	-	-	-	-	-	-	15,280	11,270	7,540	4,830
8	-	-	-	-	-	-	-	-	15,230	11,090	7,460	4,800
9	-	-	-	-	-	-	11,140	-	15,140	10,960	7,380	4,700
10	3,420	5,110	8,710	10,700	10,610	10,610	11,270	15,570	15,040	10,790	7,300	4,600
11	-	-	-	-	-	-	-	-	14,900	10,650	7,180	4,530
12	-	-	-	-	-	-	-	-	14,810	10,520	7,070	4,460
13	-	-	-	-	-	-	-	-	14,670	10,350	6,990	4,390
14	-	-	-	10,650	-	-	-	-	14,530	10,220	6,880	4,330
15	-	-	-	-	-	-	-	-	14,340	10,140	6,760	4,230
16	-	-	-	-	-	-	12,300	-	14,200	10,050	6,680	4,190
17	-	-	-	-	-	-	-	-	14,060	9,960	6,610	4,130
18	-	-	-	-	-	-	12,620	-	13,870	9,880	6,530	4,100
19	-	-	-	-	-	-	-	-	13,730	9,750	6,420	4,060
20	3,800	5,970	9,370	10,830	10,570	10,830	12,800	15,520	13,640	9,670	6,310	4,030
21	-	-	-	-	-	-	-	-	13,590	9,580	6,190	4,000
22	-	-	-	-	-	-	-	-	13,400	9,540	6,080	3,960
23	-	-	-	-	-	-	-	-	13,270	9,500	6,010	3,960
24	-	-	-	-	-	-	-	-	13,030	9,370	5,860	3,960
25	-	-	-	-	-	-	-	-	12,900	9,250	5,720	3,900
26	-	-	12,990	-	-	-	-	-	12,760	9,160	5,650	3,830
27	-	-	12,760	-	-	-	-	-	12,670	9,000	5,540	3,800
28	-	-	-	-	-	-	-	-	12,580	8,830	5,470	3,770
29	-	-	-	-	10,570	-	-	-	12,440	8,710	5,430	3,740
30	-	7,150	11,760	-	-	11,580	15,570	-	12,350	8,580	5,360	3,670
31	4,460	-	11,450	10,740	-	11,490	-	15,660	-	8,460	5,250	-
(+)	4,646.0	4,653.4	4,663.7	4,662.1	4,661.7	4,663.8	4,672.6	4,672.8	4,665.7	4,656.7	4,648.3	4,643.6
(*)	+1,320	+2,690	+4,300	-710	-170	+920	+4,080	+90	-3,310	-3,690	-3,210	-1,580

Calendar year 1955..... * +3,750

Water year 1955-56..... * +530

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

BEAR RIVER BASIN

Little Bear River near Hyrum, Utah

Location.--Lat 41°38'00", long 111°53'00", in NE $\frac{1}{4}$ sec. 6, T. 10 N., R. 1 E., on left bank 2,000 ft upstream from road bridge, $\frac{1}{2}$ miles downstream from Hyrum Dam, and $\frac{1}{2}$ miles west of Hyrum.

Drainage area.--222 sq mi.

Records available.--October 1938 to September 1956.

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.--18 years, 63.6 cfs (46,040 acre-ft per year).

Extremes.--Maximum daily discharge during year, 453 cfs Dec. 26; minimum daily, 0.2 cfs

Oct. 9-11, 26-30.

1938-56: Maximum discharge, 986 cfs Apr. 30, 1952 (gage height, 4.54 ft); minimum daily, that of Oct. 9-11, 26-30, 1955.

Remarks.--Records good. Flow regulated by Hyrum Reservoir (see preceding page).

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 16 to Nov. 13, Feb. 26, 27)

0.0	0.2	0.8	32
.1	1.4	1.0	50
.2	3.6	1.5	124
.4	9.0	2.0	223
.6	18	3.0	466

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.7	0.6	*2.3	212	105	72	280	310	68	2.7	1.3	1.2
2	.8	.6	2.1	179	97	73	259	*296	54	2.7	1.3	1.0
3	2.7	.6	2.1	*155	94	75	236	291	45	2.7	1.3	1.0
4	4.1	.4	1.8	137	91	78	217	133	45	2.7	1.3	1.0
5	4.1	.4	1.8	138	93	84	212	109	40	2.9	1.3	1.0
6	3.4	.6	2.1	131	93	84	206	215	37	2.9	1.3	1.0
7	1.6	.6	1.8	117	96	80	196	227	36	3.2	1.8	1.0
8	.3	.6	1.8	110	94	80	198	208	*26	3.2	1.3	1.0
9	.2	.6	1.8	80	91	80	192	185	6.7	3.2	1.2	1.0
10	.2	.7	1.8	102	90	82	192	175	5.1	2.7	1.2	1.0
11	.2	.8	1.8	94	90	82	212	210	4.4	3.2	1.2	*1.0
12	.3	.8	1.8	90	90	79	219	280	4.1	2.5	1.4	1.0
13	.3	.7	1.8	86	*88	79	198	291	2.5	1.8	1.4	1.0
14	.3	1.6	1.8	86	88	79	204	282	*2.5	1.6	2.3	1.0
15	1.0	2.3	1.6	101	86	78	210	268	2.5	1.4	2.3	1.0
16	4.1	2.3	1.6	243	84	78	*217	243	2.7	1.4	1.8	1.0
17	4.8	2.3	1.6	261	82	78	217	221	3.2	1.6	1.4	1.0
18	4.8	2.3	1.6	221	82	82	328	208	4.6	1.4	2.1	1.0
19	2.7	2.1	1.6	192	80	91	291	210	3.6	1.3	1.4	1.0
20	3.4	1.8	1.6	171	79	114	105	215	3.4	1.3	1.4	1.0
21	3.2	2.1	1.6	153	78	137	27	217	3.4	1.3	1.6	1.0
22	2.9	2.1	1.6	142	75	167	44	*200	3.2	1.2	1.6	1.2
23	2.9	1.8	1.3	142	78	208	107	194	3.4	1.2	1.8	1.2
24	2.7	1.8	219	137	80	247	107	177	3.2	1.2	1.6	1.2
25	1.0	1.8	372	129	78	296	129	157	3.2	1.2	1.4	1.3
26	.2	1.8	453	122	76	220	225	144	3.4	1.2	1.3	1.2
27	.2	1.8	450	140	*75	183	280	85	4.6	1.2	1.3	1.0
28	.2	2.1	425	148	75	259	365	61	4.1	1.2	1.3	1.0
29	.2	2.1	*380	138	73	322	378	85	*2.9	1.4	1.6	1.0
30	.2	2.1	328	129	-----	*298	342	101	2.9	1.4	1.6	1.0
31	*.6	-----	261	117	-----	286	-----	90	-----	*1.3	1.4	-----
Total	54.3	42.2	2,940.4	4,403	2,481	4,251	6,393	6,086	430.6	60.2	46.5	31.3
Mean	1.75	1.41	94.9	142	85.6	137	213	196	14.4	1.94	1.50	1.04
Ac-ft	108	84	5,830	8,730	4,920	8,430	12,680	12,070	854	119	92	82

Calendar year 1955: Max 533 Min 0.2 Mean 54.9 Ac-ft 39,720
Water year 1955-56: Max 453 Min 0.2 Mean 74.4 Ac-ft 53,980

* Discharge measurement made on this day.

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

Location.--Lat 41°44'40", long 111°47'00", in NE $\frac{1}{4}$ sec. 36, T. 12 N., R. 1 E., on right bank 100 ft downstream from powerhouse of Utah Power & Light Co. and 2 $\frac{1}{2}$ miles east of Logan.

Records available.--May 1913 to September 1956.

Gage.--Water-stage recorder and timber control. Altitude of gage is 4,680 ft (from topographic map).

Average discharge.--43 years, 111 cfs (80,360 acre-ft per year).

Extremes.--1913-56: Maximum daily discharge, 206 cfs Apr. 24, 1956; no flow for periods during several years.

Remarks.--Records excellent. Flow regulated by powerplant above gage. Power canal diverts water from right bank of Logan River in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 29, T. 12 N., R. 2 E. Water returned to river 125 ft below gaging station of 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 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0.75	0	1.6	58
.9	7	2.1	115
1.0	12	2.8	221
1.2	25		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	107	99	96	108	80	84	177	193	190	190	186	132
2	107	93	95	108	78	87	*132	191	*191	188	182	129
3	107	98	89	108	86	86	175	194	191	188	182	125
4	105	93	83	109	89	86	174	194	190	188	177	118
5	104	93	75	109	92	86	178	193	191	188	174	113
6	*103	95	92	109	91	77	172	193	190	188	172	111
7	105	95	90	107	86	77	182	193	191	190	169	111
8	105	93	77	107	81	86	185	191	191	188	*169	111
9	104	91	89	104	80	84	54	193	190	190	167	111
10	103	95	86	104	81	83	0	*193	190	190	162	111
11	104	102	80	*104	83	76	0	*193	190	190	161	111
12	104	93	87	102	86	74	39	193	190	190	159	111
13	104	89	89	101	87	79	159	191	191	*190	156	111
14	104	103	76	99	*86	80	172	193	191	191	154	111
15	103	78	78	108	*85	76	172	193	190	191	153	113
16	103	85	84	110	80	81	175	190	188	191	152	113
17	102	92	87	111	81	81	190	191	188	191	152	113
18	103	90	85	111	86	80	*198	191	190	190	152	113
19	103	87	86	111	84	84	204	191	191	190	152	*113
20	103	90	85	111	86	89	199	191	*190	190	152	111
21	103	96	85	110	83	95	199	191	190	188	147	111
22	104	96	91	109	70	98	199	191	190	191	146	111
23	103	87	96	109	86	102	204	191	190	193	141	111
24	*102	91	96	108	87	104	206	193	190	190	138	111
25	101	86	96	107	85	104	204	191	190	188	138	113
26	*101	92	96	108	86	81	202	190	190	188	133	113
27	102	97	101	108	85	*103	199	190	190	188	133	111
28	101	96	109	103	84	114	196	188	188	188	136	*111
29	102	*89	109	97	85	133	193	191	188	190	136	111
30	98	91	108	101	-----	152	193	188	190	190	131	111
31	98	-----	108	81	-----	164	-----	188	-----	188	132	-----
Total	3,198	2,775	2,804	3,282	2,439	2,886	4,982	5,937	5,700	5,874	4,794	3,406
Mean	103	92.5	90.5	106	84.1	93.1	166	192	190	189	155	114
Ac-ft	6,340	5,500	5,560	6,510	4,840	5,720	9,880	11,780	11,310	11,650	9,510	6,760
Calendar year 1955: Max	199			Min 35		Mean 113		Ac-ft 81,510				
Water year 1955-56: Max	206			Min 0		Mean 131		Ac-ft 95,360				

* Discharge measurement made on this day.

Logan, Hyde Park & Smithfield Canal near Logan, Utah

Location.--Lat 41°44'45", long 111°47'05", in SE $\frac{1}{4}$ sec. 25, T. 12 N., R. 1 E., on right bank $\frac{1}{4}$ miles downstream from head of canal and $2\frac{1}{2}$ miles east of Logan.

Records available.--June 1904 to December 1907, January 1909 to September 1956 (fragmentary prior to October 1923, corrected).

Gage.--Water-stage recorder in flume. Prior to May 29, 1924, at site half a mile upstream at different datum.

Average discharge.--33 years (1923-56), 28.7 cfs (20,780 acre-ft per year).

Extremes.--1906, 1924-56: Maximum daily discharge, 136 cfs May 30, 31, 1930; no flow at times in most years.

Remarks.--Records good. No diversion above station. Canal diverts from Logan River in NE $\frac{1}{4}$ sec. 31, T. 12 N., R. 2 E., for irrigation and domestic supply north of Logan.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 19-22)

Oct. 1 to Dec. 31

Jan. 1 to Sept. 30

0	0.2	-0.4	0	0.5	20
.1	2.0	0.0	.2	.8	35
.2	4.9	.1	2.0	1.2	61
.3	9.5	.2	4.9	1.8	95
.5	21	.3	9.0	2.4	131

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.0	2.3	0.4	10	3.4	4.6	0.1	58	83	110	38	31
2	1.5	2.3	.6	10	4.0	2.9		57	*88	112	56	31
3	1.8	2.3	.2	9.0	4.6	2.6	.1	*56	71	110	56	30
4	1.5	2.3	.2	9.5	4.9	2.6	.2	63	84	105	34	30
5	1.5	2.3	.9	8.6	6.1	2.3	.1	58	87	96	34	30
6	1.8	2.3	1.3	8.6	6.1	2.3	.1	52	81	93	34	30
7	1.6	2.3	1.3	6.5	5.7	2.6	.1	53	85	89	34	30
8	1.6	2.3	1.6	4.6	5.7	2.9	.4	58	91	87	34	30
9	1.6	2.3	1.1	4.6	5.7	2.9	1.8	68	84	79	34	30
10	1.6	2.6	.9	4.3	5.3	1.6	2.6	*63	71	78	34	30
11	2.6	9.0	.9	4.0	5.3	1.5	2.3	43	90	76	34	30
12	2.0	3.7	.9	3.7	6.1	1.5	2.3	37	93	68	34	30
13	1.8	3.4	.7	*3.7	*5.7	1.5	1.6	31	107	64	35	29
14	1.6	4.3	1.1	3.4	5.7	1.6	1.6	30	114	65	35	27
15	1.5	3.7	1.1	6.1	5.3	1.6	1.5	28	98	63	35	25
16	1.5	5.4	.7	9.0	4.9	1.6	1.5	47	79	63	36	24
17	1.5	4.3	.9	8.2	4.9	.7	1.3	66	84	62	35	24
18	1.5	3.7	.7	8.2	4.9	.7	2.6	76	80	*81	34	*24
19	1.6	2.9	.9	7.8	4.9	.9	9.0	84	85	60	33	24
20	1.9	2.0	.7	7.4	4.9	.6	18	90	68	59	32	24
21	2.0	1.8	.7	5.7	7.8	.7	40	91	66	58	31	24
22	1.8	1.5	.9	4.9	11	.7	57	*90	80	57	*31	23
23	1.6	.9	13	6.1	6.5	.7	57	89	99	53	33	23
24	1.6	.7	16	4.6	5.7	.6	62	96	105	52	34	22
25	1.6	.9	15	3.7	5.3	.6	61	*96	115	51	34	22
26	1.8	.7	14	4.0	5.3	.2	64	94	125	48	33	22
27	2.0	.7	13	6.1	4.9	.4	64	80	129	48	33	22
28	2.0	.6	12	3.4	4.9	.2	57	84	125	43	33	21
29	2.0	.6	12	3.4	4.9	.6	47	69	*121	42	32	21
30	2.3	11	3.4	---	---	.2	54	74	115	40	31	21
31	2.3	---	11	3.4	---	.2	---	86	---	*37	31	---
Total	55.0	74.5	135.7	185.9	160.4	44.6	610.4	2,067	2,803	2,129	1,047	784
Mean	1.77	2.48	4.38	6.00	5.53	1.44	20.3	66.7	93.4	68.7	33.8	26.1
Ac-ft	109	148	269	369	318	88	1,210	4,100	5,560	4,220	2,080	1,560

Calendar year 1955: Max 126 Min 0 Mean 22.6 Ac-ft 15,580
Water year 1955-56: Max 129 Min 0.1 Mean 27.6 Ac-ft 20,030

* Discharge measurement made on this day.

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 1956. 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 site a quarter of a mile downstream at different datum.

Average discharge.--43 years (1913-56), 107 cfs (77,460 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, 33 years (1923-56), 232 cfs (168,000 acre-ft per year).

Extremes.--Maximum discharge during year, 1,050 cfs May 25 (gage height, 3.57 ft); minimum daily, 12 cfs Nov. 12, 13.

Maximum combined daily discharge during year (Logan River above State dam, Utah Power & Light Co.'s tailrace, and Logan, Hyde Park & Smithfield Canal), 1,220 cfs May 25; minimum daily, 91 cfs Dec. 14.

1913-56: 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.

1934-56: 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 fair 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 syphons 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 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0.9	12	2.2	315
1.0	22	2.8	591
1.3	67	3.5	998
1.7	158		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	14	15	26	17	19	46	205	797	116	16	16
2	16	15	14	25	17	20	*29	217	*768	102	15	16
3	14	15	14	18	18	21	23	268	774	96	16	19
4	14	13	15	16	18	21	21	327	729	89	16	26
5	15	13	16	16	20	21	23	460	696	89	15	32
6	*15	13	15	15	20	21	21	465	670	81	15	31
7	17	13	15	15	20	21	23	493	622	77	15	28
8	15	13	14	14	20	21	38	512	571	71	*15	28
9	15	13	14	15	20	22	156	541	566	71	15	27
10	17	15	15	15	21	23	248	*551	566	62	15	23
11	17	22	14	*14	21	23	275	*498	522	60	15	27
12	15	12	15	14	21	22	252	423	498	64	15	26
13	*14	12	14	14	21	22	161	360	451	62	15	22
14	15	13	14	14	*21	22	156	311	414	52	17	22
15	15	13	14	19	20	23	153	282	418	48	17	25
16	15	15	14	52	20	26	185	262	423	44	17	22
17	15	14	15	26	20	27	197	262	360	40	17	22
18	15	13	15	20	20	26	*208	311	319	*36	16	21
19	15	16	15	19	20	26	211	437	*296	34	16	*20
20	17	17	15	17	20	27	258	596	*308	28	16	20
21	14	15	14	16	20	28	293	670	296	26	15	19
22	13	15	21	17	27	30	336	702	255	22	15	21
23	14	14	116	18	20	47	340	762	217	21	16	21
24	14	14	338	17	20	67	340	814	202	20	16	18
25	14	14	223	16	19	107	300	*938	180	19	16	18
26	*13	14	180	16	19	153	315	912	158	18	16	16
27	14	14	140	19	19	*109	387	931	140	18	16	17
28	14	14	75	16	19	81	323	906	131	17	18	*19
29	14	*14	*50	16	19	42	275	874	*126	17	16	19
30	13	14	38	16	-----	36	223	774	123	17	16	17
31	15	-----	40	18	-----	44	-----	757	-----	17	16	-----
Total	460	426	1,525	569	577	1,198	5,816	16,821	12,596	1,534	490	658
Mean	14.8	14.2	49.2	18.4	19.9	38.6	194	542	420	49.5	15.8	21.9
Ac-ft	912	845	3,020	1,130	1,140	2,380	11,540	33,360	24,980	3,040	972	1,310

Calendar year 1955: Max 488

Min 12

Mean 54.0

Ac-ft 39,120

Water year 1955-56: Max 938

Min 12

Mean 117

Ac-ft 84,630

* Discharge measurement made on this day.

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 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	126	115	111	144	100	108	223	456	1,070	416	240	179
2	124	110	110	143	99	110	211	465	1,050	402	233	178
3	123	115	103	135	109	110	198	518	1,040	394	234	174
4	120	108	98	134	112	110	195	584	1,000	382	227	174
5	120	108	92	134	118	109	201	711	974	373	223	175
6	120	110	108	133	117	100	193	710	941	362	221	172
7	124	110	106	128	112	101	205	739	898	356	218	169
8	122	108	93	126	107	110	223	761	853	346	218	169
9	121	106	104	124	106	109	212	802	840	340	216	168
10	122	113	102	123	107	108	251	807	827	330	211	164
11	124	133	95	122	109	100	277	734	802	326	210	168
12	121	109	103	120	113	98	293	653	781	322	208	167
13	120	104	104	119	114	102	322	582	749	316	206	162
14	121	120	91	116	113	104	350	554	719	308	206	160
15	120	95	83	133	110	101	326	503	706	302	205	163
16	120	105	99	171	105	109	362	499	690	298	205	159
17	118	110	103	145	106	109	368	519	632	293	204	159
18	120	107	101	139	111	107	409	578	589	287	202	158
19	120	106	102	138	109	111	424	712	572	284	201	157
20	122	109	101	135	111	117	475	877	566	277	200	155
21	119	113	100	132	111	124	532	952	552	272	193	154
22	119	112	113	131	108	129	592	983	525	270	192	155
23	119	102	225	133	112	150	601	1,040	506	267	190	155
24	118	106	448	130	113	172	608	1,100	497	262	188	151
25	117	101	334	127	109	212	565	1,220	485	258	188	153
26	116	107	290	128	110	234	581	1,200	473	254	182	151
27	118	112	254	133	109	212	650	1,200	459	254	182	150
28	117	111	196	122	106	195	576	1,180	444	248	187	151
29	118	104	171	116	109	176	515	1,130	435	249	184	151
30	113	105	157	120	-----	188	470	1,040	428	247	178	148
31	115	-----	159	102	-----	208	-----	1,030	-----	242	179	-----
Total	3,717	3,274	4,466	4,036	3,177	4,133	11,408	24,819	21,103	9,537	6,331	4,848
Mean	120	109	144	130	110	133	380	801	703	308	204	162
Ac-ft	7,370	6,490	8,860	8,010	6,300	8,200	22,630	49,230	41,860	16,920	12,560	9,620
Calendar year 1955: Max	770			Min	69	Mean	188	Ac-ft	137,000			
Water year 1955-56: Max	1,220			Min	91	Mean	276	Ac-ft	200,000			

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

Location.--Lat 41°37'20", long 111°44'25", in NE $\frac{1}{4}$ sec. 8, T. 10 N., R. 2 E., on right bank three-quarters of a mile upstream from diversion dam, 3 $\frac{1}{4}$ miles upstream from powerplant of Utah Power & Light Co., and 6 miles east of Hyrum.

Drainage area.--260 sq mi.

Records available.--July 1900 to December 1902, November 1913 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 5,000 ft (from topographic map). July 19, 1900, to Dec. 31, 1902, staff gage at site 3 $\frac{1}{2}$ miles downstream at different datum. Nov. 28, 1913, to Oct. 2, 1934, water-stage recorder at site 1,000 ft upstream at different datum.

Average discharge.--42 years (1914-56), 126 cfs (91,220 acre-ft per year).

Extremes.--Maximum discharge during year, 572 cfs Dec. 24 (gage height, 4.08 ft); minimum daily, 55 cfs Nov. 15.

1913-56: Maximum discharge, 1,620 cfs May 15, 1917, from rating curve extended above 600 cfs; maximum gage height, 5.96 ft Feb. 27, 1955 (caused by snowslide 400 ft downstream from gage); minimum daily discharge, 29 cfs Jan. 3, 1935.

Remarks.--Records excellent except those for periods of ice effect or no gage-height record, which are fair. Some diversions for irrigation of meadowlands above station. Low-water flow may be regulated by powerplant above station.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 1

Apr. 2 to Sept. 30

1.8	45	3.0	271	2.3	100	3.5	404
2.1	84	3.5	404	2.5	145	4.0	548
2.5	156			3.0	271		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	75	76	*75	115	b95	86	206	336	239	155	127	113
2	75	74	76	112	b95	87	*188	*331	231	152	124	111
3	75	74	76	105	a100	87	174	356	225	152	124	111
4	74	74	74	105	a105	87	169	355	218	150	124	111
5	75	74	74	103	a105	89	186	382	213	150	122	109
6	75	72	75	100	a105	89	167	364	206	147	122	111
7	75	72	74	98	a100	87	174	358	198	147	122	109
8	75	72	72	98	a95	87	191	345	186	147	122	109
9	75	72	75	103	a92	87	200	342	186	145	122	109
10	75	74	75	98	a92	87	239	339	181	143	122	107
11	75	81	75	94	a94	87	313	364	181	143	122	107
12	75	74	72	90	a96	87	331	361	179	143	120	107
13	75	70	72	90	*100	87	345	323	176	143	120	104
14	75	78	72	92	100	89	342	300	171	143	122	104
15	75	55	72	115	98	87	328	284	176	140	122	104
16	75	b60	72	217	97	90	*393	274	183	140	122	104
17	74	b70	74	150	87	90	407	274	176	138	122	104
18	74	75	74	134	95	90	460	*279	171	136	120	104
19	75	75	74	126	92	94	460	294	169	138	120	102
20	75	75	74	125	90	107	489	310	169	136	120	104
21	76	76	74	119	89	121	495	310	167	134	118	104
22	76	75	76	117	87	144	509	307	*164	131	115	104
23	76	74	190	123	87	179	498	302	164	131	115	104
24	82	72	339	114	89	206	485	300	162	131	115	104
25	80	70	313	114	86	232	457	300	159	131	113	104
26	80	70	232	114	86	241	443	287	157	129	113	104
27	78	74	195	132	*87	201	454	279	157	127	115	107
28	78	74	162	123	81	173	415	289	157	129	115	*102
29	76	74	*138	115	87	166	385	*284	155	151	115	102
30	76	75	126	117	-----	184	353	286	155	151	113	102
31	*76	-----	123	110	-----	208	-----	249	-----	*129	*113	-----
Total	2,351	2,181	3,445	3,568	2,712	3,834	10,274	9,724	5,429	4,324	3,701	3,174
Mean	75.8	72.7	111	115	95.5	124	342	314	181	139	119	106
Ac-ft	4,660	4,330	6,830	7,080	5,380	7,600	20,380	19,290	10,770	8,580	7,340	6,300

Calendar year 1955: Max 401 Min 52 Mean 101 Ac-ft 73,290
 Water year 1955-56: Max 509 Min 55 Mean 150 Ac-ft 108,500

Peak discharge (base, 140 cfs).--Dec. 24 (8:30 a.m.) 572 cfs (4.08 ft); Jan. 16 (6:30 a.m.) 297 cfs (3.10 ft); Mar. 25 (11:30 a.m.) 305 cfs (3.17 ft); Apr. 19 (11 p.m.) 548 cfs (4.00 ft).

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

b Stage-discharge relation affected by ice.

BEAR RIVER BASIN

Hammond (East Side) Canal near Collinston, Utah

Location.--Lat 41°50', long 112°03', in SE $\frac{1}{4}$ 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 1956.

Gage.--Water-stage recorder.

Average discharge.--39 years (1917-56), 52.0 cfs (37,650 acre-ft per year).

Extremes.--1912-56: Maximum daily discharge, 182 cfs June 28, July 1, 1932, June 27, 28, 1933; no flow for periods during each year.

Remarks.--Records good. Canal diverts from east side of Bear River in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 26, T. 13 N., R. 2 W., at dam at which West Side Canal and intake of Cutler powerplant also divert. Water used for irrigation in eastern Box Elder County.

Cooperation.--Gage-height record and six discharge measurements furnished by Utah Power & Light Co.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 27 to Nov. 2, Apr. 25 to May 7, May 12-17)

1.6	3.9	2.8	44
1.7	5.8	3.5	83
1.9	10	4.2	128
2.3	22	4.9	175

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	72	13					0	50	150	171	158	129
2	72	1.7					0	57	149	*172	158	129
3	66	0					0	75	149	170	157	129
4	60	0					0	79	*147	170	157	127
5	60	0					0	65	140	167	157	124
6	60	0					0	48	140	165	*157	118
7	61	0					0	*55	140	165	158	119
8	61	0					0	*78	140	167	159	118
9	61	0					0	87	136	168	160	119
10	61	0					0	86	135	168	160	118
11	61	0					0	63	136	168	160	118
12	61	0					0	38	140	169	159	118
13	61	0					0	38	152	171	160	113
14	61	0	(*)				0	38	152	172	161	112
15	61	0					0	38	158	168	161	109
16	62	0					0	39	159	169	161	106
17	52	0					0	52	165	165	*161	*105
18	34	0					0	64	*166	162	161	*106
19	35	0					0	70	165	162	161	107
20	35	0					0	106	165	*161	160	107
21	26	0					0	129	165	158	160	107
22	26	0					0	*136	165	158	159	106
23	26	0					0	137	165	158	158	104
24	*23	0					0	139	165	153	152	106
25	21	0					64	141	165	149	150	102
26	20	0					67	155	156	149	150	97
27	16	0					68	168	165	149	149	97
28	*15	0					50	161	172	149	149	93
29	14	0					31	152	171	149	147	89
30	14	0					38	152	171	152	140	90
31	14	-----					-----	152	-----	157	132	-----
Total	1,372	17.7	0	0	0	0	318	2,847	4,644	5,031	4,832	3,322
Mean	44.3	0.59	0	0	0	0	10.6	91.8	155	162	156	111
Ac-ft	2,720	35	0	0	0	0	631	5,650	9,210	9,980	9,580	6,590

Calendar year 1955: Max 172 Min 0 Mean 56.4 Ac-ft 40,800
Water year 1955-56: Max 172 Min 0 Mean 61.2 Ac-ft 44,400

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

West Side Canal near Collinston, Utah

Location.--Lat 41°50', long 112°04', in SW $\frac{1}{4}$ 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 1956.

Gage.--Water-stage recorder.

Average discharge.--44 years, 231 cfs (167,200 acre-ft per year).

Extremes.--1912-56: Maximum daily discharge, 748 cfs May 19, 20, 1954; no flow during periods in every year except 1914.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Canal diverts from west side of Bear River in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 26, T. 13 N., R. 2 W., at dam at which Hammond (East Side) Canal and intake of Cutler powerplant also divert. Water used for irrigation in eastern Box Elder County.

Cooperation.--Gage-height record and eight discharge measurements furnished by Utah Power & Light Co.

Rating table, water year 1955-56 (gage height, in feet, and discharge,
in cubic feet per second)
(Shifting-control method used Nov. 21 to Jan. 28,
May 21 to June 5, Sept. 9-23)

1.0	6.8	3.2	148
1.2	11	4.0	249
1.5	20	5.0	415
1.9	40	6.6	750
2.5	81		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	308	126	31	19				221	641	718	595	602
2	309	125	31	19				272	641	*713	595	602
3	285	125	31	18				323	639	713	595	602
4	256	124	31	19				343	*622	713	604	602
5	251	121	31	19				290	606	699	630	595
6	252	121	31	19				287	624	695	*661	589
7	249	117	31	19				*290	644	686	677	589
8	251	105	31	19				*333	628	670	674	582
9	251	103	31	*19				384	615	674	677	580
10	251	103	30	19				379	617	679	679	574
11	249	103	30	19	17			296	646	697	681	562
12	251	102	27	19				374	*688	697	706	547
13	249	102	*24	*19				376	725	695	688	528
14	249	102	23	19				374	720	697	688	528
15	249	102	23	19				374	722	699	720	514
16	249	102	22	19	17			388	720	697	697	506
17	231	101	22	20				293	718	683	*690	*504
18	203	87	22	20				340	*716	672	688	*506
19	213	65	22	20				359	725	657	690	508
20	213	65	22	20				458	732	*646	692	510
21	188	*64	22	20				532	727	630	690	508
22	169	64	22	20				602	727	635	692	508
23	164	64	22	20				655	725	628	683	508
24	*156	64	21	20				679	722	600	661	498
25	149	64	20	20				672	722	589	661	490
26	151	64	21	20				666	720	585	641	492
27	151	62	20	20				677	718	572	644	490
28	*151	*44	20	19				644	720	589	644	479
29	151	32	20	18				635	722	606	634	462
30	151	31	20	17				648	722	630	622	460
31	145	-----	19	17	-----	-----	-----	641	-----	624	611	-----
Total	6,745	2,654	773	594	493	367	0	13,907	20,614	20,488	20,510	16,025
Mean	218	88.5	24.9	19.2	17	11.8	0	445	687	661	662	534
Ac-ft	13,360	5,260	1,530	1,180	978	728	0	27,390	40,890	40,640	40,680	31,790

Calendar year 1955: Max 720 Min 0 Mean 252 Ac-ft 182,300
Water year 1955-56: Max 732 Min 0 Mean 282 Ac-ft 204,400

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

Note.--No gage-height record Nov. 16-20, Jan. 31 to Apr. 30; discharge estimated on basis of 1 discharge measurement, 1 observation of no flow, and notes of gate changes by employee of Utah Power & Light Co.

BEAR RIVER BASIN

Bear River near Collinston, Utah

Location--Lat 41°50', long 112°03', in NW 1/4 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 5 1/2 miles north of Collinston.

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

Records available--July 1889 to September 1956.

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

Extremes--Maximum daily discharge during year, 3,820 cfs Dec. 28; minimum daily, 27 cfs June 9.
1889-1956: 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 except those for periods of no gage-height record, which are good. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation and return flow from irrigated areas.

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

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	394	966	1,090	2,260	1,450	*1,430	2,730	a2,930	2,350	31	181	38
2	822	311	1,170	2,040	825	1,160	2,670	a2,610	2,610	31	396	36
3	466	584	1,350	1,680	535	1,240	2,640	a2,330	1,980	31	442	36
4	579	952	1,160	1,400	1,220	1,590	2,580	a2,090	2,140	31	994	36
5	174	940	1,290	1,750	845	2,560	2,420	a2,480	1,800	30	36	177
6	715	454	718	1,790	1,020	1,970	2,670	a2,350	1,590	203	223	233
7	914	1,040	1,130	1,590	1,020	1,360	2,880	a2,730	838	33	131	74
8	631	886	1,140	1,780	1,500	1,480	2,620	2,490	1,070	30	150	33
9	363	762	1,340	a1,460	1,060	1,080	2,470	2,670	27	35	126	33
10	778	411	720	a1,390	915	2,100	2,040	2,640	28	87	52	38
11	467	1,050	684	a1,170	1,410	1,840	1,830	3,080	107	56	33	*94
12	802	1,330	901	a1,280	1,590	1,790	2,060	3,010	28	36	34	111
13	540	412	1,230	a1,260	*1,530	1,710	2,580	3,130	80	37	34	152
14	879	1,520	1,250	1,370	1,320	1,120	2,660	3,420	44	36	34	127
15	617	1,040	1,340	1,730	1,280	1,590	2,340	3,070	103	32	34	147
16	409	1,100	1,220	2,180	1,330	1,270	2,460	2,840	94	32	381	331
17	564	418	860	2,900	1,640	1,290	1,690	*2,370	350	32	191	*363
18	562	991	724	2,910	1,010	1,600	2,740	1,900	*213	32	194	54
19	725	406	1,410	2,480	825	1,370	2,910	2,020	266	32	34	33
20	682	754	695	2,480	1,480	1,640	3,030	1,560	66	36	36	33
21	675	2,060	1,050	1,900	1,260	1,900	3,050	2,370	79	34	36	33
22	787	1,550	1,410	1,980	1,050	2,150	2,980	1,700	188	45	38	164
23	456	1,590	2,210	1,480	1,530	2,730	2,800	1,410	46	41	101	71
24	678	1,570	2,250	2,140	1,570	2,380	2,940	1,740	32	32	34	244
25	692	1,640	3,120	2,020	1,080	2,290	2,800	2,510	32	33	38	161
26	605	708	3,370	1,660	1,170	*2,880	2,440	2,780	32	164	34	205
27	519	1,040	*3,800	2,020	1,440	2,560	3,100	2,530	32	609	38	465
28	*706	*1,360	3,820	1,900	1,460	2,720	a3,150	2,850	32	32	38	763
29	821	1,170	3,800	1,670	1,390	3,120	a3,500	2,840	32	32	39	213
30	679	1,170	*3,420	1,550	-----	*2,920	a2,990	2,180	42	57	38	184
31	688	-----	3,460	936	-----	2,720	-----	2,400	-----	382	182	-----
Total	19,189	30,165	53,132	56,156	35,755	59,160	79,770	77,030	16,331	2,364	4,352	4,682
Mean	619	1,006	1,714	1,811	1,233	1,908	2,659	2,485	544	76.3	140	156
Ac-ft	38,060	59,630	105,400	111,400	70,320	117,300	158,200	152,800	32,390	4,690	8,630	9,290
Calendar year 1955: Max			3,820		Min 26		Mean 911		Ac-ft 659,900			
Water year 1955-56: Max			3,820		Min 27		Mean 1,197		Ac-ft 868,900			

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of output of powerplant.

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 1956.

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

Average discharge.--17 years (1911-12, 1931-32, 1941-56), 17.6 cfs (12,740 acre-ft per year).

Extremes.--Maximum discharge during year, 91 cfs Mar. 24 (gage height, 1.83 ft); minimum, 10 cfs Nov. 2 (gage height, 0.42 ft).
1911-13, 1931-32, 1940-56: Maximum discharge, 351 cfs July 24, 1955 (gage height, 3.63 ft), from rating curve extended above 50 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. Diversions for irrigation of about 400 acres above station.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0.4	9.8	1.0	38
.6	18	1.2	50
.8	28	1.5	68

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	12	14	14	13	15	25	17	16	12	14	13
2	13	12	14	14	13	15	23	17	15	13	14	13
3	13	12	13	14	13	15	21	17	15	14	13	13
4	13	12	12	15	14	15	21	16	14	14	13	13
5	13	12	12	15	14	15	21	16	14	13	13	13
6	*13	12	14	15	14	14	20	16	14	13	13	13
7	12	12	14	14	14	14	*21	16	14	13	13	13
8	12	*12	13	14	14	15	*21	16	14	13	13	13
9	12	12	14	14	14	15	19	16	14	13	13	13
10	12	12	14	14	14	15	a19	16	14	13	12	13
11	12	12	14	15	14	14	a19	17	14	13	12	13
12	12	12	14	15	14	14	a19	17	14	13	12	13
13	12	12	14	16	14	15	a19	17	14	12	12	13
14	12	12	12	*15	14	15	a19	16	14	12	12	13
15	12	12	*13	21	14	14	19	15	14	12	13	13
16	12	11	14	20	14	15	19	15	14	12	14	12
17	12	12	14	17	14	15	18	15	*14	12	14	12
18	12	12	14	16	14	15	18	15	14	12	14	12
19	12	12	14	16	14	17	18	15	14	*12	14	12
20	12	13	14	16	14	20	18	15	14	12	14	13
21	12	14	14	16	14	25	17	*16	14	13	14	12
22	12	13	17	16	15	33	18	17	13	13	14	12
23	13	12	19	16	15	36	18	17	13	13	14	13
24	13	13	18	15	15	45	18	17	13	13	13	13
25	13	12	16	15	*15	39	18	17	12	13	13	13
26	13	13	16	15	15	27	*18	17	12	13	*13	13
27	13	14	17	15	15	21	18	17	12	13	13	13
28	12	14	15	14	15	21	18	20	12	13	14	14
29	12	14	14	14	15	22	18	18	12	13	13	14
30	12	14	14	14	-----	23	18	17	12	13	13	14
31	12	-----	15	14	-----	26	-----	16	-----	13	13	-----
Total	383	373	446	474	411	620	576	509	409	396	409	387
Mean	12.4	12.4	14.4	15.3	14.2	20.0	19.2	16.4	13.6	12.8	13.2	12.9
Ac-ft	760	740	885	940	815	1,230	1,140	1,010	811	785	811	768
Calendar year 1955: Max	62				Min 11		Mean 15.0		Ac-ft 10,840			
Water year 1955-56: Max	45				Min 11		Mean 14.7		Ac-ft 10,700			

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for nearby stations.

BEAR RIVER BASIN

Devil Creek above Campbell Creek, near Malad City, Idaho

Location.--Lat 42°18', long 112°12', in sec. 12, T. 13 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 1956.

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.--17 years (1939-56), 10.0 cfs (7,240 acre-ft per year).

Extremes.--Maximum discharge during year, 142 cfs May 24 (gage height, 3.23 ft), from rating curve extended above 20 cfs on basis of logarithmic plotting; minimum, 2.4 cfs Feb. 20, Aug. 22, 25; minimum daily discharge, 3.6 cfs Feb. 20.

1938-56: Maximum discharge observed, 160 cfs Apr. 2, 1943, from rating curve extended above 47 cfs on basis of logarithmic plotting and discharge measurement of 126 cfs made in 1952; 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 except those for periods of ice effect or no gage-height record, which are fair. Diversions for irrigation of 20 to 30 acres above station. 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).

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.6	2.4	2.0	12
1.7	3.3	2.2	22
1.8	6.0	2.5	44
1.9	8.8		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.0	a6.2	6.3	5.6	b4.8	5.4	14	9.5	8.2	5.8	5.0	5.0
2	5.2	a6.2	6.0	5.4	b4.8	5.4	12	9.2	8.0	5.6	5.0	5.0
3	5.2	a6.2	a6.2	5.6	b4.8	5.6	11	9.2	8.0	5.6	5.0	4.7
4	5.0	a6.2	a5.0	5.6	b5.2	5.6	11	9.2	7.7	5.6	5.0	4.7
5	5.0	a6.2	a5.0	5.6	b5.6	5.6	11	9.5	7.4	5.6	5.0	4.7
6	5.2	a6.2	5.4	5.6	6.0	5.4	10	9.5	7.1	5.6	5.0	5.0
7	*5.2	a6.2	5.6	5.6	6.0	5.2	10	9.5	6.8	5.4	5.0	4.7
8	5.0	*6.3	5.8	a5.6	5.8	4.7	*11	9.5	6.6	5.4	4.7	4.7
9	5.0	6.3	6.3	a5.6	5.6	5.6	9.9	9.2	6.6	5.2	4.7	4.7
10	4.7	6.6	5.6	a5.6	5.6	5.4	11	9.2	6.3	5.8	5.0	4.7
11	5.0	6.8	5.6	5.8	5.6	4.5	11	9.9	6.0	5.4	4.7	5.0
12	5.0	6.6	5.6	6.3	5.6	4.7	9.5	9.5	6.0	5.4	4.7	5.0
13	5.0	6.3	5.4	6.8	5.6	4.7	9.5	9.5	5.8	5.2	4.7	5.0
14	5.0	6.3	a5.4	*6.6	5.2	4.7	9.9	9.5	5.8	5.0	4.7	5.0
15	5.2	b5.6	*5.4	7.7	4.5	b4.5	9.9	9.2	6.3	5.2	4.7	4.7
16	5.2	b5.5	4.7	9.9	4.3	b4.6	10	8.8	6.3	5.2	5.2	4.5
17	5.2	6.8	5.0	7.7	4.5	5.0	11	8.8	*6.0	5.4	4.7	4.7
18	5.2	6.8	5.0	6.8	4.5	5.6	11	9.2	5.8	5.2	5.0	4.7
19	5.2	6.8	5.0	6.8	4.3	5.8	11	9.2	5.8	*5.2	4.5	4.7
20	5.8	6.8	5.0	6.8	5.6	5.8	10	9.2	5.8	5.0	4.5	5.0
21	a6.0	6.6	5.0	6.8	3.9	6.3	10	*9.5	6.0	5.2	4.5	5.0
22	a5.0	6.3	6.6	6.6	5.0	9.2	10	9.5	6.0	5.2	4.3	5.0
23	a5.6	6.3	8.5	5.8	4.5	13	11	9.5	5.8	5.0	4.7	5.0
24	a5.5	6.3	11	5.6	4.3	23	11	16	5.8	5.0	4.5	5.0
25	a5.5	6.3	8.2	5.8	*4.3	32	11	9.9	5.8	5.0	4.3	5.0
26	a5.5	6.0	7.4	6.0	4.3	26	*11	10	5.8	5.0	*4.5	5.0
27	a5.5	5.8	6.8	6.3	4.3	16	11	11	5.6	5.2	5.0	5.0
28	a5.5	5.8	5.8	6.0	4.5	14	10	11	5.8	5.2	5.0	5.0
29	a5.5	5.6	a5.6	b6.0	4.7	14	9.9	9.5	6.0	5.2	5.0	5.0
30	a5.8	5.8	5.4	5.4	-----	16	9.9	8.5	5.8	5.2	5.0	4.7
31	a6.0	-----	5.6	b5.0	-----	16	-----	8.2	-----	5.0	5.0	-----
Total	164.7	187.7	185.2	192.9	141.7	289.3	318.5	298.9	190.5	164.0	148.8	145.9
Mean	5.31	6.26	5.97	6.22	4.89	9.33	10.6	9.64	6.35	5.29	4.80	4.86
Ac-ft	327	372	367	383	281	574	632	593	378	325	295	289
Calendar year 1955: Max	11				Min	4.3	Mean	6.08	Ac-ft	4,400		
Water year 1955-56: Max	32				Min	3.6	Mean	6.63	Ac-ft	4,820		

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for Little Malad River above Elkhorn Reservoir, near Malad City, and other nearby streams.

b Stage-discharge relation affected by ice.

Malad River at Woodruff, Idaho

Location.--Lat 42°02', long 112°14', in sec. 15, T. 16 S., R. 36 E., on 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 1956.

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, 185 cfs Mar. 11, 13, 21 (gage height, 4.50 ft); minimum observed, 16 cfs May 18, Sept. 9; minimum gage height observed, 1.90 ft May 18.

1938-56: 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; minimum gage height observed, 1.90 ft July 10, 11, 15-17, 1955, May 18, 1956.

Remarks.--Records 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 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

1.9	16	3.5	116
2.1	26	4.0	150
2.5	54	4.6	192
3.0	86		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	37	69	79	a50	68	a80	54	28	21	20	18
2	22	38	71	78	a52	69	98	43	27	a20	20	18
3	22	38	71	78	a55	95	92	47	26	a20	20	18
4	24	38	53	68	a56	150	a86	48	25	a19	20	19
5	24	38	56	68	a58	174	80	47	26	a19	19	18
6	*25	a37	56	68	a60	129	75	50	25	a18	18	18
7	24	a36	56	68	a60	104	70	53	24	a19	17	18
8	22	*35	56	63	62	98	*66	51	22	a17	18	17
9	22	a38	56	68	59	112	62	52	22	a19	18	16
10	22	a37	56	68	54	182	60	48	22	a19	19	17
11	24	38	56	69	54	185	59	53	23	a19	20	17
12	24	38	56	75	a68	136	56	52	21	a17	18	17
13	24	52	56	82	a65	185	56	70	21	a17	19	17
14	24	67	a50	*81	a65	148	62	67	21	a18	20	17
15	24	80	*43	71	a65	82	60	52	22	a18	19	17
16	24	85	a60	74	a58	82	64	48	*22	a18	19	17
17	24	86	a60	81	54	92	67	52	22	a17	19	17
18	26	87	59	85	a58	136	78	16	21	a17	18	17
19	31	88	62	90	62	171	67	48	a22	a17	18	17
20	a32	84	86	108	63	182	68	23	a23	*17	18	18
21	34	76	98	110	63	185	67	*26	a23	17	19	18
22	34	71	101	104	63	171	62	27	a23	17	18	18
23	30	62	111	98	62	a150	67	26	a22	18	18	18
24	30	62	123	92	82	119	56	26	a22	19	18	18
25	31	62	150	88	*62	109	54	28	a22	18	18	18
26	31	51	132	87	63	98	*56	28	a22	18	*17	18
27	31	62	122	86	64	82	57	26	21	18	18	18
28	34	63	98	a84	64	79	62	26	a20	18	18	18
29	34	67	86	a80	63	74	67	26	a20	19	18	19
30	a34	68	86	a70	-----	74	59	27	a20	20	18	20
31	37	-----	84	a55	-----	71	-----	27	-----	19	18	-----
Total	844	1,719	2,379	2,476	1,745	3,792	2,013	1,263	680	567	575	531
Mean	27.2	57.3	76.7	79.9	60.2	122	67.1	40.7	22.7	18.3	18.5	17.7
Ac-ft	1,670	3,410	4,720	4,910	3,460	7,520	3,990	2,510	1,350	1,120	1,140	1,050

Calendar year 1955: Max 180 Min 17 Mean 51.2 Ac-ft 37,070
 Water year 1955-56: Max 185 Min 16 Mean 50.8 Ac-ft 36,850

* Discharge measurement made on this day.
 a Doubtful or no gage-height record; discharge estimated on basis of weather records and records for Portneuf River at Pocatello.

BEAR RIVER BASIN

Bear River near Corinne, Utah

Location (revised).--Lat 41°34'35", long 112°06'00", in SE¹/₄NE¹/₄ sec. 30, T. 10 N., R. 2 W., on right bank 1.2 miles downstream from Salt Creek, 2.0 miles northeast of Corinne, and 2.8 miles downstream from Malad River.

Records available.--October 1949 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 4,204.6 ft (revised), unadjusted. Auxiliary staff gage 7,800 ft downstream July 27, 1950, to Nov. 21, 1955.

Average discharge.--7 years, 1,718 cfs (1,244,000 acre-ft per year).

Extremes.--Maximum discharge during year, 4,130 cfs Dec. 29 (gage height, 10.67 ft); minimum, 100 cfs July 21, 22, 27; minimum daily, 101 cfs July 26.
1949-56: Maximum discharge, 7,200 cfs May 3, 1952 (gage height, 14.69 ft); maximum gage height, 14.83 ft Feb. 11, 1951; minimum discharge, 86 cfs Aug. 18, 1953; minimum daily, 90 cfs Aug. 18, 1953.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation, and return flow from irrigated areas. Records are equivalent to flow at Bear River Bird Refuge diversion works.

Revisions (water years).--WSP 1284: 1953.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,050	951	1,330	3,450	1,250	1,500	2,880	3,230	2,600	103	311	139
2	516	1,140	1,280	2,440	1,500	1,550	2,820	3,100	2,560	*109	306	198
3	912	605	1,340	*2,140	1,000	1,400	2,830	2,710	2,510	104	449	155
4	576	*604	1,420	1,980	800	1,450	2,860	2,540	2,220	104	478	150
5	606	1,050	1,350	1,680	1,250	1,550	2,510	2,370	2,310	104	1,080	152
6	403	1,170	1,420	*1,850	1,000	2,400	2,650	2,540	2,080	104	402	169
7	654	722	918	1,970	1,100	2,100	2,770	2,590	1,860	151	198	312
8	990	1,060	1,140	1,810	1,200	1,600	2,910	*2,620	1,190	132	167	297
9	751	1,120	1,250	1,820	1,600	1,600	2,820	2,660	1,310	110	196	205
10	595	951	1,400	1,740	1,300	1,400	*2,660	2,820	406	104	156	154
11	783	601	1,110	1,580	1,200	2,100	2,110	2,840	170	104	156	*152
12	610	1,100	815	1,420	1,550	2,000	1,960	3,150	172	120	136	239
13	725	1,440	*1,020	*1,480	1,700	1,850	2,240	3,100	151	*124	125	200
14	684	786	1,270	1,530	1,650	*1,850	2,810	3,470	*132	115	118	203
15	910	1,540	1,350	1,690	1,500	1,450	2,670	3,340	136	113	119	227
16	754	1,150	1,450	2,120	1,450	1,650	2,660	3,170	161	113	116	215
17	597	1,250	1,350	2,680	1,500	1,450	2,460	*2,960	191	105	250	333
18	621	700	1,100	2,940	1,800	1,500	2,140	2,590	363	105	315	413
19	682	1,150	912	3,010	1,500	1,700	*2,820	2,040	291	105	297	279
20	860	700	1,350	2,750	1,100	1,550	3,050	2,060	273	103	198	167
21	757	*1,000	844	2,620	1,600	1,750	3,130	1,880	255	103	140	146
22	848	2,190	*1,130	2,270	1,450	2,060	3,120	2,250	*152	105	121	144
23	903	1,550	1,580	2,230	1,300	2,520	3,060	1,900	215	107	*120	163
24	*700	1,610	2,170	1,890	1,600	2,810	2,950	1,690	165	106	134	210
25	*726	1,650	2,750	2,340	1,700	2,590	3,010	1,910	132	106	148	229
26	848	1,580	3,280	2,240	1,300	2,680	2,910	2,690	118	*101	137	288
27	786	1,050	*3,710	2,080	1,550	2,850	2,630	2,840	107	106	139	291
28	640	1,140	*3,980	2,290	1,500	2,710	3,120	2,680	106	106	140	486
29	820	1,550	4,120	2,100	1,550	*2,960	3,470	2,860	107	186	140	824
30	905	*1,360	4,030	1,850	-----	*3,170	3,440	2,800	104	127	136	496
31	879	-----	3,840	1,700	-----	2,920	-----	2,520	-----	130	132	-----
Total	23,101	34,470	56,009	65,790	40,100	62,770	83,490	81,920	22,547	3,877	7,060	7,636
Mean	745	1,149	1,807	2,122	1,383	2,025	2,783	2,643	752	125	228	255
Ac-ft	45,820	68,370	111,100	130,500	79,540	124,500	165,600	162,500	44,720	7,690	14,000	15,150
Calendar year 1955: Max	4,120				Min 101		Mean 1,047		Ac-ft 758,300			
Water year 1955-56: Max	4,120				Min 101		Mean 1,335		Ac-ft 969,500			

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 16-20, Dec. 9, 15-18, Jan. 30 to Mar. 21 (no gage-height record Feb. 20 to Mar. 15; discharge estimated on basis of records for station near Collingston).

Weber River near Oakley, Utah

Location.--Lat 40°44'10", long 111°14'45", in SE $\frac{1}{4}$ 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 $3\frac{1}{4}$ miles northeast of Oakley.

Drainage area.--163 sq mi.

Records available.--October 1904 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 6,600 ft (from topographic map). Prior to Oct. 25, 1933, staff gage at site about 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.--50 years (1906-56), 226 cfs (163,600 acre-ft per year).

Extremes.--Maximum discharge during year, 1,940 cfs June 2 (gage height, 3.55 ft); minimum not determined, occurred during period of ice effect.
1904-56: 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 or no gage-height record, 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 tables, water year 1955-56, except periods of ice effect (gage height, in feet and discharge, in cubic feet per second)
(Shifting-control method used Apr. 17-29,
May 24 to June 2, June 10, 11)

Oct. 1 to Apr. 29 June 12 to Sept. 30				Apr. 30 to June 11			
0.2	51	1.5	345	1.4	370	3.0	1,360
.5	85	2.0	575	2.0	650	3.5	1,800
1.0	180	3.0	1,270				

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	61	*55	*56		b52	(*)	138	374	1,690	294	126	75
2	59	62	54		*b52		130	378	*1,730	283	119	76
3	*57	71	b54				125	402	1,660	255	115	73
4	57	64	b52	b75			121	459	1,550	235	112	72
5	56	62					125	535	1,440	223	123	72
6	56	57	a52				119	545	1,410	209	125	71
7	57	58		70			121	606	1,290	201	119	70
8	57	56		68		b52	125	644	1,300	193	115	69
9	56	57		69			126	*668	1,280	183	112	72
10	57	56		68			146	692	1,260	180	110	78
11	58			68			175	634	1,260	175	105	77
12	59			66			180	590	*1,140	171	102	77
13	58		b52	65			188	540	1,030	166	100	76
14	57			68			188	495	1,000	159	103	75
15	57			70			188	472	946	149	103	73
16	56			78	a52	b54	212	490	744	142	98	71
17	55		54	71		b58	229	585	608	140	97	70
18	53		56	71		64	242	746	585	138	96	69
19	52		56	69		69	245	998	636	132	97	69
20	59	b56	55	68		71	279	1,340	624	132	92	68
21	62		53	68		70	337	*1,330	530	134	91	68
22	60		60	66		75	394	1,430	502	132	88	66
23	58		96	66		82	417	1,590	489	130	85	65
24	55		190			102	426	1,530	484	126	82	68
25	57		193			119	426	*1,580	458	126	78	66
26	58		140			128	440	1,510	408	126	72	65
27	63		114	b60		123	444	1,430	354	125	72	64
28	57	57	100			119	426	1,370	*337	132	71	65
29	59	57	*b85			115	408	1,240	325	134	70	60
30	60	55	b75			*130	*378	1,320	513	*130	71	62
31	62	-----	b75			140	-----	*1,530	-----	125	*71	-----
Total	1,788	1,718	2,242	2,099	1,508	2,299	7,498	28,053	27,363	5,180	3,020	2,100
Mean	57.7	57.3	72.3	67.7	52.0	74.2	250	905	912	167	97.4	70.0
Ac-ft	3,550	3,410	4,450	4,160	2,990	4,560	14,870	55,640	54,270	10,270	5,990	4,170

Calendar year 1955: Max 1,290

Min -

Mean 161

Ac-ft 116,800

Water year 1955-56: Max 1,730

Min -

Mean 232

Ac-ft 168,300

Peak discharge (base, 1,200 cfs).--May 23 (4 a.m.) 1,770 cfs (3.39 ft); June 2 (12:30 a.m.) 1,940 cfs (3.55 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for station near Coalville.

b Stage-discharge relation affected by ice.

WEBER RIVER BASIN

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 1956 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.--1945-56: 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 or once-daily gage-height readings, which are fair. Canal diverts water from Weber River in SW¼ 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 p. 99.

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

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	35	a64	23	43	67	235	583	102		
2		0	34	64	26	48	67	237	520	89		
3		0	34	67	37	46	67	233	377	70		
4		0	33	69	43	44	73	146	92	55		
5		0	16	68	47	40	81	100	156	43		
6		0	35	58	48	14	78	102	623	*38		
7		21	34	54		13	82	103	688	33		
8		25	23	54		29	99	104	700	25		
9		23	36	46		31	99	270	718	20		
10		23	34	51		30	117	426	728	17		
11		28	30	48	a44	31	138	403	643	12		
12		25	36	48		59	152	359	*416	4.0		
13		29	36	48		42	159	350	230	0		
14		32	33	49		40	160	314	7.6	0		
15		22	34	52		30	157	284	7.6	0		
16		14	35	*59	39	26	186	293	51	0		
17		31	35	55	40	31	211	359	85	0		
18		34	35	52	35	49	222	504	145	0		
19		38	*35	52	26	44	211	743	268	0		
20		40	35	50	31	49	248	836	237	0		
21		42	34	50	48	44	248	*913	237	0		
22		34	36	49	48	57	231	910	233	0		
23		a29	46	49	49	63	231	475	216	0		
24		a33	149	40	54	67	233	451	203	0		
25		a29	185	41	40	68	231	534	183	0		
26		*28	136	50	37	68	233	668	159	0		
27		30	107	53	37	67	233	653	128	0		
28		34	92	41	36	67	167	638	*124	0		
29		33	76	34	37	67	235	636	122	0		
30		34	60	31	-----	67	*237	653	118	*0		
31		-----	74	23	-----	67	-----	678	-----	0	(*)	-----
Total	0	711	1,653	1,569	1,177	1,441	4,963	13,610	8,998.2	508.0	0	0
Mean	0	23.7	53.3	50.6	40.6	46.5	165	439	300	16.4	0	0
Ac-ft	0	1,410	3,280	3,110	2,330	2,860	9,840	27,000	17,850	1,010	0	0
Calendar year 1955: Max 880 Min 0 Mean 55.0 Ac-ft 33,810												
Water year 1955-56: Max 913 Min 0 Mean 94.6 Ac-ft 88,690												

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

a No gage-height record; discharge estimated on basis of engineer's notes and records for station near Woodland.

Note.--Discharge computed from once-daily staff-gage readings Feb. 16 to Mar. 21, and June 4, 5.

WEBER RIVER BASIN

67

Weber River near Coalville, Utah

Location.--Lat 40°53'40", long 111°24'00", in SE 1/4 sec. 20, T. 2 N., R. 5 E., on left bank 1 1/2 miles upstream from high-water line of Echo Reservoir, 1 1/2 miles south of Coalville, and 6 miles downstream from Silver Creek.

Drainage area.--438 sq mi.

Records available.--April 1927 to September 1956.

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.--29 years, 207 cfs (149,900 acre-ft per year).

Extremes.--Maximum discharge during year, 1,180 cfs May 25 (gage height, 3.78 ft); minimum, 29 cfs Sept. 20 (gage height, 0.62 ft)
1927-56: Maximum discharge observed, 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 for irrigation above station. No diversion between station and Echo Reservoir. Records do not include water diverted from Weber River basin through Weber-Provo diversion canal (see p. 66). Flow slightly regulated by several small reservoirs above station.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.5	24	2.0	362
.7	44	3.0	772
1.0	89	3.6	1,070
1.5	204		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	68	*79	*110			*a70	174	236	758	100	95	53
2	66	86	106	b95	a70	a70	167	193	990	*104	93	57
3	*66	100	104		(*)	74	*152	216	1,020	104	77	50
4	68	112	104			87	136	289	1,070	106	74	*48
5	69	110		93		86	136	431	1,020	97	70	43
6	69	106		97		86	125	469	950	89	69	36
7	72	108	100			72	127	508	772	95	66	a34
8	74	89	b100	98	b70	89	110	532	816	95	63	a33
9	72	86		79		79	108	496	528	95	63	32
10	75	87		82		114	118	*318	473	86	62	32
11	72	106		77		98	129	282	443	102	53	33
12	70	95	97	77		68	129	285	*416	102	57	34
13	69	87	93	80	a70	69	125	269	443	86	57	33
14	68		b90	86		72	129	224	552	82	57	33
15	60		b90	106		66	129	204	694	74	72	34
16	56	b86	86	224		68	134	182	735	69	68	33
17	54		86	145		72	143	162	637	68	79	32
18	57	b105	86	106		104	177	170	528	63	91	31
19	62	116	87	102		167	174	190	450	56	95	31
20	72	164	95	104		239	177	370	387	52	98	30
21	77	236	95	102		204	204	*431	321	52	95	31
22	80	204	112	97		248	279	458	257	56	87	32
23	82	129	354	97	b70	260	312	735	221	57	84	32
24	80	123	712	84		251	325	915	201	43	79	34
25	80	110	607	82		254	318	*1,070	182	45	74	40
26	80	100	305	82		224	295	980	167	50	68	43
27	89	116	172			188	289	840	162	53	63	42
28	89	147	143	b75		152	305	791	145	68	68	43
29	89	116	b125			145	289	682	118	74	65	53
30	87	106	*b95			152	*221	512	104	*102	54	54
31	84		b95	a75		162		603		95	52	--
Total	2,254	3,367	4,749	2,955	2,030	4,068	5,616	14,043	15,360	2,418	2,244	1,146
Mean	72.7	112	153	95.3	70.0	131	187	453	512	78.0	72.4	38.2
Ac-ft	4,470	6,680	9,420	5,860	4,030	8,070	11,140	27,850	30,470	4,800	4,450	2,270
Calendar year 1955: Max			845	Min	28	Mean	136	Ac-ft	98,280			
Water year 1955-56: Max		1,070		Min	30	Mean	165	Ac-ft	119,500			

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of 2 discharge measurements, weather records and records for station near Oakley.

b Stage-discharge relation affected by ice.

WEBER RIVER BASIN

Chalk Creek at Coalville, Utah

Location.--lat 40°55'10", long 111°24'00", in NE $\frac{1}{4}$ SE $\frac{1}{4}$ 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 1956.

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.--29 years (1927-56), 59.8 cfs (43,290 acre-ft per year).

Extremes.--Maximum discharge during year, 603 cfs May 22 (gage height, 2.48 ft); minimum, 3.0 cfs Mar. 12 (gage height, 0.17 ft).

1927-56: Maximum discharge, 1,540 cfs Apr. 28, 1952 (gage height, 4.67 ft); minimum, less than 1 cfs for several days during June to November 1934.

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

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0.2	4.5	0.9	95
.3	9	1.2	164
.4	17	1.8	336
.6	41	2.1	441

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	*15	*22	21	16	*20	75	190	260	44	26	20
2	13	13	21	24	*15	20	57	193	231	*49	28	20
3	*13	18	16	21	15	20	*54	204	206	44	29	18
4	11	21	19	27	15	21	46	245	180	43	27	*17
5	11	20	9.8	32	15	20	49	314	169	40	26	17
6	11	18	19	29	16	14	41	298	157	38	27	17
7	11	18	22	25	18	13	43	326	142	33	28	18
8	11	17	15	28	18	20	49	343	119	29	24	20
9	11	17	19	18	18	21	44	*346	106	26	22	20
10	9.8	18	18	27	17	22	54	359	95	24	20	17
11	9.0	24	18	21	17	17	68	295	89	24	18	15
12	8.6	17	21	25	18	11	68	274	*75	19	17	14
13	8.6	16	21	26	18	16	68	248	70	19	17	13
14	11	26	17	26	18	24	70	228	88	20	18	12
15	11	8.6	18	28	19	16	68	209	73	20	21	13
16	11	14	21	46	19	19	71	214	91	21	25	13
17	9.8	18	22	34	19	22	85	257	83	20	26	13
18	8.6	21	22	27	18	25	97	301	83	19	25	14
19	9.0	25	24	32	17	28	93	333	77	16	26	15
20	9.8	28	24	28	17	33	106	380	71	15	27	14
21	11	33	20	27	17	32	128	349	68	16	28	14
22	11	27	26	26	18	40	157	*390	64	15	26	14
23	11	15	52	27	20	46	174	426	61	17	24	14
24	12	25	77	14	20	57	187	394	55	16	22	14
25	13	15	77	13	19	95	187	390	52	15	21	13
26	13	21	59	19	21	138	198	352	46	15	21	13
27	16	27	49	28	19	117	237	356	47	14	20	13
28	16	25	41	21	17	78	231	326	51	14	19	14
29	17	19	*28	14	19	65	198	320	49	19	21	12
30	17	22	18	18	-----	71	*177	286	44	*27	24	11
31	17	-----	26	18	-----	89	-----	274	-----	26	22	-----
Total	365.2	601.6	657.8	770	513	1,230	3,180	9,400	2,982	757	725	452
Mean	11.8	20.1	27.7	24.0	17.7	39.7	106	303	99.4	24.4	23.4	15.1
Ac-ft	724	1,190	1,700	1,470	1,020	2,440	6,310	18,640	5,910	1,500	1,440	897
Calendar year 1955: Max 307 Min 7.2 Mean 34.7 Ac-ft 25,160												
Water year 1955-56: Max 426 Min 8.6 Mean 59.6 Ac-ft 43,240												

Peak discharge (base, 400 cfs).--May 22 (5:30 p.m.) 603 cfs (2.48 ft).

* Discharge measurement made on this day.

Echo Reservoir at Echo, Utah

Location.--Lat 40°57'50", long 111°26'00", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ 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 1956.

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, 74,540 acre-ft June 16-20 (elevation, 5,560.4 ft); minimum, 4,090 acre-ft Oct. 5-8, 10-20.

1930-56: Maximum contents, that of June 16-20, 1956; 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 5,450 (bottom of outlet tunnel) and 5,560 ft (top of radial gates in spillway) above mean sea level. Dead storage negligible. Water is used for irrigation on the Echo project.

Capacity table (elevation, in feet, and contents, in acre-feet) furnished by Bureau of Reclamation

5,480	3,060	5,510	18,480	5,550	59,880
5,485	4,720	5,520	26,620	5,560	73,940
5,490	6,730	5,530	36,100	5,561	75,420
5,500	11,830	5,540	47,200		

Contents, in acre-feet, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,160	4,230	13,260	25,150	33,490	31,270	37,340	54,640	74,090	67,730	39,140	16,720
2	4,160	4,400	13,570	25,400	33,490	31,270	37,870	55,540	74,090	66,740	38,500	16,250
3	4,160	4,610	13,780	25,630	33,400	31,180	38,080	56,320	74,090	65,900	37,870	15,810
4	4,120	4,910	14,010	26,100	33,400	31,080	38,400	57,230	74,090	64,920	37,130	15,330
5	4,090	5,170	14,270	26,440	33,400	30,990	38,720	58,280	74,090	63,950	36,310	14,920
6	4,090	5,480	14,400	26,800	33,400	30,990	39,140	59,480	74,090	62,990	35,700	14,530
7	4,090	5,720	14,600	27,150	33,490	30,800	39,580	61,090	74,240	62,170	34,880	14,200
8	4,090	6,050	14,730	27,410	33,490	30,710	39,900	62,440	74,240	61,220	33,690	13,890
9	4,120	6,260	14,920	27,590	33,490	30,610	40,230	63,950	74,240	60,280	33,000	13,570
10	4,090	6,470	15,200	27,860	33,490	30,520	40,560	65,340	74,240	59,480	32,230	13,200
11	4,090	6,780	15,400	28,130	33,490	30,520	40,880	66,600	74,240	58,550	31,270	12,890
12	4,090	6,960	15,600	28,310	33,490	30,420	41,330	67,590	74,240	57,620	30,330	12,590
13	4,090	7,180	15,880	28,580	33,490	30,330	41,660	68,440	73,800	56,710	29,400	12,300
14	4,090	7,460	16,160	28,860	33,490	30,140	42,000	69,290	73,500	55,800	28,490	12,060
15	4,090	7,740	16,300	29,130	33,400	30,050	42,440	70,010	73,650	54,760	27,590	11,710
16	4,090	7,970	16,510	29,590	33,300	29,870	42,780	70,590	74,540	53,740	26,800	11,480
17	4,090	8,260	16,800	30,240	33,200	29,680	43,240	71,310	74,540	52,730	25,920	11,140
18	4,090	8,560	17,010	30,710	33,000	29,680	43,690	72,040	74,540	51,720	25,060	10,810
19	4,090	8,860	17,230	30,990	32,710	29,870	44,270	72,470	74,540	50,730	24,550	10,430
20	4,090	9,210	17,520	31,180	32,420	30,420	44,730	72,770	74,540	49,740	23,880	10,150
21	4,160	9,730	17,740	31,560	32,230	30,990	45,190	73,650	74,390	48,650	23,210	9,780
22	4,190	10,320	18,040	31,840	31,940	31,560	46,010	73,650	74,090	47,680	22,640	9,520
23	4,230	10,700	18,460	32,130	31,750	32,130	46,840	73,650	73,650	46,840	21,910	9,310
24	4,190	10,980	19,330	32,230	31,650	32,610	47,920	73,650	73,210	46,010	21,270	9,160
25	4,230	11,310	21,750	32,320	31,560	33,300	48,890	73,650	72,330	44,960	20,560	9,060
26	4,230	11,540	22,960	32,520	31,460	34,180	49,740	73,650	71,600	44,150	19,780	8,910
27	4,190	11,770	23,540	32,710	31,460	34,880	50,850	73,650	70,880	43,350	19,320	8,800
28	4,190	12,180	24,040	32,910	31,370	35,590	51,850	73,800	70,300	42,330	18,780	8,700
29	4,230	12,530	24,470	33,100	31,270	36,000	52,980	74,090	69,440	41,440	18,110	8,600
30	4,230	12,890	24,720	33,200	-----	36,310	53,870	73,800	68,580	40,780	17,670	8,510
31	4,230	-----	24,890	33,400	-----	36,820	-----	73,800	-----	40,010	17,160	-----
(†)	5,483.6	5,501.8	5,518.0	5,527.3	5,525.1	5,530.7	5,545.4	5,559.9	5,556.3	5,533.7	5,508.2	5,493.8
(*)	+70	+8,660	+12,000	+8,510	-2,130	+5,550	+17,050	+19,930	-5,220	-28,270	-22,850	-8,650

Calendar year 1955..... * +15,980
water year 1955-56..... * +4,350

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

WEBER RIVER BASIN

Weber River at Echo, Utah

Location.--Lat 40°57'55", long 111°26'10", in SE 1/4 sec. 25, T. 3 N., R. 4 E., on right bank a quarter of a mile downstream from Echo Dam, half a mile upstream from Echo Creek, and three-quarters of a mile southeast of Echo.

Drainage area.--732 sq mi.

Records available.--April 1927 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 5,440 ft (from Echo Reservoir elevations). Prior to Apr. 18, 1931, staff gage at site a quarter of a mile downstream at different datum. Apr. 18, 1931, to Mar. 23, 1950, water-stage recorder 0.3 mile downstream at different datum.

Average discharge.--29 years, 277 cfs (200,500 acre-ft per year).

Extremes.--Maximum discharge during year, 1,620 cfs May 25, 26 (gage height, 5.74 ft); minimum daily, 0.3 cfs Nov. 4-6.
1927-56: Maximum discharge, 3,060 cfs May 13, 1952 (gage height, 7.34 ft); minimum daily, 0.3 cfs Nov. 18-29, 1954, Jan. 18-24, Nov. 4-6, 1955.

Remarks.--Records good. Many diversions above and below station for irrigation. Flow regulated by Echo Reservoir (see p. 69).

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	99	*40	*0.5	1.0	61	120	16	4.1	1,010	623	459	307
2	99	.5	.5	1.0	*61	142	15	4.7	1,200	*623	459	307
3	*100	.4	.5	.9	61	158	*15	4.7	1,290	627	475	295
4	100	.3	.5	1.0	61	158	14	39	1,310	642	507	*281
5	93	.3	.5	1.0	61	158	12	76	1,250	642	507	267
6	86	.3	.5	1.0	59	158	3.4	73	1,150	627	507	261
7	86	.4	.5	1.0	70	158	3.4	81	912	613	499	260
8	86	.5	.5	1.0	102	158	3.2	84	781	599	481	239
9	92	.5	.6	1.0	99	162	3.2	*78	701	604	491	234
10	99	.5	.6	1.0	99	162	3.2	70	594	599	507	222
11	93	.5	.6	1.0	99	162	3.0	65	576	608	528	199
12	92	.4	.6	1.0	99	162	3.0	66	671	608	533	195
13	81	.4	.6	1.0	99	162	3.0	68	*676	604	524	192
14	76	.4	.6	1.1	128	162	3.0	70	656	599	507	192
15	76	.4	.6	1.3	149	162	3.2	71	594	604	499	192
16	76	.4	.6	1.4	149	162	3.0	73	722	608	495	204
17	76	.5	.6	1.3	158	151	3.2	73	865	618	471	214
18	73	.5	.6	1.3	207	108	3.2	188	618	623	448	232
19	70	.5	.6	1.3	207	87	3.2	348	581	623	444	237
20	70	.5	.6	1.3	207	25	3.2	385	533	613	436	214
21	79	.4	.7	1.3	204	14	3.2	735	520	590	429	185
22	88	.4	.7	1.3	204	14	3.2	*775	512	576	432	158
23	93	.4	.8	37	199	14	3.2	1,190	550	559	444	140
24	97	.4	.7	61	183	14	3.2	1,290	599	545	448	122
25	106	.4	.8	62	120	14	3.2	*1,410	613	541	432	120
26	112	.5	.8	62	120	15	3.4	1,500	585	541	385	120
27	112	.5	.9	62	120	16	*3.6	1,250	576	550	354	120
28	112	.5	.9	62	120	16	3.6	984	590	550	354	118
29	112	.5	.9	62	120	16	3.9	1,190	618	535	345	118
30	112	.5	*.9	62	-----	16	3.9	888	608	*503	325	118
31	114	-----	1.0	62	-----	16	-----	*814	-----	479	319	-----
Total	2,860	52.7	20.3	556.5	3,626	3,042	153.8	13,947.5	22,461	18,274	14,054	6,047
Mean	92.3	1.76	0.65	18.0	125	98.1	5.13	450	749	589	453	202
Ac-ft	5,670	105	40	1,100	7,190	6,030	305	27,660	44,550	36,250	27,880	11,980
Calendar year 1955: Max			681		Min 0.3	Mean 165		Ac-ft 119,500				
Water year 1955-56: Max		1,500			Min 0.3	Mean 232		Ac-ft 168,900				

* Discharge measurement made on this day.

Lost Creek near Croydon, Utah

Location.--Lat 41°10'35", long 111°24'20", in SW¹/₄ 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 1956.

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.--17 years, 37.1 cfs (26,860 acre-ft per year).

Extremes.--Maximum discharge during year, 166 cfs Apr. 23 (gage height, 5.14 ft); minimum recorded, 4.4 cfs Dec. 14.

1921-23, 1941-56: 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 August and September 1941, 1942.

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

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 1-31)

2.9	5.7	4.0	71
3.0	8.3	5.0	153
3.2	16	5.2	171
3.6	42		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.7	(*)	a8.0	b12	(*)	(*)	65	116	56	16	11	7.3
2	6.7		*10	b10			*59	119	52	16	9.3	7.3
3	6.7		10	a9.5			54	130	49	*16	8.6	7.0
4	*6.2			9.5			50	139	48	16	8.6	7.3
5	6.5						51	146	45	15	8.3	*7.3
6	6.5	a7.5	b8.0	b9.5	a15	a15	47	152	42	14	8.0	7.3
7	6.5						47	154	39	13	8.0	7.3
8	6.7						51	147	36	13	8.0	7.8
9	6.7						53	*143	34	13	7.8	8.0
10	6.7						62	146	32	12	7.5	8.0
11	6.7	a7.0	b8.0	a15	a16	a16	70	136	29	12	7.5	8.0
12	7.0						73	129	27	12	7.8	8.0
13	7.0		8.0	9.3			75	116	*27	11	8.0	8.0
14	7.0		b8.0	14			76	107	27	11	8.0	7.8
15	7.0		8.0	18			75	102	29	11	8.3	7.8
16		a7.0	8.6	29	a15	a15	81	99	35	11	8.0	7.8
17			8.6	25			87	98	28	10	8.6	7.8
18			8.6	22			96	103	26	10	7.8	7.8
19			8.6	21			102	108	25	10	8.3	7.8
20			8.6	20			114	112	23	9.3	8.6	7.8
21		a7.0	8.3	20	a15	a15	29	128	105	22	9.0	8.0
22			13	19			35	140	*100	20	9.7	8.6
23			63	20			46	148	93	20	11	7.3
24			93	16			63	156	90	20	9.7	8.6
25			78				77	148	85	19	9.3	7.3
26		a7.0	60		a15	a15	82	146	79	18	7.5	8.3
27			46				79	*144	74	17	9.7	7.3
28			36				69	137	72	18	9.0	7.3
29			29				62	129	71	17	9.7	7.5
30			*b20				62	117	63	16	11	7.3
31			b15				87	59	59	*11	7.5	---
Total	212.6	232.5	628.3	455.3	435	991	2,781	3,393	896	360.4	247.8	237.7
Mean	6.86	7.75	20.3	14.7	15.0	32.0	92.7	109	29.9	11.6	7.99	7.92
Ac-ft	422	461	1,250	903	863	1,970	5,520	6,730	1,780	715	492	471

Calendar year 1955: Max 149 Min 5.2 Mean 208 Ac-ft 15,060

Water year 1955-56: Max 156 Min - Mean 29.7 Ac-ft 21,580

Peak discharge (base, 130 cfs).--Apr. 23 (11:30 p.m.) 166 cfs (5.14 ft); May 7 (1 a.m.) 157 cfs (4.78 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of 3 discharge measurements, weather records, and records for nearby stations.

b Stage-discharge relation affected by ice.

WEBER RIVER BASIN

East Canyon Reservoir near Morgan, Utah

Location.--Lat 40°55'20", long 111°35'50", in NE $\frac{1}{4}$ sec. 10, T. 2 N., R. 3 E., upstream
face of concrete dam, 9 miles southeast of Morgan.

Drainage area.--144 sq mi.

Records available.--October 1937 to September 1956 in reports of Geological Survey.
November 1931 to September 1956 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 500 ft east of dam.

Extremes.--Maximum contents observed during year, 28,790 acre-ft June 17, 24 (gage height, 140.9 ft); minimum observed 3,780 acre-ft Oct. 2, 9.
1931-56: Maximum contents, 29,170 acre-ft June 2, 1943 (gage height, 141.67 ft); no contents Nov. 1, 1931, Sept. 2 to Nov. 1, 1934, Sept. 11 to Oct. 18, 1937, Sept. 11-28, 1946, Sept. 21 to Oct. 11, 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), was raised 12 ft more in 1902 (capacity, 14,000 acre-ft), and later was replaced by present concrete dam, which formed a reservoir having a capacity of 28,730 acre-ft between gate heights 0.0 (bottom of outlet tunnel) and 140.8 ft (top of flashboards in spillway). Gate height of spillway crest is 135 ft. No dead storage. Water is used for irrigation in Davis and Weber Counties.

Capacity table (elevation, in feet, and contents, in acre-feet)
(Capacity table furnished by Utah State Engineer)

55	3,650	110	15,880
60	4,400	120	19,120
70	5,900	130	23,300
80	7,900	140	28,300
90	10,250	141	28,820
100	13,000		

Total contents, in acre-feet, water year October 1955 to September 1956

	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,770	-	-	7,700	-	-	15,640	-	27,780	28,140	-	18,670
2	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	3,800	-	5,400	-	-	11,870	-	-	-	-	-	-
5	-	-	-	-	10,200	-	-	-	-	-	23,440	-
6	-	4,160	-	-	-	-	-	21,370	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	8,100	-	-	16,520	-	-	27,260	-	-
9	3,770	-	-	-	-	-	-	-	-	-	-	16,780
10	-	-	-	-	-	-	-	-	28,720	-	-	-
11	-	-	5,620	-	-	12,200	-	-	-	-	-	-
12	-	-	-	-	10,610	-	-	-	-	-	22,520	-
13	-	4,240	-	-	-	-	-	22,980	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	8,530	-	-	17,400	-	-	26,320	-	-
16	3,820	-	-	-	-	-	-	-	-	-	-	14,880
17	-	-	-	-	-	-	-	-	28,770	-	-	-
18	-	-	6,120	-	-	12,500	-	-	-	-	-	-
19	-	-	-	-	10,990	-	-	-	-	-	21,510	-
20	-	4,670	-	-	-	-	-	24,260	-	-	-	-
21	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	9,380	-	-	18,540	-	-	25,320	-	-
23	3,840	-	-	-	-	-	-	-	-	-	-	13,280
24	-	-	-	-	-	-	-	-	28,770	-	-	-
25	-	-	6,960	-	-	14,240	-	-	-	-	-	-
26	-	-	-	-	11,430	-	-	-	-	-	20,620	-
27	-	5,160	-	-	-	-	-	26,060	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	9,880	all, 550	-	19,950	-	-	24,310	-	-
30	4,000	a5,260	-	-	-	-	a20,150	-	a28,230	-	-	11,080
31	a4,020	-	a7,590	a9,970	-	a15,440	-	a27,210	-	a24,060	a19,230	-
(t)	+200	+1,240	+2,330	+2,380	+1,580	+3,890	+4,710	+7,060	+1,020	-4,170	-4,830	-8,150
Calendar year 1955						\$ +4,920						
Water year 1955-56						\$ +7,260						

† Gage-height in feet, at end of month.

Change in contents, in acre-feet.

a No gage-height record; contents interpolated.

East Canyon Creek near Morgan, Utah

Location.--Lat 40°55'20", long 111°36'20", in NW $\frac{1}{4}$ sec. 10, T. 2 N., R. 3 E., on right bank 2,500 ft downstream from East Canyon Dam, 2 $\frac{1}{2}$ miles upstream from Sheep Canyon, and 9 miles southeast of Morgan.

Drainage area.--145 sq mi.

Records available.--October 1937 to September 1956 in reports of Geological Survey. October 1931 to September 1956 in report 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.--25 years (1931-56), 51.9 cfs (37,570 acre-ft per year).

Extremes.--Maximum discharge during year, 154 cfs Sept. 16 (gage height, 1.16 ft); minimum daily, 2.2 cfs Nov. 9, 10, 21-24.

1931-56: Maximum discharge, 872 cfs May 4, 1952 (gage height, 3.49 ft); minimum daily, 1.4 cfs Dec. 18-20, 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 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0.0	0	.6	53
.1	3.6	1.0	117
.2	9.7	1.5	220
.3	18		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	7.1	2.7	4.7	*5.9	6.5	7.8	9.7	10	61	70	136
2	15	*7.1	*2.7	4.7	5.9	*6.5	*7.8	9.7	10	59	68	148
3	14	7.1	2.7	4.7	5.9	6.5	7.8	9.7	10	*59	68	152
4	*13	7.1	2.7	4.7	5.9	6.5	7.8	9.7	19	68	70	150
5	14	7.1	2.7	4.7	5.9	6.5	7.8	9.7	48	80	70	146
6	14	7.1	3.2	4.7	5.9	7.1	7.8	9.7	46	80	68	*144
7	14	7.1	3.2	4.7	5.9	7.1	7.8	9.7	41	80	68	142
8	14	9.6	3.2	4.7	5.9	7.1	7.8	9.7	43	72	68	140
9	14	2.2	3.2	4.7	5.9	7.1	7.8	10	48	68	68	146
10	14	2.2	3.2	5.3	5.9	7.1	7.8	10	46	68	67	150
11	14	2.7	3.2	5.3	5.9	7.1	7.8	11	44	68	67	148
12	13	2.7	3.2	5.3	5.9	7.1	7.8	11	43	68	70	146
13	13	2.7	3.6	4.7	5.9	7.1	7.8	11	*41	68	72	142
14	13	2.7	3.6	4.2	5.9	7.1	7.8	11	41	68	72	138
15	13	2.7	3.6	4.7	5.9	7.1	8.4	11	40	68	70	136
16	13	2.7	3.6	5.9	5.3	7.1	8.4	11	46	68	70	132
17	13	2.7	3.6	5.3	5.3	7.8	8.4	11	48	68	70	130
18	13	2.7	3.6	5.3	5.3	7.1	8.4	11	48	68	70	128
19	12	2.7	3.6	5.9	5.3	7.1	8.4	10	45	68	70	128
20	12	2.7	3.6	5.3	5.3	7.1	8.4	11	41		70	130
21	12	2.2	4.2	5.3	5.3	7.1	8.4	11	31		70	130
22	12	2.2	4.7	5.9	5.3	7.1	8.4	11	28		70	130
23	10	2.2	4.7	5.9	5.3	7.1	8.4	11	28		70	132
24	8.4	2.2	4.2	5.9	5.9	7.8	8.4	11	29	a69	68	134
25	8.4	2.7	4.2	5.9	5.9	7.8	9.0	11	48		68	140
26	8.4	3.2	4.2	5.9	5.9	7.8	9.0	11	61		114	140
27	8.4	2.7	4.2	5.9	5.9	7.8	*9.7	11	60		142	144
28	8.4	2.7	4.7	5.9	6.5	7.8	9.7	11	59		142	150
29	8.4	2.7	4.7	5.9	6.5	7.8	9.7	*11	61		142	150
30	7.8	2.7	4.7	5.9	-----	7.8	9.7	10	64	70	142	142
31	7.1	-----	*4.7	5.9	-----	7.8	-----	10	-----	*70	140	-----
Total	373.3	116.2	113.9	163.8	167.5	223.4	250.0	325.6	1,227	2,137	2,552	4,206
Mean	12.0	3.87	3.67	5.28	5.78	7.21	8.33	10.5	40.9	68.9	82.3	140
Ac-ft	740	230	226	325	332	443	496	646	2,430	4,240	5,060	8,340

Calendar year 1955: Max 140
Water year 1955-56: Max 152

Min 1.4
Min 2.2
Mean 25.1
Mean 32.4
Ac-ft 18,190
Ac-ft 23,510

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of range in stage and water commissioner's notes.

Hardscrabble Creek near Porterville, Utah

Location.--Lat 40°57'10", long 111°43'00", in SW¹/₄ sec. 34, T. 3 N., R. 2 E., on right bank two-thirds of a mile upstream from Tucker Hollow and 2½ miles southwest of Porterville.

Drainage area.--24.9 sq mi.

Records available.--October 1941 to September 1956 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.--15 years (1941-56), 32.2 cfs (23,300 acre-ft per year).

Extremes.--Maximum discharge during year, 182 cfs Dec. 23 (gage height, 2.54 ft); minimum recorded 4.4 cfs Nov. 1.

1941-56: 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).

Rating table, water year 1955-56, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 26, 27, July 15 to Aug. 13)

0.8	3.4	1.7	39
1.0	6.6	2.0	71
1.2	11	2.5	155
1.4	19		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
1	4.8	5.8	a7.5	b10	(*)		44	74	88	a19	9.9	5.8	
2	4.7	*b5.8	*7.6	b9.0			*41	80	81	a18	8.7	5.6	
3	4.7	b5.8	7.4	b8.5			36	90	74	18	8.7	5.5	
4	*4.7	5.8		b8.5			32	107	70	18	8.5	5.5	
5	5.0	5.8		8.7			32	119	68	17	8.5	5.5	
6	5.1	5.6		8.5	9.0		29	121	64	17	8.0	5.5	
7	5.1	5.6		8.3			29	117	60	16	8.5	5.5	
8	5.1	5.5		8.0			31	115	57	15	8.7	5.8	
9	5.3	5.6		8.0			35	115	a51	15	8.3	5.6	
10	5.5	5.8		7.8			43	*112	a46	14	7.6	5.5	
11	5.6	7.2	b6.0	7.8			50	100	a42	14	7.4	5.6	
12	5.8	b6.0		7.6			54	90	a38	14	7.6	5.6	
13	5.8	b5.6		8.0			53	78	*36	14	7.6	5.6	
14	5.8	b5.6		8.7			53	73	36	13	7.4	5.5	
15	6.0			33			49	74	38	13	7.4	5.5	
16	6.0	a5.6		36	a8.5		56	78	37	12	7.2	5.5	
17	6.0			44			62	81	32	12	7.2	5.5	
18	6.0			32			71	91	31	12	6.8	5.5	
19	6.4			25			a12	80	115	29	11	6.4	5.5
20	6.6			7.0		22	17	90	137	28	11	6.4	5.5
21	7.2		7.0	19	22	98	139	26	11	6.0	5.8		
22	6.8		9.1	17	51	107	145	26	11	6.0	5.8		
23	6.2		70	17	112	*143	24	10	6.2	6.0			
24	6.0	a6.5	70	b13	58	108	143	23	10	6.2	5.8		
25	6.0		54	b12	69	97	137	22	10	6.0	5.8		
26	6.2			35	b11	66	105	130	22	10	5.8	5.8	
27	7.0			26	b10	58	*105	124	21	10	6.0	5.8	
28	6.6			19	b8.5	49	94	117	221	9.6	6.2	6.0	
29	6.4		15		43	82	105	a20	9.9	6.0	6.0		
30	6.4		*15	a8.5	-----	44	73	98	a19	9.9	5.8	6.0	
31	6.4	-----	b11		-----	46	94	94	-----	9.9	5.8	-----	
Total	181.2	181.0	456.6	442.4	246.5	721.0	1,951	3,340	1,230	402.3	222.8	169.9	
Mean	5.85	6.03	14.7	14.3	8.50	23.3	65.0	108	41.0	13.0	7.19	5.66	
Ac-ft	359	359	906	877	489	1,430	3,870	6,820	2,440	798	442	337	

Calendar year 1955: Max 137 Min - Mean 20.0 Ac-ft 14,450
Water year 1955-56: Max 145 Min 4.7 Mean 26.1 Ac-ft 18,330

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, weather records, and records for stations on nearby streams.

b Stage-discharge relation affected by ice.

Weber River at Gateway, Utah

Location.--Lat 41°08', long 111°50', in NW $\frac{1}{4}$ SW $\frac{1}{4}$ 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 1956. 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.

Average discharge.--36 years (1920-56), 589 cfs (426,400 acre-ft per year).

Extremes.--Maximum discharge during year, 3,120 cfs Dec. 23 (gage height, 5.21 ft); minimum, 86 cfs Nov. 17, 1889-1903, 1919-56. Maximum discharge observed, 7,980 cfs May 31, 1896; minimum, 45 cfs Sept. 24, 1934.

Remarks.--Records good except those for periods of ice effect, which are fair. Many diversions above and below station for irrigation. Flow regulated by Echo and East Canyon Reservoirs (see p. 69 and 72).

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.1	84	2.0	750
.4	138	3.0	1,340
1.0	304	4.0	2,110
1.5	505		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	218	201	118	204		288	560	695	1,240	695	585	474
2	215	*140	*122	190		*301	*523	695	1,350	700	570	452
3	207	122	116	168		348	482	755	1,410	*680	580	452
4	198	114	111	178		384	452	825	1,470	695	610	452
5	*198	109	102	170	b190	404	444	905	1,410	710	615	440
6	190	107	100	168		368	416	883	1,380	715	615	*444
7	193	105	102	158		344	392	850	1,070	700	615	432
8	196	104	95	151		360	404	780	932	685	595	428
9	190	104	97	140		400	408	710	830	680	580	420
10	193	98	95	142	b240	412	448	680	740	665	580	428
11	190	109	89	*140		368	514	700	675	665	800	400
12	185	104	94	136	262	356	565	894	705	680	815	372
13	188	98	95	142	256	348	570	780	775	665	805	372
14	180	b98	94	145	252	356	575	710	765	660	590	368
15	175	b96	92	530	*278	344	565	680	755	665	580	360
16	162	b95	94	1,200	281	344	580	*695	760	665	585	360
17	162	89	95	528	288	376	630	705	966	670	575	356
18	168	92	95	372	333	400	685	680	*856	670	536	376
19	*172	95	95	326	336	428	725	845	720	680	536	392
20	178	100	98	297	348	456	805	954	*695	680	532	396
21	178	116	102	278	352	436	872	1,110	670	670	523	384
22	190	124	168	262	356	496	938	1,420	620	650	518	364
23	188	111	1,220	291	368	590	970	*1,620	640	645	518	344
24	196	109	1,150	294	380	655	1,000	1,840	660	635	523	333
25	193	104	1,060	288	318	740	960	*1,890	695	625	523	322
26	201	100	670	294	297	750	954	2,040	685	625	505	326
27	207	105	510	404	291	680	*927	1,960	675	625	496	315
28	207	107	392	326	278	595	883	1,540	675	645	500	326
29	207	105	301	b220	281	*541	815	1,690	700	660	496	326
30	204	*105	246	b220	-----	528	740	1,470	700	635	487	326
31	198	-----	*232	*b210	-----	555	-----	1,180	-----	*610	482	-----
Total	5,927	3,266	8,050	8,572	7,845	13,911	19,802	33,181	26,224	20,650	17,270	11,540
Mean	191	109	260	277	271	449	660	1,070	874	686	557	385
Ac-ft	11,760	6,480	15,970	17,000	15,560	27,590	39,280	65,810	52,010	40,960	34,250	22,890
Calendar year 1955: Max			1,220									
Min				89								
Water year 1955-56: Max			2,040									
Min				89								
Mean						328	482					
Ac-ft						237,600	349,600					

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Weber River at Ogden, Utah

Location.--Lat 41°13'40", long 111°59'15", in sec. 30, T. 6 N., R. 1 W., on right bank 200 ft southeast of intersection of 21st Street and Middleton Road in Ogden and 1 mile upstream from Ogden River.

Records available.--December 1950 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 4,270 ft (by barometer).

Average discharge.--5 years (1951-56), 340 cfs (246,100 acre-ft per year).

Extremes.--Maximum discharge during year, 2,870 cfs Dec. 24 (gage height, 6.98 ft);

minimum daily, 8.8 cfs Sept. 4, 12.

1950-56: Maximum discharge, 7,070 cfs May 6, 1952 (gage height, 10.89 ft); minimum daily, 3.4 cfs May 27, 1955.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Many diversions above and below station for irrigation. Flow regulated by Echo and East Canyon Reservoirs (see p. 69 and 72).

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-9, Mar. 27 to June 9, June 13 to July 13, Aug. 6 to Sept. 30)

1.1	6.5	2.5	195
1.2	11	3.0	364
1.4	21	4.0	804
1.7	44	5.0	1,360
2.0	78	6.0	2,020

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25	133	113	232	*189	268	543	207	655	56	41	20
2	19	101	120	210		265	508	180	741	58	18	14
3	19	*70	*107	*186		*306	*466	229	784	48	21	14
4	21	62	105	210		357	425	285	839	53	46	8.8
5	*23	53	*103	210	a235	383	394	375	789	*75	28	11
6	26	52	109	192		364	368	342	784	78	28	*12
7	33	54	117	177		324	353	310	568	73	32	14
8	33	57	109	171		338	357	242	414	57	25	16
9	31	56	107	157	242	364	353	152	239	55	19	16
10	32	60	109	180	239	406	387	27	121	54	16	16
11	40	72	105	154	255	357	453	110	48	54	24	14
12	34	70	107	152	265	299	508	434	40	68	32	8.8
13	36	65	109	149	245	346	512	414	86	53	30	12
14	30	90	109	168	239	338	521	346	*95	46	29	15
15	26	86	101	400	268	310	508	302	111	50	27	12
16	20	74	111	1,410	278	320	491	261	207	48	26	11
17	16	69	111	632	278	342	547	245	457	49	23	14
18	18	68	111	441	313	364	614	152	408	45	18	13
19	26	90	117	379	338	398	660	210	152	47	23	16
20	54	90	117	346	349	429	731	316	90	54	25	20
21	83	111	120	310	353	414	799	354	78	47	20	20
22	88	126	131	285	349	462	839	755	106	36	17	14
23	90	107	781	358	353	574	745	909	39	40	17	9.6
24	107	105	1,630	313	379	674	741	*1,160	42	38	20	11
25	107	101	1,180	316	334	775	651	1,230	65	34	23	11
26	120	97	784	302	285	799	*539	1,400	62	37	18	12
27	129	99	565	425	275	736	474	1,370	75	94	20	12
28	126	93	457	364	261	632	445	1,050	48	45	18	14
29	131	90	379	252	261	556	364	1,180	61	72	20	12
30	131	88	310	248	-----	516	275	1,110	70	56	20	12
31	126	-----	282	232	-----	534	-----	721	-----	*33	18	-----
Total	1,800	2,489	8,810	9,521	7,993	13,550	15,570	16,448	8,274	1,653	742	405.2
Mean	58.1	83.0	284	307	276	437	519	531	276	53.3	23.9	13.5
Ac-ft	3,570	4,940	17,470	18,880	15,850	26,880	30,880	32,620	16,410	3,280	1,470	804

Calendar year 1955: Max 1,630 Min 3.4 Mean 117 Ac-ft 84,340
Water year 1955-56: Max 1,630 Min 8.8 Mean 238 Ac-ft 175,100

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on the basis of weather records and records for station near Plain City.

South Fork Ogden River near Huntsville, Utah

Location.--Lat 41°16', long 111°40', in SE $\frac{1}{4}$ 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 5 $\frac{1}{2}$ miles east of Huntsville.

Drainage area.--148 sq mi.

Records available.--March 1921 to September 1956.

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.--35 years, 110 cfs (79,640 acre-ft per year).

Extremes.--Maximum discharge during year, 678 cfs Dec. 24 (gage height, 3.50 ft); minimum, 32 cfs Nov. 13 (gage height, 0.81 ft).

1921-56: 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 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 15 to May 6, May 18-27)

1.8	30	2.0	210
1.0	45	3.0	502
1.2	65	3.5	692
1.5	108		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	36	38	44	92		54	222	360	222	73	52	40
2	36	37	43	84		54	203	366	208	72	50	39
3	35	*37	42	75		*55	183	435	194	70	49	38
4	35	37	40	74		57	*172	512	187	66	48	39
5	*35	37	*b40	72	b64	58	172	575	178	*65	47	39
6	35	37	b40	69		57	159	550	167	65	48	39
7	36	37	42	65		55	159	533	154	63	47	*40
8	36	37	42	61	62	57	176	505	138	62	47	41
9	36	37	42	58	b60	58	183	482	131	61	47	41
10	36	39	41	56	b60	61	232	*468	127	58	47	41
11	36	42	40	55	60	58	291	438	122	57	44	41
12	36	39	41	55	60	55	310	419	115	58	47	41
13	36	38	41	57	57	60	310	363	111	57	46	39
14	36		41	57	57	58	307	339	*105	56	45	39
15	36		40	65	56	56	296	325	108	56	45	39
16	36	b38	41	165	54	57	360	336	113	56	46	38
17	36		42	125	56	60	403	354	102	55	44	38
18	36	41	42	108	55	69	458	394	95	54	43	38
19	39	40	42	103	54	91	485	442	92	54	44	39
20	40		42	97	54	115	522	495	89	53	43	40
21	40	45	42	92	54	140	557	482	88	53	43	41
22	40	43	67	89	54	183	607	445	86	55	43	41
23	39	40	330	91	55	229	626	*429	85	53	43	42
24	38	39	458	81	55	277	637	406	84	53	43	42
25	38	37	425	81	53	336	603	384	81	53	42	41
26	39	39	282	81	54	345	*596	342	78	53	42	42
27	39	41	208	92	54	305	578	313	75	51	43	42
28	39	42	159	85	53	244	519	299	75	52	43	42
29	39	41	131	77	54	210	468	280	73	54	42	42
30	39	42	111	78	-----	205	397	254	72	53	41	42
31	39	-----	*103	*68	-----	224	-----	232	-----	52	40	-----
Total	1,152	1,174	3,144	2,508	1,679	3,943	11,191	12,557	3,555	1,793	1,394	1,206
Mean	37.2	39.1	101	80.9	57.9	127	373	405	118	57.8	45.0	40.2
Ac-ft	2,280	2,330	6,240	4,970	3,330	7,820	22,200	24,910	7,050	3,560	2,760	2,390
Calendar year 1955: Max	682				Min	-	Mean	91.5	Ac-ft	66,220		
Water year 1955-56: Max	637				Min	35	Mean	124	Ac-ft	89,840		

Peak discharge (base, 400 cfs).--Dec. 24 (3:30 a.m.) 678 cfs (3.50 ft); Apr. 23 (11:30 p.m.) 674 cfs (3.62 ft); May 5 (1:30 a.m.) 603 cfs (3.39 ft); May 20 (9 a.m.) 509 cfs (3.12 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

WEBER RIVER BASIN

Pine View Reservoir near Ogden, Utah

Location.--Lat 41°15'20", long 111°50'25", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 16, T. 6 N., R. 1 E., at trash-rack at Pine View Dam on Ogden River, 7 miles northeast of Ogden.

Drainage area.--310 sq mi, approximately.

Records available.--November 1936 to September 1956.

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

Extremes.--Maximum contents during year, 44,180 acre-ft May 9 to June 7 (elevation, 4,872.0 ft); minimum, 170 acre-ft Dec. 22 (elevation, 4,824.1 ft).
1936-56: Maximum contents, 45,370 acre-ft May 17, 1938 (elevation, 4,873.00 ft); minimum, 80 acre-ft Feb. 19, 1937 (elevation, 4,818.99 ft).

Remarks.--Reservoir is formed by earth-fill, rock-faced dam; storage began Nov. 16, 1936; capacity, 44,180 acre-ft at elevation 4,872 ft (top of spillway gates) 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. Dead storage negligible. Water is used for irrigation on Ogden River project.

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

Capacity table, water year 1955-56 (elevation, in feet,
and contents, in acre-feet)

4,824.0	161	4,850.0	14,060
4,826.0	380	4,855.0	19,330
4,830.0	1,380	4,860.0	25,480
4,835.0	3,380	4,865.0	32,610
4,840.0	6,150	4,870.0	40,680
4,845.0	9,680	4,872.0	44,180

Contents, in acre-feet, at 8 a.m., water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7,610	6,400	3,020	11,150	21,070	17,230	4,190	34,150	44,180	37,500	25,880	13,480
2	7,540	6,340	2,920	11,320	21,190	16,170	4,290	35,250	44,180	37,180	25,480	13,200
3	7,470	6,280	2,750	11,490	21,310	15,140	4,400	36,210	44,180	36,850	25,220	12,830
4	7,400	6,340	2,670	11,580	21,450	14,250	5,070	37,500	44,180	36,370	24,620	12,560
5	7,350	6,280	2,490	11,670	21,550	13,390	5,530	38,990	44,180	36,050	24,300	12,280
6	7,270	6,280	2,170	11,780	21,790	12,370	5,960	40,510	44,180	35,730	23,920	12,020
7	7,200	6,280	1,910	11,840	22,040	11,400	6,340	41,720	44,180	35,250	23,530	11,780
8	7,130	6,280	1,620	11,840	22,280	10,480	6,790	43,120	44,000	34,780	23,150	11,400
9	7,060	6,210	1,380	11,840	22,410	9,760	7,270	44,180	43,820	34,460	22,650	11,070
10	7,000	6,150	1,100	11,840	22,530	9,150	7,750	44,180	43,470	34,150	22,280	10,820
11	6,930	6,150	822	11,840	22,650	8,330	8,470	44,180	43,280	33,840	21,790	10,570
12	6,860	6,210	471	11,840	22,830	7,470	9,300	44,180	43,120	33,530	21,430	10,400
13	6,790	6,210	315	11,840	23,280	6,790	10,160	44,180	42,760	32,920	20,950	10,160
14	6,660	6,280	223	11,840	23,410	6,280	10,980	44,180	42,410	32,610	20,720	9,840
15	6,600	6,280	289	12,100	23,530	5,840	11,840	44,180	42,060	32,160	20,250	9,530
16	6,530	6,280	250	13,290	23,530	5,240	12,580	44,180	41,890	31,710	19,900	9,220
17	6,470	6,280	223	14,250	23,680	4,730	13,580	44,180	41,720	31,280	19,440	8,990
18	6,400	6,150	214	14,840	23,920	4,240	14,940	44,180	41,540	30,810	19,100	8,770
19	6,400	5,780	206	15,450	24,040	3,780	16,070	44,180	41,370	30,520	18,680	8,550
20	6,400	5,420	197	16,170	24,040	3,280	17,450	44,180	41,200	30,250	18,210	8,300
21	6,400	5,070	179	16,490	24,170	3,200	18,990	44,180	40,650	29,940	17,880	8,110
22	6,400	4,620	170	17,020	24,170	3,110	20,950	44,180	40,680	29,640	17,450	7,900
23	6,400	4,780	471	17,580	24,170	3,200	22,530	44,180	40,340	29,070	17,020	7,680
24	6,400	4,190	3,730	18,100	23,920	3,280	24,170	44,180	40,000	28,640	16,590	7,470
25	6,400	3,680	5,840	18,540	22,750	3,680	25,880	44,180	39,630	28,220	16,170	7,270
26	6,400	4,030	7,970	18,990	21,670	4,140	27,520	44,180	39,500	27,800	15,760	7,000
27	6,400	3,830	8,840	19,670	19,790	4,670	28,790	44,180	38,990	27,380	15,350	6,660
28	6,400	3,530	9,610	20,130	18,770	4,780	30,370	44,180	38,680	27,110	14,940	6,470
29	6,400	3,380	10,160	20,720	18,210	4,560	31,710	44,180	38,350	26,830	14,650	6,280
30	6,400	3,150	10,400	20,840	-----	4,400	32,920	44,180	38,000	26,560	14,250	6,020
31	6,400	-----	10,820	20,950	-----	4,290	-----	44,180	-----	26,290	13,860	-----
(†)	4,840.4	4,834.5	4,846.4	4,856.4	4,854.0	4,836.8	4,865.2	4,872.0	4,868.4	4,860.6	4,849.8	4,839.8
(*)	-1,280	-3,250	+7,670	+10,130	-2,740	-13,920	+28,630	+11,260	-6,180	-11,710	-12,430	-7,840

Calendar year 1955..... + 5,920

Water year 1955-56..... + 1,660

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

Ogden River below Pine View Dam, near Ogden, Utah

Location.--Lat 41°15'15", long 111°50'40", in NE $\frac{1}{4}$ SW $\frac{1}{4}$ 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 $6\frac{1}{2}$ miles northeast of Ogden.

Drainage area.--321 sq mi.

Records available.--October 1937 to September 1956, 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.--19 years (1937-56), 89.3 cfs (64,650 acre-ft per year).

Extremes.--Maximum discharge during year, 971 cfs May 14 (gage height, 5.17 ft); minimum daily discharge, 0.1 cfs Oct. 6-9, Feb. 15.
1937-56: 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, when reservoir gates were closed.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Flow regulated by Pine View Reservoir (see p. 78). 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 tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 25 to Jan. 1, Jan. 5-12,
Jan. 18 to Feb. 21, May 20-30)

Oct. 1 to Dec. 24				Dec. 25 to Sept. 30			
0.6	0	1.3	18	1.7	0	2.5	39
.7	.2	1.5	32	1.8	.9	2.8	80
.8	.8	1.7	52	1.9	3.0	3.3	177
1.9	2.3	2.0	94	2.0	5.8	4.0	397
1.0	4.8	2.5	200	2.1	8.8	4.8	753
1.1	6.2			2.2	13	5.2	955
				2.3	20		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.1	1.0	2.7	6.8	4.5	487	335	21	184	36	*27	28
2	.9	*.9	1.9		4.2	454	252	20	79	37	30	28
3	.9	.9	1.2	a7.0	3.7	*413	137	21	39	37	34	21
4	.9	.7	.8		3.5	405	*16	27	38	43	39	21
5	*.4			7.4	3.7	397	16	31	36	*42	39	21
6	.1		b.8	7.1	3.2	393	13	30	33	43	38	21
7	.1			8.1	3.0	389	13	32	30	58	38	*24
8	.1			7.1	2.5	378	16	28	27	37	37	28
9	.1		.8	6.5	2.3	366	16	248	26	39	37	25
10	.4	a1.0	.9	7.4	2.5	362	19	*598	25	37	38	a20
11	.7		.7	7.1	2.8	347	21	603	33	39	37	a20
12	.5		.9	19	2.8	329	18	677	40	40	32	21
13	.5		.8	6.8	1.5	312	18	837	37	40	28	21
14	.6	1.0	.8	7.1	.4	280	35	939	*36	40	34	22
15	.4	.9	.9	11	.1	252	60	888	49	39	38	22
16	.2	.9	.6	67	1.9	*241	24	540	35	39	38	26
17	.8	1.2		24	2.5	221	22	523	13	37	38	23
18	.5	1.2		*14	2.3	207	26	91	18	36	37	17
19	1.4	1.4		13	2.3	274	21	146	40	37	37	22
20	1.6	2.3	a1.0	11	2.5	344	21	446	34	38	37	23
21	1.5	3.2		9.5	34	362	21	506	27	39	37	21
22	1.2	2.7	a5.0	8.1	131	354	24	510	30	39	36	16
23	.4	1.9	a14.0	8.4	441	366	27	*514	28	39	35	18
24	1.6	.9	a105	7.1	512	446	31	497	27	39	37	22
25	.8	2.1	96	6.8	580	374	28	426	20	39	36	21
26	.6	1.4	82	7.4	554	454	*26	351	34	35	36	20
27	.9	1.4	53	6.8	*536	502	28	263	35	23	35	19
28	1.4	2.7	14	6.5	510	502	28	258	34	40	33	20
29	1.2	2.1	9.5	5.0	489	497	26	264	33	38	31	20
30	.4	1.4	8.1	5.9		497	23	258	36	31	31	15
31	2.1	-----	*7.1	*5.0	-----	489	-----	252	-----	26	32	-----
Total	24.3	41.2	540.9	329.9	3,939.2	11,634	1,361	10,705	1,156	1,162	1,092	640
Mean	0.78	1.37	17.4	10.6	136	375	45.4	345	38.5	37.5	35.2	21.3
Ac-ft	48	82	1,070	654	7,810	23,080	2,700	21,230	2,290	2,500	2,170	1,270

Calendar year 1955: Max 383 Min 0.1 Mean 26.5 Ac-ft 19,170
water year 1955-56: Max 939 Min 0.1 Mean 89.1 Ac-ft 64,700

* 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.

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., on 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 1956 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, 2,610 cfs Dec. 24 (gage height, 10.92 ft); minimum daily, 13 cfs Sept. 5.

1904-56: 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 no gage-height record, which are fair. During summer months practically entire flow is diverted above station for irrigation. Flow is partly regulated by Echo, East Canyon and Pine View Reservoirs (see p. 69, 72, and 78).

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 2-5, June 21 to July 15)

0.8	11	3.0	216
1.0	20	4.0	410
1.5	49	6.0	973
2.0	88	8.0	1,590
2.5	143	10.0	2,250

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	85	228	369	496	354	1,030	1,210	320	1,110	58	*31	26
2	87	218	394	463	342	1,010	1,060	279	1,070	80	37	31
3	*57	*170	369	*436	350	*1,030	*970	309	1,020	35	27	25
4	58	157	352	434	381	1,060	734	344	1,040	29	a19	a16
5	63	142	*354	436	385	1,080	693	499	1,010	*55	24	*a13
6	61	138	354	420	387	1,060	656	483	949	38	25	20
7	67	139	367	412	389	1,040	635	458	746	42	20	25
8	78	139	354	405	380	1,020	635	446	519	35	21	21
9	78	147	346	380	383	1,020	635	476	342	36	21	23
10	78	147	346	383	380	1,080	659	793	198	36	a16	26
11	80	170	332	378	396	1,030	720	943	105	28	a18	26
12	83	169	332	389	410	952	772	1,280	39	32	a16	22
13	82	157	257	380	408	961	784	1,540	30	41	20	20
14	65	186	236	385	396	949	796	1,560	*49	35	70	
15	58	184	191	583	412	892	653	1,480	87	27	20	
16	54	153	214	1,630	420	853	775	1,240	263	25	20	a18
17	53	191	223	1,100	422	865	805	913	406	25	21	
18	84	307	219	772	451	877	862	575	439	33	a16	
19	80	334	226	621	486	907	904	432	222	28	18	28
20	99	350	236	562	496	1,070	949	841	125	23	a15	30
21	166	363	250	519	504	1,070	991	994	81	30	23	41
22	179	432	250	470	621	1,100	973	1,360	128	26	22	39
23	180	383	625	548	804	1,180	871	1,470	50	26	19	41
24	189	367	1,980	601	1,160	1,330	799	*1,770	34	21	17	41
25	197	361	1,550	554	1,180	1,330	728	1,800	35	22	a18	32
26	198	352	1,140	509	1,100	1,410	*612	1,660	52	21	22	34
27	236	350	895	632	1,080	1,440	562	1,620	52	45	19	39
28	221	344	787	632	1,050	1,370	548	1,610	51	40	20	48
29	224	338	679	491	1,040	1,320	483	1,670	35	85	21	34
30	226	334	587	436	-----	1,290	401	1,640	47	73	23	32
31	223	-----	546	*412	-----	1,270	-----	1,290	-----	61	25	-----
Total	3,618	7,470	15,360	16,869	16,527	33,956	23,075	32,495	10,334	1,191	703	823
Mean	118	249	495	544	570	1,110	769	1,050	344	38.4	22.7	27.4
Ac-ft	7,240	14,820	30,470	33,460	32,780	67,350	45,770	64,450	20,500	2,360	1,390	1,630
Calendar year 1955: Max 1,980 Min 21 Mean 249 Ac-ft 180,400												
Water year 1955-56: Max 1,980 Min 13 Mean 444 Ac-ft 322,200												

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of available recorder record, 1 discharge measurement, and records for stations at Ogden and Ogden River below Pineview Reservoir.

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.

Records available.--May 1950 to September 1956.

Gage.--Water-stage recorder and concrete control. Datum of gage is 5,095.1 ft above mean sea level, unadjusted.

Average discharge.--6 years, 3.67 cfs (2,660 acre-ft per year).

Extremes.--Maximum discharge during year, 21 cfs July 28; minimum, 1.0 cfs Dec. 2, but may have been less during period of ice effect.

1950-56: Maximum discharge, 36 cfs May 3, 1952 (gage height, 1.13 ft); no flow for part of several days during 1951 and 1955.

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

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.4	0.8	0.7	6.6
.5	1.8	.8	12
.6	3.4		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.6	1.8	1.8	2.3		1.9	4.2	5.1	7.5	3.2	2.1	2.0
2	1.6	*1.8	1.6	2.3		*1.9	3.9	4.8	7.1	3.0	2.1	2.0
3	*1.6	1.8	1.6	*2.1		1.9	*3.9	4.8	6.6	2.8	2.1	2.0
4	1.6	1.8	1.6	2.1		2.0	3.9	5.5	6.2	2.8	2.1	2.0
5	1.6	1.8	1.8	2.1	b1.8	2.0	3.4	5.8	6.2	*2.8	2.1	2.0
6	1.6	1.8	1.8	2.1		2.0	3.4	6.6	5.8	2.8	2.0	*2.0
7	1.6	1.8	1.6	2.1		2.0	3.2	7.1	5.5	2.8	2.0	2.0
8	1.6	1.8	1.6	2.1		2.0	3.0	7.1	5.1	2.8	1.9	2.0
9	1.8	1.8	1.6	2.1	1.8	2.1	3.0	*7.5	4.8	2.6	1.9	2.0
10	1.6	1.8	1.6	2.1	1.9	2.1	3.4	7.5	4.5	2.6	1.9	1.8
11	1.8	2.0	1.6	2.1	1.9	2.0	3.4	7.1	4.5	2.6	2.0	1.8
12	1.8	1.9	1.8	2.1	1.9	b2.0	3.6	7.1	4.2	2.4	2.0	1.8
13	1.8	1.9	1.9	2.1	1.9	b2.0	3.6	6.6	4.2	2.4	2.0	*1.8
14	1.8	1.8	1.9	2.3	1.9	2.0	3.6	6.2	4.2	2.4	2.1	1.8
15	1.6	1.5	1.9	3.2	1.8	2.0	3.4	6.6	4.2	2.3	2.1	1.8
16	1.6	b1.8	*1.9	5.8	*b1.8	2.0	3.4	7.1	4.2	2.3	*2.1	1.8
17	*1.6	b1.8	1.9	3.9	b1.8	2.1	*3.6	7.5	4.2	*2.3	2.0	1.6
18	1.6	1.8	1.9	*3.4	b1.8	2.4	3.9	7.5	3.9	2.3	2.0	1.6
19	1.9	2.0	1.9	3.2	1.8	2.8	3.9	8.0	*3.6	2.3	2.0	1.6
20	1.8	2.0	1.9	3.0	1.8	3.0	4.8	8.5	3.4	2.3	2.0	1.6
21	1.9	*2.0	2.0	2.8	1.9	3.2	5.5	9.0	3.4	2.3	2.0	1.6
22	1.8	1.9	2.4	2.8	1.9	3.4	5.5	10	3.4	2.3	1.9	1.6
23	1.8	1.8	5.8	3.0	1.9	3.9	5.8	10	3.4	2.3	1.9	1.5
24	1.8	1.8	5.8	2.8	1.8	5.1	*5.8	10	3.2	2.1	1.9	1.5
25	1.8	1.8	4.5	2.8	1.8	6.2	5.8	10	3.2	2.1	1.9	1.5
26	2.0	1.8	3.9	2.6	1.9	5.8	5.8	9.5	3.2	2.1	1.9	1.4
27	2.0	1.8	3.4	3.0	1.9	5.1	6.2	9.0	3.2	2.1	2.0	1.4
28	2.0	1.8	3.2	2.8	1.9	4.5	6.6	*9.0	3.2	2.4	2.0	1.4
29	1.9	1.6	2.6	2.8	1.9	3.9	5.8	8.5	3.2	2.6	2.0	1.4
30	2.0	1.6	2.6	2.8	1.9	3.9	5.5	8.5	3.2	2.3	2.0	1.5
31	1.9	-----	2.4	b2.2	-----	3.9	-----	8.0	-----	*2.1	2.0	-----
Total	54.4	54.4	73.8	82.6	53.4	91.1	130.8	235.5	132.5	76.3	62.0	51.8
Mean	1.75	1.81	2.38	2.66	1.84	2.94	4.36	7.60	4.42	2.46	2.00	1.73
Ac-ft	108	108	146	164	106	181	259	467	263	151	123	103

Calendar year 1955: Max 10 Min 1.3 Mean 2.83 Ac-ft 2,050
 Water year 1955-56: Max 10 Min 1.4 Mean 3.00 Ac-ft 2,180

Peak discharge (base, 10 cfs).--Dec. 23 (4:30 p.m.) 13 cfs (0.80 ft); May 21 (5 p.m.) 11 cfs (0.78 ft); May 27 (7 p.m.) 14 cfs (0.82 ft); July 28 (11:30 p.m.) 21 cfs (0.92 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Farmington Creek above diversions, near Farmington, Utah

Location.--Lat 41°00'05", long 111°52'25", in NE $\frac{1}{4}$ sec. 18, T. 3 N., R. 1 E., on right bank 1.0 mile northeast of Farmington.

Drainage area.--9.9 sq mi, approximately.

Records available.--November 1949 to September 1956.

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.--6 years, 12.8 cfs (9,270 acre-ft per year).

Extremes.--Maximum discharge during year, 83 cfs Apr. 26 (gage height, 1.37 ft); minimum, 1.5 cfs Aug. 24.

1949-56: Maximum discharge, 254 cfs May 22, 1950 (gage height, 1.74 ft), site and datum then in use; minimum, 0.9 cfs Aug. 25, 30, 31, 1954.

Remarks.--Records good. Records include a small transmountain diversion from Hardscrabble Creek.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0.6	1.3	1.1	21
7.7	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 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.0	2.3	2.9	6.4	5.7	3.6	13	45	34	7.5	2.9	2.3
2	2.0	*2.3	*2.6	5.4	6.0	3.8	12	47	34	7.1	2.6	2.1
3	*1.9	2.3	2.8	*5.4	6.0	*4.0	*11	52	32	6.8	2.6	2.1
4	1.9	2.3	2.6	5.1	6.0	4.3	9.8	57	30	6.4	2.4	2.1
5	2.0	2.4	2.4	4.8	5.7	4.3	9.8	57	28	*6.0	2.3	2.1
6	2.0	2.3	2.9	4.8	5.7	3.8	9.3	57	25	5.7	2.3	*2.1
7	2.1	2.3	2.8	4.8	5.4	3.7	8.9	57	23	5.7	2.3	2.1
8	2.0	2.3	2.8	4.5	5.4	4.0	9.3	50	22	5.4	2.1	2.4
9	2.0	2.3	2.9	4.5	5.1	4.0	11	*43	21	5.1	2.1	2.3
10	2.0	2.4	2.8	4.5	5.1	4.3	15	41	20	4.8	2.1	2.0
11	2.1	2.9	2.8	4.3	5.1	4.0	19	36	20	5.1	2.0	2.0
12	2.1	2.4	2.8	4.3	5.1	3.9	20	35	18	5.1	2.1	2.0
13	2.3	2.6	3.1	4.3	5.1	4.0	20	34	18	4.8	2.1	*2.0
14	2.1	2.3	2.9	4.5	5.1	4.0	20	34	17	4.5	2.1	2.0
15	2.1	2.3	2.9	9.8	5.1	3.8	20	34	18	4.5	2.1	2.0
16	2.3	2.6	*2.9	28	*4.3	4.0	23	38	17	4.3	*2.3	2.0
17	*2.1	2.8	2.9	15	4.0	4.0	27	39	14	*4.0	2.3	2.0
18	2.1	2.6	3.1	*12	4.0	4.8	34	38	*13	4.0	2.1	1.9
19	2.6	2.9	2.9	9.3	3.8	6.4	39	45	13	3.8	2.1	1.9
20	2.9	3.8	2.9	8.4	3.6	7.1	45	50	13	3.8	2.1	1.9
21	3.6	*3.8	2.9	7.5	3.8	7.5	52	47	12	3.4	2.0	2.1
22	3.6	3.4	4.5	7.1	3.6	9.3	52	50	12	4.0	2.0	2.1
23	2.6	2.8	19	7.1	4.0	12	*57	55	11	4.0	1.9	2.1
24	2.4	2.8	32	6.8	4.0	15	57	55	10	3.4	1.9	2.1
25	2.3	2.6	24	6.8	3.8	18	50	*52	9.8	3.4	1.9	2.1
26	2.4	2.8	17	6.8	4.0	18	63	50	9.3	3.1	1.9	2.1
27	2.8	2.9	13	6.8	3.8	16	60	47	8.0	3.1	2.1	2.1
28	2.6	2.9	9.8	6.0	3.8	13	45	47	7.5	3.1	2.1	2.0
29	2.6	2.8	8.0	6.0	3.8	12	39	39	7.1	4.0	2.1	2.0
30	2.8	2.8	7.1	6.8	-----	13	39	34	7.1	3.4	2.1	2.1
31	2.9	-----	7.1	6.0	-----	14	-----	34	-----	3.1	2.1	-----
Total	73.2	80.0	201.1	223.8	135.9	233.4	890.1	1,401	523.8	142.4	67.1	62.1
Mean	2.36	2.67	6.49	7.22	4.69	7.53	29.7	45.2	17.5	4.59	2.16	2.07
Ac-ft	145	159	399	444	270	463	1,770	2,780	1,040	282	135	123

Calendar year 1955: Max 103 Min 1.4 Mean 9.15 Ac-ft 6,630
 Water year 1955-56: Max 63 Min 1.9 Mean 11.0 Ac-ft 8,010

Peak discharge (base, 80 cfs).--Apr. 26 (3:30 p.m.) 83 cfs (1.37 ft).

* Discharge measurement made on this day.

Ricks Creek above diversions, near Centerville, Utah

Location--Lat 40°56'25", long 111°52'00", in NW $\frac{1}{4}$ 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 1956.

Gage--Water-stage recorder and concrete control. Altitude of gage is 4,840 ft (from topographic map).

Average discharge--6 years, 2.33 cfs (1,690 acre-ft per year).

Extremes--Maximum discharge during year, 23 cfs May 27 (gage height, 1.12 ft); minimum, 0.2 cfs Nov. 14.

1950-56: Maximum discharge, 31 cfs May 15, 1952; maximum gage height, 1.27 ft May 23, 1950; minimum discharge, 0.1 cfs Apr. 9, 1953, Feb. 3, 1955.

Remarks--Records good.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0.5	0.4	0.8	4.8
.6	1.1	.9	8.2
.7	2.5	1.0	13

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	1.0	0.9	0.8	0.9	0.7	2.3	6.4	5.7	2.0	0.9	0.8
2	.8	*.9	*.6	.8	.8	*.6	2.1	6.4	5.4	1.8	.9	.7
3	*.6	.9	.8	*.8	.8	.6	*2.1	7.1	5.1	1.7	.9	.7
4	.7	.9	.8	.8	.8	.7	2.1	7.4	5.1	1.5	.9	.8
5	.7	.9	.6	.8	.8	.8	2.1	7.8	5.1	*1.5	1.0	*.7
6	.7	.9	.8	.7	.7	.7	2.0	7.4	5.1	1.5	.9	.7
7	.7	.9	.8	.7	.7	.7	2.0	7.8	4.5	1.4	1.0	.7
8	.7	.9	.7	.7	.7	.8	1.8	7.8	3.7	1.4	.9	.8
9	.6	.9	.6	.7	.7	.8	1.8	*8.2	4.0	1.4	1.0	.9
10	.7	.9	.6	.7	.6	.8	2.1	7.8	4.0	1.4	1.0	.8
11	.7	1.1	.6	.8	.8	.7	2.3	7.8	3.5	1.3	1.0	.8
12	.7	.8	.6	.9	.8	.6	2.5	7.1	3.2	1.3	1.1	.8
13	.7	.9	.8	.9	.8	.9	2.5	6.7	2.8	1.3	1.0	*.7
14	.7	.7	.6	.9	.9	.8	2.3	6.7	3.0	1.3	.9	.7
15	.7	.8	.6	1.4	.8	.7	2.1	6.7	3.0	1.1	1.1	.7
16	.6	.9	*.6	2.1	.8	.8	2.1	6.7	3.0	1.1	*1.1	.8
17	*.6	1.0	.6	1.5	*.8	.8	2.5	7.1	2.6	*1.2	1.1	.7
18	.6	1.0	.6	*1.3	.8	1.0	2.6	7.4	2.5	1.1	1.0	.7
19	.8	1.1	.7	1.3	.6	1.1	2.6	8.6	*2.3	1.1	1.1	.7
20	.9	1.2	.7	1.3	.6	1.3	3.5	9.1	2.5	1.2	1.1	.7
21	1.0	*1.1	.7	1.2	.8	1.3	4.0	9.1	2.3	1.3	1.0	.8
22	.9	1.1	1.0	1.2	.8	1.5	4.5	9.1	2.1	1.3	.9	.7
23	.8	.9	2.6	1.2	.7	2.1	*5.1	9.5	2.1	1.2	.9	.7
24	.8	1.0	2.6	1.1	.7	2.8	5.4	9.5	2.1	1.1	1.0	.8
25	.7	.9	2.0	1.1	.7	3.2	5.1	8.6	2.1	1.1	1.0	.8
26	.8	.9	1.4	1.1	.7	2.8	5.1	8.6	2.1	1.1	1.0	.8
27	.9	.8	1.3	1.1	.6	2.5	5.4	8.6	2.1	1.0	1.0	.7
28	.9	.8	1.2	1.0	.7	2.3	6.4	*7.4	2.0	1.0	.9	.7
29	.9	.8	1.0	.9	.7	2.1	5.7	6.4	2.0	1.3	1.0	.7
30	1.0	.8	1.1	1.0	-----	2.3	6.0	6.0	2.0	1.1	1.0	.7
31	1.0	-----	1.0	.9	-----	2.3	-----	5.7	-----	*1.0	1.0	-----
Total	23.3	27.7	29.3	31.8	21.8	41.1	98.1	236.5	97.0	40.1	30.6	22.3
Mean	0.75	0.92	0.95	1.03	0.75	1.33	3.27	7.63	3.23	1.29	0.99	0.74
Ac-ft	46	55	58	63	43	82	195	469	192	80	61	44

Calendar year 1955: Max 9.0 Min 0.4 Mean 1.63 Ac-ft 1,180
 Water year 1955-56: Max 9.5 Min 0.6 Mean 1.91 Ac-ft 1,390

Peak discharge (base, 10 cfs)--May 27 (6:30 p.m.) 23 cfs (1.12 ft).

* Discharge measurement made on this day.

Parrish Creek above diversions, near Centerville, Utah

Location.--Lat 40°55'25", long 111°51'50", in NW $\frac{1}{4}$ sec. 8, T. 2 N., R. 1 E., on left bank 1 mile northeast of Centerville.

Drainage area.--2.08 sq mi.

Records available.--November 1949 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 4,600 ft (from topographic map).

Average discharge.--6 years, 1.62 cfs (1,170 acre-ft per year).

Extremes.--Maximum discharge during year, 12 cfs May 8 (regulation caused by construction upstream); minimum daily, 0.2 cfs on several days during August and September.
1950-56: Maximum discharge, 30 cfs May 5, 1952; minimum, 0.2 cfs at times in 1954-56.

Remarks.--Records good. Record includes flow through pipeline for Centerville city water supply.

Revisions.--WSP 1394: Drainage area.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.3	0.4	0.5	0.6	0.7	0.6	1.9	4.2	3.2	0.9	0.4	0.3
2	.3	.4	.5	.6	.7	.6	1.9	4.2	3.2	.8	.4	.3
3	.3	.4	.5	.6	.7	.6	1.7	4.5	3.1	.8	.4	.3
4	.3	.4	.5	.6	.7	.7	1.6	5.4	3.0	.8	.4	.2
5	.3	.4	.5	.5	.7	.7	1.6	6.0	2.9	.7	.3	.3
6	.3	.4	.5	.5	.7	.6	1.5	6.6	2.7	.7	.3	.3
7	.3	.4	.5	.5	.7	.6	1.5	6.4	2.6	.7	.3	.2
8	.3	.4	.5	.5	.6	.6	1.4	6.3	2.2	.6	.3	.3
9	.3	.4	.5	.5	.6	.7	1.4	6.2	2.1	.6	.3	.3
10	.3	.4	.5	.5	.5	.6	1.7	5.9	2.0	.6	.3	.2
11	.4	.6	.5	.5	.5	.6	2.0	5.3	1.8	.6	.3	.2
12	.4	.5	.5	.5	.5	.7	2.1	5.0	1.7	.6	.3	.2
13	.4	.5	.5	.5	.5	.7	2.2	4.2	1.6	.5	.3	.2
14	.4	.5	.5	.5	.5	.6	2.2	4.0	1.6	.5	.3	.2
15	.4	.5	.5	.9	.5	.6	2.0	4.1	1.6	.5	.3	.3
16	.4	.5	.5	1.6	.5	.6	2.2	3.9	1.7	.5	.3	.3
17	.4	.5	.5	1.1	.5	.6	2.3	4.0	1.6	.5	.3	.2
18	.4	.5	.6	.9	.5	.7	2.6	4.0	1.6	.5	.3	.2
19	.4	.6	.6	.8	.5	.9	2.7	4.8	1.5	.5	.3	.2
20	.4	.7	.6	.8	.5	.9	3.4	5.6	1.4	.5	.3	.2
21	.5	.7	.6	.8	.5	1.0	3.9	5.8	1.5	.5	.2	.3
22	.5	.5	.8	.8	.5	1.3	4.3	5.8	1.5	.5	.2	.3
23	.4	.4	2.4	.8	.5	1.6	4.6	5.5	1.3	.5	.2	.3
24	.4	.4	2.5	.7	.5	2.1	4.8	5.4	1.2	.5	.2	.3
25	.4	.4	1.7	.7	.5	2.4	4.8	5.1	1.2	.5	.2	.3
26	.4	.4	1.4	.7	.5	2.0	5.2	4.9	1.2	.4	.2	.3
27	.5	.4	1.2	.8	.5	1.6	5.2	5.2	1.1	.4	.3	.3
28	.4	.4	1.0	.7	.6	1.5	5.0	4.9	1.0	.4	.3	.3
29	.4	.4	.8	.7	.6	1.6	4.5	4.0	1.0	.5	.3	.3
30	.5	.4	.9	.7	-----	2.0	4.3	3.3	.9	.4	.3	.3
31	.5	-----	.7	.7	-----	2.0	-----	3.2	-----	.4	.3	-----
Total	11.9	13.8	24.2	21.6	16.3	32.3	86.4	153.7	55.0	17.4	9.1	7.9
Mean	0.38	0.46	0.78	0.70	0.56	1.04	2.86	4.96	1.83	0.56	0.29	0.26
Ac-ft	24	27	48	43	32	64	171	305	109	35	18	16
Calendar year 1955: Max	9.0				Min 0.2		Mean 1.12		Ac-ft 807			
Water year 1955-56: Max	6.6				Min 0.2		Mean 1.23		Ac-ft 892			

Peak discharge (base, 10 cfs).--May 8 (7:30 a.m.) 12 cfs.

Centerville Creek above diversions, near Centerville, Utah

Location.--Lat 40°55'00", long 111°51'45", in SE $\frac{1}{4}$ 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 1956.

Gage.--Water-stage recorder and concrete rating flume. Altitude of gage is 4,650 ft (from topographic map).

Average discharge.--6 years, 2.74 cfs (1,980 acre-ft per year).

Extremes.--Maximum daily discharge during year, 8.2 cfs May 24; minimum daily, 0.7 cfs Sept. 2-7.
1949-56; 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 no gage-height record, which are fair. 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 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9	al.2	al.1	1.3	1.4	1.4	2.9	4.7	5.7	al.7	1.1	0.8
2	.9	al.2	1.2	1.0	1.4	1.4	2.6	4.7	5.4	al.7	1.0	.7
3	.8	1.2	1.0	1.0	1.4	1.5	2.5	4.7	5.1	1.6	1.1	.7
4	.9	1.2	1.1	1.0	1.4	1.6	2.4	5.2	4.6	1.6	1.1	.7
5		1.2	1.1	1.0	1.4	1.5	2.3	5.7	4.6	1.4	1.0	.7
6	a.9	1.2	1.1	1.0	1.4	1.4	2.3	5.8	4.3	1.4	1.0	.7
7			1.1	1.0	1.4	1.4	2.3	6.0	4.2	1.4	1.0	.7
8			1.0	1.1	1.4	1.4	2.3	6.1	3.9	1.3	1.0	.8
9			1.1	1.3	1.4	1.5	2.4	6.2	3.9	1.3	1.0	.8
10	a.8	al.2	1.0	1.3	1.4	1.5	2.7	6.3	3.7	1.3	.9	.8
11			1.0	1.3	1.4	1.5	3.2	6.5	3.5	1.3	.9	.8
12			1.0	1.2	1.4	1.5	3.3	6.4	3.5	1.3	1.0	.8
13			1.0	1.4	1.4	1.4	3.3	5.9	3.2	1.3	.9	.9
14	a.8	al.5	1.0	1.4	1.4	1.4	3.3	5.6	3.2	1.3	.9	.9
15			1.0	2.1	1.4	1.4	3.3	5.9	3.3	1.3	.9	.9
16			1.1	3.4	1.4	1.4	3.5	6.1	3.2	1.3	.9	.9
17			1.1	2.1	1.3	1.4	3.8	6.0	3.2	1.3	.9	.9
18	1.2	al.1	1.1	2.0	1.3	1.5	4.4	6.1	3.1	1.2	.8	.8
19			1.2	1.9	1.6	1.6	4.6	6.3	1.2	1.2	.8	.8
20			1.2	2.0	1.3	1.7	4.8	7.2	1.1	1.1	.8	.8
21			1.2	1.9	1.3	1.8	5.2	7.7	a2.4	1.1	.8	.9
22	1.3	1.5	1.4	1.8	1.3	2.1	5.4	8.1	1.2	1.2	.8	.9
23	1.2	1.2	3.3	1.8	1.4	2.4	5.5	8.1	1.2	1.2	.8	.9
24	al.3	al.1	3.1	1.6	1.3	3.1	5.6	8.2	1.1	1.1	.8	.9
25			2.4	1.6	1.3	3.7	5.5	7.9	1.1	1.1	.8	.9
26			2.0	1.7	1.4	3.8	5.7	7.6	a2.0	1.1	.8	.9
27			1.8	1.7	1.4	3.4	5.6	7.9	1.1	1.1	.8	.9
28	al.3	al.1	1.7	1.7	1.4	3.0	5.6	7.7	1.1	1.1	.8	.9
29			1.5	1.4	1.4	2.9	5.1	6.9	1.1	1.1	.8	.9
30			1.6	1.4	-----	2.9	4.7	6.3	1.2	1.2	.8	.9
31			1.5	1.4	-----	3.0	-----	5.9	-----	1.1	.8	-----
Total	31.9	37.0	43.0	47.8	39.8	61.3	116.1	199.7	96.4	39.7	27.8	24.9
Mean	1.03	1.23	1.39	1.54	1.37	1.98	3.87	6.44	3.28	1.28	0.90	0.63
Ac-ft	63	73	85	95	79	122	230	398	195	79	55	49

Calendar year 1955: Max 8.4 Min 0.5 Mean 1.90 Ac-ft 1,380
Water year 1955-56: Max 8.2 Min 0.7 Mean 2.10 Ac-ft 1,520

a No gage-height record; discharge estimated on basis of discharge measurements, weather records, and records for nearby stations.

Stone Creek above diversions, near Bountiful, Utah

Location.--Lat 40°53'40", long 111°50'40", in NW $\frac{1}{4}$ sec. 21, T. 2 N., R. 1 E., on right bank 3.2 miles east of Bountiful.

Drainage area.--4.48 sq mi.

Records available.--April 1950 to September 1956.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 5,080 ft (from topographic map).

Average discharge.--6 years, 3.32 cfs (2,400 acre-ft per year).

Extremes.--Maximum discharge during year, 16 cfs Dec. 23 (gage height, 1.20 ft); minimum not determined, occurred during period of no gage-height record.

1950-56: Maximum discharge, 82 cfs May 5, 1952 (gage height, 2.79 ft); no flow Oct. 5, 1951.

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

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0.6	0	1.0	4.9
.7	.1	1.1	9.3
.8	.8	1.2	16
.9	2.2		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0.9	1.2	1.2	1.3	0.9	4.9	7.7	8.2	1.6		
2		.9	*.9	1.0	1.3	*1.0	4.9	8.0	7.8	1.6		
3		*1.0	1.2	1.0	1.4	1.2	4.5	8.5	6.8	*1.4		
4		1.0	1.0	*1.0	1.4	1.4	4.2	10	6.8	1.4		
5	*0.6	1.0	.9	.9	1.4	1.4	*4.2	11	6.8	1.3	0.6	0.5 (*)
6		.9	.9	.9	1.4	1.2	3.6	11	6.4	1.2		
7		.9	.9	.9	1.4	1.0	3.6	11	5.6	1.0		
8		1.0	.9	.9	1.3	1.3	3.6	11	4.9	1.0		
9		1.0	.9	.9	1.2	1.3	3.9	11	4.5	.9		
10		1.0	.9	.9	1.2	1.3	4.2	*10	3.9	.9		
11	.6	1.2	.9	.9	1.2	.9	4.5	11	3.6	.9		
12		1.0	1.0	.9	1.0	.8	4.9	11	3.3			(*)
13		1.0	1.2	.9	1.0	1.2	4.9	8.8	3.3			
14	.6	.9	1.0	1.0	1.0	1.0	4.9	8.8	3.3			
15	.6	.9	.9	2.0	1.0	.9	5.2	9.3	3.3	.9		
16	.9	.9	*1.0	3.6	.9	.9	5.6	11	3.6		(*)	.3
17	.7	.9	1.0	2.6	*.9	1.0	6.4	10	3.3			
18	*.6	.9	.9	*2.2	.9	1.4	7.3	11	*2.8	(**)		
19	.7	1.0	1.0	2.2	.8	1.9	8.2	11	2.8		.5	
20	.9	1.4	1.0	2.0	.8	2.4	8.2	12	2.6			
21	1.0	1.4	1.2	1.9	.9	2.8	8.2	12	2.8			
22	1.0	*1.0	1.4	1.9	.9	3.6	9.3	12	2.6	.8		
23	.9	.9	6.0	1.7	1.0	5.2	9.3	12	2.4			
24	.9	.9	5.2	1.6	.9	6.4	*8.8	12	2.2			
25	.9	.8	3.3	1.4	.8	6.8	8.9	12	2.2			
26	.8	.8	2.4	1.6	.9	6.8	8.9	11	1.7			
27	1.0	1.0	2.2	1.7	.8	5.2	8.7	11	1.7	.7		.4
28	1.0	1.2	1.7	1.6	.9	4.9	8.5	12	1.7			
29	.9	1.0	1.4	1.3	.9	4.5	8.0	*10	1.7			
30	1.0	1.2	1.3	1.4	-----	4.5	7.7	9.3	1.6	.6		
31	1.0	-----	1.3	1.3	-----	4.9	-----	8.8	-----	*.6		
Total	23.2	30.0	47.0	45.3	30.8	80.0	187.9	325.2	114.2	29.1	16.1	11.3
Mean	0.75	1.00	1.52	1.46	1.06	2.58	6.26	10.5	3.81	0.94	0.52	0.38
Ac-ft	46	60	93	90	61	153	373	645	227	58	32	22

Calendar year 1955: Max 15 Min - Mean 2.25 Ac-ft 1,620
 Water year 1955-56: Max 12 Min - Mean 2.57 Ac-ft 1,870

Peak discharge (base, 15 cfs).--Dec. 23 (6 p.m.) 16 cfs (1.20 ft); May 27 (8 p.m.) 15 cfs (1.18 ft).

* Discharge measurement made on this day.

** Field estimate made on this day.

Note.--Water bypassing gage in pipeline Oct. 1-13, July 12 to Sept. 30, no gage-height record Apr. 25 to May 9; discharge estimated on basis of discharge measurements, computations of flow at outlet of pipe, and records for nearby streams.

Mill Creek at Mueller Park, near Bountiful, Utah

Location.--Lat 40°51'50", long 111°50'10", in SE $\frac{1}{4}$ 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 1956.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 5,240 ft (from topographic map).

Average discharge.--6 years, 6.93 cfs (5,020 acre-ft per year).

Extremes.--Maximum daily discharge during year, 23 cfs May 24; minimum daily, 0.8 cfs for several days during September.

1950-56: Maximum daily discharge, 140 cfs Apr. 28, 1952; minimum, 0.5 cfs for several days in August and September 1954.

Remarks.--Records good. Records include flow of pipeline which diverts about a quarter of a mile above station and is measured at division 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 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.2	1.2	1.4	2.9	2.2	1.9	9.7	11	15	5.0	2.0	1.2
2	1.1	1.2	1.2	2.6	2.2	1.9	8.8	11	14	4.7	2.0	1.2
3	1.1	1.2	1.4	2.4	2.2	2.0	8.1	12	16	4.7	2.0	1.2
4	1.1	1.2	1.3	2.6	2.2	2.1	7.7	14	15	4.6	1.9	1.2
5	1.1	1.2	1.2	2.5	2.2	2.2	7.2	15	14	4.3	1.9	1.0
6	1.1	1.2	1.3	2.3	2.2	2.2	6.8	16	11	4.1	1.7	1.0
7	1.1	1.2	1.2	2.3	2.1	2.2	6.9	16	9.4	4.1	1.8	.9
8	1.1	1.2	1.2	2.3	2.1	2.1	6.4	15	8.8	4.0	1.6	1.0
9	1.1	1.2	1.2	2.3	2.1	2.2	5.9	15	8.3	3.5	1.6	.9
10	1.1	1.2	1.2	2.1	2.1	2.5	6.1	14	8.1	3.4	1.5	.9
11	1.1	1.3	1.2	2.1	2.1	2.2	6.7	14	8.7	3.4	1.5	.9
12	1.1	1.2	1.3	2.1	2.1	2.2	7.8	15	10	3.3	1.5	.9
13	1.2	1.2	1.4	2.0	2.1	2.2	8.6	12	7.6	3.0	1.5	.9
14	1.2	1.2	1.4	1.9	2.0	2.1	8.8	11	6.6	3.0	1.5	.9
15	1.2	1.3	1.3	3.1	2.0	2.1	9.0	12	8.0	2.9	1.5	.9
16	1.2	1.3	1.4	6.0	2.0	2.1	9.0	14	8.4	2.7	1.5	.9
17	1.2	1.3	1.4	4.4	1.9	2.3	9.6	15	7.8	2.7	1.5	.9
18	1.2	1.3	1.4	3.7	1.9	2.8	11	16	7.4	2.6	1.5	.9
19	1.3	1.4	1.4	3.6	2.0	3.6	13	19	7.0	2.6	1.5	.8
20	1.3	1.8	1.6	3.5	1.9	4.7	14	22	7.0	2.4	1.4	.8
21	1.4	1.9	1.5	3.3	1.9	5.2	14	21	6.9	2.3	1.4	.9
22	1.4	1.5	1.9	3.0	1.9	6.5	15	20	7.0	2.4	1.4	.9
23	1.3	1.3	6.0	3.1	1.9	8.7	18	22	6.6	2.3	1.2	.8
24	1.3	1.3	7.1	2.7	1.9	11	19	23	6.4	2.1	1.2	.9
25	1.3	1.2	5.7	2.7	1.9	13	16	21	6.2	2.3	1.2	.8
26	1.4	1.2	4.7	2.7	1.9	13	15	20	5.8	2.3	1.2	.8
27	1.3	1.2	4.2	2.9	1.9	12	16	20	5.4	2.1	1.4	.9
28	1.3	1.3	3.8	2.6	1.9	10	15	19	5.3	2.1	1.4	.9
29	1.3	1.3	3.4	2.5	1.9	9.2	13	17	5.0	2.1	1.2	.9
30	1.3	1.3	3.3	2.5	-----	8.5	12	17	4.8	1.9	1.2	.9
31	1.3	-----	3.0	2.3	-----	9.4	-----	16	-----	2.0	1.2	-----
Total	37.7	38.8	71.0	87.0	58.7	154.1	324.1	503	257.5	94.9	46.9	28.0
Mean	1.22	1.29	2.29	2.81	2.02	4.97	10.8	16.2	8.58	3.06	1.51	0.95
Ac-ft	75	77	141	173	116	306	643	998	511	188	93	56
Calendar year 1955: Max	44				Min 0.7		Mean 4.95		Ac-ft 3,580			
Water year 1955-56: Max	23				Min 0.8		Mean 4.65		Ac-ft 3,380			

Salt Creek at Nephi, Utah

Location.--Lat 39°42'45", long 111°48'25", in NE $\frac{1}{4}$ 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 1956.

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.--5 years (1951-56), 29.5 cfs (21,360 acre-ft per year).

Extremes.--Maximum discharge during year, 104 cfs May 21; minimum daily, 5.3 cfs Nov. 16. 1950-56: Maximum discharge, 724 cfs May 2, 1952; minimum, 1.1 cfs Dec. 13, 1951.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Records include discharge of Salt Creek diversion canal near Nephi.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.1	6.8	8.8	11	7.7	11	23	47	57	20	15	11
2	6.1	6.4	8.4	10	5.6	11	22	44	54			11
3	6.1	6.4	8.4	10	5.5	12	22	46	54			11
4	6.1	6.8	7.4	10	7.1	13	22	51	52			11
5	6.1	7.1	5.8	10	9.2	13	22	55	48			11
6	6.1	7.1	7.8	10	10	13	22	57	50	15	13	10
7	6.1	7.1	7.4	11	11	11	21	58	48			10
8	6.1	7.1	5.8	11	11	12	21	58	46			9.8
9	6.4	7.1	7.4	10	9.9	13	21	58	46			10
10	6.1	6.8	7.4	10	9.6	15	22	55	47			9.8
11	6.1	7.1	7.4	10	11	14	23	50	48			*9.8
12	6.1	6.8	7.4	10	11	13	25	46	45			13
13	6.1	7.4	*7.8	10	11	14	25	43	41			10
14	6.1	*12	8.4	11	11	14	24	39	42			9.8
15	6.5	6.4	8.1	13	10	14	24	37	40			9.8
16	6.4	5.3	8.4	23	9.5	14	30	40	39	15	13	9.8
17	*6.1	7.4	8.4	16	9.2	16	31	44	35			9.5
18	5.8	7.4	8.8	*14	10	17	35	53	33			8.8
19	6.1	8.4	8.4	14	9.3	20	36	59	33			8.4
20	7.1	8.4	8.4	14	*9.5	19	36	64	34			7.4
21	6.8	8.8	8.1	14	9.8	19	38	67	32	12	12	7.8
22	7.4	8.1	8.4	14	9.8	21	45	*76	31			8.4
23	7.1	7.1	11	14	11	22	*54	77	30			8.8
24	7.1	8.1	14	13	10	28	55	71	29			8.4
25	6.8	7.8	16	13	9.8	32	54	72	*30			8.1
26	6.8	8.1	15	13	11	34	53	67	29			7.8
27	7.4	8.1	15	15	11	*31	55	65	29			7.8
28	6.8	7.8	14	12	11	27	54	62	26			7.8
29	7.1	7.8	14	10	11	27	51	54	22			8.1
30	7.1	7.8	12	9.8	-----	26	48	48	20			8.8
31	6.8	-----	11	9.2	-----	24	-----	51	-----			-----
Total	200.9	224.8	294.6	375.0	282.5	570	1,014	1,714	1,170	490	405	279.5
Mean	6.48	7.49	9.50	12.1	9.74	18.4	33.8	55.3	39.0	15.8	13.1	9.32
Ac-ft	398	446	584	744	560	1,130	2,010	3,400	2,320	972	803	554
Calendar year 1955: Max	66				Min 5.3		Mean 15.8		Ac-ft 11,410			
Water year 1955-56: Max	77				Min 5.3		Mean 19.2		Ac-ft 13,920			

* Discharge measurement made on this day.

Note.--No gage-height record Mar. 22-26, Apr. 11-22, June 26 to Aug. 6, discharge estimated on basis of weather records and records for nearby streams.

Currant Creek near Goshen, Utah

Location--Lat 39°53'05", long 111°53'05", in NW $\frac{1}{4}$ SE $\frac{1}{4}$ 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 1956.

Gage--Water-stage recorder. Altitude of gage is 4,850 ft (from topographic map).

Extremes--Maximum discharge during year, 69 cfs May 11, 12, 22-25; minimum daily, 0.4 cfs Mar. 29, 30.

1953-56: Maximum discharge, 77 cfs Apr. 26, 1954, May 10-12, 1955; minimum daily, 0.4 cfs many days during February, March, April, 1955 and that of Mar. 29, 30, 1956.

Remarks--Records good except those for periods of ice effect or no gage-height record, which are fair. Irrigation diversions above station. Flow regulated by Mt. 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 on Aug. 12, 1955, at point where spring flow enters creek.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.2	0.4	0.5	3.3	1.0	20
.3	1.0	.6	5.3	1.3	38
.4	1.9	.8	11	1.7	77

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	15	2.7	3.1	bl.0		*0.8	42	35	55	30	29
2	13	17	2.7	3.1			6.2	48	38	54	29	29
3	14	16	2.7	3.0			10	*55	39	54	28	28
4	14	15	2.7	3.0			8.7	57	40	54	28	27
5	14	15	2.8	3.6			6.6	57	42	54	28	26
6	16	16	2.8	3.8			5.1	56	*40	*53	28	26
7	18	16	2.7	4.0			5.1	56	39	53	32	25
8	18	16	2.8	4.0			5.3	57	37	53	*39	26
9	18	16	2.8	3.3			5.3	60	36	44	39	26
10	18	16	2.8	3.0			5.1	60	36	39	39	27
11	18	16	2.8	2.8	0.8		5.1	64	36	39	40	31
12	17	16	2.7	2.8			5.1	65	44	39	40	32
13	17	17	2.5	3.1			5.1	63	44	39	40	30
14	17	17	2.0	2.7			5.1	63	47	35	40	23
15	17	17	2.0	1.7			18	62	48	32	39	26
16	17	16	2.5	1.9	.8		27	62	49	27	39	28
17	17	17	3.6	*1.8			28	61	49	28	34	*28
18	15	16	3.6	1.8			28	63	44	38	31	24
19	13	16	2.7	1.9			28	66	43	38	31	22
20	*13	17	2.3	2.0		1.0	27	68	43	37	31	22
21	13	17	1.7	2.1		1.5	28	68	44	37	31	22
22	13	*17	*1.4	2.3		1.8	34	69	47	37	30	22
23	13	17	1.5	2.3		1.0	41	69	50	38	26	22
24	13	17	1.5	2.3		.8	44	69	51	38	24	21
25	13	17	1.4	2.1		.7	39	67	51	34	23	21
26	13	17	1.4	1.9		.7	36	63	51	31	22	20
27	13	17	1.3	2.1		.6	37	56	51	31	25	21
28	13	17	1.4	2.1		.6	37	*50	52	31	27	27
29	13	9.4	1.3	2.1	(*)	.4	37	43	56	30	27	27
30	11	2.5	1.3	b2.0	-----	.4	37	36	56	30	28	27
31	11	-----	2.5	b2.0	-----	.6	-----	35	-----	30	29	-----
Total	456	470.9	70.9	79.7	23.8	25.3	604.6	1,810	1,338	1,232	977	766
Mean	14.7	15.7	2.29	2.57	0.82	0.82	20.2	58.4	44.6	39.7	31.5	25.5
Ac-ft	904	934	141	158	47	50	1,200	3,590	2,650	2,440	1,940	1,520

Calendar year 1955: Max 77 Min 0.4 Mean 21.3 Ac-ft 15,430
 Water year 1955-56: Max 69 Min Mean 21.5 Ac-ft 15,570

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.--No gage-height record Feb. 4 to Mar. 20; discharge estimated on the basis of 1 discharge measurement, weather records, and records for nearby streams.

Summit Creek near Santaquin, Utah

Location.--Lat 39°55'20", long 111°45'10", in NW $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 30, T. 10 S., R. 2 E., on right bank 3 $\frac{1}{2}$ miles southeast of Santaquin.

Drainage area.--14.6 sq mi.

Records available.--March 1910 to September 1916, October 1954 to September 1956.

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 2 $\frac{1}{2}$ miles downstream at different datums.

Average discharge.--8 years (1911-16, 1954-56), 13.9 cfs (10,060 acre-ft per year).

Extremes.--Maximum discharge during year, 46 cfs May 22 (gage height, 1.40 ft); minimum, 1.7 cfs Mar. 12.
1910-16, 1954-56: Maximum discharge observed, 154 cfs May 10, 1910 (gage height, 2.0 ft, site and datum then in use); minimum, 1.3 cfs Jan. 21, 1955.

Remarks.--Records good except those for periods of doubtful gage-height record, which are fair.

Cooperation.--Records for Jan. 1, 1911, to Sept. 30, 1916, furnished by Utah Power and Light Co.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0.4	1.4	0.8	10
.5	2.4	1.0	20
.6	4.4	1.2	33
.7	6.8	1.5	60

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.8	5.8	5.1	4.4	d4.4	4.1	*8.1	21	29	8.8	6.0	6.0
2	5.8	4.8	3.7	4.8	d3.3	4.1	7.8	d21	29	8.1	5.8	6.0
3	5.8	5.3	4.8	4.8	d5.7	4.1	7.1	*d25	28	8.1	5.8	6.0
4	5.8	5.3	4.8	4.8	d6.3	4.1	7.1	30	26	7.5	5.8	6.0
5	5.8	5.5	2.9	4.6	d7.1	4.4	7.1	35	26	7.5	5.8	6.0
6	5.8	5.3	6.0	4.6	d5.5	4.1	6.3	36	*24	*7.1	5.5	6.0
7	5.8	5.3	5.5	4.4	d5.3	3.9	6.8	36	22	6.8	5.5	6.0
8	5.8	5.1	3.2	4.4	d5.3	4.6	7.1	35	20	7.1	5.5	6.0
9	5.8	5.1	5.5	3.9	d5.1	4.4	7.1	35	20	7.1	*5.5	6.0
10	5.8	5.1	4.6	4.4	d5.1	4.4	8.4	32	20	6.8	5.5	6.0
11	5.8	5.3	3.9	4.4	d5.1	4.4	10	27	18	6.8	5.5	6.0
12	5.8	5.1	4.8	4.6	d5.1	3.1	10	24	17	6.5	5.5	6.0
13	5.8	5.5	4.6	4.6	d5.1	4.6	9.8	21	16	6.5	6.5	6.0
14	5.8	3.7	4.8	4.8	d4.8	4.8	8.8	19	16	6.5	6.3	6.0
15	5.8	2.2	4.6	5.3	d4.8	4.1	8.8	19	15	6.5	6.5	6.0
16	5.8	2.6	4.6	7.1	d4.6	4.4	9.8	22	14	6.3	6.5	6.0
17	5.8	6.0	4.6	*d6.8	d4.4	4.4	11	27	13	6.3	6.3	*6.0
18	5.8	6.8	4.6	d6.3	d4.4	4.6	13	33	13	6.3	6.3	5.8
19	5.8	5.3	4.6	d6.8	d4.6	4.8	14	37	13	6.3	6.0	5.8
20	*6.0	5.8	4.6	d6.5	d5.1	4.8	15	39	12	6.3	6.0	6.0
21	6.0	5.8	4.4	d6.3	d5.1	4.8	d24	*39	11	6.0	6.0	6.0
22	6.3	*5.1	*4.6	d6.3	d4.8	5.3	d25	44	11	6.0	6.0	6.0
23	6.0	4.1	7.2	d5.5	d4.8	5.8	d25	45	11	6.0	6.0	6.0
24	6.0	5.5	7.8	d4.8	d5.5	7.1	d26	42	9.8	6.0	6.0	6.0
25	6.0	4.6	7.5	d6.0	d4.8	d8.8	d25	40	9.8	6.0	6.0	6.0
26	6.3	5.1	6.5	d6.5	d4.4	d8.8	d27	38	9.4	6.5	6.0	6.0
27	6.3	5.1	6.3	d6.1	d4.6	d8.8	d27	36	9.1	6.3	6.0	6.0
28	5.8	5.1	5.8	d4.8	d5.1	d7.5	d22	*34	8.8	6.3	6.0	6.0
29	6.0	4.8	5.1	d4.8	*4.4	d7.8	22	31	8.8	7.1	6.0	6.0
30	6.0	4.8	5.3	d5.8	-----	d8.1	22	29	8.8	6.5	6.0	6.3
31	6.0	-----	5.1	d6.5	-----	d8.1	-----	23	-----	6.3	6.0	-----
Total	182.9	150.9	157.4	165.5	140.6	166.9	428.1	979	488.5	208.2	184.1	179.9
Mean	5.90	5.03	5.08	5.34	4.85	5.38	14.3	31.6	18.3	6.72	5.94	6.00
Ac-ft	363	299	312	328	279	331	849	1,940	969	413	365	357

Calendar year 1955: Max 51 Min 2.0 Mean 10.1 Ac-ft 7,310
Water year 1955-56: Max 44 Min 2.2 Mean 9.38 Ac-ft 6,800

Peak discharge (base, 30 cfs).--May 6 (6:30 p.m.) 40 cfs (1.32 ft); May 22 (11 a.m.) 46 cfs (1.40 ft).

* Discharge measurement made on this day.

† Doubtful gage-height record; discharge computed from reconstructed gage-height graph based on recorder graph and records for nearby streams.

Payson Creek above diversions, near Payson, Utah

Location.--Lat 39°58'10", long 111°41'35", in SE¹/₄ 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.--19.6 sq mi.

Records available.--July 1947 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 5,670 ft (by barometer).

Average discharge.--9 years, 13.4 cfs (9,700 acre-ft per year).

Extremes.--Maximum discharge during year, 70 cfs Apr. 21 (gage height, 1.91 ft); minimum, 2.4 cfs Jan. 27, but may have been less during period of no gage-height record. 1947-56: 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, 2.1 cfs Feb. 12, 1952.

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 tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 29 to Jan. 9, Apr. 7 to May 21)

Oct. 1 to Dec. 28

Dec. 29 to Sept. 30

0.1	4.6	0.7	3.3	1.2	21
.2	6.2	.8	5.4	1.4	34
.3	8.8	1.0	12	1.6	51

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.6	4.4		4.1	b5.0	4.4	*11	32	12	11	8.6	7.4
2	5.8	4.7		4.4		4.1	9.3	38	11	10	8.6	7.1
3	5.4	4.6		4.4		4.1	7.9	*44	11	11	8.2	7.4
4	4.7	4.7	b5.0	4.4		4.1	7.6	47	11	10	8.2	7.1
5	4.8	5.0		4.4		4.4	7.9	50	*10	9.6	8.2	7.1
6	5.0	5.3	4.8	4.1		3.9	7.1	44	10	*9.6	8.6	6.8
7	5.0	5.6	5.0	3.9		4.8	7.4	37	10	9.3	8.9	6.5
8	5.0	4.9		4.4		4.1	7.6	33	10	8.9	8.6	6.2
9	5.1	4.5		4.4		4.1	8.6	29	9.3	8.9	*8.2	6.0
10	5.1	4.6		4.1		3.9	13	26	8.9	9.3	7.9	5.7
11	5.3	4.7		4.1		3.9	16	23	8.9	9.3	7.9	5.4
12	5.1	5.0		4.1		b3.9	18	23	10	9.3	7.9	5.2
13	4.8			3.9		b3.9	18	20	11	9.3	8.6	5.2
14	4.8			3.9		3.7	14	17	10	8.9	10	5.0
15	5.0			5.0		b3.9	14	16	11	8.9	9.6	a5.0
16	5.3			7.4		3.9	20	16	11	8.6	9.6	a5.0
17	5.1			*6.8		3.9	24	17	11	8.6	9.3	*5.0
18	5.4	4.5	a5.5	6.2		3.7	23	19	11	8.6	8.9	5.2
19	5.6	4.6		6.2		3.9	24	19	11	8.6	8.6	5.0
20	*5.0	5.1		6.2		4.4	31	19	10	8.6	8.2	4.8
21	4.7	6.2		6.2		4.6	43	17	10	8.6	7.6	5.0
22	4.8	*5.8	(*)	6.0		5.2	47	20	11	8.6	7.1	5.2
23	4.7	b5.0		6.2		5.7	47	19	12	8.6	6.6	5.2
24	4.5	4.8		6.5		7.4	44	17	11	8.2	7.1	5.0
25	4.5	4.8		7.1		9.6	41	15	12	7.9	6.8	5.0
26	4.6	5.1	5.8	7.1		11	46	15	11	7.9	6.8	4.8
27	4.8	6.0	5.6	5.7		8.9	42	14	11	5.2	7.4	4.8
28	4.6	6.4	5.4	5.7		7.9	32	*19	11	8.6	7.4	4.8
29	4.6	6.4	*4.2	b5.0	*4.4	7.1	27	19	11	8.6	7.1	5.0
30	4.6	6.9	4.6	b5.0		8.9	26	15	11	6.9	7.1	5.2
31	4.6		4.6	b5.0		10		14		6.6	7.4	
Total	153.9	154.3	165.9	161.9	144.4	167.3	694.4	753	319.1	280.0	251.2	169.1
Mean	4.96	5.14	5.35	5.22	4.98	5.40	22.8	24.3	10.6	9.03	8.10	5.60
Ac-ft	305	306	329	321	286	332	1,360	1,490	633	555	498	333

Calendar year 1955: Max 128 Min - Mean 12.6 Ac-ft 9,140

Water year 1955-56: Max 47 Min - Mean 9.30 Ac-ft 6,750

Peak discharge (base, 80 cfs).--No peak above base.

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on the basis of weather records, 1 discharge measurement, and records for nearby stations.

b Stage-discharge relation affected by ice.

Spanish Fork at Thistle, Utah

Location.--Lat 40°00', long 111°30', in SW $\frac{1}{4}$ sec. 28, T. 9 S., R. 4 E., on right bank at Thistle, 600 ft downstream from confluence of Soldier Fork and Thistle Creek and $2\frac{1}{2}$ miles upstream from Diamond Fork.

Drainage area.--490 sq mi, approximately.

Records available.--January 1908 to September 1925 and October 1936 to September 1956 in reports of Geological Survey. January 1933 to September 1956 in reports of Spanish Fork water commissioner.

Gage.--Water-stage recorder. Altitude of gage is 4,950 ft. 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.--40 years (1908-25, 1933-56), 93.2 cfs (67,470 acre-ft per year).

Extremes.--Maximum discharge during year, 357 cfs Aug. 13 (gage height, 4.18 ft); minimum, 19 cfs Sept. 19, 20.
1908-25, 1933-56: 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 ice effect or no gage-height record, which are fair. Small diversions for irrigation above station.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 28, 29)

2.0	20	3.0	122
2.3	37	4.0	317
2.6	65		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	34	52	41	b25	46	76	136	137	56		23
2	28	34	51	41	b24	50	*75	*137	132	53		23
3	29	34	45	41	b26	58	70	153	124	49		23
4	29	35	b35	44	b28	66	65	168	*119	48		23
5	28	36	b31	45	b33	*73	73	183	*111	*41	a29	23
6												
7	27	37	38	45	b38	69	64	184	108	38		23
8	27	35	40	45	b40	56	65	192	98	36		22
9	29	34	b34	45	b42	59	66	202	91	37		22
10	26	34	40	43	b41	80	66	204	88	37		23
	26	36	41	*43	b40	69	76	209	84	33	*28	24
11	25	41	b38	43	41	65	88	205	79	32	26	24
12	25	39	40	44	44	50	87	198	75	36	31	24
13	26	41	43	44	44	49	85	179	70	32	53	25
14	30	53	42	44	44	54	79	*170	65	29	40	*24
15	29	33	44	48	43	50	79	166	67	31	33	23
16												
17	27	b28	45	69	43	51	85	166	70	30	31	23
18	27	33	46	62	b39	57	100	161	67	25	30	22
19	26	37	47	*53	44	67	104	183	64	25	29	*20
20	*26	42	47	54	b38	81	102	211	62	27	29	20
	27	46	46	54	b43	81	104	221	62	27	28	20
21	27	52	*45	54	44	75	120	*219	62	29	26	20
22	28	47	47	52	45	76	136	231	58	29	26	21
23	29	*38	58	56	49	76	139	221	54	34	26	24
24	29	41	97	47	49	83	137	a205	54	31	27	24
25	31	37	81	43	45	90	134	*194	52	30	26	23
26	32	40	66	50	46	94	148	186	50	32	24	23
27	35	51	58	63	b44	90	157	179	48	35	24	23
28	33	50	54	b42	*b44	71	155	183	45	30	23	22
29	33	49	47	b37	b44	71	148	*184	50	51	23	24
30	34	49	47	b37	-----	73	139	162	54	a51	24	26
31	34	-----	48	b35	-----	77	-----	148	-----	a29	24	-----
Total	892	1,196	1,493	1,464	1,170	2,087	3,022	5,740	2,300	1,103	894	684
Mean	28.8	39.9	48.2	47.2	40.3	67.3	101	185	76.7	35.6	28.8	22.8
Ac-ft	1,770	2,370	2,960	2,900	2,320	4,140	5,990	11,390	4,560	2,190	1,770	1,360
Calendar year 1955: Max 262 Min 25 Mean 63.9 Ac-ft 46,270												
Water year 1956-57: Max 231 Min 20 Mean 60.2 Ac-ft 43,720												

Peak discharge (base, 330 cfs).--Aug. 13 (6:30 p.m.) 357 cfs (4.18 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on the basis of records for station at Castilla and Diamond Fork near Thistle.

b Stage-discharge relation affected by ice.

Strawberry tunnel at West Portal, near Thistle, Utah

Location.--Lat 40°09'40", long 111°14'40", in SW $\frac{1}{4}$ 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 1956 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, 1932-56: Maximum daily discharge, 595 cfs July 9, 1923; minimum daily observed, 4 cfs many times when no water is 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 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50							6	64	424	204	198
2	51							7.5	138	412	205	180
3	59							14	153	336	228	180
4	59							6	200	303	248	153
5	62							6	290	322	253	154
6	88							6	287	336	242	169
7	147							6	270	370	320	168
8	162					5		6	298	377	348	149
9	122							6	308	384	323	94
10							6	6	292	384	362	98
11							6	37	308	384	370	100
12								73	300	383	370	108
13								6	352	336	359	120
14								6	349	310	386	148
15								16	374	278	349	123
16		5		5		5		49	383	264	327	74
17								94	374	273	296	78
18								144	384	290	236	85
19								132	415	282	240	144
20		5						94	465	298	244	118
21								16	421	480	287	131
22								28	149	467	253	136
23								18	150	439	199	120
24								10	205	411	154	122
25								10	280	441	172	149
26								12	280	484	243	178
27								20	253	484	264	189
28								11	176	479	260	214
29								7.8	94	467	225	209
30								18	87	449	212	145
31									75		201	211
Total	910	150	155	155	145	171	270.8	2,590.5	10,605	9,216	8,739	4,234
Mean	29.4	5	5	5	5	5.52	9.03	83.6	354	297	282	141
Ac-ft	1,800	298	307	307	288	339	537	5,140	21,030	18,280	17,330	8,400

Calendar year 1955: Max 493 Min - Mean 97.8 Ac-ft 70,780
 Water year 1955-56: Max 484 Min - Mean 102 Ac-ft 74,070

Note.--Discharge for period Oct. 10 to Apr. 20 estimated on basis of observed tunnel seepage on Oct. 9 and Apr. 21.

Diamond Fork below Red Hollow, near Thistle, Utah

Location.--Lat 40°04'40", long 111°24'00", in NW $\frac{1}{4}$ sec. 32, T. 8 S., R. 5 E., on right bank about 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 1956.

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

Extremes.--Maximum discharge during the year, 519 cfs June 27 (gage height, 3.56 ft); minimum daily, 2.0 cfs Feb. 1, 2.

1953-56: Maximum discharge 1,020 cfs July 13, 1954 (gage height, 4.71 ft); minimum daily, that of Feb. 1, 2, 1956.

Remarks.--Records good except those for period of no gage-height record, which are fair. 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 the vicinity of Spanish Fork.

Rating table, water year 1955-56, (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 8 to June 22, July 10 to Aug. 18, Sept. 12-25, 30)

0.7	7.0	1.3	36	2.5	206
1.9	13	1.6	67	3.0	350
1.0	16	2.0	120	3.6	535

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	12	11	13	2.0	15	38	92	123	434	242	230
2	56	11	9.8	13	2.0	15	*34	*89	173	417	245	210
3	63	12	11	13	3.0	17	32	110	166	364	280	208
4	65	11	9.2	14	4.0	18	29	106	*217	322	270	184
5	65	11	9.0	15	6.0	18	31	113	277	*333	277	179
6	84	11	11	14	7.0	17	28	114	287	336	270	166
7	130	12	11	13	8.0	16	29	119	270	367	330	184
8	149	11	11	14	10	18	33	122	300	362	367	170
9	129	11	11	13	10	18	34	120	308	379	352	129
10	32	11	10	13	9.0	18	41	119	300	368	*365	122
11	14	12	9.8	13	10	17	46	123	311	391	394	123
12	14	10	11	13	12	14	50	153	296	382	401	126
13	14	11	12	14	12	16	51	110	338	352	385	132
14	14	13	11	13	12	18	51	99	350	327	394	*153
15	14	7.8	11	16	11	16	51	98	376	306	364	138
16	13	7.0	11	35	11	16	58	126	376	293	344	92
17	13	12	11	18	8.0	18	64	158	376	267	316	87
18	13	12	11	*16	11	19	75	206	382	303	274	*87
19	*13	11	11	17	8.0	20	77	208	414	300	267	148
20	15	11	11	17	10	21	86	181	455	308	270	132
21	14	12	*11	17	11	20	96	168	491	298	285	137
22	14	11	13	16	11	24	134	210	467	280	295	143
23	14	*8.0	27	19	14	28	132	202	444	245	295	132
24	13	11	32	13	14	35	128	228	401	204	300	130
25	13	9.2	27	10	12	42	123	267	430	213	311	153
26	13	9.8	20	14	16	45	122	274	475	262	306	184
27	14	11	16	22	15	41	124	272	499	285	264	200
28	13	11	16	10	*15	31	119	221	487	287	257	221
29	13	10	14	6.0	15	33	98	*148	475	272	274	221
30	13	10	14	6.0	-----	38	114	146	444	252	264	160
31	13	-----	15	4.0	-----	39	-----	135	-----	242	245	-----
Total	1,113	322.8	418.8	444.0	269.0	721	2,128	4,657	10,730	9,811	9,503	4,703
Mean	35.9	10.8	13.5	14.3	9.97	23.3	70.9	157	358	316	307	157
Ac-ft	2,210	640	831	881	573	1,430	4,220	9,630	21,280	19,460	18,850	9,330

Calendar year 1955: Max 496 Min 7.0 Mean 109 Ac-ft 79,250
Water year 1955-56: Max 499 Min 2.0 Mean 123 Ac-ft 89,340

* Discharge measurement made on this day.

Note.--No gage-height record Jan. 19 to Feb. 27; discharge estimated on basis of weather records and records for Spanish Fork at Thistle and at Castilla.

Spanish Fork at Castilla, Utah

Location.--Lat 40°03'00", long 111°32'50", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ 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, $\frac{1}{2}$ miles northwest of Castilla, and 3 miles downstream from Diamond Fork.

Drainage area.--670 sq mi, approximately.

Records available.--May 1919 to September 1925, October 1936 to September 1956 in reports of Geological Survey. January 1933 to September 1956 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.--29 years (1919-25, 1933-56), 219 cfs (158,500 acre-ft per year).

Extremes.--Maximum discharge during year, 688 cfs Aug. 13 (gage height, 6.04 ft); minimum, 26 cfs Nov. 16.

1919-25, 1933-56: 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. 93) for irrigation in the vicinity of Spanish Fork.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 7 to May 25, June 4-17)

Oct. 1 to June 3		June 4 to Sept. 30	
3.3	30	4.1	107
3.6	69	4.5	185
4.0	135	5.0	306
5.0	370	6.0	671
6.0	724		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a90	57	75	72	40	72	122	235	252	482	264	254
2	a90	52	74	70	37	75	*119	*233	289	471	262	230
3	102	52	69	69	40	84	114	252	302	406	279	225
4	103	55	57	75	43	98	105	269	*326	357	295	209
5	103	57	45	75	51	*103	114	299	382	*560	301	205
6	121	54	57	74	58	97	100	315	396	373	287	205
7	166	54	61	74	61	81	102	328	379	399	335	209
8	191	52	49	74	65	87	103	337	389	416	382	205
9	168	54	58	69	61	89	103	326	402	424	366	156
10	a90	55	58	*70	59	97	117	342	389	424	*396	144
11		58	54	70	65	94	131	339	396	434	410	138
12		55	57	70	69	74	135	362	386	441	416	142
13		57	63	72	72	76	135	302	420	396	424	152
14		78	63	70	70	84	133	*266	420	360	416	*177
15	a50	47	68	78	69	75	130	247	441	332	399	166
16		40	70	149	68	76	141	274	456	315	376	121
17		50	72	97	62	84	158	305	445	309	347	111
18		57	74	*81	72	94	176	376	441	332	303	*114
19	*51	62	74	82	67	108	174	406	467	332	292	158
20	52	65	72	84	66	112	164	394	525	344	292	156
21	52	70	*69	82	70	107	208	388	544	338	309	156
22	51	69	72	80	70	114	266	*426	525	312	323	164
23	54	*51	90	87	80	119	279	410	498	274	326	162
24	52	62	150	75	82	131	272	435	471	218	335	158
25	54	52	133	68	72	144	264	485	482	216	347	177
26	57	57	105	76	75	152	274	492	532	269	344	212
27	63	70	95	97	70	141	289	475	540	315	292	228
28	58	69	90	68	*66	114	276	439	532	312	276	249
29	59	68	80	57	72	117	242	*353	528	309	303	262
30	58	69	80	57	-----	119	247	310	513	298	295	221
31	58	-----	84	54	-----	126	-----	284	-----	269	269	-----
Total	2,343	1,748	2,318	2,376	1,850	3,146	5,213	10,704	13,068	10,837	10,261	5,466
Mean	75.6	58.3	74.8	76.6	63.8	101	174	345	436	350	331	182
Ac-ft	4,850	3,470	4,600	4,710	3,670	6,240	10,340	21,230	25,920	21,490	20,350	10,840
Calendar year 1955: Max			600		Min 36		Mean 185					
Water year 1955-56: Max			544		Min 37		Mean 169		Ac-ft 134,100			
									Ac-ft 137,500			

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for nearby streams.

Spanish Fork near Lake Shore, Utah

Location.--Lat 40°09'30", long 111°43'50", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 32, T. 7 S., R. 2 E., on left bank 1 mile upstream from mouth and $2\frac{1}{2}$ 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 1956.

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 same site at different datum.

Average discharge.--35 years (1904-6, 1909-19, 1920-25, 1938-56), 89.5 cfs (64,800 acre-ft per year).

Extremes.--Maximum discharge during year, 253 cfs Jan. 16 (gage height, 2.90 ft); practically no flow at times during the summer months.
1903-7, 1909-25, 1938-56: Maximum discharge observed, 3,020 cfs Apr. 28, 1952; practically no flow at times during irrigation season of most years.

Remarks.--Records good except those for periods of ice effect, which are fair, and those for periods of no gage-height record, which are poor. Flow regulated by many diversions for irrigation and hydroelectric powerplant. During latter part of irrigation season, only waste and return waters pass gage. Station 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.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		40	84	97	b52	108	161					
2		40	84	90	b50	111	156					
3	1.0	40	75	89	b54	119	149	(*)				
4		45	60	95	b58	135	135					
5		42	50	96	b68	156	146					
6		42	64	96	b78	158	132	6.0		(*)		0.4
7		43	70	93	b80	113	140					
8	5.0	43	56	89	b86	119	140					
9		42	65	87	b80	121	133				(**)	
10		43	65	*87	b87	132	149					0.5
11		43	60	89	b90	129	169					
12		45	64	86	91	99	146					
13	10	40	68	89	100	105	177					
14		72	72	86	100	117	189					
15		52	73	90	96	98	161					
16		53	82	173	96	103	95	3.0	0.5	0.5		
17		54	81	138	87	112						(*)
18		61	79	110	101	129						
19	15	67	89	*103	b88	143						
20	(*)	71	82	109	99	156						.3
21		78	78	109	101	150		10				
22		*85	*78	100	102	153						
23		58	86	114	114	164						
24		62	180	98	126	175						
25	30	56	174	92	104	192						
26		60	144	86	114	195		.5			.4	
27		39	71	109	132	106						
28		35	82	106	86	*94	145					
29		34	76	100	69	108		6.0	(*)			
30		34	76	96	83	159						
31		38	-----	102	74	*166	-----					
Total	485.0	1,682	2,676	3,035	2,610	4,280	2,478	95.5	15.0	15.5	14.4	10.0
Mean	15.6	56.1	86.3	97.9	90.0	138	82.6	3.08	0.5	0.5	0.46	0.33
Ac-ft	962	3,340	5,310	6,020	5,180	8,490	4,920	189	30	31	29	20
Calendar year 1955: Max	213			Min 0		Mean 49.0		Ac-ft 35,450				
Water year 1955-56: Max	195			Min -		Mean 47.5		Ac-ft 34,520				

* Discharge measurement made on this day.

** Field estimate made on this day.

b Stage-discharge relation affected by ice.

Note.--No gage-height record Oct. 1-26, 28; Nov. 1, 2, 6-10; Nov. 29 to Dec. 13; Apr. 17 to Sept. 30; discharge estimated on basis of 6 discharge measurements, weather records, and records for other Spanish Fork stations.

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, 1½ 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 1956.

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.--21 years (1904-5, 1907-16, 1945-56), 52.8 cfs (38,230 acre-ft per year).

Extremes.--Maximum discharge during year, 196 cfs Apr. 24 (gage height, 3.86 ft); minimum daily, 6.1 cfs Oct. 16.

1904-16, 1945-56: 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 for irrigation above station. 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 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Nov. 9, Apr. 9 to May 21)

1.6	6.1	2.5	68
1.8	13	3.0	128
2.1	31	3.5	203

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	17	15	18	13	17	*68	112	49	18	11	12
2	8.8	16	17	18	13	17	59	*114	54	23	10	12
3	9.2	15	17	18	13	17	53	122	55	22	11	12
4	9.6	14	16	18	14	19	49	128	50	21	11	10
5	10	16	13	17	15	19	55	138	51	*17	11	8.8
6	7.8	14	16	17	16	19	62	137	*51	14	12	9.2
7	13	14	16	17	16	17	64	131	49	13	12	9.6
8	14	15	14	16	17	19	71	120	44	12	12	12
9	14	*13	16	16	16	18	74	115	*41	12	*12	12
10	15	13	15	16	16	19	88	108	41	12	9.6	11
11	12	14	15	16	16	19	100	97	40	12	9.6	10
12	12	14	15	15	17	17	101	82	37	12	9.2	12
13	11	13	15	15	17	18	93	73	36	12	12	9.6
14	12	15	15	16	17	20	83	66	32	12	13	11
15	11	14	15	19	17	18	76	60	32	11	12	11
16	8.1	12	14	42	16	18	88	55	32	10	12	12
17	7.5	13	14	*30	14	18	97	55	30	11	14	*11
18	7.5	15	14	23	14	18	105	56	30	12	13	11
19	*10	15	15	22	13	20	106	53	28	12	13	13
20	12	15	15	22	17	23	129	61	28	13	12	12
21	13	15	*14	20	16	25	140	*62	24	14	12	12
22	15	*16	16	19	17	32	158	68	25	12	9.6	12
23	14	14	21	21	17	41	172	64	27	15	9.6	10
24	15	15	41	19	17	57	193	63	25	15	10	11
25	15	15	36	19	17	80	170	60	24	15	11	9.2
26	16	14	30	19	17	89	158	65	25	14	11	10
27	15	14	25	22	17	90	144	64	24	14	12	9.6
28	16	14	23	19	17	71	132	*68	19	13	12	9.6
29	17	14	20	16	*17	63	118	62	16	13	12	8.8
30	16	14	20	17	-----	63	111	52	17	12	12	9.2
31	15	-----	20	16	-----	74	-----	49	-----	11	12	-----
Total	379.5	432	568	598	459	1,055	3,117	2,560	1,036	429	354.6	322.6
Mean	12.2	14.4	18.3	19.3	15.3	34.0	104	82.6	34.5	13.8	11.4	10.8
Ac-ft	753	857	1,130	1,190	910	2,090	6,180	5,080	2,050	851	703	640
Calendar year 1955:	Max	103		Min	6.1	Mean	22.0	Ac-ft	15,930			
Water year 1955-56:	Max	193		Min	6.1	Mean	30.9	Ac-ft	22,430			

Peak discharge (base, 120 cfs).--Apr. 24 (8 a.m.) 196 cfs (3.86 ft); May 6 (2 a.m.) 154 cfs (3.57 ft).

* Discharge measurement made on this day.

Provo River near Kamas, Utah

Location.--Lat 40°35'00", long 111°00'30", in NE $\frac{1}{4}$ 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 1956.

Gage.--Water-stage recorder. Altitude of gage is 8,110 ft (by barometer).

Average discharge.--7 years, 52.1 cfs (37,720 acre-ft per year).

Extremes.--Maximum discharge during year, 536 cfs June 1 (gage height, 3.26 ft); minimum, 3.0 cfs Sept. 26, 27.

1949-56: Maximum discharge, 765 cfs May 27, 1951 (gage height, 3.49 ft); minimum, 2.7 cfs Oct. 26, 1954, Oct. 28, 29, Nov. 5, 1954.

Remarks.--Records good except those for periods of ice effect or no gage-height record, 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 tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 12-20)

Oct. 1 to May 20					May 21 to Sept. 30				
0.7	4.0	1.4	44		0.6	2.6	1.4	34	
.8	6.3	1.7	92		.7	3.9	1.7	68	
.9	9.5	2.0	162		.8	5.8	2.2	173	
1.0	14	2.5	322		.9	8.3	3.0	432	
1.2	25	3.0	535		1.2	20			

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.0	5.2					15	51	*410	94	70	15
2	5.7	b5.5					14	60	428	83	68	15
3	5.5	6.0		b7.5			13	82	391	87	67	18
4	5.5	6.0					13	117	348	82	67	16
5	5.5	5.5	b6.5				13	146	308	80	66	16
6	5.2			7.5			b13	168	269	80	59	16
7	5.2	b5.5		7.5		7.0	12	196	256	85	66	13
8	5.0			7.2			13	214	259	94	64	11
9	5.0		7.2	7.8			13	208	241	80	64	16
10	4.8	5.2	7.2	7.2			16	176	238	80	50	20
11	5.0	6.6	6.9	7.2			19	127	253	*96	37	12
12	4.8	19	6.9	7.2			21	100	253	100	37	8.6
13	4.6	b10	6.6	7.2			20	84	*229	98	36	7.3
14	4.4		b7.0	7.2			19	77	206	98	37	6.3
15	4.4		b7.0				20	88	195	96	*37	5.6
16	4.2	b6.0	6.6		7.0		28	136	156	94	37	5.0
17	*4.2		7.2	b7.0			32	220	121	94	37	4.2
18	4.2		7.2				29	290	94	94	36	3.9
19	4.2	6.9	7.5				*32	349	78	83	37	3.7
20	5.7	7.2	6.9				44	360	82	91	40	*3.7
21	6.3	7.2	6.9	7.8		10	62	*334	83	91	39	3.7
22	6.0		7.2	7.8			75	342	80	83	38	3.6
23	5.5	b6.5	9.2				79	381	78	67	38	3.4
24	4.6		11				80	370	75	70	39	3.4
25	4.6		12				79	*352	72	70	43	3.2
26	4.6	6.9	10	b7.0			82	321	66	70	43	3.2
27	4.8	6.9	10			*14	86	301	72	70	42	3.2
28	4.2	6.6	9.5			14	68	259	98	72	40	3.3
29	5.0	*6.3	b8.5			14	59	223	106	72	36	3.2
30	5.2	6.3	b8.5			15	52	289	89	70	33	4.2
31	5.0	-----	8.2			16	-----	370	-----	70	27	-----
Total	155.1	201.3	237.2	224.1	203.0	288.0	1,121	6,791	5,634	2,614	1,430	250.7
Mean	5.00	6.71	7.65	7.23	7.0	9.29	37.4	219	188	84.3	46.1	8.36
Ac-ft	308	399	470	444	403	571	2,223	13,470	11,170	5,180	2,840	497
Calendar year 1955: Max 345 Min - Mean 40.1 Ac-ft 29,040												
Water year 1955-56: Max 428 Min 3.2 Mean 52.3 Ac-ft 37,980												

Peak discharge (base, 400 cfs).--May 19 (7:30 p.m.) 494 cfs (3.10 ft); June 1 (8:30 p.m.) 536 cfs (3.26 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.--No gage-height record Feb. 1 to Mar. 26; discharge estimated on basis of weather records and records for station near Hailstone.

Weber-Provo diversion canal near Woodland, Utah

Location.--Lat 40°36'40", long 111°18'15", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 30, T. 2 S., R. 6 E., on right bank 100 ft up*stream from outlet to Provo River and $\frac{1}{2}$ miles northwest of Woodland.

Records available.--October 1931 to September 1956 (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.--1931-56: Maximum daily discharge, 837 cfs May 21, 22, 1956; no water diverted from Weber River or Beaver Creek for several months during each year.

Remarks.--Records good. Canal diverts water from Weber River in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 21, T. 1 S., R. 6 E., and from Beaver Creek in NE $\frac{1}{4}$ SE $\frac{1}{4}$ 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 reaches Provo River due to evaporation, transpiration, and seepage losses. No water was diverted from Weber River or Beaver Creek on days for which no figures are given. For records at head of canal see p. 86.

Discharge, in cubic feet per second, November 1955 to July 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		-	38	60	24	48	81	263	571	113		
2		-	37	63	25	46	78	256	488	88		
3		-	34	54	30	47	77	252	406	75		
4		-	34	71	40	48	76	195	97	62		
5		-	26	77	48	48	84	146	126	46		
6		-	27	68	50	37	80	143	550	40		
7		7.9	36	61	49	32	86	140	630	36		
8		29	30	62	46	55	101	151	641	31		
9		23	30	51	45	46	98	277	651	12		
10		23	36	58	46	47	118	461	657			
11		26	32	55	47	39	143	442	614	*12		
12		22	39	56	48	29	160	398	430	9.5		
13		24	36	54	48	41	170	374	*260	6.1		
14		25	33	54	48	50	170	345	27	3.7		
15		23	33	57	43	43	164	309	4.9	-		
16		20	35	68	44	46	192	309	42	-		
17		17	35	63	41	48	215	361	88	-		
18		33	35	56	46	49	231	476	112	-		
19		44	36	61	36	54	209	676	260	-		
20		44	36	59	41	58	242	775	227	-		
21		54	35	57	48	56	260	*837	231	-		
22		50	37	57	46	63	237	837	227	-		
23		33	48	56	48	72	239	478	215	-		
24		38	140	45	46	78	239	437	208	-		
25		33	195	39	41	83	237	478	193	-		
26		*31	157	52	47	84	246	611	170	-		
27		35	124	61	43	83	263	608	140	-		
28		36	107	46	37	79	226	603	130	-		
29		38	86	42	45	77	267	584	134	-		
30		37	69	37	-----	*78	*261	595	125	-		
31		-----	88	34	-----	80	-----	619	-----	-		
Total		-	1,764	1,734	1,244	1,744	5,250	13,438	8,654.9	-		
Mean		-	56.9	55.9	42.9	56.3	175	433	288	-		
Ac-ft		-	3,500	3,440	2,470	3,460	10,410	26,650	17,170	-		
Calendar year		: Max		Min		Mean		Ac-ft				
The period		: Max -		Min -		Mean -		Ac-ft	69,690			

* Discharge measurement made on this day.

JORDAN RIVER BASIN

Provo River near Hailstone, Utah

Location.--Lat 40°36', long 111°22', in SE $\frac{1}{4}$ 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 1956.

Gage.--Water-stage recorder. Altitude of gage is 6,100 ft (from river-profile map).

Extremes.--Maximum discharge during year, 3,030 cfs May 20 (gage height, 6.32 ft); minimum, 23 cfs Sept. 26.
1949-56: Maximum discharge, that of May 20, 1956; minimum, 17 cfs Aug. 31, 1954.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Records include flow of Weber-Provo diversion canal and Duchesne tunnel. Flow affected by irrigation diversions above and storage in several small reservoirs at headwaters.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	62	47	114	b135	88	b120	265	633	2,030	359	128	62
2	59	51	109	b140	88	b120	254	633	*1,960	337	119	44
3	56	57	107	b130	100	125	*243	633	1,780	295	119	44
4	56	62		b155	112	129	229	678	1,320	267	110	48
5	56	62		164		127	249	823	1,190	234	105	50
6	56	60		151		112	219	862	1,520	214	96	49
7	54	65		139		98	235	1,070	1,530	212	89	48
8	54	80		141		136	260	1,220	1,520	212	91	48
9	53	82		119		131	251	1,340	1,480	202	89	49
10	51	83		133		133	280	1,480	1,430	181	86	56
11	51	93		129		118	330	1,330	1,410	*181	60	59
12	53	74		131		97	360	1,180	1,220	195	62	52
13	54	90	b100	129		116	365	996	*958	186	59	48
14	51	119		131		131	385	829	628	177	60	41
15	50	83		139		119	370	766	853	168	*61	41
16	50	95		*175	b115	127	450	914	794	164	62	38
17	*50	93		153		133	500	1,310	673	160	64	41
18	49	110		133		141	520	1,650	608	160	62	37
19	50	123		145		164	500	2,340	732	156	62	38
20	63	129	(*)	143		175	600	2,680	668	152	60	*32
21	62	157		136		170	680	*2,520	640	150	59	28
22	60	141		135		196	690	*2,450	603	150	59	33
23	60	109	282	135		221	700	2,330	555	142	56	36
24	57	114	412	112		237	700	2,250	517	128	62	37
25	53	114	525	105		245	690	*2,260	473	127	80	32
26	50	*112	333	121		250	700	2,300	414	123	87	25
27	57	116	266	157	(*)	250	730	2,240	363	117	87	26
28	60	114	229	129		240	630	2,190	379	115	87	35
29	57	110	191	114		249	650	1,730	393	128	84	37
30	59	110	164	110	-----	263	*624	1,770	376	136	76	41
31	60	-----	191	105	-----	270	-----	*2,010	-----	130	71	-----
Total	1,713	2,655	4,823	4,174	3,263	5,143	13,679	47,417	29,017	5,660	2,452	1,255
Mean	55.3	95.2	156	135	113	166	456	1,530	967	183	79.1	41.8
Ac-ft	3,400	5,660	9,570	8,280	6,470	10,200	27,130	94,050	57,550	11,230	4,860	2,490
Calendar year 1955: Max 1,810				Min 43	Mean 232	Ac-ft 167,900						
Water year 1955-56: Max 2,680				Min 25	Mean 332	Ac-ft 240,900						

Peak discharge (base, 1,200 cfs).--May 10 (4:30 p.m.) 1,540 cfs (4.79 ft); May 20 (6 a.m.) 3,030 cfs (6.32 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Mar. 25-27, 31, Apr. 1, 10-29, Aug. 11-14; discharge estimated on basis of weather records and records for nearby streams.

b Stage-discharge relation affected by ice.

Deer Creek Reservoir near Charleston, Utah

Location.--Lat 40°24', long 111°32', in SW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 5, T. 5 S., R. 4 E., at dam on Provo River, a quarter of a mile upstream from Deep Creek and 4 $\frac{1}{2}$ miles southwest of Charleston.

Drainage area.--560 sq mi.

Records available.--December 1940 to September 1956.

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, 154,000 acre-ft June 9, 10 (elevation, 5,417.53 ft); minimum, 69,200 acre-ft Oct. 6 (elevation, 5,376.70 ft).
1940-56: Maximum contents, 154,800 acre-ft June 19, 1946 (elevation, 5,417.65 ft); minimum, 1,200 acre-ft Dec. 16, 1940 (elevation, 5,296.8 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 1955-56 (elevation, in feet,
and contents, in acre-feet)
(Capacity table furnished by Bureau of Reclamation)

5,376	68,090	5,400	112,000
5,380	74,520	5,405	123,000
5,385	83,040	5,410	134,600
5,390	92,140	5,415	147,300
5,395	101,800	5,420	160,800

Contents, in acre-feet, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70,230	71,190	76,340	87,300	91,120	88,440	87,150	89,220	152,200	148,800	124,000	101,200
2	69,950	71,190	76,540	87,280	91,120	88,220	87,380	89,510	153,800	148,400	123,200	100,400
3	69,430	71,190	76,710	87,110	91,240	88,110	87,560	89,860	153,800	147,800	122,200	99,800
4	69,470	71,190	76,820	87,070	91,360	88,070	87,670	100,400	153,500	147,100	121,700	99,160
5	69,280	71,190	76,970	87,070	91,400	87,950	87,760	101,100	153,400	146,400	121,000	98,480
6	69,200	71,190	77,130	87,020	91,530	87,760	87,800	101,900	153,600	145,700	120,300	97,990
7	69,250	71,240	77,300	86,930	91,630	87,530	87,930	102,900	153,800	144,900	119,600	97,410
8	69,330	71,320	77,350	86,840	91,800	87,310	88,110	104,100	153,900	144,200	118,900	96,790
9	69,410	71,470	77,400	86,890	91,880	87,130	88,160	105,600	154,000	143,500	118,100	96,160
10	69,440	71,560	77,490	86,840	91,920	86,950	88,290	107,400	154,000	142,600	117,300	95,490
11	69,480	71,630	77,570	87,020	92,000	86,710	88,470	108,900	153,800	141,700	116,400	94,820
12	69,520	71,790	77,720	87,200	92,100	86,440	88,710	110,000	153,500	140,900	115,700	94,150
13	69,560	72,160	77,820	87,380	92,280	86,230	89,070	111,000	153,200	139,900	115,000	93,420
14	69,710	72,530	77,910	87,560	92,190	86,040	89,430	111,700	152,800	139,000	114,300	92,740
15	69,800	72,690	77,990	87,870	92,950	85,810	89,730	112,300	152,600	138,100	113,500	92,140
16	69,790	72,840	78,150	88,240	91,670	85,590	90,180	113,100	152,600	137,100	112,800	91,520
17	69,800	73,000	78,250	88,470	91,400	85,410	90,740	114,700	152,600	136,300	112,100	90,930
18	69,830	73,100	78,330	88,680	91,170	85,240	91,300	116,300	152,500	135,400	111,300	90,430
19	69,790	73,360	78,420	88,840	90,930	85,060	91,920	119,400	152,400	134,500	110,600	89,910
20	69,800	73,690	78,570	89,030	90,650	84,880	92,700	122,300	152,200	133,700	109,800	89,360
21	69,880	74,180	78,680	89,210	90,430	84,700	93,420	126,500	152,000	132,900	109,100	88,810
22	69,960	74,520	79,120	89,450	90,190	84,640	94,140	130,800	152,000	131,900	108,300	88,310
23	70,040	74,770	80,810	89,590	90,040	84,770	94,970	132,900	151,800	131,000	107,600	87,800
24	70,120	74,970	82,550	89,690	89,870	84,950	95,770	135,100	151,600	130,000	106,800	87,310
25	70,260	75,130	83,970	89,910	89,690	85,180	96,480	138,000	151,200	129,300	106,000	86,860
26	70,360	75,300	85,000	90,320	89,450	85,450	97,160	141,200	150,800	128,600	105,200	86,480
27	70,500	75,470	85,700	90,690	89,220	85,770	97,750	144,900	150,400	127,700	104,500	86,040
28	70,660	75,630	86,210	90,870	88,980	86,030	98,220	147,900	149,900	126,900	103,800	85,590
29	70,870	75,850	86,580	90,980	88,710	86,260	98,610	149,400	149,500	126,200	103,200	85,140
30	71,080	76,060	86,950	91,080	-----	86,530	98,920	150,100	149,200	125,400	102,500	84,640
31	71,160	-----	87,260	91,120	-----	86,800	-----	151,200	-----	124,700	101,800	-----
(†)	5,377.93	5,380.95	5,387.35	5,389.45	5,388.15	5,387.10	5,393.55	5,416.48	5,415.74	5,405.78	5,395.02	5,395.90
(*)	+700	+4,900	+11,200	+3,860	-2,410	-1,910	+12,120	+52,280	-2,000	-24,500	-22,900	-17,160

Calendar year 1955..... † +16,470
Water year 1955-56..... * +14,180

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

JORDAN RIVER BASIN

Provo River below Deer Creek Dam, Utah

Location.--Lat 40°24'10", long 111°31'45", in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 7, T. 5 S., R. 4 E., 200 ft upstream from Deer Creek, 1,000 ft downstream from Deer Creek Dam, and 4 miles north-east of Vivian Park.

Drainage area.--560 sq mi.

Records available.--May 1953 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 5,270 ft (from topographic map).

Extremes.--Maximum discharge during year, 1,860 cfs June 3 (gage height, 6.34 ft); minimum daily, 99 cfs Oct. 15.

1953-56: Maximum discharge, that of June 3, 1956; minimum daily, 77 cfs Apr. 1, 1954.

Remarks.--Records good. Flow regulated by Deer Creek Reservoir (see preceding page), and 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. Records include flow of Weber-Provo diversion canal (see p. 99) and Duchesne tunnel (see p. 107).

Rating tables, water year 1955-56 (gage height, in feet,
and discharge, in cubic feet per second)
(Shifting-control method used Dec. 23 to Feb. 14)

Oct. 1 to Jan. 15		Jan. 16 to Sept. 30	
2.3	91	2.6	225
2.5	125	3.0	329
3.0	241	4.0	645
3.5	395	5.0	1,080
		6.0	1,660

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	269	167	198	290	244	394	286	*478	1,380	507	475	391
2	269	167	195	348	244	397	286	478	1,440	514	485	374
3	268	169	195	335	244	397	*313	478	1,520	514	463	363
4	266	169	195	335	241	394	332	475	1,580	514	460	354
5	269	169	195	335	241	391	332	475	1,150	514	460	365
6	114	169	195	342	241	388	332	475	1,090	514	460	365
7	105	169	195	351	241	388	332	475	1,360	517	460	371
8	102	169	208	348	241	391	332	485	1,440	520	460	374
9	104	122	190	336	241	391	332	491	1,460	*517	472	377
10	105	167	188	225	241	388	340	501	1,440	514	469	379
11	102	167	195	220	239	388	340	501	*1,440	514	469	382
12	101	167	190	220	239	388	355	501	1,350	507	458	379
13	102	167	188	228	238	388	337	501	1,010	507	*426	371
14	102	172	190	241	331	388	337	501	759	507	*429	371
15	99	169	192	247	414	385	340	497	656	510	432	365
16	109	167	192	*246	408	385	343	488	588	514	435	363
17	125	169	192	244	405	385	343	485	606	507	458	349
18	*125	181	188	244	397	388	343	488	606	504	438	337
19	139	188	185	241	394	388	343	494	588	507	435	*337
20	147	192	*185	244	391	388	343	527	567	504	426	326
21	147	200	185	244	391	391	346	616	524	504	426	326
22	147	200	185	244	391	391	351	622	514	504	429	324
23	147	200	185	244	391	388	351	853	514	497	423	324
24	143	196	185	244	391	286	349	*1,020	514	497	420	321
25	121	*198	185	244	391	286	363	851	524	484	420	307
26	123	198	185	244	391	286	426	652	514	372	420	316
27	123	198	185	244	*391	288	463	652	472	507	423	316
28	125	195	185	244	391	288	463	656	469	510	423	310
29	123	195	185	244	394	288	463	1,070	463	510	423	307
30	123	195	185	244	-----	286	478	1,350	475	510	423	307
31	149	-----	185	244	-----	286	-----	*1,340	-----	504	420	-----
Total	4,487	5,353	5,866	8,305	9,397	11,234	10,680	19,508	26,993	15,695	13,661	10,451
Mean	145	176	190	268	324	362	356	629	900	503	441	348
Ac-ft	8,900	10,620	11,670	16,470	18,640	22,280	21,180	38,690	53,540	30,950	27,100	20,730
Calendar year 1955: Max		600		Min	96		Mean	285		Ac-ft	206,100	
Water year 1955-56: Max		1,580		Min	99		Mean	387		Ac-ft	280,800	

* Discharge measurement made on this day.

Provo River at Vivian Park, Utah

Location.--Lat 40°21'40", long 111°33'45", in NW¹/₄ NW¹/₄ sec. 25, T. 5 S., R. 3 E., on right bank half a mile downstream from North Fork, 3,500 ft northeast 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 1956.

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, 1,760 cfs June 4 (gage height, 5.64 ft); minimum daily, 106 cfs Oct. 7, 8.

1911-56: 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 period of no gage-height record, which are fair. Flow regulated by Deer Creek Reservoir, (see p. 101), and 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. Records include flow of Weber-Provo diversion canal (see p. 99), and Duchesne tunnel (see p. 107).

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 27 to May 6, May 22, 23)

Oct. 1 to May 23		May 24 to Sept. 30	
1.6	92	2.4	291
2.0	165	3.0	474
3.0	430	4.0	857
4.0	802	5.0	1,400
5.0	1,320	6.0	1,980

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.		
1	278	182	227	389	257	*411	296	*490	1,430	557	505	403		
2	273	184	225		257	411	296	490	1,480	561	494	390		
3	273	184	225		282	414	*321	490	1,580	561	488	378		
4	278	186	222		285	411	347	490	1,620	561	488	366		
5	283	186			287	408	350	497	1,250	557	484	361		
6	116	186		380	267	408	347	497	1,140	554	484	375		
7	106	182			287	404	347	500	1,400	561	484	384		
8	106	182			287	401	347	508	1,460	561	484	387		
9	110	132			285	401	350	518	1,500	*561	491	390		
10	110	180	230		265	401	361	532	1,500	557	488	394		
11	108	182			267	401	364	536	1,490	557	488	394		
12	106	182			285	401	358	532	*1,420	550	451	390		
13	110	182			225	401	355	536	1,120	554	*435	381		
14	110	193			340	404	358	528	848	554	444	381		
15	112	188			440	404	364	528	720	554	451	375		
16	121	182	230		437	401	370	522	645	557	451	369		
17	139	188	232		430	404	373	514	648	550	451	357		
18	*137	195	232		420	408	373	522	645	543	451	*339		
19	155	204	232	*265	411	411	373	536	641	547	451	339		
20	165	210	*232	262	414	411	379	593	626	547	444	325		
21	163	225	232	257	414	414	382	696	575	547	441	325		
22	163	222	234	257	411	417	392	768	561	550	441	322		
23	161	222	321	262	411	392	398	966	561	540	435	322		
24	159	220	278	254	414	283	395	*1,150	568	540	435	311		
25	136	*218	305	254	411	288	404	993	572	520	435	308		
26	136	218	260	254	411	291	477	740	575	378	435	311		
27	136	218	252	280	408	294	500	740	529	532	438	316		
28	137	218	250	257	408	294	490	744	522	536	438	311		
29	136	218	244	257	408	294	490	1,130	518	536	438	311		
30	136	220	240	260	-----	294	494	1,390	529	536	441	311		
31	157	-----	240	260	-----	294	-----	*1,380	-----	529	435	-----		
Total	4,816	5,889	7,443	9,108	9,984	11,671	11,451	21,054	28,693	18,848	14,219	10,646		
Mean	155	196	240	294	344	378	382	679	956	543	459	355		
Ac-Ft	9,550	11,680	14,760	18,070	19,900	23,150	22,710	41,760	56,910	33,420	28,200	21,120		
Calendar year 1955: Max	834			Min	106			Mean	312			Ac-ft	225,900	
Water year 1955-56: Max	1,620			Min	106			Mean	415			Ac-ft	301,100	

* Discharge measurement made on this day.

Note.--No gage-height record Dec. 5-15 and Jan. 2-18; discharge estimated on basis of weather records and records for station below Deer Creek Reservoir.

JORDAN RIVER BASIN

South Fork Provo River at Vivian Park, Utah

Location.--Lat 40°21'10", long 111°34'10", in NW¹/₄SE¹/₄ 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 1956.

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, 33 cfs Dec. 23 (gage height, 1.00 ft); minimum, 5.4 cfs July 28.

1911-56: Maximum discharge observed, 123 cfs May 27, 1922; minimum, 5.4 cfs May 28, 29, 1954, Sept. 11, 1955, July 28, 1956.

Remarks.--Records good except those for periods of no gage height record, which are fair. Flow affected by irrigation diversions above, and diversion for city of Provo municipal supply which bypasses gaging station.

Rating table, water year 1955-56* (gage height, in feet,
and discharge, in cubic feet per second)

0.3	4.5
.6	14
.9	28

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	15	16	14		12	13	*18	17		14	14
2	14	15	15	14		12	13	17	15		15	13
3	14	12	15	14		12	*12	16	14		14	10
4	15	11	15	14		11	12	17	14		14	10
5	15	14	14	14		11	12	16	14	12	13	9.4
6	15	14	15	14		11	12	16	11		13	8.1
7	14	15	15	14		11	12	16	11		13	7.7
8	14		14	13		11	12	16	*13		13	9.0
9	14		14	13		11	12	13	14		13	11
10	15		14	13		11	12	12	13	*12	10	13
11	14		14	13		11	12	16	13	12	7.4	15
12	14	14	14	13		12	12	16	13	9.7	10	14
13	14		14	13	13	12	12	16		8.1	14	13
14	14		14	13		12	13	16		8.4	*14	13
15	14		14	14		12	13	15		9.0	12	13
16	14		14	16		12	13	13		13	9.4	13
17	14		14	14		12	14	7.7		14	10	13
18	*14		14	14		12	14	9		13	9.7	11
19	14		14	*14		12	14	11		12	13	*10
20	14	15	*14			11	14	12		12	13	11
21	13		14			11	16	13	12	12	13	13
22	13		14			12	18	14		12	13	13
23	13		20			12	18	15		14	13	13
24	14		16			12	18	19		13	13	13
25	14	*16	16	13		12	18	20		13	13	14
26	14	16	16			12	18	17		12	13	13
27	14	16	16		*12	12	19	15		10	14	13
28	14	16	15		12	12	19	*17		6.2	14	14
29	14	15	15		12	12	18	19		9.4	14	14
30	14	15	14		-----	12	18	17		14	13	14
31	14	-----	14		-----	12	-----	17	-----	15	13	-----
Total	435	437	457	417	374	362	433	473.7	378	361.8	390.5	365.2
Mean	14.0	14.6	14.7	13.5	12.9	11.7	14.4	15.3	12.6	11.7	12.6	12.2
Ac-ft	863	867	906	827	742	718	859	940	750	718	775	724
Calendar year 1955: Max 20 Min 6.0 Mean 13.9 Ac-ft 10,100												
Water year 1955-56: Max 20 Min 6.2 Mean 13.3 Ac-ft 9,690												

* Discharge measurement made on this day.

Note.--No gage-height record Nov. 6-24, Jan. 20 to Feb. 26 and June 13 to July 9; discharge estimated on basis of recorded range in stage, weather records and records for nearby streams.

Provo River at Provo, Utah

Location.--Lat 40°14'15", long 111°41'55", in NW¹SE¹ 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.

Records available.--May 1903 to June 1905 (gage heights only), May 1933 to September 1934, January 1937 to September 1956. 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.

Average discharge.--20 years (1933-34, 1937-56), 175 cfs (126,700 acre-ft per year).

Extremes.--Maximum discharge during year, 960 cfs June 4 (gage height, 3.21 ft); minimum not determined, occurred during period of no gage-height record. 1903-5, 1933-34, 1937-56: Maximum discharge, 2,520 cfs May 6, 1952 (gage height, 6.37 ft); practically no flow during several periods.

Remarks.--Records good except for periods 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. 101) 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. 99) and Duchesne tunnel (see p. 107). Certain diversions for industrial use are made above station and reaches Provo Bay, an arm of Utah Lake, however part of this flow is used for irrigation.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 13 to Jan. 12, Jan. 31 to Mar. 25, May 29, Aug. 12-15, 17-21, 24, 25)

Oct. 1 to May 29

May 30 to Sept. 30

0.2	4	1.0	64
.3	8	1.4	124
.5	19	2.0	274
.7	34	2.5	455

0.1	2.4	1.2	126
.2	5.0	1.7	261
.3	11	2.3	516
.5	27	3.0	865
.8	61		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	19	110	227	277	241	*391	259	45	685	11		6.2
2	15	120	227	364	244	379	259	63	725			5.6
3	17	132	224	372	238	375	287	71	770			5.0
4	15	138	222	368	236	383	303	*50	855			5.6
5	17	144	222	368	244	383	306	62	570			4.7
6	15	151	230	364	250	375	303	52	431			4.1
7	10	153	227	361	256	372	303	46	615			4.7
8	14	148	224	358	253	368	300	45	*725			5.6
9	19	109	227	358	250	368	280	37	740	*6.9		11
10	16	159	222	280	250	368	287	34	750	8.1		13
11	12	162	224	233	241	364	290	43	735	a5.0		19
12	9.5	159	222	230	241	358	262	31	675	a5.0	2.4	13
13	9.5	162	224	224	208	358	227	70	505	a5.0	3.1	7.5
14	9.0	160	224	238	284	361	233	58	252	6.9	*2.9	
15	7.6	176	227	250	375	361	227	41	113	6.9	2.9	
16	6.8	171	227	274	383	364	206	27	64	a5.0	a2.0	
17	7.2	183	227	250	383	368	178	22	50	a5.6	2.7	
18	*7.6	190	227	238	383	364	155	20	49	6.2	4.7	
19	10	200	227	*241	375	364	138	25	60	4.4	6.9	
20	38	206	*227	241	375	368	106	35	60		6.9	
21	54	*222	230	244	375	368	100	56	46		3.4	
22	61	224	227	244	375	372	82	71	27		a2.1	
23	62	219	261	256	379	372	60	218	20		a2.1	11
24	64	219	293	247	387	306	48	*455	21		2.9	8.1
25	64	219	290	247	391	284	49	384	20		3.4	4.4
26	71	219	259	247	391	284	28	148	13		3.4	4.4
27	76	219	241	259	391	277	20	120	11		3.4	5.6
28	77	219	244	253	391	274	31	132	7.5		3.6	6.2
29	76	216	241	247	395	287	37	388	9.3		6.2	4.7
30	77	216	241	247	-----	256	35	710	10		4.4	6.2
31	84	-----	241	244	-----	*256	-----	*700	-----		5.0	-----
Total	1,042.2	5,345	7,296	8,624	9,185	10,728	5,399	4,257	9,619.8	153.0	96.4	182.6
Mean	35.6	178	235	278	317	346	180	137	321	4.94	3.11	6.09
Ac-ft	2,070	10,600	14,470	17,110	18,220	21,280	10,710	6,440	19,080	303	191	362
Calendar year 1955: Max	293								62,570			
Water year 1955-56: Max	855								122,800			

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of 1 discharge measurement, available trace, and records for other Provo River stations.

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--55 sq mi, approximately.

Records available--October 1945 to September 1956 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--29 years, 53.1 cfs (38,440 acre-ft per year).

Extremes--Maximum discharge during year, 344 cfs May 25 (gage height, 6.19 ft); minimum daily, 13 cfs Nov. 15, 16.
1927-56: Maximum discharge not determined, occurred July 30, 1953 (gage height, 9.2 ft, from floodmark); minimum discharge, 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. Fifteen discharge measurements were made by Geological Survey in addition to those made by the power company.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 14, 15, 24-31, Sept. 20-30)

4.4	13	5.5	143
4.5	18	6.0	258
4.7	31	6.3	358
5.0	63		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	16	19	19	15	*14	33	93	*256	95	35	23
2	18	16	18	19	16	14	30	93	238	*84	34	22
3	18	16	18	18	16	14	28	104	231	80	35	22
4	18	16	14	20	16	14	27	*117	214	77	34	22
5	18	16	15	19	16	14	27	134	209	75	33	22
6	18	16	16	19	16	14	25	137	219	72	33	22
7	17	16	16	18	16	14	25	147	226	72	33	21
8	17	16	16	18	16	15	27	147	207	72	32	22
9	16	16	16	18	16	16	28	151	209	*70	32	22
10	16	16	16	18	16	16	34	154	214	64	*31	21
11	17	16	16	18	16	15	41	141	209	63	30	21
12	17	15	16	*18	16	15	43	122	*198	61	30	21
13	16	16	16	18	16	15	44	111	195	59	*29	20
14	16	14	15	19	16	16	42	100	188	56	28	20
15	16	13	16	20	16	16	44	*96	184	52	28	20
16	16	13	16	23	*16	16	57	113	158	49	28	20
17	16	16	16	19	17	16	67	147	137	46	28	19
18	16	17	16	18	16	17	66	182	135	41	27	19
19	16	18	15	18	16	18	70	221	143	39	26	*19
20	16	18	15	*18	16	19	82	236	147	36	25	19
21	*16	*19	15	18	16	20	103	231	*132	33	25	*20
22	16	16	16	18	15	22	122	233	130	42	25	20
23	17	15	*49	18	15	24	134	266	126	52	25	19
24	17	18	47	16	15	28	130	274	124	49	25	19
25	17	16	44	16	14	31	120	300	119	49	25	19
26	18	18	32	17	14	33	120	298	113	43	24	19
27	*18	19	28	19	14	35	124	314	106	36	24	19
28	18	18	24	16	14	*32	111	*276	106	36	23	19
29	18	19	22	15	14	32	100	238	98	36	23	19
30	18	*18	21	15	-----	30	93	243	96	36	23	20
31	18	-----	21	15	-----	*33	-----	*268	-----	36	23	-----
Total	527	492	640	558	451	628	1,397	5,687	5,067	1,711	876	810
Mean	17.0	16.4	20.6	18.0	15.6	20.3	66.6	183	169	55.2	28.3	20.3
Ac-ft	1,050	976	1,270	1,110	895	1,250	3,960	11,280	10,050	3,390	1,740	1,210
Calendar year 1955: Max	256				Min 10		Mean 44.5		Ac-ft 32,230			
Water year 1955-56: Max	314				Min 13		Mean 52.6		Ac-ft 38,180			

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 16, Dec. 5, 8, Jan. 29, Jan. 31 to Feb. 3, Feb. 19, Mar. 12 and 15.

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. Records of daily flow collected by Geological Survey available in Salt Lake City district office.

Duchesne tunnel diverts water from the Duchesne River to the Provo River. Gage is located in NE $\frac{1}{4}$ sec. 2, T. 3 S., R. 8 E.

Strawberry tunnel whose west portal is in SW $\frac{1}{4}$ 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. 90) for complete record of daily discharge).

Hobbs Creek ditch diverts water from tributary of Strawberry River to Daniels Creek (a tributary of Provo River). Gage is located in NW $\frac{1}{4}$ sec. 15, T. 6 S., R. 6 E.

Strawberry River and Willow Creek ditches divert water from the Strawberry River basin to Daniels Creek. The flow of each is gaged in sec. 4, T. 2 S., R. 12 W., Uinta Special Meridian.

Transmountain diversion, in acre-feet, water year October 1955 to September 1956

Name	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Water year
Duchesne tunnel...	621	626	700	700	645	553	2,160	14,910	7,260	2,390	873	456	31,890
Strawberry tunnel...	1,800	298	307	307	268	339	537	5,140	21,030	18,280	17,330	6,400	74,060
Hobbs Creek ditch	8	2	1	0	0	0	0	909	328	11	1	2	1,260
Strawberry River and Willow Creek ditches...	13	0	0	0	0	0	0	172	1,140	594	274	158	2,350
Total in Utah...	2,440	926	1,010	1,010	933	892	2,700	21,130	29,760	21,280	18,480	9,020	109,600

Jordan River at narrows, near Lehi, Utah

Location--Lat 40°26'40", long 111°35'15", in SE $\frac{1}{4}$ NW $\frac{1}{4}$ sec. 26, T. 4 S., R. 1 W., at narrows, $\frac{5}{8}$ miles northwest of Lehi and $\frac{7}{8}$ 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 1956.

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, $\frac{7}{8}$ miles upstream at different datum.

Average discharge--43 years (1913-56), 371 cfs (268,600 acre-ft per year).

Extremes--1913-56: Maximum daily discharge, 1,410 cfs June 10, 1952; no flow at times when gates are closed.

Remarks--Records good except those for periods of no gage-height record, which are fair. They 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 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	302	31	17	1.7			1.4	592	550	751	763	711
2	295	31	17	1.2			.9	578	588	753	765	697
3	305	31	17	1.2			.9	568	608	758	754	695
4	350	31	17	9.0			15	557	605	784	759	699
5	350	31	22	20			50	545	559	784	754	701
6	346	31	20	23			52	516	574	788	750	694
7	357	31	17	25			19	512	565	814	745	669
8	321	31	18	23	2.0		9.5	514	572	815	744	657
9	304	31	18	16			16	514	603	817	745	611
10	334	31	18	14			16	512	607	811	747	629
11	346	31	18	5			18	506	619	804	752	664
12	354	31	18				14	350	640	808	751	641
13	355	31	18				16	184	639	815	752	614
14	355	29	18				11	180	644	814	750	609
15	127	23	18				16	259	645	809	747	630
16	36	27	18				14	329	644	797	742	613
17	39	19	18				12	353	649	792	737	608
18	40	17	18				15	530	702	795	760	606
19	136	17	18				11	559	730	792	774	602
20	191	17	18				3.4	605	726	797	775	600
21	195	17	18		2.0		77	612	727	802	773	594
22	85	17	18			1.0	78	608	730	773	771	594
23	30	17	18				74	612	731	753	770	596
24	30	17	18				76	638	750	758	765	588
25	30	17	19				138	643	757	759	764	559
26	30	17	12				413	648	757	751	750	541
27	29	17	2.5				491	640	757	750	707	523
28	30	17	2.5				539	624	754	758	723	505
29	30	17	2.2				584	524	753	766	733	546
30	30	17	2.2				575	437	747	768	727	533
31	30	-----	2.0				-----	489	-----	765	726	-----
Total	5,792	722	474.4	179.1	44.0	31.2	3,358.1	15,718	19,932	24,301	23,275	18,529
Mean	187	24.1	15.3	5.78	1.52	1.01	112	507	664	784	751	618
Ac-ft	11,490	1,450	941	355	87	62	6,660	31,180	59,550	48,200	46,170	36,750

Calendar year 1955: Max 855 Mir 2.0 Mean 280 Ac-ft 203,000
 Water year 1955-56: Max 817 Min - Mean 307 Ac-ft 222,900

No g. --No gage-height record Jan. 11 to Mar. 30; discharge estimated on basis of observer's notes.

Surplus Canal at Salt Lake City, Utah

Location.--Lat 40°43'40", long 111°55'35" (revised), 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 1956.

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. Since Dec. 31, 1946, auxiliary water-stage recorder about 1 mile downstream.

Average discharge.--13 years (1943-56), 199 cfs (144,100 acre-ft per year).

Extremes.--Maximum discharge during year, 633 cfs May 25 (gage height, 6.16 ft); minimum daily, 9.6 cfs Jan. 13, Feb. 20, June 26.
1942-56: Maximum discharge, 1,700 cfs June 7, 1952; maximum gage height, 8.84 ft May 7, 1952; minimum daily discharge, that of Jan. 13, Feb. 20, June 26, 1956.

Remarks.--Records fair. Flow regulated by headgates at diversion dam 350 ft above station. Canal was built to bypass flood water of Jordan River around Salt Lake City residential and industrial area (see p. 110) for records of combined flow of Jordan River and Canal.) Several diversions for irrigation below station.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	243	*94	*69	35	57	*52	91	158	*476	104	125	141
2	a211	90	71	35	49	56	*110	147	427	*150	*103	154
3	a198	84	75	26	52	57	102	*146	384	168	80	163
4	a195	81	67	28	47	56	98	150	362	171	35	158
5	a200	77	63	28	46	61	118	150	328	170	71	154
6	a197	85	64	35	45	57	150	176	318	135	63	*165
7	a190	99	*64	33	*35	45	149	182	275	122	52	166
8	a182	88	59	29	40	42	131	182	238	131	39	166
9	a158	88	61	32	32	50	117	155	218	141	17	174
10	a154	87	61	25	26	54	106	133	226	82	11	170
11	a149	114	59	21	18	50	98	146	210	42	32	150
12	a162	115	61	15	22	45	120	213	162	50	90	149
13	a165	101	63	9.6	36	35	110	227	178	43	81	144
14	a168	114	64	11	54	42	110	179	160	35	56	*134
15	a168	*112	*57	12	*40	*42	101	*150	*150	40	*88	142
16	a136	96	63	45	33	42	*101	138	211	*47	93	142
17	a139	94	67	*39	19	40	98	138	157	46	99	154
18	a118	87	68	18	21	43	98	133	99	80	104	152
19	*a112	101	70	12	11	45	102	171	82	85	115	146
20	117	120	73	14	9.6	57	99	317	106	73	125	146
21	136	93	80	15	17	60	94	320	130	80	114	154
22	128	70	74	14	42	61	107	301	122	107	144	155
23	117	54	63	12	43	94	110	344	75	115	110	162
24	93	53	78	15	59	115	154	475	118	75	118	168
25	84	50	94	12	47	123	157	553	66	99	102	165
26	87	52	99	12	46	133	131	519	9.6	91	106	150
27	120	53	75	48	43	123	133	559	109	78	131	163
28	114	52	45	94	43	118	171	555	90	47	131	171
29	106	52	43	88	43	99	184	517	88	60	136	163
30	101	54	*42	80	-----	78	190	493	75	163	141	157
31	101	-----	35	63	-----	66	-----	502	-----	133	142	-----
Total	4,549	2,510	2,027	955.6	1,075.6	2,041	3,640	8,509	5,649.6	2,961	2,854	4,678
Mean	147	83.7	65.4	30.8	37.1	65.8	121	274	188	95.5	92.1	156
Ac-ft	9,020	4,980	4,020	1,900	2,130	4,050	7,220	16,890	11,210	5,870	5,660	9,280
Calendar year 1955: Max	334			Min	24	Mean	116	Ac-ft	84,130			
Water year 1955-56: Max	559			Min	9.6	Mean	113	Ac-ft	82,220			

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for Jordan River and auxiliary gage record trace.

Jordan River at Salt Lake City, Utah

Location.--Lat 40°43'40", long 111°55'25" (revised), in SW $\frac{1}{4}$ SW $\frac{1}{4}$ 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 1956.

Gage.--Water-stage recorder. Datum of gage is 4,220.73 ft above mean sea level, datum of 1929.

Average discharge.--13 years (1943-56), 150 cfs (108,600 acre-ft per year).

Extremes.--Maximum discharge during year, 279 cfs May 24 (gage height, 4.70 ft); minimum, 0.1 cfs Mar. 23.

Maximum combined discharge during year (Jordan River and Surplus Canal), 886 cfs May 25; minimum daily, 153 cfs Mar. 31.

1942-56: Maximum discharge, 334 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 for irrigation, industrial and municipal water supplies above station (see preceding page for records of Surplus Canal). For records of combined flow see following page.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	184	*153	*199	178	172	*168	91	150	*202	147	213	184
2	166	155	211	180	169	169	*90	139	199	*164	*209	189
3	160	154	206	173	170	168	86	*139	202	171	191	192
4	159	153	199	174	169	166	85	133	199	177	160	186
5	163	151	193	175	169	162	90	142	186	178	165	182
6	180	157	195	183	167	154	95	154	186	164	175	*187
7	196	160	198	184	*166	150	94	159	176	136	178	190
8	189	161	192	187	168	147	93	155	172	154	180	190
9	178	160	194	184	166	146	91	147	172	162	168	195
10	175	160	195	185	165	145	91	143	188	180	161	189
11	180	170	191	183	164	145	88	151	179	199	158	187
12	183	170	196	176	169	143	92	186	170	222	159	189
13	183	165	195	177	173	140	90	187	147	213	163	182
14	181	173	192	180	180	141	86	166	135	194	157	*178
15	180	*173	*184	188	*173	*139	85	*149	*126	215	*163	176
16	169	171	185	242	170	138	*88	150	176	*242	168	177
17	169	171	188	*234	166	137	88	153	157	235	177	162
18	160	168	189	207	166	139	89	152	150	217	177	179
19	*160	172	185	199	163	138	90	170	144	217	181	178
20	173	181	180	204	164	123	87	217	145	206	181	180
21	183	171	180	211	166	115	90	208	151	206	178	192
22	180	195	177	211	175	114	95	209	151	213	193	194
23	174	204	168	207	174	82	93	232	127	215	177	188
24	166	200	176	205	177	70	*98	251	105	207	171	191
25	162	198	162	203	173	72	96	234	152	214	165	187
26	163	193	179	214	171	74	108	213	169	211	163	183
27	172	188	184	205	167	76	131	240	145	207	173	183
28	168	185	185	187	164	83	154	250	137	201	172	183
29	163	181	185	184	165	89	161	221	136	210	178	181
30	159	178	*182	180	---	87	166	201	132	234	187	179
31	155	---	181	174	---	87	---	202	---	218	184	---
Total	5,333	5,171	5,846	5,974	4,901	3,907	2,981	5,603	4,816	6,129	5,425	5,555
Mean	172	172	189	193	169	126	99.4	181	161	198	175	185
Ac-ft	10,580	10,260	11,600	11,850	9,720	7,750	5,910	11,110	9,550	12,160	10,760	11,020
Calendar year 1955: Max	215			Min	96		Mean	152	Ac-ft	110,200		
Water year 1955-56: Max	251			Min	70		Mean	168	Ac-ft	122,300		

* Discharge measurement made on this day.

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 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	427	247	268	213	229	220	182	308	678	251	338	325
2	377	245	282	215	218	225	200	286	625	314	312	343
3	358	238	281	199	222	225	188	285	586	339	271	355
4	354	234	266	202	216	222	183	263	561	348	195	346
5	363	228	256	203	215	223	208	292	514	348	236	336
6	377	242	259	218	212	211	245	330	504	299	238	352
7	386	259	262	217	201	195	243	341	451	258	230	356
8	371	249	251	216	208	189	224	357	410	285	219	356
9	336	248	255	216	198	196	208	302	390	303	185	369
10	329	247	256	210	191	199	197	276	414	282	172	359
11	329	284	250	204	182	195	186	297	389	241	190	337
12	345	285	257	191	191	188	212	399	332	272	249	338
13	348	266	258	187	209	175	200	414	325	256	244	326
14	349	287	256	191	234	183	196	345	295	229	213	312
15	348	285	241	200	213	181	186	299	276	255	251	318
16	305	267	248	287	203	180	189	288	367	289	261	319
17	308	265	255	273	185	177	186	291	314	281	276	336
18	278	255	257	225	187	182	187	285	249	297	281	331
19	272	273	255	211	174	183	192	341	226	302	296	324
20	290	301	253	218	174	180	186	534	251	279	306	326
21	319	264	280	228	183	175	184	528	281	286	292	346
22	308	285	251	225	217	175	202	510	273	320	337	349
23	291	258	231	219	217	176	203	576	202	330	287	350
24	259	253	254	220	238	185	252	728	225	280	289	359
25	248	248	276	215	220	195	253	787	218	313	287	352
26	250	245	278	226	217	207	239	732	179	302	269	333
27	292	241	259	253	210	199	264	799	254	285	304	346
28	282	237	230	281	207	201	325	805	227	248	303	354
29	269	235	228	272	208	188	345	758	224	270	314	344
30	280	232	224	260	---	185	358	694	207	397	328	336
31	256	---	216	237	---	153	---	704	---	351	326	---
Total	9,882	7,681	7,873	6,930	5,977	5,948	6,621	14,112	10,466	9,090	8,279	10,233
Mean	319	256	254	224	206	192	221	455	349	293	267	341
Ac-ft	19,600	15,240	15,620	13,750	11,860	11,800	13,130	27,990	20,760	18,030	16,420	20,300
Calendar year 1955: Max	541			Min	141	Mean	268	Ac-ft	194,300			
Water year 1955-56: Max	805			Min	153	Mean	282	Ac-ft	204,500			

Sevier River at Hatch, Utah

Location.--Lat 37°39'00", long 112°25'30", 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.--260 sq mi, approximately.

Records available.--June 1911 to September 1928, June 1939 to September 1956.

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.--25 years (1912-13, 1914-16, 1917-18, 1922-23, 1924-27, 1939-56), 128 cfs (89,050 acre-ft per year).

Extremes.--Maximum discharge during year, 254 cfs May 25 (gage height, 2.20 ft); minimum, 38 cfs Sept. 14, 15 (gage height, 1.19 ft).

1911-28, 1939-56: 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, 36 cfs Feb. 19, 1952, Sept. 14, 15, 1956.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Small diversions for irrigation above station. No regulation since Hatchtown dam failed in 1914.

Revisions (water years).--WSP 960: 1939-40. WSP 1284: 1916.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.2	33
1.5	72
2.0	185
2.5	330

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	46	41	47	47		42	42	64	142	64	49	
2	46	41	47	47		45	42	72	127	61	46	
3	45	42		47		51	42	85	118	60	*45	a39
4	44	44		47		51	44	98	116	58	44	
5	45	44	b45	47		56	42	125	113	56	44	39
6	45	44		47	b40	51	42	149	105	55	44	39
7	45	44	44	47		50	42	177	100	*54	42	39
8	44	44	b44	46		42	44	204	94	54	42	
9	42	44	44	46		49	45	209	88	54	41	
10	*41	44	b44	46		53	47	196	85	53	40	a37
11	40	44	b44	46		47	49	175	77	53	42	
12	40	*44	44	46	40	51	50	162	77	51	42	
13	40	44	44	47	41	b52	45	152	72	51	44	
14	40	46	44	47	41	44	47	136	67	53	44	*36
15	40	47	44	47	41	45	46	120	66	51	45	36
16	40	53	44	47		42	46	116	67	49	45	37
17	40	50	*45	a44		44	47	122	66	49	44	37
18	40	51	46	a44	b40	44	47	144	66	49	44	37
19	41	51	49	a44		47	49	172	64	46	44	37
20	42	53	50	*41		45	46	207	64	46	42	37
21	41	53	51	44	40	42	46	198	63	47	41	37
22	41	53	51	45	40	42	49	207	61	47	41	37
23	41	54	53	46	*44	41	51	220	61	52	41	37
24	41	50	56	46	46	39	55	229	58	50	39	
25	41	49	56	46		39	61	223	60	47	39	37
26	41	47	55	47	b41	40	*64	218	58	51	39	37
27	41	46	54	50		40	72	196	58	54	39	37
28	41	47	51	51		40	74	193	56	53	39	37
29	41	47	50	b45	41	40	72	*172	56	54	a39	37
30	42	47	50	b45	-----	40	63	164	63	53	a39	37
31	41	-----	49	b45	-----	*41	-----	154	-----	51	a39	-----
Total	1,298	1,408	1,480	1,430	1,178	1,395	1,511	5,059	2,368	1,626	1,308	1,122
Mean	41.9	46.9	47.7	46.1	40.6	45.0	50.4	163	78.9	52.5	42.2	37.4
Ac-ft	2,570	2,790	2,940	2,840	2,340	2,770	3,000	10,030	4,700	3,230	2,590	2,230

Calendar year 1955: Max 167 Min 40 Mean 58.4 Ac-ft 42,240
 Water year 1955-56: Max 229 Min 36 Mean 57.9 Ac-ft 42,030

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 and records for stations near Circleville and Kingston.

b Stage-discharge relation affected by ice.

Sevier River near Circleville, Utah

Location--Lat 38°06', long 112°19', in SW¹ 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 1956.

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 1.23 ft higher.

Average discharge--15 years (1914-22, 1923-24, 1950-56), 177 cfs (128,100 acre-ft per year).

Extremes--Maximum discharge during year, 169 cfs May 10 (gage height, 2.07 ft); minimum daily, 24 cfs June 19, Aug. 10, 1912, 1914-27, 1949-56; 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 except those for periods of ice effect, which are fair. Many diversions above and below station.

Revisions (water years)--WSP 1180: 1922(M).

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 21 to Dec. 21)

0.9	19
1.2	42
1.6	88
2.1	173

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	31	43	99	91	71	96	47	33	102	40	35	28
2	29	40	96	87	46	96	48	37	96	33	32	28
3	30	44	89	87	b60	105	53	37	78	32	33	29
4	35	47	84	88	b75	115	51	34	67	31	34	30
5	35	50	74	74	b90	128	48	41	63	27	37	26
6	33	49	94	92	b90	120	46	67	59	27	37	28
7	35	47	95	94	b90	91	48	101	55	*28	34	27
8	36	*44	82	94	b90	91	44	132	50	28	33	28
9	37	50	94	89	81	101	47	148	42	32	28	29
10	37	54	92	89	84	120	44	156	41	32	*24	30
11	*39	43	94	89	94	110	44	152	40	34	29	28
12	40	30	92	89	88	74	44	121	34	38	26	27
13	41	59	95	91	91	88	41	105	32	32	26	27
14	44	67	94	91	98	99	37	99	30	34	30	*27
15	42	70	94	94	95	88	38	88	26	32	30	28
16	39	73	*92	98	91	91	39	78	27	29	29	29
17	39	84	91	89	75	95	38	69	28	28	29	33
18	36	97	92	84	64	95	44	67	26	28	29	32
19	38	94	92	84	88	102	43	71	24	27	29	32
20	39	105	95	*89	98	80	45	89	26	26	27	33
21	38	67	95	91	92	70	38	130	28	27	30	32
22	37	105	96	89	99	67	36	137	29	27	30	30
23	37	88	108	92	*101	61	37	141	31	27	29	29
24	37	88	126	96	116	70	35	148	29	26	30	31
25	38	88	121	94	95	80	34	154	27	27	33	29
26	40	88	107	98	94	75	*37	*154	25	29	31	30
27	39	94	102	116	84	70	35	148	25	32	27	28
28	39	96	98	110	91	63	37	137	26	40	28	29
29	43	96	92	96	95	60	32	155	27	45	30	29
30	46	101	95	89	-----	*52	29	116	39	48	29	32
31	46	-----	99	87	-----	51	-----	104	-----	42	27	-----
Total	1,175	2,101	2,959	2,841	2,556	2,704	1,239	3,229	1,232	985	933	878
Mean	37.9	70.0	95.5	91.6	88.1	87.2	41.3	104	41.1	31.8	30.1	29.3
Ac-ft	2,330	4,170	5,870	5,640	5,070	5,360	2,460	6,400	2,440	1,950	1,850	1,740

Calendar year 1955: Max 230 Min 19 Mean 69.0 Ac-ft 49,920
Water year 1955-56: Max 156 Min 24 Mean 62.4 Ac-ft 45,280

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

Sevier River near Kingston, Utah

Location--Lat 38°12', long 112°12', in NE¹/₄ 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 1956.

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--42 years, 136 c's (98,460 acre-ft per year).

Extremes--Maximum discharge during year, 184 cfs Nov. 22 (gage height, 1.50 ft); minimum daily, 6.2 cfs on May 19, 20, June 23-29, July 8, 9.

1914-56: 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, 1953.

Remarks--Records good except those for period when part of flow was diverted around control, which are fair. Many d.versions for irrigation above station.

Rating table, water year 1955-56, except for period when part of flow was diverted around control (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 15-29)

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 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	19		118	101	109	*38	17	21	8.4	8.4	8.4
2	13	21		118	70	109	43	16	18	9.1	9.1	7.7
3	14	27		118	76	115	27	16	15	9.1	9.1	7.7
4	*14	24	e115	118	94	123	25	16	12	9.1	9.1	7.7
5	14	27		109	105	132	22	14	12	9.1	9.1	7.7
6	13	23		118	109	138	22	8.4	13	*7.0	9.1	7.0
7	13	23	109	123	109	112	23	7.7	13	5.8	8.4	7.0
8	13	22	107	123	112	115	17	19	13	6.2	7.7	7.0
9	13	23	121	123	115	109	16	50	13	6.2	*7.0	7.0
10	13	23	123	118	112	123	18	63	13	7.0	*7.0	6.8
11	13	22	123	118	112	129	14	68	13	7.7	8.4	8.4
12	13	22	123	121	107	98	13	40	11	7.7	9.1	*8.4
13	13	*21	121	121	107	96	13	25	9.1	7.7	9.8	9.1
14	13	23	118	121	109	112	14	21	7.7	8.4	10	9.1
15	13	31	115	121	109	98	16	19	7.7	9.1	10	9.1
16	13	72	*112	126	112	101	16	15	7.7	9.1	9.8	9.1
17	13	94	115	123	96	107	15	11	7.7	9.8	9.8	9.1
18	13	98	115	118	96	107	16	6.6	7.0	10	9.8	9.8
19	13	115	115	*115	104	112	17	6.2	6.6	9.1	9.8	9.8
20	14	135	115	121	107	104	16	6.2	6.6	9.8	9.1	9.8
21	15	121	118	123	109	81	15	33	6.6	9.1	9.1	9.8
22	13	144	118	123	115	72	14	45	6.6	9.1	9.8	9.1
23	13	118	129	123	*112	68	16	53	6.2	9.8	10	8.4
24	14	112	151	123	148	66	15	59	6.2	9.1	9.8	8.4
25	14	118	151	118	126	68	14	*68	6.2	9.1	10	8.4
26	14		132	121	109	72	*14	70	6.2	9.8	9.1	8.4
27	14		126	135	101	70	15	68	6.2	9.1	8.4	8.4
28	15		123	138	107	72	16	61	6.2	9.1	9.1	9.1
29	17	e115	121	118	107	66	16	61	6.2	9.1	8.4	8.4
30	15		121	107	--	55	16	40	7.7	9.8	8.4	8.4
31	17	-----	126	107	-----	52	-----	27	-----	9.1	8.4	-----
Total	423	2,053	3,738	3,727	3,096	2,991	552	1,030.1	291.4	267.6	280.1	252.5
Mean	13.6	68.4	121	120	107	96.5	18.4	33.2	9.71	8.63	9.04	8.42
Ac-ft	839	4,070	7,410	7,390	6,140	5,930	1,090	2,040	578	531	556	501

Calendar year 1955: Max 209 Min 5.8 Mean 57.0 Ac-ft 41,250
Water year 1955-56: Max 151 Min 6.2 Mean 51.1 Ac-ft 37,080

* Discharge measurement made on this day.

e Part of flow being diverted around control, discharge partly estimated.

Otter Creek Reservoir near Antimony, Utah

Location.--Lat 38°10'15", long 112°00'00", in NW $\frac{1}{4}$ 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 1956 in reports of Geological Survey. 1915, 1934-45 in files of Salt Lake City district office, Geological Survey.

Gage.--Staff gage. Altitude of gage is 6,350 ft (by barometer).

Extremes.--Maximum contents observed during year, 20,640 acre-ft Apr. 20, 30, May 1 (gage height, 20.8 ft); minimum observed, 200 acre-ft Sept. 10 (gage height, 1.0 ft). 1914-15, 1934-56: Maximum contents observed, 55,000 acre-ft May 1, 1946, May 20, 1948, June 10, 20, 1949, June 10, 1952 (gage height, 37.0 ft); minimum observed, that of Sept. 10, 1956.

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 concrete core through the center. Capacity, 52,500 acre-ft between gage height zero (bottom of outlet gate) and gage height 36.0 ft (top of flashboards on spillway). Spillway crest is at gage height of 33.5 ft. Reservoir stores water from Otter Creek and also water diverted from East Fork Sevier River, for irrigation in Sevier River basin.

Capacity table, water year 1955-56 (elevation, in feet, and contents, in acre-feet)
(Capacity table furnished by Sevier River Water Commissioner)

1.0	200	7.0	3,700
3.0	1,000	10.0	6,500
5.0	2,200	15.0	12,000

Contents in acre feet, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	400	2,760	4,600	8,500	12,260	15,300	19,380	20,640	13,560	2,270	480	320
2	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-
10	1,120	3,140	5,800	9,500	13,430	16,450	20,100	-	9,620	840	320	200
11	-	-	-	-	-	-	-	20,460	-	-	-	-
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-
20	1,900	3,620	6,900	10,700	14,340	17,670	20,640	18,860	6,300	400	480	320
21	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-	-	-	-	-	-
29	-	-	-	-	a15,200	-	-	-	-	-	-	-
30	-	a4,510	-	-	-	-	20,640	-	a3,640	-	-	360
31	a2,690	-----	8,400	a12,130	-----	19,200	-----	a14,000	-----	a470	a330	-----
(†)	-	-	11.9	-	-	20.0	20.8	-	-	-	-	1.4
(‡)	+2,290	+1,820	+3,890	+3,730	+3,070	+4,000	+1,440	-6,640	-10,360	-3,170	-140	+30

Calendar year 1955..... ‡ -800

Water year 1955-56..... ‡ -40

† Gage-height, in feet, at end of month.

‡ Change in contents, in acre-feet.

a No gage-height record; contents interpolated.

East Fork Sevier River near Kingston, Utah

Location.--Lat 38°12', long 112°09', in SW $\frac{1}{4}$ NW $\frac{1}{4}$ 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 1956.

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.--43 years, 85.0 cfs (61,540 acre-ft per year).

Extremes.--Maximum discharge during year, 237 cfs June 5 (gage height, 2.03 ft); minimum daily recorded, 7.8 cfs Oct. 18.

1913-56: 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 for irrigation above and below station. Flow regulated by Otter Creek Reservoir (see p. 114).

Revisions (water years).--WSP 750: 1931-32.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.1	6.1	1.4	107
.4	13	1.8	178
.7	26	2.1	247
1.0	50		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	12	12		b12	12	*11		199	148	25	20
2		13	12		12	12	12		217	141	21	18
3		14				12	21		215	127	19	17
4		16		b11		12	21		222	119	20	16
5		21				11	21	a35	232	110	20	14
6	a15	22										
7		27		11		*11	22		234	*97	19	15
8		22		11		11	23		232	83	19	17
9		25		b11	b11	12	24		227	73	19	19
10		28		11		12	24	36	220	61	18	20
						12	24	50	217	47	*18	20
11	*12	28		11		11	24	52	213		19	20
12		11	b11	11		11	23	48	210		21	19
13	9.2	*28		11		11	24	50	201		23	*18
14	8.2	29		11		12	24	54	201	a32	25	18
15	8.2	30		11	9.6	12	25	155	199		33	19
16	8.2	28	(*)	12		12	27	191	197		28	19
17	8.7	31		12	9.4	12	27	197	193	22	29	16
18	7.8	28		12		12	28	195	195	20	29	18
19	8.7	28		*13	b11	12	27	199	220	17	29	17
20	8.7	29		12		12	27	201	217	16	28	18
21	9.4	29		12		12	25	204	208	16	29	16
22	9.6	25	12	12	12	12	25	199	201	19	28	18
23	9.6	13	12	12	*12	12	25	197	197	22	26	19
24	9.4	13	13	13	13	12	28	193	199	22	25	20
25	9.4	13	11	13	12	12	27	197	191	19	23	21
26	9.4	12	11	13	11	12	*29	*193	184	19	23	22
27	9.8	11	11	12	b11	12	29	188	176	20	22	20
28	9.8	11	11	12	b11	12	31	186	170	21	22	17
29	12	12	b11	12	12	12	33	191	161	22	21	19
30	13	12	11	b12	-----	11	32	188	155	26	19	20
31	13	-----	11	b12	-----	10	-----	188	-----	27	20	-----
Total	351.1	641	347	361	324	363	741	3,832	6,103	1,506	719	554
Mean	11.3	21.4	11.2	11.6	11.7	11.7	24.7	124	203	48.6	23.2	18.5
Ac-ft	696	1,270	688	716	643	720	1,470	7,600	12,110	2,990	1,430	1,100

Calendar year 1955: Max 147 Min 7.8 Mean 49.4 Ac-ft 35,810
 Water year 1955-56: Max 234 Min 7.8 Mean 43.3 Ac-ft 31,430

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of water commissioner's notes and records for nearby streams.

b Stage-discharge relation affected by ice.

Piute Reservoir near Marysville, Utah

Location.--Lat 38°20', long 112°12', in NW $\frac{1}{4}$ sec. 3, T. 29 S., R. 3 W., at Piute Dam, 9 miles south of Marysville.

Drainage area.--2,400 sq mi, approximately.

Records available.--March 1914 to September 1956.

Gage.--Staff gage generally read once daily. Datum of gage is 5,900.8 ft above mean sea level (levels by Office of State Engineer).

Extremes.--Maximum contents observed during year, 28,760 acre-ft Feb. 28, Mar. 2 (gage height, 52.7 ft); minimum, 150 acre-ft Aug. 31 (estimated on basis of inflow out-flow computations).

1914-56: Maximum contents, 82,300 acre-ft May 28, 1922 (gage height, 76.4 ft, original capacity table); no contents at times during 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 ft (approximate bottom of reservoir) and gage height 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 1955-56 (elevation, in feet, and contents,
in acre-feet)
(Capacity table furnished by Sevier River Water Commissioners)

22.8	826	40.0	12,510
25.0	1,560	45.0	16,160
30.0	4,100	50.0	24,850
35.0	7,790	55.0	32,250

Contents in acre feet, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	826	-	5,050	-	22,200	-	21,120	15,580	11,270	12,300	3,790	-
2	-	-	5,480	-	-	28,760	20,710	13,260	11,680	11,680	3,850	-
3	-	-	5,850	-	-	28,610	20,450	13,150	11,990	11,170	3,850	-
4	-	-	6,220	-	-	-	20,190	12,510	12,200	10,870	3,790	-
5	-	-	6,600	15,230	-	-	19,670	11,990	12,410	10,570	3,600	-
6	-	-	6,990	-	-	28,460	19,160	11,570	12,620	10,380	3,420	-
7	-	-	7,390	-	23,440	28,460	18,910	11,270	12,940	10,090	3,200	-
8	-	-	7,790	-	-	28,320	18,410	10,870	13,260	9,710	2,980	-
9	-	-	8,210	16,250	-	-	17,920	10,470	13,470	9,520	2,820	-
10	-	826	8,380	-	-	27,880	17,430	10,000	13,580	9,160	2,670	-
11	-	853	8,550	-	-	27,730	16,950	9,710	13,690	8,460	2,380	-
12	-	880	8,720	-	24,570	27,580	16,600	9,340	13,800	8,130	2,060	-
13	-	976	8,900	17,310	-	27,300	16,250	8,990	13,800	7,870	1,890	-
14	-	1,070	9,080	-	-	27,000	15,790	8,630	13,800	7,470	1,680	-
15	-	1,170	9,520	-	-	27,000	15,570	8,210	13,800	6,840	1,490	-
16	853	1,450	10,000	-	-	-	15,340	8,210	14,120	6,300	1,310	-
17	-	1,310	10,470	-	25,850	26,420	15,010	7,960	14,450	5,850	1,140	-
18	1,040	1,600	10,870	18,660	-	25,990	14,670	7,790	14,670	5,410	976	-
19	944	1,760	11,470	-	-	25,650	14,560	7,550	15,010	4,840	853	-
20	880	1,970	11,990	-	-	25,420	14,560	7,470	15,230	4,570	-	-
21	853	2,200	11,470	-	-	25,140	14,560	7,070	15,230	4,230	-	-
22	826	2,420	13,260	-	-	24,850	14,670	7,150	15,450	4,170	-	-
23	-	2,670	12,940	19,930	-	24,570	14,670	7,390	15,570	4,230	-	-
24	-	2,920	12,720	-	-	24,140	14,670	7,630	15,570	4,170	-	-
25	-	3,200	13,370	-	-	24,140	14,450	7,960	15,340	4,100	-	-
26	-	3,480	13,580	-	-	23,720	14,230	8,380	15,120	3,980	-	-
27	-	3,790	13,690	-	-	23,030	13,910	8,900	14,560	3,850	-	-
28	-	4,100	13,800	21,520	-	22,750	13,690	9,340	13,910	3,730	-	-
29	-	4,440	13,910	-	28,760	22,470	13,580	9,900	13,260	3,600	-	-
30	-	4,640	14,020	-	-	22,060	13,580	10,380	12,940	3,600	-	e284
31	e512	-	14,120	a22,030	-	21,660	-	10,870	-	3,730	e150	-
(+)	-	30.8	41.5	-	52.7	47.7	41.0	38.4	40.4	29.4	-	-
(+)	-314	+4,128	+9,480	+7,910	+6,730	-7,100	-8,080	-2,710	+2,070	-9,210	-3,580	+134

Calendar year 1955..... + -2,480

Water year 1955-56..... + -542

+ Elevation, in feet, at end of month.

+ Change in contents, in acre-feet.

a No gage-height record; contents interpolated.

e Capacity table in error; contents estimated on basis of inflow-outflow computations.

Sevier River below Piute Dam, near Marysville, Utah

Location--Lat 38°19'55", long 112°11'15", in NW 1/4 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 Marysville.

Drainage area--2,440 sq mi, approximately.

Records available--May 1911 to September 1956.

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--44 years (1912-56), 234 cfs (169,400 acre-ft per year).

Extremes--Maximum discharge during year, 502 cfs June 27 (gage height, 2.05 ft); minimum daily, 1.4 cfs May 30.

1911-56: Maximum discharge, 2,600 cfs May 23, 24, 1922; practically no flow at times when reservoir gates are closed.

Remarks--Records good except those for periods of ice effect or no gage-height record, which are fair. One small diversion between gage and Piute Reservoir. Flow regulated by Piute Reservoir (see preceding page).

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

-0.4	0.3	0.1	12	0.8	132
-.3	1.7	.2	18	1.0	178
-.2	3.2	.4	35	1.5	295
-.1	4.8	.6	60	2.0	478
0	7.5	.7	101		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*109	57	16	3.4	b3.2	157	268	144	34	430	3.0	64
2	112	82	16	3.4		157	268	210	43	422	8.8	39
3	109	59	16	3.4		157	268	222	47	334	*79	32
4	97	54	16	3.4		134	268	229	92	258	101	30
5	47	56	b16	3.4		*154	268	236	130	238	115	30
6	37	54	b16	3.4		229	268	217	86	*222	121	22
7	42	57	b14	3.2	a3.4	*229	268	194	86	215	124	16
8	60	57	a3.4	3.2		229	268	217	86	219	121	22
9	64	57	3.4	3.2		229	268	261	127	252	127	21
10	44	59	3.4	3.0		226	268	265	146	245	*134	21
11	*26	59	b3.4	3.0		226	265	270	146	258	139	24
12	18	57	3.5	3.0	3.5	226	*268	272	144	245	139	29
13	11	*59	3.5	3.0	3.5	224	265	265	160	254	130	29
14	12	59	3.5	3.2	3.5	226	263	261	162	327	118	*29
15	19	59	3.7	3.2	3.5	252	240	261	123	304	115	29
16	22	60	*3.7	3.2	b3.5	270	183	275	28	258	109	29
17	50	47	3.7	3.2	3.5	270	178	301	19	254	105	29
18	66	36	3.5	3.4	b3.5	268	162	315	31	240	105	28
19	66	28	3.4	*3.4	3.4	268	73	321	69	233	97	28
20	54	30	3.4	3.4	3.2	268	60	321	105	183	97	29
21	35	30	3.4	3.4	3.5	268	46	247	118	89	48	30
22	35	30	3.4	3.2	3.5	268	37	142	127	35	*36	29
23	35	30	3.4	3.2	3.5	270	35	101	147	26	36	28
24	49	29	3.4	3.4	3.5	270	140	109	275	101	36	25
25	53	29	3.4	3.2	3.5	270	176	*56	321	92	37	10
26	53	31	3.4	3.2	3.7	270	*171	22	390	97	38	17
27	53	35	3.4	3.2	3.7	270	139	2.2	462	97	49	29
28	53	35	3.4	3.2	3.7	270	101	1.8	450	69	46	30
29	53	28	3.4	3.2	3.0	*268	69	1.7	418	53	45	33
30	53	17	3.4	b3.2	-----	*268	57	1.4	430	38	54	34
31	52	-----	3.4	b3.2	-----	268	-----	2.8	-----	15	69	-----
Total	1,589	1,360	192.9	100.6	156.9	7,359	5,608	5,743.9	4,982	6,103	2,579.8	845
Mean	51.3	45.3	6.22	3.24	5.41	237	187	185	168	197	83.2	28.2
Ac-ft	3,150	2,700	583	200	311	14,600	11,120	11,390	9,880	12,110	5,120	1,680

Calendar year 1955: Max 582 Min 3.4 Mean 116 Ac-ft 83,770
 Water year 1955-56: Max 462 Min 1.4 Mean 100 Ac-ft 72,640

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and water commissioners notes.

b Stage-discharge relation affected by ice.

Clear Creek at Sevier, Utah

Location--Lat 38°34'55", long 112°15'30", in SW 1/4 sec. 32, T. 25 S., R. 4 W., on left bank 400 ft upstream from bridge on U. S. Highway 89, 1,000 ft upstream from mouth, and 0.3 mile south of Sevier.

Drainage area--169 sq mi.

Records available--February 1912 to September 1919 and October 1940 to September 1956 in reports of Geological Survey. April 1934 to September 1956 in reports of Sevier River water commissioner.

Gage--Water-stage recorder. Altitude of gage is 5,530 ft (from topographic map). Prior to Oct. 1, 1940, at site 700 ft downstream at different datum. Oct. 1, 1940, to Sept. 24, 1946, at site 400 ft downstream at different datum.

Average discharge--21 years (1912-17, 1940-56), 30.1 cfs (21,790 acre-ft per year).

Extremes--Maximum discharge during year, 86 cfs May 27 (gage height, 2.47 ft); minimum, 0.9 cfs Sept. 10.

1912-19, 1940-56: Maximum discharge, 611 cfs Aug. 17 (gage height, 5.97 ft), from rating curve extended above 290 cfs by logarithmic plotting; no flow Aug. 26, 1913.

Remarks--Records good except those for periods of no gage height record, which are fair. Practically entire flow is diverted above station each year during latter part of irrigation season.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 22-27, Apr. 1-12, Apr. 24 to May 25)

Oct. 1 to May 24

May 25 to Sept. 30

1.2	0.1	2.0	27	1.0	0.4	1.4	8.4
1.3	1.8	2.5	59	1.1	1.2	1.6	17
1.4	4.1	3.0	103	1.2	2.9	1.9	34
1.6	10			1.3	5.3	2.5	89

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.8	1.8	12	10	5.2	13	20	17	61	9.2	1.8	1.5
2	1.8	1.8	12	9.2	4.9	14	13	21	62	7.4	1.7	1.5
3	1.8	2.0	9.2	9.9	6.1	15	9.5	30	62	6.8	1.7	1.7
4	1.8	1.8	7.2	14	6.9	18	7.7	34	67	8.4	1.7	1.7
5	1.8	1.8	6.1	14	9.2	16	13	39	65	10	1.5	1.7
6	2.0	1.8	8.2	13	11	16	11	45	56	*7.1	1.5	1.7
7	2.0	1.8	14	12	11	12	12	49	65	5.0	1.5	1.7
8	1.8	1.8	8.6	12	8.9		6.3	50	68	3.6	1.5	1.8
9	2.0	1.6	13	9.5	9.2		5.5	45	62	2.3	1.5	1.8
10	2.2	1.4	12	11	11		4.9	44	57	2.0	*1.5	1.5
11	2.0	1.4	9.2	11	13		4.4	38	53	2.1	1.7	1.1
12	2.0	1.4	12	12	13		5.2	34	48	2.3	1.5	1.2
13	2.0	1.4	14	12	13		56.0	31	37	2.1	1.2	*1.5
14	2.0	1.6	14	11	12		87.0	27	29	2.0	1.4	1.5
15	2.0	*2.0	14	11	12	a13	38.0	20	27	2.0	1.5	1.5
16	2.5	2.5	*16	13	11		39.0	21	25	2.0	1.5	1.5
17	2.2	11	15	12	12		39.5	20	21	1.8	1.5	1.5
18	*2.0	15	15	8.6	12		a10	24	18	2.0	1.1	1.5
19	2.5	15	14	*9.9	a12		a10	40	15	2.0	1.2	1.5
20	2.2	16	14	14	a13		a11	54	20	1.8	1.5	1.5
21	2.2	16	14	13	*15		a12	63	19	1.5	1.5	1.5
22	2.0	14	14	12	14	13	a13	63	18	1.4	1.5	1.5
23	2.0	6.1	17	13	14	15	a14	66	21	1.5	1.5	1.5
24	2.0	12	22	11	14	21	*15	*74	16	1.5	1.5	1.5
25	2.0	7.6	17	12	12	26	22	*74	13	1.5	1.5	1.5
26	2.0	9.2	18	14	11	25	22	76	11	1.5	1.5	1.8
27	2.2	13	15	15	12	14	23	81	8.8	1.5	1.7	1.5
28	2.5	12	14	7.6	14	a14	20	78	8.1	2.0	1.5	1.5
29	1.8	11	14	6.1	14	a15	17	61	7.1	2.5	1.5	1.7
30	1.8	12	13	8.2	-----	*a17	16	53	8.8	1.8	1.5	1.7
31	1.8	-----	15	8.6	-----	a19	-----	53	-----	1.8	1.5	-----
Total	62.7	197.8	410.5	349.6	326.4	465	357.0	1,425	1,048.8	100.4	48.7	48.6
Mean	2.02	6.59	13.2	11.3	11.3	15.0	11.9	46.0	35.0	3.24	1.51	1.55
Ac-ft	124	392	814	693	647	922	708	2,630	2,080	119	83	92

Calendar year 1955: Max 87 Min 1.4 Mean 15.9 Ac-ft 11,490
Water year 1955-56: Max 81 Min 1.1 Mean 13.2 Ac-ft 9,590

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of 1 discharge measurement, and records for Chalk Creek near Fillmore.

SEVIER LAKE BASIN

119

Sevier River near Sigurd, Utah

Location.--Lat 38°52', long 111°57', in SW $\frac{1}{4}$ 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 1956. 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.--42 years (1914-56), 103 cfs (74,570 acre-ft per year).

Extremes.--Maximum discharge during year, 269 cfs Mar. 20, Apr. 2 (gage height, 2.70 ft); minimum daily, no flow Oct. 3-5, 7-10.

1914-56: 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 above 10 cfs and fair below. Flow regulated by reservoirs above station. During irrigation season practically the entire flow through Rockyford Dam is diverted above station for irrigation below the station.

Revisions.--WSP 1394: 1927, 1928, 1947.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-16

Oct. 17 to Sept. 30

0.6	0	0.9	8.5	0.4	0.2	0.9	7.0	2.0	107
.7	2.1	1.0	13	.5	.5	1.1	14	2.3	168
.8	4.9	1.2	24	.6	1.1	1.4	32	2.7	269
				.7	2.4	1.7	62		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	40	72	50	50	75	244	7.3	*55	16	22	0.5
2	.2	40	70	48	42	84	261	3.8	55	7.8	33	.4
3	0	40	66	46	48	146	263	2.4	50	1.4	*31	.4
4	0	40	57	44	46	161	263	2.2	11	1.4	28	.4
5	0	40	50	46	46	184	255	2.4	13	1.3	28	.5
6	.2	42	52	48	48	159	252	2.6	19	1.2	6.7	.5
7	0	42	56	50	52	175	252	2.2	19	1.2	.5	.6
8	0	42	56	50	54	213	247	1.5	18	1.1	.5	.6
9	0	30	56	46	53	228	231	1.4	16	1.1	*5	.6
10	0	21	50	44	53	*231	218	1.5	8.0	5.4	.5	.6
11	.2	19	46	44	54	231	208	1.3	1.5	*33	.5	.6
12	.2	19	44	44	57	231	205	1.2	1.5	24	.6	.6
13	.2	19	44	46	62	225	201	1.2	6.6	18	.6	*.6
14	.2	19	*44	44	63	231	213	1.2	12	36	.6	.6
15	.2	20	44	44	66	244	228	1.2	12	57	.6	.6
16	23	*21	46	46	65	244	233	1.1	12	75	.6	.6
17	35	22	46	*48	56	252	233	1.1	11	67	.7	.6
18	*33	22	46	48	61	258	198	.9	11	40	.7	.6
19	32	23	46	50	54	263	*120	.9	3.6	18	.7	.6
20	34	23	52	50	60	232	134	1.0	1.6	5.3	.6	.5
21	35	23	52	52	*65	128	122	1.2	1.4	.8	.6	.5
22	36	23	52	54	72	138	72	1.2	1.3	.7	.6	.5
23	37	57	54	57	76	138	35	*1.2	1.3	.7	.6	.6
24	37	86	57	63	82	142	*25	15	11	.7	.6	.6
25	37	86	61	65	84	155	24	40	18	.7	.6	.6
26	37	86	60	66	81	177	22	55	*16	.8	.6	.6
27	38	82	59	67	74	223	20	55	16	.8	.5	.7
28	38	86	56	67	72	244	18	55	16	1.0	.5	.7
29	39	84	53	67	74	241	15	56	16	1.1	.5	.9
30	40	76	52	78	-----	*241	12	60	16	1.0	.5	.9
31	40	-----	50	67	-----	238	-----	57	-----	1.0	.5	-----
Total	572.8	1,273	1,651	1,639	1,770	6,132	4,822	435.0	449.8	420.5	163.0	17.6
Mean	18.5	42.4	53.3	52.9	51.0	198	161	14.0	15.0	13.6	5.26	0.59
Ac-ft	1,140	2,520	3,270	3,250	3,510	12,160	9,560	863	892	834	323	.35

Calendar year 1955: Max 197 Min 0 Mean 44.6 Ac-ft 32,270
 Water year 1955-56: Max 263 Min 0 Mean 52.9 Ac-ft 38,360

* Discharge measurement made on this day.

SEVIER LAKE BASIN

Transmountain diversions from Colorado River basin
to Sevier Lake basin

The following 13 ditches and 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.

Fairview ditch diverts water from tributaries of San Rafael River and Price River to San Pitch River basin. Gage is located in SE $\frac{1}{4}$ sec. 26, T. 13 S., R. 5 E.

Candland ditch diverts water from tributary of San Rafael River to San Pitch River basin. Gage is located in NW $\frac{1}{4}$ sec. 1, T. 15 S., R. 5 E.

Coal Fork ditch diverts water from tributary of San Rafael River to San Pitch River basin. Gage is located in SW $\frac{1}{4}$ sec. 24, T. 15 S., R. 5 E.

Twin Creek tunnel diverts water from tributary of San Rafael River to San Pitch River basin. Gage is located in SE $\frac{1}{4}$ sec. 35, T. 15 S., R. 5 E.

Spring City tunnel diverts water from tributary of San Rafael River to San Pitch River to San Pitch River basin. Gage is located in SE $\frac{1}{4}$ sec. 16, T. 16 S., R. 5 E.

Black Canyon ditch diverts water from tributary of San Rafael River to San Pitch River basin. Gage is located in SE $\frac{1}{4}$ sec. 10, T. 16 S., R. 5 E.

Cedar Creek tunnel diverts water from tributary of San Rafael River to San Pitch River basin. Gage is located in SE $\frac{1}{4}$ sec. 10, T. 16 S., R. 5 E.

Reeder ditch diverts water from tributary of San Rafael River to San Pitch River basin. Gage is located in NW $\frac{1}{4}$ sec. 32, T. 16 S., R. 5 E.

John August ditch diverts water from tributary of San Rafael River to San Pitch River basin. Gage is located in NW $\frac{1}{4}$ sec. 35, T. 17 S., R. 4 E.

Madsen ditch diverts water from tributary of San Rafael River to San Pitch River basin. Gage is located in SW $\frac{1}{4}$ sec. 23, T. 17 S., R. 4 E.

Ephraim tunnel diverts water from tributary of San Rafael River to San Pitch River basin. Gage is located in NW $\frac{1}{4}$ sec. 24, T. 17 S., R. 4 E.

Larsen tunnel diverts water from tributary of San Rafael River to San Pitch River basin. Gage is located in SE $\frac{1}{4}$ sec. 10, T. 17 S., R. 4 E.

Horseshoe tunnel diverts water from tributary of San Rafael River to San Pitch River basin. Gage is located in SW $\frac{1}{4}$ sec. 2, T. 17 S., R. 4 E.

Transmountain diversions, in acre-feet, from Colorado River basin to Sevier Lake basin,
water year October 1955 to September 1956

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	564	755	217	0	1,540
Candland ditch.....	0	0	0	0	0	0	0	38	80	36	1	0	155
Coal Fork ditch.....	3	0	0	0	0	0	0	69	100	23	8	3	206
Twin Creek tunnel.....	0	0	0	0	0	0	0	26	92	3	0	0	121
Spring City tunnel.....	45	48	46	43	40	43	48	806	750	11	5	5	1,890
Black Canyon ditch.....	0	0	0	0	0	0	0	75	170	6	3	0	254
Cedar Creek tunnel.....	7	8	0	0	0	0	2	68	110	25	11	6	237
Reeder ditch.....	9	12	0	0	0	0	7	242	135	42	17	10	474
John August ditch.....	0	0	0	0	0	0	0	6	118	58	1	0	183
Madsen ditch.....	0	0	0	0	0	0	0	99	5	0	0	0	104
Ephraim tunnel.....	18	18	12	12	12	12	29	2,210	1,040	153	0	9	3,520
Larsen tunnel.....	0	0	0	0	0	0	0	308	596	7	1	1	913
Horseshoe tunnel.....	0	0	0	0	0	0	0	201	276	15	0	0	492
Total in Utah.....	82	86	58	55	52	55	86	4,150	4,040	1,130	264	34	10,090

Note.--There is one diversion from the Sevier Lake basin to the Colorado River basin. This diversion is Tropic and East Fork Canal which diverts water from East Fork Sevier River to tributary of Paria River. Gage is located in SW $\frac{1}{4}$ sec. 17, T. 36 S., R. 3 W. Figures of diversion, in acre-feet, for the 1956 water year are as follows: October, 62; May, 296; June, 360; July, 0.2; August, 3.8; September, 212; total for the water year, 934.

Pleasant Creek near Mount Pleasant, Utah

Location.--lat 39°32'30", long 111°23'30", in W $\frac{1}{2}$ 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 1956.

Gage.--Water-stage recorder. Altitude of gage is 6,760 ft (from river profile map).

Extremes.--Maximum discharge during year, 93 cfs May 26 (gage height, 8.72 ft); minimum, 4.8 cfs Feb. 15 caused by temporary obstruction upstream.
1954-56: 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, 3.0 cfs July 22, 1955, caused by temporary obstruction upstream.
Maximum discharge known, 2,060 cfs, July 24, 1946, from critical depth determination of peak flow over retention dam half a mile below gage.

Remarks.--Records fair except those for periods of no gage-height record, and when stage-discharge relation was indefinite, which are poor. Includes flow of Candland ditch and Coal Fork ditch which are measured transmountain diversions from San Rafael River basin (see preceding page).

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.6	8.0	7.8	7.2	7.0	8.0	11	13	76	17	10	
2	7.4	7.4	7.8	7.2	6.8	8.2	11	13	58	16	9.7	
3	7.4	7.8	7.8	7.2	6.6	8.2	11	14	56	15	9.7	
4	7.4	8.2	7.6	7.2	6.6	8.4	11	16	54	15	9.3	
5	7.4	8.2	7.4	7.4	6.8	8.6	11	17	53	15	9.3	
6	7.2	8.2	7.6	7.4	6.8	8.6	11	19	50	14	9.3	a7.2
7	7.4	7.8	7.6	7.4	6.8	8.4	11	23	*48	14	*8.9	
8	7.2	7.8	7.6	7.2	6.8	8.8	11	23	46	14	8.9	
9	7.2	8.0	7.8	7.2	6.8	9.2	11	23	44	14	8.6	
10	7.2	8.2	7.8	7.2	6.8	9.2	12	24	42	14	8.6	
11	7.2	8.0	7.8	7.2	6.8	9.2	12	22	41	14	8.6	*7.2
12	7.2	8.0	7.8	7.2	6.8	9.0	12	20	39	14	8.6	7.2
13	7.0	8.0	7.8	7.2	6.8	9.4	12	19	37	13	8.6	6.9
14	7.0	7.8	7.8	7.2	6.8	9.4	12	18	35	13	8.6	6.9
15	7.2	7.8	*7.8	7.4	6.8	9.6	12	19	33	12	8.2	6.6
16	7.0	7.4	7.8	*8.4	6.8	9.6	12	25	31	12	8.6	6.6
17	*6.8	*7.6	7.8	7.8	6.6	10	12	32	31	11	8.6	6.6
18	7.0	7.6	7.8	7.6	6.8	10	12	35	29	11	8.2	6.2
19	7.0	7.6	7.8	7.6	6.8	11	13	51	28	11	8.2	6.2
20	7.6	7.8	7.8	7.6	*6.8	10	14	61	27	11	8.2	6.6
21	7.6	7.6	7.8	7.6	7.2	11	14	*75	25	11	7.8	6.6
22	7.8	7.6	8.0	7.4	7.2	11	15	64	24	11	7.8	6.6
23	8.0	7.4	8.8	7.2	7.4	12	*15	55	23	11	7.8	6.2
24	7.8	8.0	9.0	7.2	7.2	12	14	58	22	10	7.8	6.2
25	7.8	7.8	8.4	7.2	7.6	12	14	*76	*20	10	7.8	6.2
26	8.0	7.8	8.2	7.4	7.6	12	14	92	20	10	7.5	6.6
27	8.2	7.8	8.2	7.0	7.8	12	14	89	20	10	7.5	6.6
28	8.0	7.8	8.0	7.2	7.8	12	14	82	19	11	7.5	6.6
29	8.0	7.8	7.6	7.2	8.0	*12	13	74	19	12	7.5	6.9
30	8.2	7.8	8.0	7.2	-----	12	13	74	19	14	a7.5	6.9
31	8.2	-----	7.8	7.2	-----	12	-----	76	-----	10	a7.5	-----
Total	232.0	234.6	244.6	227.6	203.4	312.8	374	1,302	1,069	390	260.7	204.4
Mean	7.48	7.82	7.89	7.34	7.01	10.1	12.5	42.0	35.6	12.6	8.41	6.81
Ac-ft	460	465	485	451	403	620	742	2,580	2,120	774	517	405

Calendar year 1955: Max 95 Min 6.8 Mean 15.3 Ac-ft 11,040
Water year 1955-56: Max 92 Min 6.2 Mean 13.8 Ac-ft 10,020

Peak discharge (base, 50 cfs).--May 19 (11 p.m.) 90 cfs (8.80 ft); May 26 (1 p.m.) 93 cfs (8.72 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for nearby streams.

Note.--Stage-discharge relation indefinite May 7-18, July 1-30; discharge estimated on basis of records for nearby streams.

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., Salt Lake meridian, 3½ miles southeast of Mount Pleasant.

Drainage area.--12 sq mi, approximately.

Records available.--October 1954 to September 1956.

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

Extremes.--1954-55: Maximum discharge during water year, 48 cfs June 9 (gage height, 1.17 ft); minimum, 1.8 cfs Mar. 18.
1955-56: Maximum discharge during water year, 45 cfs May 31 (gage height, 1.24 ft); minimum, 2.8 cfs Jan. 27.

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 measured transmountain diversion from San Rafael River basin (see page 120).

Rating table, water years 1954-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.6	3.2	1.0	20
.7	4.5	1.1	34
.8	6.9	1.2	52
.9	11		

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			3.5				4.3	4.7	14	13	5.5	5.0
2			3.6				4.2	4.7	9.7	12	5.5	4.8
3			3.8				3.8	4.7	9.7	11	5.2	4.8
4			4.0				3.8	4.5	9.2	11	8.4	4.7
5			3.9				3.8	4.8	10	11	7.6	4.7
6			3.8				4.0	5.2	14	11	6.2	4.7
7			3.8				4.0	5.7	18	10	6.0	4.7
8			3.5				4.2	6.2	*27	10	5.7	4.7
9			3.8				4.2	5.7	38	9.7	6.0	4.5
10			3.8				4.2	5.2	36	9.2	5.7	4.5
11			3.9				4.0	7.6	28	9.2	5.5	4.5
12			3.9				4.8	11	30	8.8	5.7	4.5
13			3.9				4.8	*4.3	*20	25	8.8	7.2
14							4.7	4.2	16	23	*8.4	5.2
15							4.2	4.2	13	23	8.0	5.7
16							4.0	4.2	13	27	8.0	5.7
17			3.6				4.5	4.3	11	31	8.0	5.7
18			*3.6				*3.6	4.2	10	27	7.6	*5.7
19			3.5				4.2	4.0	10	25	7.2	*5.0
20			3.5				3.8	3.9	11	25	6.9	5.5
21			3.6				3.9	4.5	10	19	6.9	5.7
22			3.6				4.3	4.2	15	25	6.6	5.2
23			3.6				4.3	4.2	15	24	6.6	5.2
24			3.6				4.3	4.2	15	23	6.9	6.0
25			3.6				4.2	4.3	*14	20	8.0	6.2
26			3.6				3.9	4.5	10	19	6.9	5.7
27			3.6				3.6	4.3	10	17	5.7	5.5
28			3.3				4.2	4.3	9.7	17	5.2	5.2
29			3.5				4.2	4.5	11	15	5.5	5.2
30			3.3				4.0	4.8	13	14	5.5	5.2
31							5.8		15		5.2	5.0
Total	111.6	107.1	121.2	124	112	127.3	125.5	314.7	648.6	257.8	179.0	140.7
Mean	3.6	3.57	3.91	4	4	4.11	4.18	10.2	21.6	8.32	5.77	4.69
Ac-ft	221	212	240	246	222	252	249	624	1,290	511	355	279

Calendar year 1954: Max - Min - Mean - Ac-ft -
Water year 1954-55: Max 38 Min - Mean 6.49 Ac-ft 4,700

Peak discharge (base, 30 cfs).--June 9 (4:30 p.m.) 48 cfs (1.17 ft); Aug. 4 (4 p.m.) 43 cfs (1.14 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.--No gage-height record Oct. 1 to Nov. 16; discharge estimated on basis of weather records and records for nearby streams.

Twin Creek near Mount Pleasant, Utah --Continued

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.2	3.9	5.8		4.0	4.5	4.8	6.2	31	8.8	5.5	4.2
2	4.2	b3.9			4.0	4.5	3.8	6.2	30	8.4	5.2	4.2
3	4.2	4.0			4.0	4.5	4.2	6.6	28	8.4	5.0	4.2
4	4.2	4.0			4.0	4.5	4.5	7.2	a30	8.0	5.0	4.2
5	4.2	4.0			4.0	4.7	4.3	8.4	a31	8.0	5.0	4.2
6	4.0	4.0	b3.6		4.0	4.5	4.3	9.2	a32	7.6	4.8	4.2
7	4.0	4.0		a3.6	4.0	4.7	4.5	10	*33	7.2	*4.8	4.2
8	4.0	4.0			4.0	4.7	4.3	9.7	31	7.2	4.8	4.2
9	3.9	4.0			4.0	4.7	4.5	9.7	a28	7.2	4.7	4.2
10	4.0	4.0	3.6		4.0	4.7	4.7	10	a26	7.2	4.7	4.2
11	3.8	4.0	b3.6		4.0	4.3	4.7	9.2	a24	7.2	4.7	*4.2
12	3.9	4.0	3.6		4.3	b4.5	4.7	8.4	a23	7.2	4.7	4.2
13	3.9	4.0	3.6		4.3	b4.5	4.7	7.6	a22	6.9	5.2	4.2
14	3.8	b3.7	5.6		4.3	4.5	4.7	7.2	a21	6.9	5.0	4.0
15	3.8	b3.6	*3.6	a4.0	4.3	4.5	4.8	7.6	a20	6.6	4.8	4.0
16	3.6	b3.5		*4.5	4.3	4.5	5.0	9.7	a19	6.6	4.8	4.0
17	*3.6	*b3.6		4.2	4.5	4.5	5.2	12	a18	6.0	4.8	4.0
18	3.8	3.6		4.0	4.5	4.7	5.2	13	a17	6.0	4.7	3.9
19	3.6	3.6		3.9	4.5	4.7	5.2	17	a16	6.0	4.7	3.9
20	3.9	3.6		3.9	*4.5	4.7	5.5	23	a15	5.7	4.5	4.0
21	3.9	3.8		3.9	4.7	4.7	6.2	*28	a14	5.7	4.5	4.2
22	3.9	3.8		3.8	4.7	4.8	6.9	28	a13	5.7	4.5	4.0
23	3.9	b3.8	a3.6	3.9	4.7	5.0	*7.2	30	a12	5.7	4.5	4.0
24	3.9	3.8		4.3	4.7	5.5	7.6	33	a12	5.7	4.3	4.0
25	3.9	b3.7		b3.9	4.5	5.5	7.2	*33	*11	5.5	4.5	4.0
26	4.0	b3.6		3.9	4.5	5.2	7.2	34	11	5.5	4.3	4.2
27	4.0	3.6		3.6	4.5	5.0	7.6	30	10	5.5	4.3	4.2
28	3.9	3.5		b3.8	4.5	b5.0	6.9	30	9.7	5.7	4.3	4.2
29	3.9	3.5		b3.8	4.5	*4.7	6.2	25	9.2	6.2	4.3	4.2
30	3.9	3.5		b3.8	-----	4.8	6.2	28	9.2	7.3	4.3	4.3
31	3.9	-----		b3.6	-----	4.8	-----	34	-----	5.7	4.3	-----
Total	121.9	113.6	111.8	117.4	124.8	146.4	162.8	530.9	606.1	207.3	145.5	123.7
Mean	3.93	3.79	3.61	3.79	4.30	4.72	5.43	17.1	20.2	6.89	4.69	4.12
Ac-ft	242	225	222	233	248	290	323	1,050	1,200	411	289	245
Calendar year 1955: Max 36 Min - Mean 6.51 Ac-ft 4,720												
Water year 1955-56: Max 34 Min - Mean 6.86 Ac-ft 4,980												

Peak discharge (base, 30 cfs).--May 31 (6:30 p.m.) 45 cfs (1.24 ft); July 30 (4:30 p.m.) 38 cfs (1.16 ft).

* 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.

Sevier River below San Pitch River, near Gunnison, Utah

Location.--Lat 39°09'00", long 111°52'30", in NE $\frac{1}{4}$ 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 1956.

Gage.--Water-stage recorder. Altitude of gage is 4,900 ft (from topographic map).

Average discharge.--39 years, 221 cfs (160,000 acre-ft per year).

Extremes.--Maximum discharge during year, 365 cfs Mar. 13 (gage height, 2.81 ft); minimum daily, 20 cfs July 8.
1917-56: Maximum discharge, 2,620 cfs June 1, 1922 (gage height, 5.68 ft); minimum daily, 8 cfs July 13-17, Sept. 6, 1934.

Remarks.--Records good except those for periods of ice effect, which are fair. Flow regulated by reservoirs and many diversions for irrigation above station. Most of flow diverted above station during irrigation season.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.9	16	2.0	152
1.0	21	2.5	267
1.2	38	3.0	410
1.5	71		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	51	84	171	134		171	285	74	85	44	44	32
2	95	85	171	130	b135	171	296	71	88	46	48	48
3	78	95	162	130		191	299	69	106	45	60	*54
4	65	95	167	130		247	299	69	103	45	63	47
5	64	95	146	130	132	247	270	63	89	33	66	43
6	65	98	140	138	134	257	272	68	80	26	65	46
7	86	95	140	158	138	250	270	70	85	21	57	48
8	70	94	140	148	142	244	275	70	83	20	56	49
9	72	94	138	136	144	283	262	70	30	31	41	42
10	75	90	144	123	140	296	232	69	51	37	*31	39
11	78	79	138	127	140	296	230	74	39	31	27	35
12	79	75	128	128	142	288	218	71	27	34	27	33
13	79	83	*127	128	154	313	216	70	24	47	27	34
14	76	92	127	132	182	304	213	64	23	34	23	*34
15	40	106	130	132	150	293	235	57	25	39	23	30
16	64	139	136	*136	144	301	252	54	33	59	23	24
17	71	*108	138	144	b150	310	272	47	35	80	24	24
18	*80	118	136	136	150	318	275	40	37	81	25	29
19	69	121	136	134	b148	327	260	47	40	71	25	49
20	69	127	136	140	b148	*338	191	52	34	*54	24	52
21	74	114	138	152	*148	285	200	74	31	46	25	52
22	79	97	140	146	158	237	182	69	28	37	27	54
23	84	106	142	146	177	240	160	*64	*30	34	34	55
24	88	123	142	150	191	242	*130	55	28	28	34	56
25	88	152	146	152	182	235	*58	56	*30	42	34	58
26	85	160	150	156	180	204	74	74	33	43	34	50
27	81	162	148	169	177	244	66	68	39	47	34	44
28	84	165	144	185	173	262	69	92	42	46	35	46
29	88	167	144	154	171	*285	74	103	38	47	35	52
30	88	169	140	152	-----	285	78	94	35	61	35	57
31	84	-----	138	b150	-----	285	-----	87	-----	37	34	-----
Total	2,329	3,588	4,423	4,384	4,435	8,249	6,213	2,123	1,392	1,346	1,140	1,316
Mean	75.1	113	143	141	153	266	207	68.5	46.4	43.4	36.8	43.9
Ac-ft	4,620	6,720	8,770	8,700	8,800	16,560	12,320	4,210	2,780	2,670	2,260	2,610

Calendar year 1955: Max 410 Min 23 Mean 115 Ac-ft 63,040
Water year 1955-56: Max 338 Min 20 Mean 111 Ac-ft 80,800

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Sevier Bridge Reservoir near Juab, Utah

Location.--Lat 39°22', long 112°02', in NW¼ 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 1956.

Gage.--Staff gage below gage height 60 ft and wire-weight gage above, read once daily.

Extremes.--Maximum contents during year, 74,390 acre-ft, Apr. 17-21 (gage height, 53.4 ft); minimum recorded, 1,810 acre-ft Aug. 25, 26 (gage height, 13.5 ft).
1914-56: Maximum contents, 281,000 acre-ft Apr. 19, 20, 1922 (gage height, 80.0 ft), from former capacity table; no storage at times during 1927-28, 1930-36, 1951.

Remarks.--Reservoir was formed by a 30-ft 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 ft (approximate bottom of outlet tunnel and 80.0 ft (top of flashboard on spillway). No dead storage. Water is used for irrigation.

Revisions (water years).--WSP 960: 1941.

Capacity table, water year 1955-56 (elevation, in feet,
and contents, in acre-feet)
(Capacity table furnished by State Engineer's Office)

13	1,490	35	29,150
15	2,840	40	39,540
17	4,440	45	51,390
20	7,200	50	64,580
25	12,830	55	79,240
30	20,200		

Contents, in acre-feet, at 8 a.m., water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,110	10,520	19,710	30,130	40,670	50,650	67,110	70,560	38,220	19,550	-	2,130
2	4,110	10,760	20,200	30,520	40,890	51,140	67,680	70,260	37,780	18,740	5,500	2,130
3	4,110	11,000	20,540	30,910	40,890	51,640	68,250	69,400	37,340	17,960	-	2,130
4	4,190	11,230	20,890	31,100	40,890	51,990	68,830	68,250	-	17,490	-	2,130
5	4,190	11,590	21,220	31,500	41,570	52,650	69,400	67,390	36,050	16,580	-	2,200
6	4,280	11,840	21,560	31,710	41,800	53,160	69,690	66,270	35,630	15,500	-	2,200
7	4,280	12,090	21,720	32,110	42,260	53,670	70,260	65,150	35,200	14,850	-	2,270
8	4,440	12,340	22,070	32,310	42,490	54,180	70,850	64,030	34,570	13,750	-	2,270
9	4,790	12,590	22,420	32,710	42,960	54,690	71,140	62,660	34,370	12,340	-	2,130
10	5,140	12,970	22,760	32,920	43,190	55,210	71,440	61,030	33,950	11,000	-	2,130
11	5,310	13,230	23,110	33,330	43,650	55,730	71,730	59,410	33,740	9,620	-	2,130
12	5,680	13,560	23,640	33,530	44,120	56,500	72,000	57,820	32,920	8,540	-	2,130
13	6,230	13,490	23,990	33,950	44,360	57,030	72,610	56,760	32,310	-	-	2,060
14	6,620	13,750	24,350	34,160	44,830	57,560	73,200	55,730	31,300	-	-	2,060
15	7,010	14,150	24,710	34,370	45,070	58,350	73,500	54,430	30,320	-	3,610	2,000
16	7,100	14,430	24,890	34,990	45,540	59,140	74,090	53,160	29,930	-	3,540	2,000
17	7,200	14,710	25,250	35,410	45,540	59,680	74,390	51,840	29,540	-	3,380	2,060
18	7,300	14,990	25,610	35,840	45,780	60,490	74,380	49,660	29,350	7,300	3,220	2,130
19	7,500	15,270	25,790	36,050	46,250	61,030	74,390	47,940	28,960	7,500	-	2,130
20	7,810	15,550	26,160	36,480	46,490	61,570	74,390	46,490	28,400	7,710	-	2,200
21	8,010	15,840	26,530	36,700	46,980	62,110	74,390	45,300	27,830	7,810	-	2,340
22	8,220	16,290	26,890	37,120	47,460	62,660	74,090	44,120	27,260	8,010	-	2,480
23	8,430	16,580	27,080	37,560	47,700	63,210	73,500	43,190	26,530	8,110	-	2,480
24	8,640	16,880	27,450	38,000	48,190	63,760	72,900	42,260	25,980	-	-	2,620
25	8,850	17,180	27,830	38,440	48,670	64,310	72,610	41,350	25,420	-	1,810	2,640
26	9,070	17,650	28,020	38,880	48,910	64,580	72,020	40,670	24,710	-	1,810	2,910
27	9,280	17,960	28,400	39,320	49,410	64,860	71,140	39,990	23,460	-	-	2,990
28	9,620	18,420	28,770	39,540	49,900	65,150	70,560	39,540	22,420	-	-	3,070
29	9,840	18,740	29,150	39,990	50,400	65,430	70,560	39,320	21,390	-	-	3,220
30	10,070	19,060	29,350	40,440	50,900	65,990	70,560	39,100	20,370	-	-	3,380
31	10,290	19,440	29,740	40,440	51,400	66,530	68,680	38,680	19,440	19,440	19,440	3,380
(†)	22.9	29.3	35.3	40.4	44.6	50.8	52.1	39.6	30.1	-	-	15.7
(‡)	+6,430	+8,770	+10,680	+10,700	+9,960	+16,430	+3,730	-31,900	-18,290	-14,350	-3,940	+1,300

Calendar year 1955..... ‡ -33,190

Water year 1955-56..... ‡ -480

† Gage-height, in feet, at end of month.

‡ Change in contents, in acre-feet.

a No gage-height record; contents interpolated.

SEVIER LAKE BASIN

Sevier River near Juab, Utah

Location.--Lat 39°22', long 112°02', in NE $\frac{1}{4}$ sec. 2, T. 17 S., R. 2 W., on left bank 1,600 ft downstream from Sevier Bridge Dam and 11 miles southwest of Juab.

Drainage area.--5,130 sq mi, approximately.

Records available.--September 1911 to September 1956.

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. 17, 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.--45 years, 243 cfs (175,900 acre-ft per year).

Extremes.--Maximum discharge during year, 990 cfs May 17 (gage height, 4.27 ft); minimum not determined, occurred during period of no gage-height record.
1911-56: Maximum discharge, 2,140 cfs June 2, 1922 (gage height, 8.50 ft); practically no flow at times when reservoir gates are 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 1955-56 (gage height, in feet,
and discharge, in cubic feet per second)
(Shifting-control method used Apr. 17 to May 19)

1.1	14	3.0	530
1.3	56	4.0	860
1.5	103	4.5	1,040
2.0	238		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								227	345	403	106	
2								316	368	400	51	
3						0.8		492	415	398	5.0	
4								566	415	435	5.0	
5				1.0				578	415	458	61	
6		1.0				1.0		578	412	456	108	40
7								575	*280	515	110	72
8	2.0							691	210	657	*157	72
9								776	212	724	203	72
10							1.1	825	209	702	203	72
11			1.2					860	327	647	159	72
12								700	426	424	136	*74
13			(*)					605	424	232	138	74
14								602	424	165	138	74
15		(*)						632	341	148	136	74
16								752	183	149	133	
17						1.0		122	909	131	133	29
18								261	979	157	157	
19								264	805	276	168	
20	(*)			*.8				*264	682	334	165	
21		1.2				1.1		267	674	363	162	
22								393	*602	380	157	
23								412	542	380	124	101
24	1.0					(*)		371	515	374	215	69
25								368	456	406	212	69
26			1.0					409	429	506	203	69
27						(*)		*429	363	*557	206	69
28								232	279	554	203	*89
29								106	229	509	203	30
30								106	229	441	203	5.0
31								293	-----	148	5.0	-----
Total	46.0	34.0	35.2	26.4	28.0	33.0	4,021.6	17,781	10,796	8,739.0	3,279.0	779.4
Mean	1.46	1.13	1.14	0.85	0.97	1.06	134	574	360	282	106	26.0
Ac-ft	91	67	70	52	56	65	7,990	35,270	21,410	17,330	6,500	1,450

Calendar year 1955: Max 1,110 Min - Mean 173 Ac-ft 128,900
Water year 1955-56: Max 979 Min - Mean 125 Ac-ft 90,440

* Discharge measurement made on this day.

Note.--No gage-height record Oct. 1 to Apr. 16, July 18-22, Aug. 3, 4, Aug. 30 to Sept. 5, Sept. 17-30; discharge estimated on basis of 6 discharge measurements, weather records, and Water Commissioner's notes.

Sevier River near Lynndyl, Utah

Location--Lat 39°29', long 112°24', in SE $\frac{1}{4}$ sec. 27, T. 15 S., R. 5 W., on right bank $\frac{1}{2}$ miles downstream from highway bridge and $\frac{3}{4}$ miles southwest of Lynndyl.

Drainage area--6,270 sq mi, approximately.

Records available--April 1914 to October 1919. November 1942 to September 1956.

Gage--Water-stage recorder. Altitude of gage is 4,660 ft (by barometer).

Average discharge--18 years (1914-19, 1943-56), 212 cfs (153,500 acre-ft per year).

Extremes--Maximum discharge during year, 755 cfs May 20 (gage height, 5.96 ft); minimum observed, 6.1 cfs Nov. 15, discharge measurement, result of freeze-up.

1914-19, 1942-56: Maximum daily discharge, 1,820 cfs June 9, 1914, based on records at Leamington; minimum observed that of Nov. 15, 1955.

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. 125). Several diversions for irrigation between reservoir and station. Records of chemical analyses and water temperatures for the water year 1956 are given in WSP 1453.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 17 to Jan. 27, Feb. 28 to Apr. 17, July 9 to Aug. 10, Sept. 5, 6)

1.7	9.6	2.5	50	4.0	265
1.9	16	3.0	100	5.0	504
2.2	30	3.5	170	6.0	766

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	56	22	39	13	b19	18	18	156	156	444	185	56
2	56	22	40	13		17	*16	140	248	393	132	42
3	63	21	40	14		17	16	189	272	388	112	36
4	54	21	31	18		16	15	284	319	374	80	36
5	55	21	16	14		16	14	412	315	393	49	33
6	53	20	21	13	b19	26	14	424	298	422	40	*32
7	53	20	17	14		35	15	442	294	359	64	37
8	53	20	15	14		33	15	454	254	359	*112	56
9	48	20	15	13		34	16	506	159	371	117	91
10	46	20	16	14		34	16	620	196	449	175	94
11	45	20	16	14	a21	34	18	620	200	442	189	96
12	39	20	16	14		38	17	643	230	427	182	*94
13	37	20	13	14		35	19	599	398	300	157	93
14	42	21	15	14		36	22	439	412	129	157	87
15	39	*b18	12	14		34	24	417	405	66	156	84
16	38	b21	12	18	a21	34	24	424	376	42	152	82
17	38	40	12	17		34	28	492	283	34	152	81
18	37	61	*12	16		34	35	615	185	72	151	65
19	35	49	12	16		33	152	736	172	97	154	34
20	*34	49	12	17		31	224	580	220	58	180	28
21	30	46	12	*18	a21	29	242	512	328	51	178	27
22	22	48	12	17		26	248	*506	347	48	170	27
23	21	44	14	17		26	*311	464	381	46	170	27
24	20	48	13	16		25	439	400	383	*45	168	29
25	20	41	12	18		25	381	391	381	149	118	31
26	20	42	12	18	b18	21	391	357	366	187	104	32
27	20	42	12	19		21	23	410	308	*462	192	100
28	19	40	12			18	23	*446	289	534	196	*98
29	18	39	12			18	22	383	234	534	201	99
30	18	37	12			21	182	154	504	342	98	31
31	18	-----	12			20	-----	144	-----	238	79	-----
Total	1,147	953	517	489	570	852	4,151	13,051	9,830	7,214	4,078	1,556
Mean	37.0	31.8	16.7	15.8	19.7	27.5	138	421	321	233	132	51.9
Ac-ft	2,280	1,890	1,030	970	1,130	1,690	8,230	25,890	19,100	14,310	8,090	3,090

Calendar year 1955: Max 768 Min 12 Mean 159 Ac-ft 114,900
Water year 1955-56: Max 736 Min 12 Mean 121 Ac-ft 97,700

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for station near Juab.

b Stage-discharge relation affected by ice.

Chalk Creek near Fillmore, Utah

Location.--Lat 38°58', long 112°18', in NE $\frac{1}{4}$ sec. 28, T. 21 S., R. 4 W., on left bank 1 mile east of Fillmore and $2\frac{1}{4}$ miles downstream from South Fork.

Drainage area.--60 sq mi, approximately.

Records available.--May to July 1914, March 1944 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 5,180 ft (by barometer). May to July 1914, staff gage at site $1\frac{1}{4}$ miles upstream at different datum.

Average discharge.--12 years (1944-56), 32.1 cfs (23,240 acre-ft per year).

Extremes.--Maximum discharge during year, 88 cfs May 5; minimum daily, 5.6 cfs Dec. 5. 1914, 1944-56: Maximum discharge, 509 cfs May 4, 1952; minimum daily, 4.9 cfs Dec. 9, 1951.

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 the head of the Fillmore Canal. One small irrigation diversion above gage.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.8	8.8	7.4	8.6	8.9	12	*24	56	42	17	} a8.0	7.2
2	8.6	8.2	7.4	8.4	a7.1	12	22	58	41	15		7.0
3	8.4	8.2	7.2	8.0	a8.9	12	21	68	39	14		6.8
4	8.8	8.2	6.8	8.2	a11	13	22	76	39	14		6.8
5	8.8	8.2	5.6	8.2	a10	13	23	86	37	13		7.0
6	9.0	8.0	7.8	9.0	} all	13	25	85	34	13	} *7.4	6.8
7	9.0	7.8	7.9	8.8		13	27	83	32	13		6.8
8	8.6	7.4	7.8	9.2		13	32	83	31	12		7.0
9	8.6	7.8	8.8	10		13	36	80	30	12		7.6
10	8.6	7.6	8.6	10		13	39	75	30	11		7.4
11	8.6	7.6	8.0	9.9	} a12	13	40	69	28	12	7.6	6.8
12	8.6	7.8	8.4	9.7		12	40	66	27	12	7.6	*7.0
13	8.6	7.8	8.8	9.3		13	40	59	25	11	8.0	7.0
14	8.6	7.8	8.8	9.0	9.7	13	39	54	24	11	8.4	7.0
15	8.6	*7.2	8.8	8.9	9.9	13	37	50	24	11	10	6.8
16	8.6	6.7	8.8	12	9.3	12	37	49	23	10	10	6.6
17	8.6	8.9	*9.0	11	8.5	12	42	52	22	10	11	6.4
18	8.6	8.3	9.2	9.6	9.3	12	44	56	20	9.9	9.7	6.2
19	*9.0	8.2	9.2	10	9.9	13	44	61	19	10	9.0	6.2
20	9.2	8.1	9.2	*10	9.7	14	45	70	21	} a9.0	8.4	6.4
21	9.2	8.2	9.2	11	9.9	15	51	73	20		8.0	7.0
22	9.0	7.8	9.4	10	10	16	56	70	19		7.6	7.0
23	9.0	7.1	10	12	10	19	63	*69	18		7.6	7.0
24	9.0	7.8	10	11	*12	21	69	67	17		7.4	6.8
25	9.0	7.5	9.9	12	12	24	70	63	16		7.2	6.4
26	9.0	7.4	9.4	13	12	25	70	59	16	} *15	7.2	6.2
27	9.7	7.5	9.4	14	12	25	*71	57	*15		7.4	6.4
28	9.2	7.3	9.7	14	12	23	69	55	15		7.4	6.6
29	9.0	7.3	9.0	12	12	23	62	49	14		7.4	6.6
30	9.0	7.5	9.2	13	-----	23	58	45	16		7.2	7.2
31	9.0	-----	9.0	14	-----	24	-----	43	-----		7.2	-----
Total	274.3	234.0	267.7	323.8	303.1	492	1,318	1,986	754	338.9	249.7	203.8
Mean	8.85	7.80	8.64	10.4	10.5	15.9	43.9	64.1	25.1	10.9	8.05	6.79
Ac-ft	544	464	531	642	601	976	2,610	3,940	1,500	672	495	404
Calendar year 1955:	Max 118			Min 5.6		Mean 21.9		Ac-ft 15,880				
Water year 1955-56:	Max 86			Min 5.6		Mean 18.4		Ac-ft 13,380				

* River discharge measurement or observation of no flow made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for nearby streams.

Three Creeks near Beaver, Utah

Location.--Lat 38°17'40", long 112°25'40", in NW¼ 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 1956.

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.--9 years, 9.69 cfs (7,020 acre-ft per year).

Extremes.--Maximum discharge during year, 57 cfs July 7 (gage height, 2.48 ft); minimum daily, 0.4 cfs Apr. 26-29.

1947-56: 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 determination at 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, 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 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.9	0.2	1.4	4.6
1.0	.5	1.5	6.7
1.1	1.0	1.8	16
1.2	1.8	2.1	31
1.3	3.0	2.5	58

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.6	3.0	3.1	b2.7	2.6	2.6	4.6	0.5	1.7	39	8.8	5.8
2	3.6		b3.1	2.7	2.5	2.6	4.2	.5	1.8	38	8.8	5.6
3	3.6		3.1	3.0	2.5	2.6	b4.2	.5	1.8	38	8.5	5.4
4	3.6		3.0	3.0	2.5	2.6	4.2	.5	1.8	37	8.5	5.4
5	3.6	b3.0	2.9	2.9	2.5	2.6	3.9	5.3	1.9	*43	8.3	5.4
6	3.6		3.3	2.9	2.5	2.6	4.1	9.6	1.9	46	8.0	5.4
7	3.4	3.0	3.3	2.9	2.5	2.5	4.8	9.6	12	52	8.0	5.4
8	3.3	b3.0	3.1	2.7	2.5	2.5	5.8	9.9	22	55	8.0	5.4
9	3.3	b3.0	3.3	2.7	2.5	2.5	6.3	10	22	52	*7.7	5.4
10	3.3	3.1	3.0	2.7	2.5	2.6	7.2	11	22	49	7.7	5.4
11	3.3	3.1	3.0	2.7	2.5	2.5	7.0	15	22	46	7.5	5.2
12	3.3	3.1	3.1	2.7	2.5	2.4	7.0	23	24	46	7.7	5.2
13	3.3	3.1	3.0	*2.7	2.5	2.4	6.7	26	26	44	7.5	*5.2
14	3.3		3.0	2.7	2.4	2.5	6.3	25	29	41	7.5	5.2
15	3.3		3.0	2.7	2.4	2.4	5.8	25	31	34	7.5	5.0
16	3.3		3.0	3.0	2.4	2.4	6.5	27	31	16	7.5	5.0
17	3.4		3.0	2.7	2.4	2.5	7.0	28	35	9.3	7.2	5.6
18	*3.4		3.0	2.9	2.5	2.5	6.3	22	37	9.0	7.2	5.2
19	3.4		3.0	2.7	2.4	2.6	*6.3	7.6	38	8.8	7.2	4.8
20	3.4	b3.0	2.9	2.9	2.5	2.7	7.7	1.4	38	8.8	7.2	4.6
21	3.4		2.9	2.9	2.6	3.0	9.3	1.3	38	8.2	7.2	4.6
22	3.4		3.0	2.7	2.6	3.3	9.6	1.4	37	5.2	7.2	4.6
23	3.3		3.3	b2.4	2.6	3.8	11	1.4	37	6.0	7.0	4.6
24	3.1		3.1	2.5	2.5	4.4	13	*1.4	37	7.0	6.7	4.4
25	3.1	3.0	3.0		2.6	b4.5	7.4	1.4	37	7.2	6.5	4.4
26	3.1	3.0	3.0		2.6	*b4.1	.4	1.4	37	7.7	6.5	4.4
27	3.1	3.1	3.0	2.6	2.6	b4.0	.4	1.4	36	8.0	6.3	4.4
28	3.1	3.0	2.9	b2.6	2.6	b3.8	.4	1.5	38	8.3	6.3	4.4
29	3.1	3.0		2.7	2.6	b3.8	.4	1.6	40	8.5	6.0	4.2
30	3.1	3.1	b2.7	2.7	-----	4.6	.5	1.6	40	8.8	6.0	4.2
31	3.0	-----	2.6	-----	-----	5.0	-----	1.6	-----	8.8	5.8	-----
Total	103.1	90.6	93.5	84.9	72.9	94.9	168.3	273.4	776.9	795.6	227.8	149.8
Mean	3.33	3.02	3.02	2.74	2.51	3.06	5.61	8.82	25.9	25.7	7.35	4.99
Ac-ft	204	180	185	168	145	188	334	542	1,540	1,580	452	297
Calendar year 1955: Max	32				Min 0.1		Mean 5.77		Ac-ft 4,180			
Water year 1955-56: Max	55				Min 0.4		Mean 8.01		Ac-ft 5,820			

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Beaver River near Beaver, Utah

Location.--Lat 38°17', long 112°34', in SW¼SW¼ sec. 17, T. 29 S., R. 6 W., on left bank at Fishlake National Forest boundary, three-quarters of a mile downstream from Bakers Canyon and 4¼ miles east of Beaver.

Drainage area.--82 sq mi, approximately.

Records available.--June to September 1906, March 1914 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 6,200 ft. Prior to Mar. 30, 1914, staff gage, and Mar. 30, 1914, to Oct. 15, 1937, water-stage recorder, at site 1,000 ft downstream at different datum.

Average discharge.--42 years (1914-56), 54.1 cfs (39,170 acre-ft per year).

Extremes.--Maximum discharge during year, 179 cfs May 24 (gage height, 3.05 ft); minimum daily, 12 cfs Nov. 2, 15.

1914-56: 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, which are fair. No diversions for irrigation above station. Water diverted for hydroelectric power, but returned to stream above station. Some regulation by powerplants and several small reservoirs.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.9	9	2.5	63
2.0	13	2.8	117
2.2	27	3.0	163

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	15	16	b15	b16	17	28	42	119	79	29	18
2	14	12	*15	b15	b16	17	26	55	113	74	27	18
3	15	14	17	b16	b16	18	25	68	113	71	26	18
4	14	16	b15	17	b16	17	21	79	113	65	25	18
5	15	15	b15	16	b16	18	25	103	105	*66	24	18
6	15	15	b15	15	b17	17	25	115	95	69	24	18
7	15	14	15	15	b18	b17	25	117	97	73	22	18
8	15	14	b15	15	*b18	b17	32	121	103	77	24	18
9	16	15	b15	15	*b18	18	32	113	97	74	*23	18
10	17	17	b15	15	b18	18	39	107	95	71	22	18
11	15	15	b15	15	b17	18	37	95	97	71	25	18
12	14	15	15	15	15	b18	37	95	99	71	30	18
13	15	15	15	*15	16	b17	35	93	99	66	27	*17
14	15	14	17	17	16	17	31	86	97	63	31	15
15	16	b12	13	16	17	*b18	33	84	97	56	25	15
16	16	b14	15	17	b15	b17	34	90	93	42	25	17
17	15	b15	15	17	b15	15	37	113	92	32	25	18
18	15	b16	15	b17	b15	15	36	137	92	30	25	17
19	16	17	16	b17	b15	18	*35	146	90	26	25	14
20	*18	17	15	17	b15	19	36	156	90	26	25	15
21	14	16	15	18	17	22	43	149	86	26	26	16
22	16	15	15	17	17	24	47	149	84	25	27	16
23	18	b15	16	16	17	24	55	146	83	25	26	17
24	15	17	19	16	15	30	62	*158	79	25	25	17
25	15	b16	18	18	b17	35	73	158	79	24	24	16
26	16	b16	17	18	b17	*30	55	151	77	25	21	15
27	15	15	16	18	b17	34	60	139	76	28	21	15
28	15	16	15	b16	b17	26	49	132	76	31	22	16
29	16	15	14	b16	b17	28	45	111	77	35	21	16
30	15	17	17	b16	-----	30	42	107	86	36	21	17
31	16	-----	16	b16	-----	34	-----	115	-----	38	19	-----
Total	476	455	482	502	476	663	1,160	3,530	2,799	1,520	782	505
Mean	15.4	15.2	15.5	16.2	16.4	21.4	38.7	114	93.3	49.0	24.6	16.8
Ac-ft	944	902	956	996	944	1,320	2,300	7,000	5,550	3,010	1,510	1,000
Calendar year 1955: Max	117			Min 12		Mean 30.3		Ac-ft 21,980				
Water year 1955-56: Max	158			Min 12		Mean 36.4		Ac-ft 26,430				

Peak discharge (base, 250 cfs).--No peak above base.

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Beaver River at Adamsville, Utah

Location.--Lat 38°16', long 112°48', in S $\frac{1}{4}$ sec. 30, T. 29 S., R. 8 W., on left bank 800 ft downstream from bridge on State Highway 21, a quarter of a mile upstream from Indian Creek, and three-quarters of a mile south of Adamsville.

Drainage area.--272 sq mi.

Records available.--December 1913 to September 1936, October 1937 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 6,000 ft (from topographic map). Prior to Oct. 1, 1937, at site 300 ft upstream at different datum.

Average discharge.--41 years (1914-36, 1937-56), 36.7 cfs (26,570 acre-ft per year).

Extremes.--Maximum discharge during year, 67 cfs Jan. 23 (gage height, 1.82 ft); no flow June 18 to Sept. 30.

1913-36, 1937-56: Maximum discharge, 1,090 cfs July 23, 1941, from rating curve extended above 500 cfs; no flow during summer periods of many years.

Remarks.--Records good except those for periods of ice effect, 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 1955-56, except for periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 14 to July 3)

0.45	0	0.8	1.4	1.2	11
.5	.1	.9	2.6	1.4	22
.6	.3	1.0	4.5	1.6	39
.7	.7	1.1	7.2	1.8	61

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
1	2.2	14	34	30	b29	32	23	1.0	1.6				
2	2.2	28	*32	31		31	13	1.1	1.6				
3	2.3	27	33	30		31	6.6	1.0	1.5				
4	2.3	28	34	30		30	6.3	1.0	1.2				
5	2.9	28	33	31		30	6.0	1.0	1.3				
6	3.3	28	30	31	*b30	28	4.3	1.0	1.2	(*)			
7	2.8	28	33	32		28	3.8	.7	1.1				
8	2.3	26	30	32		31	2.3	.6	1.0				
9	2.9	26	35	31		30	2.2	.6	.6				(*)
10	2.8	29	31	32		29	1.9	.6	.6				
11	1.6	29	31	32		28	1.6	.8	.3			(*)	
12	2.3	30	36	32		28	1.5	.7	.2				
13	3.6	30	30	32		30	1.6	.8	.2				
14	4.7	31	32	*33		31	30	1.8	.6				.2
15	4.5	32	34	32		32	*30	1.9	.5				.2
16	5.2	29	32	41	30	31	1.9	.5	.2				
17	6.3	32	34	36	30	2.6	.5	.1					
18	6.0	39	32	33	29	3.3	.7	0					
19	2.9	39	33	33	27	*2.9	.6	0					
20	*3.3	37	34	38	27	2.9	1.1	0					
21	3.1	34	35	39		31	1.9	.9	0				
22	2.8	34	35	39		35	32	1.9	1.3				0
23	3.3	32	42	50		36	34	1.5	.5				0
24	2.9	33	43	47		35	33	1.3	*.5				0
25	3.3	31	36	41		33	39	1.2	2.5				0
26	3.4	33	34	40	32	38	1.2	3.8	0				
27	4.3	34	33	40	34	40	1.2	1.9	0				
28	5.2	33	32	39	35	40	1.2	4.0	0				
29	7.8	33	31	38	34	38	1.0	5.2	0				
30	8.5	34	31	38	-----	37	1.0	3.3	0				
31	8.9	-----	32	35	-----	39	-----	2.6	-----			-----	
Total	119.9	921	1,037	1,098	897	991	104.8	41.9	13.1	0	0	0	
Mean	3.87	30.7	33.5	35.4	30.9	32.0	3.49	1.35	0.44	0	0	0	
Ac-ft	258	1,830	2,060	2,180	1,780	1,970	208	83	26	0	0	0	
Calendar year 1955: Max	81			Min	0	Mean	16.7	Ac-ft	12,070				
Water year 1955-56: Max	50			Min	0	Mean	14.3	Ac-ft	10,380				

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

BEAVER RIVER BASIN

Rockyford Reservoir near Minersville, Utah

Location--lat 38°14', long 112°50', in NE $\frac{1}{4}$ 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 1956.

Gage--Staff gage.

Extremes--Maximum contents observed during year, 9,520 acre-ft Apr. 1 (gage height, 34.9 ft); no contents part of August and September 1956.
1937-56: Maximum contents observed 23,810 acre-ft Apr. 22, 25, 28, 30, May 1, 1945; no contents Oct. 16, 31, 1939, part of August and September 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. Water is used for irrigation in vicinity of Minersville and Milford.

Capacity table, water year 1955-56 (gage height, in feet, and contents, in acre-feet)
(Capacity table furnished by Utah State Engineers Office)

16	1,760	28	5,750
18	2,250	30	6,720
20	2,810	32	7,820
22	3,440	34	8,910
24	4,080	36	10,270
26	4,920		

Contents in acre-feet, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-		-	-	7,270	8,250	9,520	-	-	-	-	-
2	-		-	-	-	-	-	-	-	-	-	-
3	-		3,920	-	-	8,250	-	-	-	-	-	-
4	-		-	-	-	-	-	-	-	-	-	-
5	-		-	-	-	-	-	-	5,710	-	-	-
6	-		-	-	-	-	-	8,360	-	3,410	-	-
7	-		-	-	-	-	9,390	-	-	-	-	-
8	-		-	-	-	-	-	-	-	-	-	-
9	-		-	-	7,430	-	-	-	-	-	e870	-
10	-		-	-	-	8,530	-	-	-	-	-	-
11	-		-	-	-	-	-	-	-	-	-	-
12	-		-	-	-	-	-	8,420	-	-	-	e0
13	-		-	-	-	-	-	-	-	-	-	-
14	-		-	6,130	-	-	-	7,430	-	-	-	-
15	-		-	-	-	8,750	9,250	-	-	-	-	-
16	-		-	-	-	-	-	-	-	-	-	-
17	-		-	-	-	8,800	-	-	-	-	-	-
18	-		-	-	-	-	-	-	-	-	-	-
19	-		-	-	-	-	9,250	7,100	-	-	-	-
20	1,760		-	-	-	-	-	-	-	-	-	-
21	-		-	-	-	-	9,110	-	-	-	-	-
22	-		-	-	-	-	-	-	-	-	-	-
23	-		-	-	-	-	-	-	-	-	-	-
24	-		-	-	-	9,050	-	6,720	-	-	-	-
25	-		-	-	-	-	-	-	-	-	-	-
26	-		-	-	8,250	-	-	-	-	-	-	-
27	-		-	-	-	-	-	-	-	-	-	-
28	-		-	-	-	-	-	6,280	-	-	-	-
29	-		-	-	a8,250	9,250	-	-	-	-	-	-
30	-	a3,770	-	-	-	-	9,050	-	a3,860	e1,300	-	a0
31	a2,300	-----	5,540	a7,210	-----	a9,430	-----	a6,070	-----	a1,260	a0	-----
(†)	-	-	-	-	-	-	34.2	-	-	17	-	-
(*)	+780	+1,470	+1,770	+1,670	+1,040	+1,180	-380	-2,980	-2,210	-2,600	-1,260	0

Calendar year 1955..... * +50

Water year 1955-56..... * e-820

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

a No gage-height record; contents interpolated.

e Capacity table in error; contents estimated on basis of inflow-outflow computations.

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 4¼ miles east of Minersville.

Drainage area--512 sq mi.

Records available--December 1913 to September 1956.

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--41 years (1914-36, 1937-56), 38.8 cfs (28,090 acre-ft per year).

Extremes--Maximum daily discharge during year, 176 cfs June 24, 25, 27; minimum daily, 3.3 cfs Dec. 8-15.

1913-56: 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 for irrigation and municipal use above reservoir.

Rating table, water year 1955-56 (gage height, in feet,
and discharge, in cubic feet per second)
(Shifting-control method used May 23 to July 27)

0.7	2.5	1.2	43
.8	6.3	1.5	88
.9	12	2.0	187
1.0	21		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.8	3.6	3.6	4.0	4.8	5.5	6.9	27	62	154	4.8	5.9
2	4.4	3.6	3.6	4.0	4.8	5.5	6.9	28	59	116	4.8	4.8
3	4.4	3.6	*3.6	4.0	4.4	5.9	6.9	53	62	93	16	4.0
4	4.4	3.6	3.6	4.0	4.4	5.5	6.9	63	68	62	33	4.0
5	4.4	3.6	3.6	4.4	4.8	5.5	6.3	63	64	40	29	4.0
6	4.4	3.6	3.6	4.4	4.8	5.5	6.3	63	77	*30	29	4.0
7	4.0	3.6	3.6	4.4	4.8	5.2	6.3	62	78	26	29	4.4
8	4.4	3.6	3.3	4.4	4.8	5.5	6.3	62	82	26	28	4.4
9	4.4	3.6	3.3	4.8	*5.2	5.5	6.3	62	85	26	*28	4.4
10	4.4	3.6	3.3	4.8	4.8	5.5	6.3	63	85	27	28	4.8
11	4.4	3.6	3.3	4.8	4.8	5.5	6.9	62	90	27	29	5.2
12	4.4	3.6	3.3	4.8	5.5	5.5	6.9	57	88	26	28	*4.8
13	4.4	3.6	3.3	4.8	5.5	5.9	6.9	54	83	28	28	4.4
14	4.4	3.6	3.3	*4.8	5.5	5.9	6.9	44	90	26	28	4.0
15	4.4	3.6	3.3	4.8	5.5	*5.9	6.9	41	95	25	27	4.0
16		3.6	3.6	4.8	5.5	5.9	6.9	42	100	24	28	4.0
17		3.6	3.6	4.4	5.2	5.9	6.9	42	111	23	28	4.0
18	4.0	3.6	3.6	4.4	5.5	5.9	6.9	43	138	23	27	4.4
19		3.6	3.6	4.4	5.2	5.9	*6.9	47	152	23	27	4.0
20	*3.6	3.6	3.6	4.4	4.8	5.9	6.9	49	157	22	27	4.4
21	3.6	3.6	3.6	4.4	4.4	5.9	6.3	53	163	22	28	3.6
22	3.6	3.6	3.6	4.4	4.8	5.9	6.3	54	169	21	28	3.6
23	3.6	3.6	3.6	4.4	4.4	5.9	6.3	54	172	20	27	7.0
24	3.6	3.6	3.6	4.4	4.8	5.9	6.3	*54	176	21	26	5.3
25	3.6	3.6	4.0	4.4	4.8	5.9	5.9	56	176	21	19	4.0
26	3.6	3.6	3.6	4.4	4.8	5.9	6.3	54	174	20	4.4	4.0
27	3.6	3.6	3.6	4.4	5.2	6.3	6.9	56	176	15	3.6	4.4
28	3.6	3.6	3.6	4.4	5.2	6.3	6.9	58	174	5.5	3.6	7.6
29	3.6	3.6	4.0	4.4	5.2	5.9	6.3	58	172	5.2	4.4	5.5
30	3.6	3.6	4.0	4.8	-----	5.9	22	64	167	5.2	5.2	4.8
31	3.6	-----	4.0	4.8	-----	6.3	-----	68	-----	4.8	5.2	-----
Total	125.2	108.0	110.8	138.8	144.9	179.4	213.9	1,656	3,542	1,007.7	661.0	137.7
Mean	4.04	3.60	3.57	4.48	5.00	5.79	7.13	53.4	118	32.5	21.3	4.59
Ac-ft	248	214	220	275	287	356	424	3,280	7,030	2,000	1,310	273

Calendar year 1955: Max 86 Min 2.9 Mean 18.1 Ac-ft 13,090
Water year 1955-56: Max 176 Min 3.3 Mean 21.9 Ac-ft 15,920

* Discharge measurement made on this day.

CEDAR CITY VALLEY

Coal Creek near Cedar City, Utah

Location.--Lat 37°40'20", long 113°02'05", in NE $\frac{1}{4}$ sec. 13, T. 36 S., R. 11 W., on right bank 300 ft downstream from powerplant, 4 miles downstream from South Creek, and 1.3 miles east of Cedar City.

Records available.--May 1915 to November 1919, May 1935 to September 1956. Records for May 1915 to November 1919 do not include flow of power canal operated prior to November 1919 but would be equivalent if flow of power canal is added. For amount of flow in power canal see Diversion paragraph for Coal Creek near Cedar City for these years.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 6,000 ft (from topographic map). Prior to Mar. 30, 1939, staff gages, and Mar. 30, 1939, to May 14, 1945, water-stage recorder, at several sites about 0.5 mile upstream at various datums. May 15, 1945, to Oct. 10, 1951, May 4 to July 2, 1952, water-stage recorder at site 2 miles upstream at different datum.

Average discharge.--20 years (1935-37, 1938-56), 31.2 cfs (22,590 acre-ft per year).

Extremes.--Maximum discharge during year not determined, occurred July 28 or 29; minimum daily, 2.3 cfs Dec. 4.

1935-56: Maximum discharge observed, 2,910 cfs July 9, 1936 (gage height, 6.4 ft, site and datum then in use), from rating curve extended by broad-crested weir formula; minimum, 0.4 cfs Dec. 17, 1954, result of freezeup.

Remarks.--Records good except those for periods of no gage-height record, which are poor. No diversion for irrigation above station.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.5	11	11	7.8	5.0	9.8	22	106	48	16	12	
2	7.0	10	*8.8	7.9	3.0	12	18	112	48	15	*10	
3	7.5	11	6.3	7.9	5.8	12	16	*129	48	14	9.7	
4	7.9	12	2.3	9.8	8.4	12	*17	*142	48	14	9.5	
5	7.5	12	4.1	10	9.3	14	20	118	45	14	10	6.6
6	7.9	13	9.8	10	9.8	12	20	101	41	13	9.0	(*)
7	7.0	12	12	9.8	8.8	8.5	23	93	39	12	8.6	
8	7.5	11	7.0	8.8	*8.8	11	23	86	37	12	8.5	6.2
9	7.5	12	12	8.8	8.8	14	24	71	35	12	8.3	6.2
10	7.5	12	9.3	9.3	9.3	14	31	71	33	12	8.3	6.2
11	8.4	15	8.4	9.8	10	12	31	62	30	12	*8.3	6.5
12	8.4	15	11	9.8	11	7.9	28	58	28	12	8.6	*6.5
13	8.4	17	11	9.3	11	10	30	56	26	12	9.6	6.2
14	7.5	12	11	*9.3	11	11	23	54	24	12	9.8	6.5
15	7.5	7.9	11	8.8	11	*9.5	22	54	24	12	9.0	6.5
16	7.5	6.4	11	10	9.8	11	23	59	23	11	*9.2	6.2
17	7.5	11	10	7.5	8.8	14	26	69	22	12	9.0	6.2
18	7.9	8.4	9.8	6.0	11	13	*28	77	20	12	8.0	6.2
19	7.9	12	9.8	6.7	9.3	23	23	83	20	12	8.4	6.2
20	8.4	15	9.8	9.8	11	20	27	81	19	12	8.0	6.2
21	*7.9	12	9.8	10	12	22	39	76	18	12	8.0	6.2
22	7.9	9.8	10	9.3	12	24	55	74	17	11	8.0	6.2
23	7.9	8.6	19	9.8	12	27	59	*83	16	13	*7.9	6.2
24	7.0	8.8	24	8.8	11	28	77	83	16	13	7.9	6.2
25	8.4	7.9	17	9.3	9.8	28	*82	85	15	13	7.8	6.2
26	12	9.8	14	9.8	9.8	24	105	76	14	18	7.8	6.2
27	12	12	14	9.3	10	21	*79	71	14	15	7.6	6.2
28	11	12	12	6.7	10	16	55	72	14	*40	7.6	6.2
29	12	13	9.3	6.3	10	18	59	56	*14	60	7.4	5.8
30	12	11	12	5.2	-----	22	69	54	25	20	7.2	6.5
31	12	-----	11	7.5	-----	23	-----	*49	-----	14	7.0	-----
Total	264.3	338.6	337.5	269.1	277.3	503.7	1,152	2,459	821	482	266.0	189.9
Mean	8.53	11.3	10.9	8.68	9.56	16.2	39.4	79.3	27.4	15.5	8.58	6.33
Ac-ft	524	672	669	534	550	999	2,280	4,880	1,630	958	528	377

Calendar year 1955: Max 194 Min 2.3 Mean 19.2 Ac-ft 13,920
 Water year 1955-56: Max 142 Min 2.3 Mean 20.1 Ac-ft 14,600

Peak discharge (base, 350 cfs).--No peak above base.

* Discharge measurement made on this day.

Note.--No gage-height record. July 28 to Sept. 7; discharge estimated on basis of 6 discharge measurements and records for North Fork of Virgin River near Springdale, Utah.

ESCALANTE VALLEY

Santa Clara-Pinto diversion near Pinto, Utah

Location.--Lat 37°28', long 113°28', in SW $\frac{1}{4}$ 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 1956 (records of monthly diversion only). Records of daily flow collected by Geological Survey available in Salt Lake City district office.

Gage.--Water-stage recorder.

Remarks.--This is a transmountain diversion from a tributary of Santa Clara River in Colorado River basin to Pinto Creek in Escalante Valley.

Monthly diversion, in acre-feet, water year October 1955 to September 1956

Month	Diversion	Month	Diversion
October.....	0	May.....	91
November.....	0	June.....	3.2
December.....	0	July.....	0
January.....	0	August.....	0
February.....	0	September.....	0
March.....	0.2	Water year.....	141
April.....	47		

Whitewater River at Whitewater, Calif.

Location.--Lat 33°56'48", long 116°38'24", in NW 1/4 sec. 2, T. 3 S., R. 3 E., on right bank 1.5 miles north of Whitewater and 3 1/2 miles upstream from San Geronio River.

Drainage area.--57.4 sq mi.

Records available.--October 1948 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 1,610.98 ft above mean sea level, adjustment of 1934. Supplementary water-stage recorder and sharp-crested weir on diversion channel 400 ft west and 500 ft downstream from base gage. From Feb. 24, 1950, to Sept. 30, 1952, supplementary gage used as base gage.

Average discharge.--8 years, 9.18 cfs (6,650 acre-ft per year); average combined discharge of river and infiltration line, 7 years (1949-56), 10.8 cfs (7,820 acre-ft per year).

Extremes.--Maximum discharge during year, 578 cfs Jan. 27 (gage height, 6.86 ft), from rating curve extended above 30 cfs on basis of slope-area determination of peak flow; minimum daily, 1.0 cfs Apr. 14, 15.

1948-56: Maximum discharge, 686 cfs June 25, 1954 (gage height, 7.52 ft), from rating curve extended above 30 cfs on basis of slope-area determination of peak flow; minimum daily, that of Apr. 14, 15, 1956.

Maximum discharge known, 42,000 cfs Mar. 2, 1938, from slope-area determination of peak flow, at site 2.5 miles upstream (drainage area, 51.4 sq mi).

Remarks.--Records fair except those for periods of fragmentary or no gage-height record, and those above 20 cfs, which are poor. Discharge measurements generally made twice a month. Records of daily discharge include water pumped from open sumps in ground-water seepage area surrounding station. The monthly runoff is adjusted for flow from infiltration line that bypasses station. The California Electric Power Co. diverts out of basin about 15 miles upstream to powerplants in San Geronio 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 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.0	9.0	7.0	4.8	a2.5	5.8	3.6	6.1	4.6	2.4	4.9	3.8
2	8.1	9.5	14	5.1	a2.5	6.1	4.6	5.3	4.4	4.6	4.6	2.2
3	9.0	9.5	9.0	6.8	f2.3	5.3	5.8	5.3	3.6	4.9	4.4	6.6
4	10	9.2	9.5	6.8	2.0	5.2	5.6	5.6	4.6	4.4	4.0	6.1
5	12	8.4	9.0	6.6	3.6	6.1	5.6	4.9	4.9	4.2	2.4	6.3
6	10	6.8	9.5	7.6	20	5.3	5.3	3.2	4.9	4.4	4.9	6.3
7	11	9.0	11	6.6	62	5.6	4.9	5.3	4.4	4.0	4.6	6.8
8	10	9.5	9.0	5.6	f1.7	5.6	5.3	4.6	4.6	2.4	4.6	6.6
9	6.3	9.2	9.0	6.6	6.4	5.6	5.3	5.3	4.2	4.2	4.4	5.2
10	9.5	9.0	9.5	6.8	6.8	4.9	5.3	5.3	2.4	4.4	4.4	6.8
11	10	9.0	9.5	6.8	6.3	4.4	4.9	5.1	4.9	4.0	4.0	6.6
12	10	8.7	8.5	6.3	2.4	5.6	4.9	4.4	4.9	4.2	2.8	6.3
13	9.8	7.3	8.5	6.8	6.1	5.6	4.2	3.0	4.4	4.2	4.6	6.3
14	10	9.4	8.0	6.1	6.3	5.6	1.0	5.1	4.4	4.0	4.6	6.3
15	10	7.0	8.0	5.1	6.3	5.8	1.0	5.1	4.6	2.4	5.1	6.3
16	7.6	7.6	8.5	5.8	6.1	6.3	5.6	5.1	4.4	4.9	4.6	3.0
17	9.8	7.9	8.0	6.1	6.3	5.6	6.3	4.9	2.6	4.6	4.4	6.3
18	10	6.1	8.0	6.3	5.6	3.0	6.1	4.9	4.9	4.4	4.2	6.3
19	10	7.0	7.5	6.3	5.2	6.1	6.1	4.4	5.1	4.0	2.2	6.6
20	10	5.8	8.5	7.1	6.1	6.1	6.1	3.0	4.6	4.0	4.4	6.3
21	10	6.6	6.8	6.6	6.1	6.1	5.1	4.9	4.4	4.0	4.4	6.3
22	9.5	7.0	6.6	4.6	6.1	5.6	3.8	5.1	4.6	2.1	4.6	6.1
23	7.0	8.0	6.8	6.6	5.6	6.1	5.8	4.9	4.4	4.6	4.4	4.4
24	9.5	7.0	6.6	6.6	11	5.3	6.1	4.6	2.6	3.6	4.4	6.6
25	9.8	8.0	6.6	6.1	9.0	3.8	5.6	4.6	5.3	4.5	4.0	6.6
26	9.5	7.5	7.0	67	8.5	5.8	5.6	4.4	5.1	5.1	2.2	6.3
27	9.0	6.1	7.0	126	7.5	5.8	5.8	3.0	4.6	5.1	4.4	6.5
28	9.5	8.0	7.3	a10	6.3	5.3	5.1	4.9	4.6	4.6	4.2	6.1
29	9.0	7.6	7.1	a5	5.8	5.6	3.4	4.8	4.6	2.8	4.2	6.1
30	6.8	6.3	8.4	a3	-----	5.6	5.8	4.6	4.0	5.1	4.0	4.2
31	9.2	-----	6.6	a2.5	-----	5.1	-----	4.9	-----	4.9	4.6	-----
Total	290.9	237.0	256.3	370.0	247.7	169.7	147.7	147.1	131.6	127.0	129.5	176.0
Mean	9.38	7.90	8.27	11.9	8.54	5.47	4.92	4.75	4.39	4.10	4.18	5.87
Ac-ft	577	470	508	734	491	337	293	292	281	252	257	349
(+)	30	59	109	97	41	26	30	20	20	23	19	20

Adjusted for infiltration

Mean Cfs	607	529	617	831	532	363	323	312	281	275	276	369
In. (*)	72	74	71	76	62	70	80	75	54	42	40	30

Observed

Calendar year 1955: Max	46	Min	3.6	Mean	10.2	Ac-ft	7,360
Water year 1955-56: Max	126	Min	1.0	Mean	6.64	Ac-ft	4,820

Adjusted

Calendar year 1955: Mean	Cfs	In.	Ac-ft	8,410
Water year 1955-56: Mean	Cfs	In.	Ac-ft	5,320

Peak discharge (base, 100 cfs).--Jan. 27 (3 a.m.) 578 cfs (6.86 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 probable recession and records for nearby streams.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

Tahquitz Creek near Palm Springs, Calif.

Location.--Lat 33°48'15", long 116°33'40", in SW $\frac{1}{4}$ sec. 22, T. 4 S., R. 4 E., on left bank 1.5 miles southwest of Palm Springs and 7 miles upstream from mouth.

Records available.--October 1947 to September 1956.

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.--9 years, 2.45 cfs (1,770 acre-ft per year).

Extremes.--Maximum discharge during year, 37 cfs Jan. 27 (gage height, 2.44 ft); no flow Oct. 1 to Nov. 19, June 10 to Sept. 30.
1947-56: 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 determination of peak flow; no flow during parts of each year.

Remarks.--Records good.

Revisions (water years).--WSP 1244: 1948, 1951.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0.5	0	1.2	4.5
.6	.2	1.5	8.9
.7	.5	1.7	13
.8	1.0	1.9	17
1.0	2.4	2.1	23

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	0.2	0.6	2.2	1.6	1.6	2.1	*0.3			(*)
2		0	.2	.6	1.6	1.6	1.4	2.0	.2			
3		0	.3	.5	1.8	1.6	2.1	1.8	.2			
4		0	.4	*.5	1.9	1.6	1.9	1.8	.1			
5		0	.4	.5	1.8	1.6	1.9	1.8	.1			
6		0	*.4	.5	1.7	1.6	1.9	1.7	.1			
7	(*)	0	.4	.5	1.6	1.5	1.9	1.6	.1			
8		0	.5	.5	1.6	1.8	1.9	1.6	.1			
9		0	.5	.4	*1.4	1.8	1.9	1.6	.1			
10		0	.5	.4	1.6	1.8	1.8	*2.0	0			
11		0	.5	.4	1.5	1.9	1.9	2.0	0			
12		0	.5	.4	1.4	1.8	2.0	1.8	0			
13		0	.5	.4	1.5	1.8	*2.2	1.5	0			
14		0	.4	.4	1.5	*1.9	2.4	1.4	**0			
15		0	.4	.4	1.5	1.8	2.5	1.3	**0			
16		0	.4	.4	1.6	1.8	2.5	1.1	0			
17		*0	.4	.4	1.3	1.8	2.3	1.1	0			
18		0	.4	.4	1.5	1.7	2.4	.9	0			
19		0	.4	.4	1.4	1.8	2.2	.9	0			(*)
20		.1	.4	.4	1.4	1.8	2.1	.8	0			
21		.1	*.4	.4	1.4	1.8	2.0	.7	0			
22		.2	.4	.4	1.3	1.8	2.0	.6	0			
23		.3	.4	.4	*1.6	1.7	2.0	*.6	0			
24		.2	.5	.4	2.5	1.7	2.0	.6	0			
25		.2	.6	.4	1.8	1.6	2.1	.6	0			
26		.2	.6	3.3	1.8	1.6	2.2	.6	0	(*)		
27		.2	.6	23	1.6	1.5	*2.6	.6	0		(*)	
28		.2	.6	7.7	1.6	*1.6	2.4	.5	0			
29		.2	.6	4.0	1.5	1.6	2.2	.4	*0			
30		.2	.6	3.1	-----	1.5	2.2	.4	0			
31		-----	.6	2.7	-----	1.5	-----	.4	-----			-----
Total	0	2.1	14.0	54.8	46.9	52.5	62.5	36.8	1.3	0	0	0
Mean	0	0.07	0.45	1.77	1.62	1.68	2.08	1.19	0.04	0	0	0
Ac-ft	0	4.2	28	109	93	104	124	73	2.6	0	0	0
Calendar year 1955: Max 13 Min 0 Mean 2.06 Ac-ft 1,490												
Water year 1955-56: Max 23 Min 0 Mean 0.74 Ac-ft 538												

Peak discharge (base, 20 cfs).--Jan. 27 (5 a.m.) 37 cfs (2.44 ft).

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

** Field estimate made on this day.

Palm Canyon Creek near Palm Springs, Calif.

Location.--Lat 33°44'55", long 116°32'15", in S $\frac{1}{2}$ 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 1956.

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.--20 years (1930-41, 1947-56), 4.93 cfs (3,570 acre-ft per year); median of yearly mean discharges, 1.2 cfs (870 acre-ft per year).

Extremes.--Maximum discharge during year, 0.4 cfs July 26 (gage height, 1.72 ft); no flow during most of year.

1930-42, 1947-56: 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 during several months of most years.

Remarks.--Records fair. Discharge measurements or observation of no flow generally made twice a month.

Discharge, in cubic feet per second, water year October 1955 to September 1956

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										0		
25										0		
26										0		
27										0.1		
28										0		
29										0		
30										0		
31										0		
Total	0	0	0	0	0	0	0	0	0	0.1	0	0
Mean	0	0	0	0	0	0	0	0	0	0.003	0	0
Ac-ft	0	0	0	0	0	0	0	0	0	0.2	0	0
Calendar year 1955: Max	14				Min	0	Mean	0.34	Ac-ft	245		
Water year 1955-56: Max	0.1				Min	0	Mean	0.0003	Ac-ft	0.2		

Peak discharge (base, 100 cfs).--No peak above base.

Andreas Creek near Palm Springs, Calif.

Location.--Lat 33°45'35", long 116°32'55", in SE¼ sec. 3, T. 5 S., R. 4 E., on left bank at Indian Service diversion dam, 0.9 mile above mouth and 5.4 miles south of Palm Springs.

Drainage area.--8.78 sq mi.

Records available.--October 1948 to September 1956.

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.--8 years, 2.00 cfs (1,450 acre-ft per year).

Extremes.--Maximum discharge during year, 53 cfs Jan. 27 (gage height, 2.43 ft); minimum daily, 0.4 cfs Aug. 5-27, Sept. 1-4, 29, 30.

1948-56: 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 determination of peak flow; minimum daily, 0.3 cfs for many days during 1950 and 1951.

Remarks.--Records good below 10 cfs and fair above. Discharge measurements generally made twice a month. One small diversion for domestic use about 1 mile above station.

Rating table, water year 1955-56 (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	2.2	33
1.6	5.0		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.7	1.1	1.8	1.5	2.4	1.8	1.6	1.2	0.8	0.8	0.5	0.4
2	.6	1.1	3.8	1.6	2.2	1.8	1.8	1.2	.7	.8	.5	.4
3	.6	1.1	1.9	1.8	2.0	1.6	1.6	1.2	.6	.8	.6	.4
4	.6	1.1	2.7	1.8	1.9	1.4	1.8	1.0	.7	.8	.5	.4
5	.7	1.0	2.2	1.9	1.9	1.4	1.6	1.0	.8	.6	.4	.5
6	.7	1.0	2.0	1.9	1.9	1.5	1.5	1.1	.7	.6	.4	.5
7	.6	1.1	1.9	2.0	1.9	1.5	1.5	1.1	.7	.5	.4	.6
8	.6	1.2	1.8	2.0	1.9	1.5	1.4	1.0	.7	.5	.4	.6
9	.7	1.2	1.8	2.0	1.9	1.5	1.2	1.2	.7	.5	.4	.6
10	.8	1.1	1.6	1.9	1.8	1.5	1.2	1.2	.6	.5	.4	.6
11	.7	1.1	1.6	1.9	1.8	1.6	1.4	1.2	.6	.5	.4	.6
12	.7	1.1	1.6	1.9	1.8	1.6	1.5	1.2	.5	.5	.4	.6
13	.8	1.2	1.6	2.0	1.8	1.6	1.8	1.1	.5	.5	.4	.5
14	.8	2.2	1.5	2.0	1.8	1.6	1.8	1.0	.6	.5	.4	.6
15	.9	1.5	1.5	2.0	1.9	1.5	1.6	1.0	.7	.5	.4	.6
16	.8	1.5	1.5	1.9	2.2	1.5	1.6	1.0	.7	.5	.4	.6
17	.9	1.5	1.5	1.8	2.2	1.5	1.6	1.1	.7	.6	.4	.5
18	1.0	1.5	1.5	1.8	2.2	1.5	1.6	1.0	.7	.7	.4	.5
19	1.1	1.5	1.5	1.8	2.2	1.6	1.5	.8	.6	.6	.4	.6
20	1.1	1.5	1.5	1.9	2.0	1.6	1.5	.8	.6	.6	.4	.6
21	1.1	1.9	1.4	1.9	2.0	1.6	1.4	.8	.6	.6	.4	.6
22	1.1	1.8	1.4	2.0	1.9	1.6	1.2	.8	.7	.7	.4	.6
23	1.1	1.6	1.4	2.0	1.9	1.5	1.2	.8	.7	.8	.4	.6
24	1.1	1.6	1.5	2.2	2.0	1.5	1.2	.8	.7	.9	.4	.6
25	1.0	1.6	1.5	2.5	1.9	1.5	1.2	.9	.7	.9	.4	.6
26	1.0	1.6	1.6	12	1.9	1.5	1.4	1.0	.7	1.0	.4	.5
27	1.0	1.6	1.5	29	1.9	1.5	1.5	1.0	.7	1.0	.4	.6
28	1.0	1.6	1.5	6.6	1.8	1.5	1.4	1.0	.8	.9	.5	.6
29	.9	1.6	1.6	2.9	1.8	1.6	1.4	1.0	.9	.7	.5	.4
30	.9	1.6	1.6	2.5	1.8	1.6	1.2	1.0	.9	.6	.5	.4
31	.9	1.6	1.6	2.5	1.8	1.5	1.2	.9	.9	.6	.5	.4
Total	26.5	42.1	53.4	102.6	56.8	48.0	44.2	31.4	20.6	20.6	13.4	16.2
Mean	0.85	1.40	1.72	3.31	1.96	1.55	1.47	1.01	0.69	0.66	0.43	0.54
Ac-ft	53	84	106	204	113	95	88	62	41	41	27	32
Calendar year 1955: Max	9.7			Min	0.6	Mean	1.76	Ac-ft	1,280			
Water year 1955-56: Max	29			Min	0.4	Mean	1.30	Ac-ft	946			

Peak discharge (base, 30 cfs).--Jan. 27 (3:30 a.m.) 53 cfs (2.43 ft).

Coyote Creek near Borrego Springs, Calif.

Location.--Lat 33°22'30", long 116°25'25", in SE $\frac{1}{4}$ sec. 23, T. 9 S., R. 5 E., on right bank 500 ft (revised) upstream from Box Canyon and 9 miles northwest of Borrego Springs.

Records available.--November 1950 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 1,250 ft (from topographic map).

Average discharge.--6 years, 2.67 cfs (1,930 acre-ft per year).

Extremes.--Maximum discharge during year, about 100 cfs July 25 (gage height, 8.44 ft, in gage well, 10.20 ft from outside gage), from rating curve extended above 3 cfs on basis of slope-area determination of 577 cfs; minimum daily recorded, 1.2 cfs July 14-16, 19-24.

1950-56: 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 determination of peak flow; minimum daily recorded, that of July 14-16, 19-24, 1956.

Remarks.--Records fair except those above 3 cfs and those for periods of no gage-height record, or periods of indefinite stage-discharge relation, which are poor. Discharge measurements or observations of no flow generally made twice a month.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1			2.2	2.6	2.7	e2.5	2.6	a2	e2	1.4	a1.6	a1.5
2			2.3	2.6	2.7	e2.5	2.6	a2	e2	1.5	1.6	a1.5
3			2.3	2.5	2.7	e2.5	2.6	1.9	e2	1.6	1.6	a1.5
4			2.3		2.7	e2.5	2.6	1.9	2.1	1.6	1.5	a1.4
5					2.7	e2.5	2.4	1.9	2.0	1.6	1.5	
6		a2			2.7	e2.5	2.3	1.8	1.9	1.6	1.5	
7					2.7	2.7	2.4	1.8	1.9	1.6		
8			a2.5		2.7	2.8	2.2	1.8	1.7	1.6		
9					2.7	2.8	2.1	1.8	1.7	1.4		
10			a2.5	a2.5	2.7	2.7	2.2	1.8	1.7	1.4		
11					2.7	2.7	2.6	1.8	1.7	1.3		
12	2.0				2.7	2.7	2.8	1.8	1.7	1.3		
13	2.0				2.7	2.7	2.6	1.8	1.6	1.3		
14	2.0				2.7	2.7	2.5	1.8	1.6	1.2		
15	2.0				2.7	2.6	2.4	1.7	1.7	1.2		a1.5
16	2.0	2.7	2.8		2.7	2.5	2.5	1.7	1.7	1.2		
17	2.0	2.6	2.8	2.9	2.7	2.4	2.4	1.7	1.8	1.3		
18		2.5	2.8	2.9	2.7	2.5	2.3	1.6	1.8	1.3		
19		2.5	2.8	2.9	2.7	2.5	2.3	a1.6	1.7	1.2	a1.5	
20		2.4	2.8	2.9	2.7	2.7	2.3	a1.6	1.6	1.2		
21	a2											
22		2.4	2.8	2.9	2.7	3.8	2.3	a1.6	1.6	1.2		
23		2.6	2.8	2.9	2.7	4.4	2.3	1.6	1.6	1.2		
24		2.5	2.8	2.8	2.7	4.2	2.3	1.6	1.6	1.2		
25		2.4	2.8	2.7	2.4	4.0	2.2	1.6	1.6	1.2		
26		2.2	2.8		e2.5	3.7	2.2	1.7	1.5	1.3		
27	2.2	2.3	a2.8	2.7	e2.5	3.6	2.2	e2	1.5	a4		1.6
28		2.3	a2.7	2.7	2.4	3.0	2.1	e2	1.5	a3		1.6
29		2.4	a2.7	2.7	2.4	2.8	2.0	e2	1.5	a2		1.6
30	a2	2.5	2.7	2.7	e2.5	2.7	a2	e2	1.5	a2		1.6
31		2.1	2.7	2.7	-----	2.7	a2	e2	1.4	a2		1.6
		-----	2.7	2.7	-----	2.5	-----	e2	-----	a2		-----
Total	62.4	74.0	80.9	82.0	76.8	89.0	70.2	55.9	51.2	60.6	46.8	45.4
Mean	2.01	2.47	2.61	2.65	2.65	2.87	2.34	1.80	1.71	1.95	1.51	1.51
Ac-ft	124	147	160	163	152	177	139	111	102	120	93	90
Calendar year 1955: Max	25			Min	-		Mean 2.38		Ac-ft 1,730			
Water year 1955-56: Max	13			Min	-		Mean 2.17		Ac-ft 1,580			

Peak discharge (base, 50 cfs).--July 25 (6 p.m.) about 100 cfs (gage height, 8.44 ft in gage well; 10.20 ft from outside gage).

a No gage-height record; discharge interpolated or estimated on basis of 10 discharge measurements weather records, and records for Palm Canyon Creek near Borrego Springs.

e Stage-discharge relation indefinite; discharge estimated as explained above, or interpolated.

Palm Canyon Creek near Borrego Springs, Calif.

Location.--Lat 33°16'40", long 116°25'50", in NW¹ 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 1956.

Gage.--Water-stage recorder. Altitude of gage is 1,200 ft (from topographic map).

Average discharge.--6 years, 0.54 cfs (391 acre-ft per year).

Extremes.--Maximum discharge during year, 8.0 cfs Feb. 1 (gage height, 2.12 ft); no flow May 16, 19-24, June 3, 4, June 6 to Sept. 30.
1950-56: Maximum gage height, 9.9 ft, from floodmarks, Aug. 23, 1955 (discharge not determined); no flow during several months each year.

Remarks.--Records poor. Discharge measurements generally made twice a month.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	e0.2	0.2	0.4	a0.4	6.4	a0.7	0.8	a0.3	0.1			
2	e.2	.2	1.2	a.4	6.2	a.7	.7	a.2	.1			
3	e.2	.2	a.8	a.4	a5	a.7	.6	a.2	0			
4	e.2	.2	1.0	.4	a4	a.7	.6	.1	0			
5	e.2	.2	a.6	.4	a2	a.7	.5	.1	.1			
6	e.2	.2	a.5	.4	a1	a.6	.6	.1	0			
7	e.2	.2	a.5	.4	.6	a.6	.7	.1	0			
8	e.2	.2	a.5	.4	.6	a.6	.7	.1	0			
9	e.2	.2	a.5	.4	.6	.6	.6	.1	0			
10	e.2	.2	a.5	.4	.6	.7	a.6	.1	0			
11	.2	.2	a.4	.4	.6	1.2	a.6	.1	0			
12	.2	.3	a.4	.4	.6	1.1	a.6	.1	0			
13	.2	.3	a.4	.4	.6	1.1	.6	.1	0			
14	.2	.4	a.4	.4	.6	1.0	.6	.1	0			
15	.2	a.4	a.4	.4	.6	.9	.6	.1	0			
16	.2	a.4	.4	.4	.7	.8	.5	0	0			
17	a.2	.5	.3	.4	.6	1.2	a.5	.1	0			
18	a.2	.8	a.3	.4	.7	1.3	a.5	.1	0			
19	a.2	1.2	a.3	.4	.8	a.8	a.5	0	0			
20	a.2	a.5	a.3	.4	.7	.5	.5	0	0			
21	a.2	a.4	a.3	.4	.7	.5	.3	0	0			
22	a.2	a.3	a.3	.4	1.0	.4	a.3	0	0			
23	a.2	a.2	a.3	.5	1.1	.4	a.3	0	0			
24	a.2	.2	a.3	.5	1.3	.4	a.3	0	0			
25	a.2	.3	a.3	.4	a.8	.5	.3	.1	0			
26	.2	.4	a.3	.7	.7	.5	.3	.1	0			
27	.2	.4	a.3	1.9	a.6	.5	.3	.1	0			
28	.2	a.4	a.3	3.8	.9	.4	.3	.1	0			
29	.2	.4	a.3	a2	---	a.7	.3	.1	0			
30	.2	.4	a.3	a1	---	a.4	.3	.1	0			
31	.2	---	a.3	4.7	---	a.4	---	.1	---			---
Total	6.2	10.4	13.4	24.3	41.3	21.3	14.7	2.8	0.3	0	0	0
Mean	0.20	0.35	0.43	0.78	1.42	0.69	0.49	0.09	0.01	0	0	0
Ac-ft	12	21	27	48	82	42	29	5.6	0.6	0	0	0
Calendar year 1955: Max 50 Min 0 Mean 0.49 Ac-ft 357												
Water year 1955-56: Max 6.4 Min 0 Mean 0.37 Ac-ft 267												

Peak discharge (base, 15 cfs).--No peak above base.

a No gage-height record; discharge interpolated or estimated on basis of weather records, engineers' notes, and records for Coyote Creek near Borrego Springs.

e Stage-discharge relation indefinite; discharge interpolated or estimated on basis of weather records, engineers' notes, and records for Coyote Creek near Borrego Springs.

Deep Creek near Hesperia, Calif.

Location.--Lat 34°24'30", 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 south-east of Hesperia.

Drainage area.--137 sq mi.

Records available.--December 1929 to September 1956. 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 1956.

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 0.5 mile downstream at different datum.

Average discharge.--26 years (1930-56), 53.8 cfs (38,950 acre-ft per year); median of yearly mean discharges, 34 cfs (24,610 acre-ft per year). Average combined discharge of creek and canal, 6 years (1951-56), 34.8 cfs (25,190 acre-ft per year).

Extremes.--Maximum discharge during year, 6,740 cfs Jan. 27 (gage height, 6.43 ft); minimum daily, 0.2 cfs Sept. 8, 9, 11-18.

1929-56: Maximum discharge, 46,600 cfs Mar. 2, 1938, by slope-area determination of peak flow; minimum, 0.1 cfs at times during 1932-34, 1936.

Remarks.--Records good except those for discharges between 9 and 11 cfs and for periods of no gage-height record, which are fair. 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. For records of combined discharge of Deep Creek and canal, see following page.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 18-20)

0.65	0.2	1.1	5.1	1.9	42	3.5	980
.7	.4	1.3	9.3	2.1	76	4.0	1,620
.8	1.0	1.4	9.6	2.3	130	5.0	3,430
.9	2.0	1.5	11	2.5	209	6.0	5,730
1.0	3.4	1.7	22	2.9	443		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	1.4	1.6	4.0	44	12	a3.5	9.9	1.7	1.0	0.7	0.4
2	.4	1.5	1.8	4.0	32	10	a5	9.9	1.5	1.0	.8	.3
3	.4	1.7	5.3	3.5	28	9.8	a4	7.1	1.4	1.0	.8	.4
4	.4	1.8	5.7	1.6	27	9.7	3.4	5.3	1.4	1.0	.8	.3
5	.4	1.9	7.2	1.4	25	8.4	3.5	4.9	1.4	1.0	.7	.3
6	.4	2.0	8.5	1.5	25	6.2	3.7	4.4	1.4	1.0	.7	.3
7	.4	2.0	4.6	1.7	23	6.2	3.5	4.7	1.3	1.0	.6	.3
8	.4	1.9	3.2	1.8	22	5.7	3.4	4.0	1.2	1.0	.6	.2
9	a.4	.9	2.8	1.9	20	5.5	3.2	5.0	1.1	1.0	.6	.2
10	a.4	.6	2.6	1.5	18	5.1	3.1	54	1.0	.8	.6	.3
11	a.4	.7	2.2	1.5	16	5.3	2.9	54	1.0	.7	.5	.2
12	a.4	.8	2.2	1.6	14	5.5	3.4	36	1.0	.7	.6	.2
13	a.4	1.0	1.7	3.7	14	5.3	22	27	.9	.8	.6	.2
14	a.5	2.0	1.7	7.9	14	4.6	30	22	.9	.8	.6	.2
15	a.5	2.5	1.7	7.9	12	3.5	26	14	.9	.8	.6	.2
16	a.6	2.4	1.7	7.9	10	3.2	26	9.4	1.0	.8	.6	.2
17	a.6	2.0	2.9	7.7	9.1	3.2	30	7.5	1.0	.8	.6	.2
18	a.6	2.4	5.7	7.7	12	3.1	35	6.4	1.1	1.0	.6	.2
19	.6	2.2	5.5	7.9	9.6	3.1	32	5.1	1.1	1.0	.6	.3
20	.7	2.1	5.5	7.9	9.0	3.1	29	4.4	1.2	1.0	.6	.3
21	.7	2.6	5.5	8.1	a8.5	3.1	24	4.0	1.2	1.0	.6	.3
22	.7	6.1	5.7	8.1	a8	3.1	19	3.2	1.2	1.0	.7	.4
23	.7	3.7	5.9	8.1	a8	3.1	17	2.8	1.2	.9	.6	.4
24	.7	2.2	6.2	8.1	a55	3.1	11	2.5	1.0	1.0	.6	.4
25	.7	1.8	6.2	8.8	a42	a3	6.8	2.5	1.0	1.3	.6	.4
26	.7	1.6	5.9	1,160	a30	a3	5.3	2.4	1.0	1.5	.5	.4
27	.7	1.4	4.4	3,550	a22	a3	31	2.2	1.0	1.2	.7	.4
28	.6	1.2	4.6	247	16	a3	30	2.1	1.0	1.0	.6	.4
29	.7	1.3	4.6	108	14	a3	21	2.1	1.0	.8	.7	.4
30	1.0	1.4	4.4	66	-----	a2.5	14	2.0	1.0	.7	.5	.4
31	1.1	-----	4.0	51	-----	a2.5	-----	1.9	-----	.7	.4	-----
Total	17.6	57.1	131.5	5,307.8	587.2	150.9	451.7	322.7	34.1	29.3	19.3	9.1
Mean	0.57	1.90	4.24	171	20.2	4.87	15.1	10.4	1.14	0.95	0.62	0.30
Ac-ft	35	113	261	10,530	1,160	299	896	640	68	58	38	18
Calendar year 1955: Max			207		Min 0.3		Mean 16.3		Ac-ft 11,820			
Water year 1955-56: Max			3,550		Min 0.2		Mean 19.4		Ac-ft 14,120			

Peak discharge (base, 400 cfs).--Jan. 27 (3:30 a.m.) 6,740 cfs (6.43 ft).

a No gage-height record; discharge estimated on basis of weather records and records for nearby stations.

MOJAVE RIVER BASIN

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 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9	2.4	5.6	6.5	44	17	12	20	7.6	5.8	4.4	0.5
2	.9	2.5	5.6	6.5	32	15	14	20	7.4	5.7	4.5	.4
3	1.0	2.7	9.1	7.2	28	15	13	17	6.6	4.4	4.4	.4
4	1.1	2.8	6.7	6.6	27	15	12	15	6.1	5.6	4.3	.3
5	1.1	2.9	8.5	6.4	25	14	12	14	6.0	5.6	4.3	.3
6	1.1	3.0	8.7	6.0	25	14	13	14	5.9	5.7	4.3	.3
7	1.1	3.0	7.7	5.9	23	14	12	14	5.5	5.6	4.2	.3
8	1.1	3.3	8.0	6.0	22	13	12	13	5.1	5.4	4.0	.2
9	1.1	2.7	7.5	6.4	20	14	11	15	4.5	5.1	4.0	.2
10	1.1	2.3	7.3	6.1	18	13	11	64	4.1	4.8	4.0	.3
11	1.1	2.5	6.8	6.1	17	14	11	46	4.1	4.5	3.8	.2
12	1.1	2.6	7.1	6.2	16	14	12	46	3.9	4.5	3.8	.2
13	1.2	2.8	6.9	5.9	16	14	27	36	3.7	4.6	3.8	.2
14	1.2	4.5	6.8	7.9	16	13	31	31	3.4	4.6	3.8	.2
15	1.2	5.3	6.7	7.9	16	13	27	23	3.4	4.5	3.9	.2
16	1.4	4.9	6.6	7.9	16	12	31	19	5.1	4.5	3.9	.2
17	1.4	4.3	5.9	7.7	15	12	39	17	7.0	4.5	4.0	.2
18	1.3	4.7	6.9	7.7	17	12	45	16	7.4	4.8	4.0	.2
19	1.3	4.9	6.6	7.9	14	12	41	14	7.1	5.1	4.1	.3
20	1.4	4.7	6.5	7.9	14	12	38	14	7.1	5.2	4.1	.3
21	1.6	4.9	6.5	8.1	13	11	33	13	7.2	5.2	4.1	.3
22	1.8	9.4	6.7	8.1	13	11	28	12	7.1	5.0	4.2	.4
23	1.9	8.5	6.9	8.1	13	11	26	11	7.0	4.9	4.0	.4
24	1.9	6.9	7.2	8.1	60	11	20	10	6.7	5.2	4.0	.4
25	1.9	6.4	7.1	8.8	47	10	16	10	6.5	5.9	4.0	.4
26	1.9	6.1	7.1	1.160	35	11	15	10	6.2	6.5	4.0	.4
27	2.1	5.9	7.1	3,550	27	10	41	9.7	6.0	6.2	3.6	.4
28	2.0	5.5	7.2	247	21	10	40	9.5	5.9	5.5	1.4	.4
29	2.0	5.5	7.2	108	19	10	30	9.0	6.0	5.0	1.0	.4
30	2.1	5.5	7.0	66	-----	9.8	24	8.4	5.8	4.7	.7	.4
31	2.1	-----	6.6	51	-----	9.8	-----	7.9	-----	4.5	-----	.4
Total	44.4	133.5	219.9	5,359.8	669	386.8	697	596.5	175.5	160.3	113.2	9.3
Mean	1.43	4.45	7.09	173	23.1	12.5	23.2	19.2	5.85	5.17	3.65	0.31
Ac-ft	88	265	436	10,630	1,330	767	1,380	1,180	348	318	225	18
Calendar year 1955: Max			209	Min	0.4	Mean	21.0	Ac-ft	15,190			
Water year 1955-56: Max			3,550	Min	0.2	Mean	23.4	Ac-ft	16,980			

West Fork Mojave River near Hesperia, Calif.

Location.--Lat 34°20'20", long 117°14'35", in SE $\frac{1}{4}$ sec. 13, T. 3 N., R. 4 W., on left bank at highway bridge, 0.5 mile upstream from confluence with Deep Creek and 7 miles southeast of Hesperia.

Drainage area.--74.8 sq mi.

Records available.--January 1930 to September 1956. December 1904 to June 1922 in reports of California Division 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.--26 years, 28.1 cfs (20,340 acre-ft per year); median of yearly mean discharges, 14 cfs (10,140 acre-ft per year).

Extremes.--Maximum discharge during year, 880 cfs Jan. 27 (gage height, 4.20 ft); no flow during several months.
1930-56: Maximum discharge, 26,100 cfs Mar. 2, 1938, by slope-area determination of peak flow; no flow during several months of each year.

Remarks.--Records good. Discharge measurements or observation of no flow 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.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 24 to May 4)

1.02	0	1.4	5.4	2.5	136
1.1	.2	1.5	9.9	3.0	274
1.2	.8	1.7	22	3.5	485
1.3	2.5	2.0	51	4.0	760

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				Q	14	4.4	0	3.8				
2				O	12	3.2	0	2.5				
3				O	7.4	2.5	0	1.4				
4				O	5.1	1.7	0	.7				
5				O	4.1	1.2	0	.3				
6				O	2.8	.7	0	.1				
7				O	1.8	.2	0	.1				
8				O	1.2	.1	0					
9				O	.8	.1	0	5.4				
10				O	.7	0	0	15				
11				O	.6	0	0	8.4				
12				O	.4	0	0	6.2				
13				O	.2	0	6.0	5.1				
14				O	.1	0	7.7	3.5				
15				O	0	0	2.8	2.3				
16				O	0	0	2.5	1.5				
17				O	0	0	1.5	.8				
18				O	0	0	.8	.4				
19				O	0	0	.2	.1				
20				O	0	0	0	.1				
21				O	0	0	0	.1				
22				O	0	0	0	0				
23				O	1.7	0	0	0				
24				O	35	0	0	0				
25				O	18	0	0	0				
26				131	12	0	.2	0				
27				508	9.4	0	20	0				
28				78	7.0	0	14	0				
29				33	5.4	0	7.9	0				
30				20	-----	0	5.8	0				
31		-----		17	-----	0	-----	0	-----			-----
Total	0	0	0	785	139.7	14.1	69.4	57.9	0	0	0	0
Mean		0	0	25.3	4.82	0.45	2.31	1.87	0	0	0	0
Ac-ft	0	0	0	1,560	277	28	138	115	0	0	0	0

Calendar year 1955: Max 140 Min 0 Mean 6.61 Ac-ft 4,780
Water year 1955-56: Max 506 Min 0 Mean 2.81 Ac-ft 2,120

Peak discharge (base, 500 cfs).--Jan. 27 (4 a.m.) 880 cfs (4.20 ft).

Mojave River at lower narrows, near Victorville, Calif.

Location.--Lat 34°34'25", long 117°19'10", in SW 1/4 sec. 29, T. 6 N., R. 4 W., on left bank 500 ft upstream from bridge on U. S. Highway 66 and 3 miles northwest of Victorville.

Drainage area.--530 sq mi.

Records available.--February 1899 to July 1906, November 1930 to September 1956. 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 Sept. 30, 1936, water-stage recorder, at site 3 miles upstream at different datum. Oct. 1, 1936, to Mar. 1, 1938, water-stage recorder at present site at datum 2.00 ft higher.

Average discharge.--25 years (1931-56), 74.4 cfs (53,860 acre-ft per year); median of yearly mean discharges, 40 cfs (28,960 acre-ft per year).

Extremes.--Maximum discharge during year, 790 cfs Jan. 27 (gage height, 3.62 ft); minimum daily, 12 cfs Aug. 24, 26.

1930-56: Maximum discharge, 70,600 cfs Mar. 2, 1938 (gage height, 18.7 ft, present datum), by slope-area determination of peak flow; minimum daily, 6 cfs Aug. 19, 21, 26, 1951.

Remarks.--Records good. Discharge measurements generally made twice a month. 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 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

(Shifting-control method used Nov. 29 to Dec. 9, Sept. 19-30)

1.66	12	2.1	58
1.7	14	2.4	119
1.9	32	2.7	215
2.0	44	3.0	350

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	22	28	34	36	54	39	34	27	24	18	17	15
2	23	29	34	36	51	38	35	27	23	20	20	14
3	23	30	38	38	48	38	34	27	24	19	18	14
4	23	32	42	38	48	38	33	27	20	19	16	14
5	23	30	41	38	44	35	32	29	25	19	20	14
6	24	29	34	40	44	34	35	27	25	17	17	14
7	23	29	36	38	44	30	33	28	20	17	19	14
8	23	29	35	38	44	29	32	26	23	16	16	14
9	23	29	36	39	44	30	29	29	24	15	18	14
10	24	30	33	36	44	26	33	27	22	15	16	15
11	25	32	33	39	44	27	34	27	21	16	14	16
12	25	33	32	39	42	29	38	30	21	16	14	16
13	23	38	36	39	44	28	41	26	18	17	17	16
14	24	38	38	39	44	29	38	27	20	16	16	16
15	24	36	38	39	44	36	38	27	19	16	14	16
16	26	36	38	41	42	38	36	29	21	16	13	14
17	27	35	39	38	44	38	36	28	22	18	13	14
18	26	35	38	35	44	39	36	28	22	18	14	14
19	26	39	39	34	42	39	38	25	22	20	16	13
20	29	36	39	34	44	39	36	28	22	18	16	14
21	29	36	40	35	44	38	35	26	21	18	15	15
22	33	36	40	35	45	36	36	26	21	19	14	14
23	34	35	39	34	44	36	36	23	19	26	14	14
24	32	36	39	35	42	34	36	24	20	25	12	14
25	32	35	36	38	41	36	33	26	20	37	13	14
26	32	35	36	61	39	34	33	22	18	25	12	14
27	29	36	36	340	40	38	29	26	19	22	13	14
28	32	34	38	134	39	34	28	25	16	24	14	16
29	32	35	38	70	39	36	30	25	17	20	15	16
30	32	34	36	61	-----	32	28	25	18	20	14	17
31	30	-----	36	60	-----	34	-----	24	-----	20	15	-----
Total	833	1,005	1,147	1,657	1,272	1,067	1,025	817	627	602	475	439
Mean	26.9	33.5	37.0	53.5	43.9	34.4	34.2	26.4	20.9	19.4	15.3	14.6
Ac-ft	1,650	1,990	2,280	3,290	2,520	2,120	2,030	1,620	1,240	1,190	942	871

Calendar year 1955: Max 58 Min 14 Mean 30.1 Ac-ft 21,790
Water year 1955-56: Max 340 Min 12 Mean 30.0 Ac-ft 21,740

Peak discharge (base, 200 cfs).--Jan. 27 (3:30 p.m.) 790 cfs (3.62 ft).

Mojave River at Barstow, Calif.

Location.--Lat 34°54'25", long 117°01'20", in SW $\frac{1}{4}$ SE $\frac{1}{4}$ 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 1956.

Gage.--Water-stage recorder. Altitude of gage is 2,090 ft (from topographic map).

Average discharge.--26 years, 29.6 cfs (21,430 acre-ft per year); median of yearly mean discharges, 0.1 cfs (72 acre-ft per year).

Extremes.--No flow during year.

1930-56: Maximum discharge, 64,300 cfs Mar. 3, 1938 (gage height, 8.60 ft), by slope-area determination of peak flow; no flow for several months each year.

Remarks.--No flow since May 11, 1952. Observations of no flow made monthly. Slight regulation by Lake Arrowhead (capacity, 48,000 acre-ft, used principally for recreation). Diversions and pumping of about 15,000 acres for irrigation above station.

Mojave River at Afton, Calif.

Location.--Lat 35°02'15", long 116°23'00", in SE $\frac{1}{4}$ 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 1956.

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, at site 1 mile downstream at different datum.

Average discharge.--6 years (1930-32, 1952-56), 2.92 cfs (2,110 acre-ft per year).

Extremes.--Maximum discharge during year, 127 cfs July 22 (gage height, 3.35 ft), from rating curve extended above 2 cfs on basis of slope-area determination of peak flow; minimum daily, 0.6 cfs Sept. 5-7, 10-21.

1929-32, 1952-56: 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. Discharge measurements generally made once a month.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0	1.2	1.3	1.4	1.5	1.6	1.4	1.5	1.0	0.9	0.7	0.7
2	1.0	1.2	1.3	1.4	1.5	1.6	1.4	1.4	1.0	1.0	.7	.7
3	1.0	1.2	1.3	1.4	1.5	1.6	1.4	1.4	.9	1.0	.7	.7
4	1.0	1.2	1.4	1.4	1.5	1.5	1.4	1.4	.9	.9	.7	.7
5	1.0	1.2	1.4	1.5	1.5	1.5	1.4	1.4	.9	.9	.7	.6
6	1.0	1.3	1.4	1.5	1.5	1.5	1.5	1.3	.9	.9	.7	.6
7	1.0	1.3	1.4	1.5	1.4	1.5	1.5	1.3	.9	.8	.7	.6
8	1.0	1.4	1.4	1.5	1.4	1.5	1.5	1.3	.9	.8	.7	.7
9	1.0	1.4	1.4	1.5	1.5	1.6	1.5	1.3	.9	.8	.7	.7
10	1.0	1.3	1.4	1.5	1.4	1.6	1.5	1.3	.9	.8	.7	.6
11	1.0	1.2	1.4	1.5	1.4	1.6	1.6	1.3	.8	.8	.7	.6
12	1.1	1.2	1.5	1.6	1.4	1.6	1.6	1.3	.8	.8	.8	.6
13	1.1	1.2	1.5	1.6	1.4	1.6	1.7	1.3	.8	.8	.8	.6
14	1.1	1.2	1.5	1.6	1.4	1.6	1.6	1.3	.8	.8	.8	.6
15	1.1	1.2	1.5	1.6	1.4	1.6	1.6	1.3	.9	.8	.8	.6
16	1.1	1.2	1.5	1.6	1.4	1.6	1.6	1.2	.9	.8	.8	.6
17	1.1	1.2	1.4	1.6	1.4	1.5	1.6	1.2	.8	.8	.8	.6
18	1.1	1.2	1.4	1.6	1.4	1.6	1.6	1.2	.8	.8	.8	.6
19	1.2	1.2	1.4	1.6	1.4	1.6	1.6	1.2	.8	.8	.8	.6
20	1.2	1.3	1.3	1.6	1.4	1.6	1.6	1.2	.9	.8	.8	.6
21	1.2	1.3	1.3	1.6	1.4	1.5	1.6	1.2	.9	.8	.8	.6
22	1.2	1.3	1.2	1.6	1.3	1.5	1.6	1.2	.9	11	.8	.7
23	1.2	1.3	1.2	1.6	1.4	1.5	1.6	1.1	.9	10	.8	.7
24	1.2	1.4	1.2	1.6	1.4	1.5	1.6	1.1	.8	1.8	.8	.7
25	1.2	1.4	1.2	1.6	1.4	1.5	1.6	1.1	.8	1.7	.7	.7
26	1.2	1.4	1.2	2.0	1.4	1.5	1.6	1.0	.9	1.6	.7	.7
27	1.2	1.4	1.2	1.7	1.5	1.5	1.6	1.0	.8	2.6	.8	.7
28	1.2	1.4	1.2	1.6	1.5	1.4	1.6	1.0	.8	1.8	.8	.7
29	1.2	1.4	1.2	1.6	1.6	1.4	1.5	1.0	.8	.8	.8	.7
30	1.2	1.4	1.3	1.6	-----	1.4	1.5	1.0	.8	.8	.8	.7
31	1.1	-----	1.4	1.6	-----	1.4	-----	1.0	-----	.8	.7	-----
Total	34.2	38.5	41.7	48.6	41.5	47.5	46.4	37.8	25.9	50.5	23.4	19.5
Mean	1.10	1.28	1.35	1.57	1.43	1.53	1.55	1.22	0.86	1.63	0.75	0.65
Ac-ft	68	76	83	96	82	94	92	75	51	100	46	39
Calendar year 1955: Max	12				Min 0.6	Mean	1.23	Ac-ft 893				
Water year 1955-56: Max	11				Min 0.6	Mean	1.24	Ac-ft 902				

Peak discharge (base, 100 cfs).--July 22 (7 p.m.) 127 cfs (3.35 ft).

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 1956, 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.--32 years (1923-37, 1938-56), 14.6 cfs (10,570 acre-ft per year); median of yearly mean discharges, 9.3 cfs (6,730 acre-ft per year).

Extremes.--Maximum discharge during year, 380 cfs Jan. 26 (gage height, 3.52 ft); minimum daily, 2.3 cfs Sept. 17, 18.

1923-56: Maximum discharge, 8,300 cfs Mar. 2, 1938, by slope-area determination of peak flow; minimum daily, 0.7 cfs Nov. 5, 1951.

Remarks.--Records good except those for period of no gage-height record, which are poor. Discharge measurements generally made three or more times a month. There is evidence of appreciable infiltration into the stream bed in the immediate vicinity of station.

Cooperation.--Thirty discharge measurements furnished by Los Angeles County Flood Control District.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 22 to Jan. 17)

1.9	1.8	2.3	27
2.0	4.8	2.5	57
2.1	9.7	2.7	100
2.2	17	3.0	186

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.0	4.8	4.0	4.0	a10	6.4	5.6	12	9.1	4.0	3.1	2.8
2	4.0	4.8	4.0	4.0	a8	6.4	5.6	12	9.1	4.0	3.1	2.8
3	4.0	4.8	4.4	4.0	a8	6.4	5.6	11	8.6	4.0	3.1	2.8
4	4.4	4.8	4.4	4.0	a9	6.4	5.6	11	8.0	4.0	3.1	2.6
5	4.4	4.8	4.4	3.7	a9	6.0	5.6	11	8.0	4.0	3.1	2.8
6	4.4	4.4	4.4	3.7	9.1	6.0	5.6	11	8.0	4.0	3.4	2.6
7	4.4	4.4	4.2	3.4	9.1	6.0	5.6	10	7.4	4.0	3.4	2.6
8	4.4	4.0	4.0	3.4	9.1	6.0	5.6	10	7.0	4.0	3.4	2.6
9	4.4	4.4	4.0	3.4	8.6	6.0	5.6	12	7.0	3.7	3.4	2.6
10	4.4	4.4	4.0	3.4	8.6	6.0	5.6	14	7.0	3.7	3.4	2.6
11	4.0	4.4	4.0	3.4	8.6	6.0	6.0	14	6.4	3.7	3.4	2.6
12	4.0	4.4	4.0	3.4	8.6	6.0	8.0	14	6.4	3.7	3.4	2.6
13	4.0	4.4	3.7	3.7	8.6	6.0	9.1	14	6.4	3.7	3.4	2.6
14	4.0	4.0	3.7	3.7	8.6	6.0	8.6	13	6.0	3.7	3.4	2.6
15	4.0	3.7	3.7	3.7	8.0	6.0	8.0	12	6.0	3.4	3.4	2.6
16	4.0	4.0	3.7	3.7	8.0	6.0	7.4	12	6.0	3.4	3.4	2.6
17	4.0	4.0	3.7	3.7	8.0	6.0	7.4	12	6.0	3.4	3.4	2.3
18	4.0	4.0	3.4	3.7	7.4	6.0	9.1	12	6.0	3.7	3.4	2.3
19	4.4	4.0	3.4	3.7	7.4	6.0	9.7	12	5.6	3.7	3.4	2.6
20	4.4	4.0	3.7	3.7	7.4	6.0	12	12	5.6	3.4	3.1	2.8
21	4.8	4.0	3.7	3.7	7.4	6.0	12	11	5.2	3.4	3.1	2.8
22	4.8	4.0	3.7	3.7	7.4	5.6	12	10	5.2	3.7	3.1	2.6
23	4.8	4.4	3.7	3.7	7.4	5.6	12	10	4.8	4.0	3.1	2.6
24	4.8	4.4	4.0	3.7	7.4	5.6	12	9.7	4.8	3.7	3.1	2.6
25	4.8	4.4	4.0	5.6	7.4	5.6	12	9.7	4.8	3.7	3.1	2.6
26	4.8	4.4	4.0	185	7.4	6.0	12	9.7	4.4	3.4	3.1	2.6
27	4.8	4.4	4.0	132	7.4	6.0	13	9.7	4.4	3.4	3.1	2.6
28	4.8	4.4	4.0	a50	7.0	5.6	13	9.7	4.4	3.4	3.1	2.6
29	4.8	4.4	4.0	a30	7.0	5.6	12	9.7	4.4	3.1	3.1	2.6
30	4.8	4.4	4.0	a20	-----	5.6	12	9.7	4.0	3.1	3.1	2.6
31	4.8	-----	3.4	a15	-----	5.6	-----	9.1	-----	3.1	3.1	-----
Total	136.4	129.7	121.3	525.8	234.9	184.4	263.3	349.0	186.0	113.2	100.3	78.6
Mean	4.40	4.32	3.91	17.0	8.10	5.95	8.78	11.3	6.20	3.65	3.24	2.62
Ac-ft	271	257	241	1,040	466	366	522	692	369	225	199	156
Calendar year 1955: Max	26			Min 3.4			Mean 7.83	Ac-ft 5,670				
Water year 1955-56: Max	185			Min 2.3			Mean 6.62	Ac-ft 4,800				

Peak discharge (base, 50 cfs).--Jan. 26 (5 p.m.) 380 cfs (3.52 ft).
a No gage-height record; discharge estimated on basis of 2 discharge measurements, normal recession, and records for San Antonio Creek near Claremont.

Little Rock Creek near Little Rock, Calif.

Location--Lat 34°27'50", long 118°01'05", in SW 1/4 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 1956.

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--24 years (1930-37, 1939-56), 17.5 cfs (12,670 acre-ft per year); median of yearly mean discharges, 9.4 cfs (6,810 acre-ft per year).

Extremes--Maximum discharge during year, 1,050 cfs Jan. 26 (gage height, 7.17 ft); no flow Oct. 1-27, Aug. 4 to Sept. 30.
1930-56: Maximum discharge, 17,000 cfs (estimated) Mar. 2, 1938; no flow during periods in most years.

Cooperation--Gage-height record and computations of daily discharge furnished by Los Angeles County Flood Control District; records reviewed by Geological Survey.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.6	2.6	3.6	25	8.6	5.4	18	6.1	0.8	0.1	
2	0	.7	2.7	3.4	20	8.2	5.4	16	5.7	1.0	.1	
3	0	.8	3.0	3.3	18	7.9	5.4	14	5.4	1.0	.1	
4	0	.8	3.3	3.2	16	7.5	5.4	13	5.1	1.0	0	
5	0	.8	3.7	3.0	15	7.5	5.2	13	4.9	1.0	0	
6	0	.8	3.7	3.0	14	7.2	5.1	12	4.7	1.0	0	
7	0	.7	4.0	3.0	13	7.0	5.0	11	4.4	1.0	0	
8	0	.7	4.2	3.0	12	6.8	4.8	11	4.2	.9	0	
9	0	.7	3.9	3.0	11	6.5	4.7	21	3.8	.8	0	
10	0	.8	3.6	3.0	11	6.3	4.6	25	3.5	.6	0	
11	0	.8	3.4	3.0	10	6.3	4.5	30	3.2	.5	0	
12	0	.9	3.4	3.0	9.8	6.3	8.4	26	2.8	.4	0	
13	0	1.2	3.3	3.0	9.6	6.3	13	22	2.6	.4	0	
14	0	1.6	3.2	3.0	9.3	6.3	11	19	2.6	.4	0	
15	0	1.9	3.0	3.0	9.3	6.1	12	17	2.8	.4	0	
16	0	1.9	3.0	3.0	9.1	6.1	17	15	2.8	.2	0	
17	0	1.9	3.0	3.0	8.8	5.8	20	15	2.6	.2	0	
18	0	2.0	2.9	2.9	8.6	5.8	31	13	2.5	.2	0	
19	0	2.0	2.9	2.9	8.6	5.8	27	12	2.3	.2	0	
20	0	2.0	2.9	2.9	8.4	5.8	42	11	2.3	.2	0	
21	0	2.1	2.9	2.9	8.2	5.8	46	11	2.3	.2	0	
22	0	2.7	2.9	2.9	7.9	5.8	40	9.6	2.3	.2	0	
23	0	2.7	3.0	2.9	8.4	5.8	36	9.1	2.2	.2	0	
24	0	2.6	3.3	2.9	14	5.4	31	8.6	2.0	.2	0	
25	0	2.5	3.6	3.1	12	5.2	26	8.4	1.7	.1	0	
26	0	2.5	4.0	424	11	4.9	26	7.7	1.4	.1	0	
27	0	2.4	4.2	272	9.8	4.7	36	7.5	1.1	.1	0	
28	.1	2.4	4.2	104	9.3	4.7	28	7.0	.9	.1	0	
29	.3	2.4	4.2	55	8.8	4.7	24	6.8	.6	.1	0	
30	.4	2.5	3.9	38	-----	5.1	20	6.5	.6	.1	0	
31	.4	-----	3.7	31	-----	5.4	-----	6.3	-----	.1	0	-----
Total	1.2	48.4	105.6	999.9	335.9	191.6	549.9	422.5	89.4	13.7	0.3	0
Mean	0.04	1.61	3.41	32.3	11.6	6.18	18.3	13.6	2.98	0.44	0.01	0
Ac-ft	2.4	96	209	1,980	666	380	1,090	838	177	27	0.6	0
Calendar year 1955: Max			116	Min 0		Mean 9.55		Ac-ft 6,910				
Water year 1955-56: Max		424		Min 0		Mean 7.54		Ac-ft 5,470				

MONO LAKE BASIN

Mono Lake near Mono Lake, Calif

Location.--Lat 38°00', long 119°08', in NE $\frac{1}{4}$ sec. 31, T. 2 N., R. 26 E., on west bank 1 mile south of Mono Lake Post Office.

Records available.--June 1912 to September 1956. Records prior to September 1934 are published in WSP 765.

Gage.--Staff gage. Datum of gage is 6,410.73 ft above mean sea level, datum of 1929.

Extremes.--1912-56: Maximum elevation observed, 6,428.1 ft July 18, 1919; minimum observed, 6,402.18 ft Sept. 28, 1956.

Cooperation.--Elevations furnished by city of Los Angeles, Department of Water and Power.

Revisions (water years).--WSP 765: 1912-33: WSP 1284: 1952.

Elevation, in feet, October 1955 to September 1956					
Date	Elevation	Date	Elevation	Date	Elevation
Oct. 7	6,403.14	Feb. 10	6,403.24	June 8	6,403.04
14	6,403.05	17	6,403.23	15	6,402.97
21	6,403.00	24	6,403.14	22	6,402.88
28	6,402.91	Mar. 2	6,403.16	29	6,402.90
Nov. 4	6,402.85	9	6,403.11	July 6	6,402.83
10	6,402.85	16	6,403.11	13	6,402.75
18	6,402.74	23	6,403.13	20	6,402.71
25	6,402.70	28	6,403.08	27	6,402.77
Dec. 2	6,402.71	Apr. 6	6,403.06	Aug. 3	6,402.80
9	6,402.60	13	6,403.05	10	6,402.83
16	6,402.59	20	6,403.19	17	6,402.70
23	6,402.90	27	6,403.15	24	6,402.60
Jan. 6	6,403.12	May 4	6,403.16	31	6,402.53
13	6,403.05	11	6,403.10	Sept. 7	6,402.47
20	6,403.28	18	6,403.10	14	6,402.34
27	6,403.19	25	6,403.11	21	6,402.28
Feb. 3	6,403.24	June 1	6,403.05	28	6,402.18

WALKER LAKE BASIN

Walker Lake near Hawthorne, Nev.

Location.--Lat 38°35', long 118°42', in NE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 2, T. 8 N., R. 29 E., 3 miles north-west of Hawthorne.

Records available.--August 1928 to September 1956. Occasional readings prior to August 1928.

Gage.--Benchmark, at United States Naval Depot, 4,053.41 ft above mean sea level, adjustment of 1912.

Extremes.--1928-56: Maximum elevation observed, 4,051.8 ft Mar. 13, 1928 (Indian Service); minimum observed, 3,990.45 ft Apr. 16, 1956.

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, October 1955 to September 1956

Apr. 16.....	3,990.45	July 3.....	3,991.95
May 2.....	3,990.68	Aug. 1.....	3,992.53
June 5.....	3,991.03	Sept. 6.....	3,992.16

Virginia Creek near Bridgeport, Calif.

Location.--Lat 38°11', long 119°12', in W½ sec. 22, T. 4 N., R. 25 E., on right bank 3 miles upstream from mouth, 1½ miles downstream from Clearwater Creek, and 4½ miles southeast of Bridgeport.

Drainage area.--64 sq mi, approximately.

Records available.--October 1953 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 6,700 ft (from topographic map).

Extremes.--1953-54: Maximum discharge during water year, 74 cfs Apr. 14 (gage height, 3.13 ft), from rating curve extended above 30 cfs on basis of area-velocity study; minimum, 1.5 cfs July 8.

1954-55: Maximum discharge during water year, 45 cfs June 9 (gage height, 2.76 ft), from rating curve extended above 30 cfs on basis of area-velocity study; maximum gage height, 2.81 ft Jan. 8 (backwater from ice); minimum discharge, 1.7 cfs Aug. 12.

1955-56: Maximum discharge during water year, 1,300 cfs Dec. 23 (gage height, 8.40 ft), from rating curve extended above 140 cfs on basis of slope-area determination of peak flow; minimum, 2.8 cfs Nov. 22, result of freezeup.

Remarks.--Records good except those for periods of ice effect or shifting control, which are fair. Flow partly regulated by Virginia Lakes and other lakes near headwaters. Diversions for irrigation of about 3,000 acres above station.

Rating tables, Oct. 1, 1953, to Sept. 30, 1956, except periods of ice effect or shifting control (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1, 1953, to Dec. 22, 1955

Dec. 22, 1955, to Sept. 30, 1956

1.9	1.1	2.4	16	2.5	10	4.0	170
2.0	3.0	2.7	34	2.8	25	5.0	364
2.2	8.2	3.0	60	3.1	50	5.8	560
				3.5	97		

Discharge, in cubic feet per second, water year October 1953 to September 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*a7.2	11	8.5	8.9	9.6	11	12	14	7.9	6.0	2.8	4.2
2	a7.2	12	*7.9	8.2	9.6	10	14	13	7.9	5.2	2.5	4.5
3	a7.2	12	7.9	8.5	b9.8	11	17	13	7.4	4.0	2.5	4.5
4	a7.5	11	8.9	8.9	b9.2	11	20	14	7.4	3.8	2.3	4.5
5	a7.5	11	b7.1	9.6	9.2	11	22	14	7.4	3.8	3.2	4.5
6	a7.5	11	9.9	9.9	9.2	11	*21	14	8.2	4.0	2.5	4.5
7	7.7	11	10	9.6	9.2	11	20	14	7.1	2.8	2.5	4.5
8	7.7	11	9.9	a7.7	9.6	16	23	16	7.1	2.3	2.3	*4.5
9	7.7	11	11	b7.7	9.6	55	22	17	7.9	2.5	*2.5	4.5
10	7.7	11	9.9	8.5	9.6	28	23	17	7.4	2.3	2.5	4.5
11	7.9	11	8.9	8.5	9.9	b15	28	17	6.0	2.3	2.5	4.5
12	8.2	11	10	8.5	10	*b15	33	16	5.2	2.3	4.0	4.2
13	7.9	11	9.9	8.9	9.2	b12	36	17	5.0	2.8	4.0	4.2
14	7.9	12	11	8.9	9.2	b12	39	18	4.8	3.8	4.0	4.2
15	8.2	11	11	8.9	b12	12	36	18	4.5	4.8	4.0	4.2
16	8.2	12	11	8.9	12	11	36	16	4.5	3.5	4.2	4.2
17	8.2	10	11	8.9	12	11	34	15	4.5	3.8	4.2	4.2
18	8.9	9.6	9.9	8.5	10	9.8	30	17	5.0	4.0	4.2	4.2
19	9.9	9.9	11	9.6	b11	10	27	25	5.5	3.0	4.2	4.2
20	10	9.9	9.9	9.6	b11	11	24	31	6.3	3.0	4.5	4.2
21	9.6	b11	7.1	b8.5	11	11	23	31	7.4	3.0	4.5	4.2
22	9.6	12	b6.3	9.2	11	11	23	26	7.4	3.8	4.5	4.2
23	12	12	b6.8	9.6	11	11	24	19	10	4.0	4.5	4.2
24	12	13	b7.4	10	*11	10	24	17	*11	4.5	4.8	4.2
25	12	12	b6.8	11	11	9.9	22	14	9.9	3.8	5.0	4.2
26	12	12	b7.1	b10	11	9.9	19	12	8.9	4.5	5.0	4.2
27	13	12	8.9	12	11	11	18	10	8.5	3.8	4.8	4.2
28	*13	11	8.5	11	11	11	17	*7.9	7.4	3.5	4.8	4.5
29	12	11	9.2	11	-	11	15	9.2	6.6	2.8	4.5	5.0
30	12	10	*b8.5	*9.9	-	11	14	8.9	6.3	3.2	4.5	5.0
31	12	-	8.2	9.6	-	11	-	8.5	-	3.8	4.5	-
Total	289.4	335.4	280.7	288.5	288.7	411.4	716	499.5	210.4	110.7	116.8	130.9
Mean	9.34	11.2	9.05	9.31	10.3	13.3	23.9	16.1	7.01	3.57	3.77	4.36
Ac-ft	574	665	557	572	573	816	1,420	991	417	220	232	280

Calendar year 1953: Max - Min - Mean - Ac-ft -
 Water year 1953-54: Max 55 Min 2.3 Mean 10.1 Ac-ft 7,300

Peak discharge (base, 50 cfs).--Mar. 9 (3:30 p.m.) 67 cfs (3.07 ft); Apr. 14 (6 p.m.) 74 cfs (3.13 ft).

* 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 streams.

b Stage-discharge relation affected by ice.

WALKER LAKE BASIN

Virginia Creek near Bridgeport, Calif.--Continued

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.0	7.9	9.6	10	10	11	17	12	14	6.6	5.8	3.8
2	5.2	7.7	11	9.6	9.6	11	14	12	14	6.6	5.8	3.2
3	5.2	7.7	12	b9.9	b9.9	10	12	11	11	6.6	5.5	2.3
4	5.2	7.7	11	b9.9	b10	9.6	12	11	11	5.8	5.5	2.5
5	5.2	7.7	11	10	10	9.6	10	11	12	5.8	5.5	3.0
6	5.2	7.7	*12	9.9	b9.9	9.6	11	11	*21	5.8	4.8	3.0
7	5.2	7.9	9.2	*b9.6	b9.9	12	13	18	28	5.2	4.0	3.2
8	5.2	7.9	9.6	b9.6	*9.9	*16	*16	17	36	*5.0	3.5	3.2
9	5.5	7.7	11	10	9.6	13	19	14	42	4.8	*2.8	3.2
10	5.5	7.7	9.9	10	b9.6	12	17	13	40	5.5	5.2	3.5
11	5.5	8.2	b8.5	10	9.6	13	14	13	37	5.0	3.0	3.5
12	*5.5	8.5	b9.2	9.9	9.6	13	18	12	30	4.5	1.9	2.3
13	5.2	8.2	11	9.9	9.6	12	18	12	23	4.0	2.5	*2.9
14	5.2	8.5	9.9	9.9	10	11	15	12	18	4.2	2.5	3.2
15	5.2	12	9.9	9.2	11	11	14	11	18	5.2	2.5	3.8
16	5.2	11	9.2	11	13	b8.9	14	9.6	17	5.0	3.0	4.0
17	6.6	11	8.5	b9.9	14	10	12	8.9	15	4.5	3.2	3.8
18	6.6	*10	8.9	9.9	b9.2	10	11	8.9	13	4.2	3.8	5.0
19	6.6	9.9	8.9	b10	b8.5	10	12	8.9	14	4.0	4.0	7.1
20	6.8	9.9	8.9	b11	b10	b8.5	14	9.9	12	3.2	4.2	6.3
21	6.8	9.9	8.9	b11	b9.6	10	13	11	13	5.8	4.8	5.2
22	6.8	10	8.9	10	9.9	11	14	14	12	9.2	4.2	5.0
23	6.8	10	9.6	10	b9.6	11	13	17	11	11	4.2	5.0
24	6.8	10	9.6	10	b9.2	13	12	*18	11	8.9	4.0	6.0
25	7.1	10	b8.5	10	9.6	14	12	17	11	7.1	3.5	5.5
26	7.1	10	b6.6	9.9	9.2	14	11	14	9.6	7.1	3.5	5.2
27	7.1	11	b6.3	b9.6	8.9	15	15	12	8.9	5.5	3.5	4.8
28	7.1	11	8.2	b9.9	b9.6	14	14	11	8.2	5.0	3.5	4.5
29	7.9	8.5	9.2	9.9	-	15	11	11	7.9	5.0	4.0	4.5
30	8.2	6.0	9.6	10	-----	14	11	15	7.1	5.5	3.8	4.5
31	7.9	-----	11	10	-----	14	-----	19	-----	5.8	3.8	-----
Total	190.4	271.2	295.6	309.5	278.5	365.2	409	395.2	530.7	177.4	119.5	122.3
Mean	6.14	9.04	9.54	9.98	9.95	11.8	13.6	12.7	17.7	5.72	3.85	4.10
Ac-ft	378	538	586	614	552	724	811	784	1,050	352	237	244
Calendar year 1954: Max	55			Min 2.3			Mean 9.67		Ac-ft 7,000			
Water year 1954-55: Max	42			Min 1.9			Mean 9.49		Ac-ft 6,870			

Peak discharge (base, 50 cfs).--No peak above base.

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

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.5	6.6	b7.4	22	b14	10	20	24	58	66	*40	20
2	4.0	5.8	b7.4	21	b14	11	19	24	59	56	38	1
3	4.0	6.8	b7.7	20	b14	12	24	59	61	50	36	20
4	4.2	6.8	b7.7	18	12	18	26	48	60	46	36	19
5	4.5	6.8	b8.9	18	*14	11	21	26	57	48	33	19
6	4.5	6.8	14	18	14	b10	22	24	54	47	29	19
7	4.8	6.8	10	18	b14	b10	23	22	53	46	29	18
8	4.8	6.8	10	16	14	12	24	21	54	47	31	18
9	4.5	7.1	13	17	b14	14	25	30	61	48	28	20
10	4.5	7.1	11	16	12	14	26	22	*70	47	27	20
11	4.8	7.1	10	16	12	14	22	21	72	45	26	18
12	4.8	6.8	9.9	16	12	b13	22	22	74	42	25	18
13	4.8	6.8	9.2	16	12	12	23	23	76	38	24	18
14	4.8	6.8	9.6	16	12	13	24	26	80	37	24	18
15	5.0	7.1	8.9	22	b11	*14	28	*27	71	34	25	18
16	5.2	8.2	8.5	23	b11	16	41	31	53	33	25	18
17	5.0	8.2	9.5	20	b11	20	56	30	50	36	25	17
18	*5.0	*8.9	8.5	17	b11	23	*18	33	48	*41	24	17
19	5.0	9.6	9.2	16	b11	24	57	53	56	54	24	18
20	5.2	11	*10	16	10	24	48	35	61	61	24	18
21	5.5	9.9	9.2	14	11	27	38	38	57	61	24	18
22	6.0	6.8	174	15	12	35	37	50	54	76	23	18
23	6.0	7.9	*556	16	12	*42	37	62	65	61	22	17
24	6.3	7.9	129	13	11	41	34	76	74	62	*22	16
25	6.3	8.5	97	14	12	37	34	*68	70	66	21	16
26	6.6	8.9	67	14	11	27	35	68	62	68	21	16
27	6.6	9.2	43	b14	b11	24	26	67	67	74	21	20
28	6.8	8.5	*b28	b14	10	24	24	62	76	57	22	18
29	6.8	8.5	b26	b14	10	26	24	60	87	53	22	18
30	6.6	8.5	b24	b14	-----	28	24	61	78	48	22	17
31	6.6	-----	24	b14	-----	25	-----	60	-----	43	20	-----
Total	164.0	253.5	1,345.5	521	351	623	928	1,240	1,919	1,591	813	545
Mean	5.29	7.78	43.4	16.6	12.1	20.1	30.9	40.0	64.0	51.3	26.2	18.2
Ac-ft	325	483	2,670	1,030	696	1,240	1,840	2,460	3,810	3,160	1,610	1,080
Calendar year 1955: Max	536			Min 1.9			Mean 12.2		Ac-ft 8,830			
Water year 1955-56: Max	536			Min 4.0			Mean 28.1		Ac-ft 20,580			

Peak discharge (base, 50 cfs).--Dec. 23 (3:45 a.m.) 1,300 cfs (8.40 ft); Mar. 24 (8:15 p.m.) 74 cfs (3.54 ft); Apr. 18 (4:30 p.m.) 143 cfs (3.94 ft); May 4 (5 a.m.) 70 cfs (3.43 ft); May 19 (5 p.m.) 105 cfs (3.70 ft); May 24 (7:30 p.m.) 98 cfs (3.65 ft); June 14 (7:30 p.m.) 94 cfs (3.50 ft); June 29 (10 a.m.) 94 cfs (3.48 ft); July 22 (1 a.m.) 134 cfs (3.78 ft); July 24 (6:45 p.m.) 96 cfs (3.49 ft).

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

Note.--Shifting-conrtr 1 method used 11 a.m. Dec. 23 to Apr. 16, Apr. 20 to May 31.

WALKER LAKE BASIN

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Green Creek near Bridgeport, Calif.

Location.--Lat 38°11', long 119°14', in NE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 29, T. 4 N., R. 25 E., on right bank 100 ft downstream from county bridge and $5\frac{1}{2}$ miles south of Bridgeport.

Drainage area.--19.4 sq mi.

Records available.--October 1953 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 6,850 ft (from topographic map).

Extremes.--1953-54: Maximum discharge during water year, 135 cfs May 30 (gage height, 2.62 ft); minimum, 4.0 cfs Sept. 21, 26, 27.

1954-55: Maximum discharge during water year, 237 cfs June 10 (gage height, 2.90 ft); minimum, 4.0 cfs Oct. 4.

1955-56: Maximum discharge during water year, 307 cfs Dec. 23, from rating curve extended above 220 cfs on basis of slope-area determinations at peak stage and logarithmic plotting; maximum gage height, 3.46 ft Feb. 2 (backwater from ice); minimum discharge, 3.7 cfs Nov. 17.

Remarks.--Records good except those for periods of ice effect, which are fair, and those above 250 cfs, which are poor. Flow regulated by West, Green, East, Summit, and other lakes.

Rating tables, Oct. 1, 1953, to Sept. 30, 1956, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 30, 31, 1955)

Oct. 1, 1953, to Dec 31, 1955

Jan. 1 to Sept. 30, 1956

1.5	3.3	2.0	26	1.7	7.4	2.4	66
1.6	5.4	2.2	49	1.8	11	2.6	110
1.7	8.5	2.3	104	2.0	22	2.8	179
1.8	13	2.8	192	2.2	39	3.0	276

Discharge, in cubic feet per second, water year October 1953 to September 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*7.4	6.5	5.4	5.7	b5.7	8.5	b9.8	25	49	54	26	6.2
2	7.4	6.2	b5.4	b5.4	b5.7	b8.2	11	25	50	49	24	6.2
3	7.1	6.5	b5.2	5.1	*b5.7	b8.2	12	29	58	46	22	6.2
4	7.1	6.2	b5.2	5.4	b5.7	8.2	14	35	62	45	20	6.2
5	7.1	6.2	b5.2	5.4	b5.7	8.2	15	42	56	45	19	6.0
6	7.1	6.0	b5.2	5.4	b6.1	8.2	16	*50	48	44	18	5.7
7	6.8	6.0	b5.7	5.4	b6.8	8.5	16	52	40	39	17	5.7
8	6.8	6.0	b6.2	b5.4	b6.8	10	17	64	36	37	16	*5.7
9	6.5	6.0	6.2	b5.4	6.8	22	15	75	*36	36	*15	5.7
10	8.2	6.2	6.8	b5.4	6.8	21	17	68	33	34	14	5.4
11	6.8	6.5	b6.2	b5.4	6.8	b19	18	62	31	32	13	5.2
12	5.7	6.5	b6.0	b5.4	6.8	b19	19	64	30	31	13	5.2
13	6.0	6.5	b6.0	b5.4	b6.8	b18	*20	64	31	35	12	5.2
14	5.7	b6.5	6.2	b5.4	b7.1	*b15	25	69	31	66	11	5.2
15	5.7	b6.5	6.2	5.4	b7.4	b14	27	73	34	69	9.8	5.2
16	5.7	b6.5	6.2	5.7	b8.0	13	32	69	41	66	3.4	5.2
17	5.7	b6.5	6.2	5.7	b9.0	b12	37	73	54	61	9.0	5.0
18	6.0	b6.2	b6.0	5.7	b10	b10	39	82	60	58	7.8	5.0
19	6.5	*b6.0	6.0	5.7	b11	b12	40	109	61	54	7.8	5.0
20	6.8	b6.0	6.0	5.7	b12	b12	39	126	64	49	7.4	4.7
21	6.8	b6.5	b5.0	b5.7	b12	b12	39	124	77	44	7.4	4.2
22	6.5	7.1	b5.0	5.7	b11	b11	41	97	84	45	7.4	4.2
23	7.1	6.5	b5.0	5.7	b11	b12	45	75	93	61	7.1	4.2
24	7.4	6.5	b5.0	6.2	b11	b9.8	45	68	*97	60	7.1	4.2
25	7.1	6.2	b5.0	b6.8	b10	b9.8	45	64	95	56	7.1	4.2
26	7.1	6.2	b5.7	b5.7	*9.4	b9.4	41	58	86	58	6.8	4.2
27	7.1	6.2	b5.7	b5.7	b9.0	11	41	54	78	54	6.2	4.2
28	*6.8	6.0	b5.7	5.7	b8.5	11	36	50	64	46	6.2	4.2
29	6.5	5.7	b5.7	5.7	-	9.8	31	54	56	40	6.0	4.2
30	6.5	6.0	*b5.7	b5.4	-	9.8	29	54	55	34	6.0	4.2
31	6.5	-	b5.7	b5.4	-	b9.4	-	49	-	30	6.0	-
Total	207.5	188.4	176.7	173.5	228.8	370.0	831.8	2,003	1,690	1,478	364.5	151.9
Mean	6.69	6.28	5.70	5.60	8.16	11.9	27.7	64.6	56.3	47.7	11.8	5.06
Ac-ft	412	374	350	344	453	734	1,650	3,970	3,550	2,950	723	501

Calendar year 1953: Max - Min - Mean - Ac-ft -
 Water year 1953-54: Max 126 Min 4.2 Mean 21.5 Ac-ft 15,590

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

Green Creek near Bridgeport, Calif.--Continued

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.2	4.2	b5.0	6.8	7.8	b7.4	12	15	68	48	*33	*6.5
2	4.2	4.2	5.2	b6.8	7.8	7.8	10	15	55	46	31	6.5
3	4.2	4.5	6.2	b7.1	b7.8	7.4	10	15	50	45	30	6.2
4	4.2	4.5	5.4	b7.4	b7.8	7.1	9.0	*15	56	42	29	6.2
5	4.2	4.5	b6.0	8.2	7.8	7.1	9.4	14	75	36	28	6.0
6	4.2	4.5	*5.2	7.8	7.4	b6.8	9.0	21	*102	33	27	6.0
7	4.2	4.5	5.2	*7.8	7.1	b6.8	9.4	27	124	32	25	5.4
8	4.2	4.5	b5.2	7.8	*7.1	7.1	11	26	146	32	26	5.2
9	4.2	4.5	b5.2	7.4	7.1	7.4	12	23	158	34	48	5.2
10	4.2	4.5	b5.2	7.4	6.8	7.1	14	26	*182	35	45	5.2
11	4.2	4.5	b5.2	7.4	7.1	7.8	13	31	192	34	40	5.2
12	*4.2	4.5	b5.7	7.4	7.1	7.8	13	37	152	33	33	5.2
13	4.2	4.5	b6.0	7.4	6.8	7.4	15	41	*122	36	28	5.0
14	4.5	4.5	b6.0	7.4	7.1	b6.0	14	35	104	40	25	4.7
15	4.5	5.2	6.2	7.4	7.1	b6.2	13	28	100	44	24	4.7
16	4.5	4.7	b6.2	7.1	7.4	b6.2	14	25	95	46	23	4.7
17	4.5	5.4	b6.2	7.8	8.2	b6.2	13	24	84	45	22	4.7
18	4.5	*6.2	b6.2	8.5	b7.8	b6.2	11	28	82	39	20	5.2
19	4.5	6.0	b6.2	8.2	b6.8	b6.2	12	34	86	37	18	6.8
20	4.5	5.7	b6.2	8.2	b6.2	b6.5	13	42	93	68	17	6.5
21	4.5	5.4	b6.2	7.8	b6.2	b6.8	13	52	93	73	16	6.0
22	4.5	5.4	b6.0	7.4	b6.2	7.1	14	68	86	78	13	5.4
23	4.5	5.7	b6.0	7.4	b6.2	7.1	14	78	82	91	12	5.2
24	4.5	5.4	b6.0	7.8	b6.5	*7.8	16	*82	75	78	11	6.8
25	4.5	5.4	b6.0	8.2	b6.5	8.5	17	68	61	64	9.8	6.8
26	4.2	5.4	b6.0	8.5	8.5	9.0	13	56	55	55	9.4	6.5
27	4.2	5.4	b6.0	9.0	b6.5	9.4	14	56	52	49	8.5	6.2
28	4.2	5.4	b6.0	9.4	b6.5	9.4	17	61	*54	45	8.2	5.7
29	4.2	5.0	b6.0	9.4	-	11	15	71	55	41	7.4	5.4
30	4.2	b5.0	6.0	9.4	-----	9.4	14	89	49	39	7.1	5.2
31	4.2	-----	6.8	8.5	-----	9.8	-----	82	-----	35	6.8	-----
Total	133.8	149.1	180.9	244.1	197.2	233.8	383.8	1,285	2,788	1,453	681.2	170.3
Mean	4.32	4.97	5.84	7.87	7.04	7.54	12.8	41.5	92.9	46.9	22.0	5.68
Ac-ft	265	296	359	484	391	464	761	2,550	5,530	2,880	1,350	338
Calendar year 1954: Max 126 Min 4.2 Mean 21.2 Ac-ft 15,380												
Water year 1954-55: Max 192 Min 4.2 Mean 21.6 Ac-ft 15,670												

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.0	4.7	5.7	25	b17	12	19	40	132	197	*95	33
2	4.7	4.7	6.5	23	b17	12	19	44	126	160	79	33
3	4.7	4.7	b6.5	26	b16	12	18	51	135	*135	66	32
4	4.5	4.7	b6.5	24	b16	12	18	66	152	126	58	31
5	4.5	4.7	b6.8	22	16	12	20	54	141	129	56	46
6	4.5	4.7	9.4	23	16	10	22	49	119	132	54	45
7	4.2	4.7	11	25	15	b10	23	44	116	135	51	28
8	4.2	4.7	10	21	15	12	26	40	135	138	52	26
9	4.2	4.7	8.5	20	14	12	27	43	156	145	54	26
10	4.5	4.7	8.5	20	14	12	30	39	*179	145	54	27
11	4.5	5.0	8.2	20	14	12	28	39	192	158	54	27
12	*4.5	4.7	7.4	20	14	b12	26	37	197	126	54	26
13	4.5	b4.7	7.4	20	14	12	23	36	210	113	54	24
14	4.5	b4.5	7.4	19	14	12	24	34	202	100	51	23
15	4.5	b4.5	7.4	21	b14	11	23	*37	184	95	54	23
16	4.5	4.5	6.8	34	b13	12	23	50	141	98	81	22
17	4.5	4.2	7.4	33	b13	13	25	52	122	100	83	21
18	4.5	*4.2	7.1	27	13	14	27	51	132	*108	81	21
19	4.0	6.5	6.8	23	12	14	27	64	175	145	76	21
20	4.0	9.0	*8.0	22	12	14	30	62	202	164	72	23
21	4.2	8.5	11	21	12	16	34	72	184	160	68	23
22	4.2	b8.2	47	21	12	17	38	105	171	156	66	22
23	4.2	b7.8	*235	20	13	19	45	132	184	149	64	21
24	4.5	b7.4	77	20	*13	22	47	160	210	141	*63	20
25	4.5	b7.1	58	20	12	24	51	*132	*215	149	62	20
26	4.5	7.1	56	20	12	22	46	138	202	149	60	23
27	4.5	6.5	46	b20	12	*21	39	145	205	184	57	23
28	4.7	6.2	b40	b20	12	21	35	122	220	152	54	21
29	4.7	6.2	b35	b19	12	23	35	122	250	152	51	20
30	5.0	6.0	b35	b18	-----	21	38	132	234	126	50	20
31	5.0	-----	*b32	b18	-----	22	-----	138	-----	102	46	-----
Total	139.0	169.8	825.3	681	399	472	886	2,330	5,220	4,249	1,920	771
Mean	4.48	5.66	26.6	22.0	13.8	15.2	29.5	75.2	174	137	61.9	25.7
Ac-ft	276	337	1,640	1,350	791	936	1,760	4,620	10,350	8,430	3,810	1,530
Calendar year 1955: Max 235 Min 4.0 Mean 23.5 Ac-ft 17,000												
Water year 1955-56: Max 250 Min 4.0 Mean 49.4 Ac-ft 35,830												

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

WALKER LAKE BASIN

153

Summers Creek near Bridgeport, Calif.

Location.--Lat 38°09', long 119°15', in NW 1/4 sec. 6, T. 3 N., R. 25 E., 7 1/2 miles southwest of Bridgeport.

Drainage area.--12.6 sq mi.

Records available.--October 1953 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 7,100 ft (from topographic map).

Extremes.--1953-54: Maximum discharge during water year, 42 cfs Mar. 9 (gage height, 2.83 ft); minimum, 0.8 cfs July 28.
 1954-55: Maximum discharge during water year, 16 cfs Nov. 15 (gage height, 2.20 ft); minimum, 0.7 cfs Aug. 15, Sept. 11, 12.
 1955-56: Maximum discharge during water year, 690 cfs Dec. 23 (gage height, 5.95 ft in gage well, 6.2 ft from floodmark), from rating curve extended above 50 cfs on basis of slope-area determination of peak flow; minimum, 1.2 cfs Nov. 13.

Remarks.--Records good except those for periods of fragmentary or no gage-height record, which are fair. Flow partly regulated by Tamarack Lake, several smaller lakes, and a transarea diversion to Twin Lakes. Minor diversions for irrigation above station.

Rating tables, Oct. 1, 1953, to Sept. 30, 1956 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1, 1953, to Dec. 23, 1955

Dec. 23, 1955, to Sept. 30, 1956

1.5	0.5	2.6	32	2.1	2.0	2.5	17
1.6	1.5	3.0	48	2.2	4.0	2.7	38
1.7	2.7	3.5	79	2.3	7.0	3.0	74
1.9	6.5	4.0	128	2.4	11	4.0	208
2.2	16	4.5	204				

Discharge, in cubic feet per second, water year October 1953 to September 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a4.1	4.2	2.3	1.9	2.2	2.9	3.6	6.8	6.8	1.6	2.7	1.7
2	*a4.1	4.2	*2.5	1.9	2.2	2.7	4.1	6.3	7.1	1.4	2.6	2.0
3	a3.8	4.2	2.5	1.9	*2.2	2.7	5.0	6.1	6.5	4.1	2.2	2.1
4	a3.8	4.2	2.2	2.0	2.2	2.7	6.1	5.7	7.6	4.0	1.9	1.5
5	a3.8	4.2	2.3	2.1	2.2	2.9	7.6	5.0	a7.8	1.9	1.5	2.0
6	3.6	4.1	2.7	2.2	2.2	2.9	7.3	6.1	a7.2	2.6	2.0	2.2
7	3.6	4.1	2.6	2.0	2.2	3.0	7.9	6.8	a6.8	2.0	2.9	2.2
8	3.6	4.1	2.6	2.0	2.2	9.1	9.6	6.8	a6.5	3.9	2.7	*1.9
9	3.4	4.1	2.7	1.9	2.2	30	9.6	6.8	a6.5	7.3	*1.7	2.0
10	3.2	3.7	2.5	1.9	2.2	11	9.6	6.8	a5.6	7.1	2.1	1.5
11	3.4	2.6	2.6	1.9	2.3	6.5	11	6.3	a5.0	6.5	3.0	1.6
12	3.4	2.6	2.6	2.0	2.5	5.4	12	5.9	a4.5	6.5	3.0	1.9
13	3.6	2.6	2.6	2.1	2.2	4.6	*14	5.9	a4.2	7.1	2.1	2.1
14	3.9	2.9	2.7	2.1	2.6	*4.2	14	5.7	a4.0	8.2	2.1	1.9
15	4.1	2.7	2.7	2.1	2.6	3.9	13	5.7	*a3.7	7.5	1.9	1.9
16	4.1	2.7	2.7	2.1	2.6	3.9	14	5.2	3.7	5.2	1.9	2.1
17	4.1	2.6	2.7	2.1	2.5	3.6	14	*5.2	3.4	4.4	2.0	2.1
18	4.4	2.5	2.6	2.2	2.5	3.6	13	5.7	3.4	4.1	1.9	2.0
19	4.8	2.6	2.6	2.2	2.5	3.6	12	6.1	4.6	3.6	1.6	2.0
20	5.0	2.6	2.2	2.2	2.5	3.6	*11	6.1	5.2	1.9	1.6	2.0
21	4.6	2.6	2.1	2.2	2.6	3.4	11	5.7	5.7	1.6	1.9	2.0
22	4.6	2.9	1.9	2.2	2.5	3.4	10	5.0	6.5	1.5	2.1	2.3
23	5.2	2.7	1.9	2.3	2.5	3.4	9.9	4.6	8.2	1.4	2.1	2.9
24	4.8	2.7	2.0	2.3	2.6	3.2	9.6	4.6	*9.6	1.1	1.9	2.9
25	4.6	2.6	1.7	2.3	2.6	3.2	8.7	4.4	9.0	3.3	2.0	2.9
26	4.6	2.6	1.7	2.3	*2.9	3.2	8.2	4.2	8.7	5.9	1.7	2.9
27	4.4	2.6	2.1	2.3	2.7	3.4	8.2	4.2	8.5	4.1	1.7	2.7
28	*4.4	2.6	2.0	2.3	2.7	3.6	8.2	5.2	8.2	1.1	1.7	2.7
29	4.2	2.6	2.0	2.3	-	3.6	7.3	6.1	6.5	1.1	1.7	2.7
30	4.2	2.6	*1.9	2.2	-----	3.6	6.8	6.1	4.4	1.5	2.0	2.7
31	4.2	-----	1.9	2.2	-----	3.6	-----	6.3	-----	2.3	1.7	-----
Total	127.6	94.0	72.1	65.7	67.9	150.4	286.3	177.4	185.2	115.7	63.9	65.4
Mean	4.12	3.13	2.33	2.12	2.42	4.85	9.54	5.72	6.17	3.73	2.06	2.18
Ac-ft	253	186	143	130	135	298	568	352	367	229	127	130

Calendar year 1953: Max - Min - Mean - Ac-ft -
 Water year 1953-54: Max 30 Min 1.1 Mean 4.03 Ac-ft 2,920

Peak discharge (base, 20 cfs).--Mar. 9 (1 a.m.) 42 cfs (2.83 ft); Apr. 13 (7 p.m.) 22 cfs (2.34 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of 2 discharge measurements, recorded range in stage, and weather records.

WALKER LAKE BASIN

Summers Creek near Bridgeport, Calif.--Continued

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.7	2.3	2.3	2.5	2.3	2.3	5.7	5.0	5.0	8.2	2.9	1.7
2	2.9	2.3	2.9	2.5	2.3	2.3	4.1	4.2	4.4	7.9	2.2	1.6
3	2.9	2.3	<u>3.6</u>	<u>2.3</u>	2.3	2.3	3.4	3.9	4.2	7.9	2.2	1.6
4	2.9	2.3	2.9	2.3	2.3	2.2	3.2	4.1	4.2	7.9	2.3	1.5
5	2.9	2.3	2.9	2.3	2.3	2.2	<u>3.0</u>	4.4	3.7	7.9	2.2	1.7
6	2.9	2.3	*2.7	*2.3	2.3	2.1	3.4	4.6	*2.9	7.1	2.1	1.9
7	2.7	2.3	2.3	2.3	2.3	<u>2.2</u>	4.4	5.9	4.1	6.3	2.6	1.7
8	2.9	2.3	2.6	2.3	*2.3	2.3	*5.2	5.9	3.9	*5.2	<u>4.6</u>	1.7
9	2.9	2.3	2.6	2.5	2.3	2.3	<u>6.6</u>	5.4	7.6	5.7	*4.4	1.7
10	2.9	2.3	2.5	2.3	2.3	2.3	5.2	5.2	6.1	3.0	3.4	1.1
11	2.9	2.5	2.3	2.3	2.3	2.5	4.2	5.0	7.9	5.7	2.6	1.0
12	*2.7	2.7	2.6	2.3	2.3	2.5	4.6	*5.0	5.4	5.2	1.1	1.0
13	2.9	2.6	2.5	2.3	2.3	2.6	4.6	4.8	7.1	2.7	1.5	*1.0
14	2.9	2.6	2.6	2.3	2.3	2.5	4.1	4.1	8.2	<u>5.7</u>	1.6	1.1
15	<u>3.0</u>	<u>6.1</u>	2.5	2.3	2.5	2.3	3.9	3.4	9.0	7.1	<u>1.0</u>	1.2
16	2.9	3.7	2.3	2.5	2.9	2.2	4.1	3.2	9.6	6.5	1.1	1.3
17	2.9	3.0	2.3	2.3	<u>3.0</u>	2.2	3.9	3.2	10	5.9	1.1	1.6
18	3.0	*2.7	2.5	2.5	2.5	2.3	3.4	<u>3.0</u>	<u>11</u>	4.6	2.2	2.2
19	2.9	2.7	2.3	2.3	2.3	2.3	4.1	<u>3.0</u>	9.6	2.9	3.2	3.4
20	2.7	2.7	2.3	2.3	2.5	2.2	4.1	3.2	6.3	2.9	<u>3.6</u>	3.7
21	2.3	2.6	2.3	2.3	2.3	2.3	3.9	3.9	8.5	5.7	3.4	3.7
22	<u>2.2</u>	2.7	2.3	2.3	2.3	2.3	4.2	4.4	8.2	8.7	2.6	3.4
23	<u>2.2</u>	2.7	2.3	2.3	2.3	2.7	3.9	4.4	10	7.9	2.9	3.7
24	<u>2.2</u>	2.7	2.3	2.3	<u>2.2</u>	*3.4	3.9	*4.4	11	7.1	2.6	<u>5.2</u>
25	2.3	2.6	2.2	2.3	<u>2.2</u>	3.7	4.4	5.0	9.9	6.1	1.6	4.2
26	2.2	2.6	2.1	2.3	2.2	4.2	4.1	4.6	7.3	5.9	1.3	3.9
27	2.2	2.5	1.9	2.3	2.3	3.9	5.4	4.4	6.8	5.7	1.3	3.6
28	2.2	2.5	<u>2.2</u>	2.3	2.3	4.6	4.8	4.4	8.2	5.4	1.2	3.4
29	2.3	2.3	2.3	2.3	-	<u>5.2</u>	4.1	4.6	8.2	5.7	1.3	3.2
30	2.3	<u>2.2</u>	2.3	2.3	-	4.4	3.9	4.6	9.0	4.1	1.9	3.2
31	2.3	-	2.5	2.3	-	4.8	-	5.0	-	3.4	1.7	-
Total	82.1	79.7	76.2	72.3	66.0	87.6	127.8	136.2	217.3	182.0	69.7	71.2
Mean	2.65	2.66	2.46	2.33	2.36	2.83	4.26	4.39	7.24	5.87	2.25	2.37
Ac-ft	163	158	151	143	131	174	253	270	431	361	138	141

Calendar year 1954: Max 30

Min 1.1

Mean 3.88

Ac-ft 2,810

Water year 1954-55: Max 11

Min 1.0

Mean 3.47

Ac-ft 2,510

Peak discharge (base, 20 cfs).--No peak above base.

* Discharge measurement made on this day.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.2	1.6	2.1	a8.6	4.6		8.6	11	16	26	*16	5.2
2	<u>3.0</u>	1.7	2.2	*8.2	4.6		8.2	11	16	21	13	4.9
3	2.9	1.7	2.0	7.8	4.6		7.8	12	18	18	14	4.9
4	2.9	1.7	2.0	6.4	4.6		7.8	f26	19	18	15	
5	3.0	1.9	2.2	6.7	4.6		8.6	19	18	17	16	
6	3.2	1.9	4.8	6.4	4.3		9.8	f17	17	19	13	
7	2.1	1.9	2.7	5.8	4.3		11	f18	17	17	12	
8	1.9	1.9	3.9	5.5	4.3	a4.0	11	f16	17	16	12	
9	1.9	1.9	4.6	5.2	4.3		11	f19	17	19	12	
10	1.7	2.0	3.0	<u>4.9</u>	4.3		11	f16	18	17	10	
11	1.7	1.9	2.7	4.9	4.0		10	f15	19	13	8.6	
12	1.9	1.9	2.6	4.9	4.0		9.8	a14	a19	14	9.0	a5.0
13	1.9	1.6	2.6	4.9	4.0		9.4	a13	a21	16	7.8	
14	1.9	1.9	2.5	4.9	4.0		11	a12	23	16	7.0	
15	1.9	2.0	2.3	9.8	4.0		13	*f12	21	15	7.8	
16	1.9	2.1	2.2	<u>14</u>	4.0	a4.5	13	12	13	11	8.6	
17	1.9	2.1	2.2	9.4	4.0	a5.0	13	13	15	14	9.0	
18	*1.7	*2.5	2.1	7.4	4.0	a5.5	17	13	16	*16	9.4	
19	1.7	2.9	3.4	6.7	4.0	a6.0	16	a21	21	20	10	
20	1.7	<u>4.2</u>	*4.2	6.4	4.0	a6.5	14	a20	22	22	9.0	
21	1.7	3.0	*5.4	6.4	4.0	a7.0	13	a18	f24	21	6.7	
22	1.7	2.2	*9.3	6.4	<u>3.4</u>	a8.0	15	a18	f27	20	8.2	
23	1.7	2.1	*17.5	6.4	<u>4.0</u>	a9.0	*13	a19	30	18	8.6	
24	1.7	2.1	2.5	6.1	*4.3	a10	13	a19	28	17	8.6	
25	1.7	2.2	a14	6.1	3.6	a11	13	*f18	*27	22	7.8	
26	1.6	2.3	a13	5.8	a3.8	a9.0	13	19	23	f24	7.0	a5.5
27	1.6	2.3	a12	5.5	a3.8	*f8.2	12	18	28	28	6.7	
28	1.7	2.3	a10	5.2	a3.8	9.0	11	18	33	26	6.1	
29	1.7	2.3	a9.0	5.5	a3.8	9.8	11	17	33	23	6.1	
30	1.6	2.2	a9.0	5.2	-	9.4	11	17	28	22	5.8	
31	1.6	-	a9.0	4.9	-	8.6	-	17	-	20	*5.5	-
Total	62.3	64.3	430.7	202.3	119.0	186.5	344.0	508	647	586	296.3	155.0
Mean	2.01	2.14	13.9	6.53	4.10	6.02	11.5	16.4	21.6	18.9	9.56	5.17
Ac-ft	124	128	854	401	236	370	682	1,010	1,280	1,160	588	307

Calendar year 1955: Max 175

Min 1.0

Mean 4.35

Ac-ft 3,150

Water year 1955-56: Max 175

Min 1.6

Mean 9.84

Ac-ft 7,140

Peak discharge (base, 20 cfs).--Dec. 23 (2 a.m.) 690 cfs (5.95 ft); Apr. 18 (5 p.m.) 28 cfs (2.61 ft); May 4 (time unknown) about 30 cfs; May 19 (time unknown) about 30 cfs; June 14 (6 p.m.) 25 cfs (2.59 ft); June 25 (1:30 p.m.) 39 cfs (2.71 ft); July 26 (time unknown) 33 cfs (2.68 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for nearby streams.

f Fragmentary gage-height record; discharge computed from partly estimated gage heights.

Robinson Creek at Twin Lakes outlet, near Bridgeport, Calif.

Location--Lat 38°10', long 119°19', in SE $\frac{1}{4}$ SE $\frac{1}{4}$ 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 1956.

Gage--Water-stage recorder. Altitude of gage is 7,050 ft (from topographic map).

Extremes--1953-54: Maximum discharge during water year, 225 cfs May 21 (gage height, 3.56 ft); no flow Nov. 3 to Mar. 17.
 1954-55: Maximum discharge during water year, 216 cfs June 14 (gage height, 3.45 ft); no flow Nov. 15 to Mar. 31.
 1955-56: Maximum discharge during water year, 445 cfs June 29 (gage height, 4.35 ft); minimum daily, 0.2 cfs Nov. 17 to Dec. 21.
 Maximum discharge known, 660 cfs June 21, 1911 (gage height, 5.2 ft), at site $2\frac{1}{2}$ miles downstream.

Remarks--Records good. Flow regulated by Twin Lakes.

Rating table, Oct. 1, 1953, to Sept. 30, 1956, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.9	0	1.4	7.5	3.0	137
1.0	1.0	1.7	17	3.5	225
1.1	2.0	2.0	35	4.0	343
1.2	3.5	2.5	77	4.5	495

Discharge, in cubic feet per second, water year October 1953 to September 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		23				0	a10	75	111	120	106	64
2		a12	(*)			0	a11	75	*111	116	105	61
3		0				0	a13	85	115	111	102	56
4		0				0	a14	100	123	108	99	51
5	a24	0				0	a15	105	118	105	98	48
6		0				0	*16	*105	115	105	95	45
7		0				0	16	105	108	102	92	42
8		0				0	20	106	98	*109	109	39
9	*24	0				0	18	109	92	108	*118	36
10	24	0				0	15	116	85	100	114	*33
11	24	0				0	16	127	82	96	108	30
12	24	0				0	17	127	78	92	103	27
13	24	0				0	18	127	74	90	97	26
14	24	0				*0	20	129	73	96	90	24
15	25	0				0	23	131	90	109	88	22
16	23	0				0	27	136	110	108	91	20
17	23	0				0	34	*140	105	104	95	18
18	23	0				0	66	150	105	103	97	17
19	23	0				a2	80	170	133	99	98	17
20	23	0					73	195	147	94	98	16
21	23	0					71	221	133	87	98	16
22	23	0					70	195	133	85	98	16
23	23	0				a5	71	162	145	83	97	16
24	23	0					74	158	151	109	96	15
25	23	0					78	148	127	122	92	16
26	23	0					81	137	148	119	89	16
27	23	0					83	129	156	115	86	16
28	23	0				a7	80	120	148	113	82	16
29	*23	0					78	119	137	111	77	15
30	23	0					72	115	129	109	72	15
31	23	0					114	114	108	108	69	15
Total	727	35.0	0	0	0	73.0	1,276	4,029	3,480	3,236	2,959	849
Mean	23.5	1.17	0	0	0	2.35	42.5	130	116	104	95.5	28.3
Ac-ft	1,440	69	0	0	0	145	2,530	7,990	6,900	6,420	5,870	1,680

Calendar year 1953: Max - Min - Mean - Ac-ft -
 Water year 1953-54: Max 221 Min 0 Mean 45.7 Ac-ft 33,040

* Discharge measurement made on this day.
 a No gage-height record; discharge estimated on basis of operator's log for dam at lake outlet and weather records

Robinson Creek at Twin Lakes outlet, near Bridgeport, Calif.--Continued

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	6.5						64	87	115	131	86
2	14	6.3						60	87	113	127	86
3	13	6.3						56	88	109	123	87
4	14	4.9						*53	89	105	122	87
5	14							50	90	100	118	86
6								49	*94	94	115	83
7	18						a0.2	47	97	90	114	80
8	23						(**)	46	104	*89	111	76
9	24							45	113	87	*109	72
10	25	(*)						45	119	85	106	68
11	21							45	131	84	103	64
12	*17							*47	174	83	98	59
13	13		(**)					49	*208	84	96	*56
14	12						78	50	214	88	91	50
15	12	0					131	51	204	95	88	41
16	11	0					126	51	190	102	88	31
17	9.8	0					122	51	172	108	85	23
18	9.2	0					118	51	*150	106	81	22
19	8.8	0					113	51	143	*102	79	18
20	7.8	0					108	53	143	98	77	15
21	7.8	0					103	56	142	97	74	15
22	7.5	0					99	59	*143	100	72	18
23	7.3	0					95	66	134	103	67	23
24	6.7	0					91	*72	*137	99	64	27
25	6.7	0			(*)		89	75	131	91	85	27
26	6.5	0					87	78	126	85	69	27
27	8.5	0					83	79	122	76	75	27
28	6.5	0					76	80	122	106	80	24
29	6.5	0					71	82	119	109	83	22
30	6.5	0					68	85	119	118	86	20
31	6.5	-----			-----		-----	86	-----	137	86	-----
Total	370.6	26.0	0	0	0	0	1,660.6	1,832	3,992	3,058	2,884	1,420
Mean	12.0	0.87	0	0	0	0	55.4	59.1	133	98.6	93.0	47.3
Ac-ft	735	52	0	0	0	0	3,290	3,630	7,920	6,070	5,720	2,820
Calendar year 1954: Max	221			Min 0			Mean 44.7		Ac-ft 32,320			
Water year 1954-55: Max	214			Min 0			Mean 41.8		Ac-ft 30,240			

* Discharge measurement made on this day. ** Field estimate made on this day.
 a No gage-height record; discharge estimated on basis of operator's log for control dam at lake outlet and weather records.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	10		b6.0	33	15	26	78	231	415	*179	97
2	18	10		11	31	15	27	78	227	374	170	95
3	10	10		20	29	15	27	78	231	327	160	94
4	5.5	11		27	27	*16	27	79	238	292	147	94
5	5.5	11		32	26	18	27	80	*242	278	136	92
6	5.5	11		37	25	18	27	80	231	270	129	91
7	5.5	11		37	24	18	53	80	219	268	123	90
8	6.9	11		37	23	17	82	81	217	273	119	89
9	10	11		38	22	16	72	81	250	285	118	89
10	10	11		34	21	16	69	81	253	294	118	89
11	10	11			20	15	84	81	278	300	119	88
12	*10	11		35	20	15	91	81	302	294	119	87
13	10	11		34	20	15	90	80	*312	273	116	86
14	9.8	11		34	19	15	88	80	317	250	114	86
15	9.8	11		36	18	15	87	*80	302	236	115	86
16	9.8	5.7		45	18	15	86	80	273	225	114	85
17	9.8			49	18	15	86	80	244	*225	111	84
18	9.8			49	18	16	*85	80	229	208	109	83
19	9.8			32	17	16	85	80	238	220	109	82
20	10			37	17	16	83	81	*264	290	108	81
21	10	(*)		49	17	16	82	82	270	320	117	80
22	10			2.6	*45	16	82	84	270	333	136	80
23	10			3.7	45	19	81	87	275	335	118	80
24	10			7.5	43	20	17	80	290	353	*109	79
25	10			3.9	54	19	20	80	104	314	325	103
26	10			2.6	57	18	20	80	158	333	312	78
27	10			2.3	61	18	20	80	202	335	304	78
28	10			b1.5	50	17	21	80	223	349	300	76
29	10			b1.0	45	16	23	79	225	*377	287	76
30	10			b1.0	40		27	79	225	439	284	53
31	10	-----		b3.0	37		28	-----	229	-----	216	100
Total	503.7	170.5	33.3	1,191.0	806	543	2,105	3,308	6,350	8,946	3,773	2,527
Mean	9.80	5.68	1.07	38.4	20.9	17.5	70.2	107	278	289	122	84.2
Ac-ft	602	338	66	2,360	1,200	1,080	4,180	6,560	16,560	17,740	7,480	5,010
Calendar year 1955: Max	214			Min 0			Mean 42.1		Ac-ft 30,460			
Water year 1955-56: Max	439			Min -			Mean 87.0		Ac-ft 63,180			

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Buckeye Creek near Bridgeport, Calif.

Location.--Lat 38°14', long 119°19', 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 1956.

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.

Extremes.--1953-54: Maximum discharge during water year, 404 cfs May 20 (gage height, 3.33 ft); minimum, 8.4 cfs Jan. 16, result of freezeup.
 1954-55: Maximum discharge during water year, 438 cfs June 7; maximum gage height, 3.46 ft June 10; minimum discharge, 4.7 cfs Mar. 14, result of freezeup.
 1955-56: Maximum discharge during water year, 700 cfs Dec. 23 (gage height, 4.00 ft), from rating curve extended above 350 cfs on basis of slope-area determination of peak flow; minimum, 5.0 cfs Nov. 13, 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 tables, Oct. 1, 1953, to Sept. 30, 1956, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1, 1953, to June 8, 1955 June 9, 1955, to Dec. 22, 1955 Dec. 23, 1955, to Sept. 30, 1956

1.4	8	2.3	87	1.4	8	2.3	83	1.6	22	2.8	188
1.5	12	2.6	147	1.5	12	2.7	159	1.8	35	3.2	320
1.7	23	3.1	305	1.7	23	3.2	300	2.1	64	3.6	495
2.0	45			2.0	47			2.4	107		

Discharge, in cubic feet per second, water year October 1953 to September 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	21	*17	b15	15	22	21	65	136	92	36	18
2	21	20	18	*b15	15	22	21	68	145	96	36	18
3	21	20	17	b16	16	23	24	84	163	96	35	19
4	21	20	16	b16	b16	23	26	104	150	87	34	18
5	20	19	b16	17	16	24	30	131	120	84	32	17
6	19	19	b17	16	16	24	*31	160	99	76	31	17
7	19	19	b17	16	16	24	30	171	90	73	29	16
8	19	19	b17	b16	16	46	32	201	*89	*70	29	16
9	19	19	b18	b15	16	96	32	195	97	70	29	16
10	19	19	18	b15	16	44	33	145	90	66	*28	*16
11	19	19	19	b15	17	b30	36	152	81	65	27	16
12	19	20	18	15	16	b29	43	158	84	63	26	16
13	19	20	17	b15	16	b27	53	155	80	64	26	16
14	19	22	17	b15	b16	b26	66	171	84	69	25	15
15	19	21	18	b15	b16	b26	73	174	96	86	24	15
16	19	22	18	b15	b16	b26	89	169	110	69	24	15
17	19	20	18	14	b17	b25	106	*201	112	83	23	14
18	21	19	18	14	b17	b25	112	233	108	59	22	14
19	21	b20	18	b14	b17	25	108	263	116	56	21	14
20	22	b20	18	14	b17	26	106	288	131	53	21	14
21	21	b20	16	b15	b18	24	110	253	150	49	21	14
22	20	21	b15	15	18	22	120	186	155	46	21	14
23	22	20	b15	15	18	22	136	169	158	44	21	14
24	21	20	b15	14	18	22	133	174	158	44	21	14
25	21	19	b15	b14	21	24	129	163	150	50	20	14
26	21	19	b15	b15	*21	22	118	145	138	47	20	14
27	21	19	b15	b16	22	22	120	138	114	43	19	14
28	21	19	b15	16	22	22	96	142	101	41	19	13
29	*21	19	b15	16	-	21	80	147	97	39	19	13
30	21	19	b14	15	-----	21	73	131	99	39	19	13
31	21	-----	b15	15	-----	21	-----	129	-----	37	18	-----
Total	627	593	515	469	482	856	2,187	5,065	3,481	1,914	776	456
Mean	20.2	19.8	16.6	15.1	17.2	27.6	72.9	163	116	61.7	25.0	15.2
Ac-ft	1,240	1,180	1,020	930	956	1,700	4,340	10,050	6,900	3,800	1,540	904

Calendar year 1953: Max - Min - Mean - Ac-ft -
 Water year 1953-54: Max 288 Min 13 Mean 47.7 Ac-ft 34,560

Peak discharge (base, 100 cfs).--Mar. 9 (3 a.m.) 122 cfs (2.50 ft); Apr. 25 (12:30 a.m.) 155 cfs (2.83 ft); May 20 (12 p.m.) 404 cfs (3.33 ft); June 23 (11:30 p.m.) 201 cfs (2.77 ft); July 15 (1:30 a.m.) 129 cfs (2.50 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Buckeye Creek near Bridgeport, Calif.--Continued

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	12	b12	15	13	b13	26	27	108	96	36	18
2	14	12	b14	14	14	b14	22	26	96	94	35	17
3	14	12	b15	14	b14	14	21	26	112	91	35	17
4	14	12	14	b14	b14	14	21	29	147	85	36	17
5	14	12	b16	b14	b14	13	19	34	223	80	36	16
6	14	12	15	*14	13	14	21	44	223	75	35	16
7	13	12	12	15	13	14	23	59	*260	72	36	16
8	13	12	b14	b15	13	14	26	48	294	*73	33	16
9	14	12	b15	16	14	15	32	46	287	72	32	16
10	14	*12	16	14	12	14	34	60	*293	68	29	16
11	13	13	b14	14	13	14	32	74	261	68	29	16
12	*13	14	b14	14	14	14	35	90	223	70	*27	15
13	13	14	*b14	14	14	14	37	99	201	72	27	14
14	13	14	b14	14	14	12	34	84	188	73	26	14
15	13	21	16	13	16	14	32	64	*176	75	25	14
16	13	17	14	14	17	16	33	56	155	76	25	14
17	13	18	b14	b14	17	14	*32	56	155	69	24	15
18	14	14	b14	14	b13	13	26	70	152	63	24	19
19	13	14	b14	14	b13	14	27	92	157	*59	23	19
20	13	14	b14	14	b13	13	28	118	159	57	23	19
21	13	14	b13	14	b13	14	26	150	152	59	23	17
22	13	14	b13	14	b13	14	26	171	*150	61	22	17
23	13	14	b13	14	b13	14	27	186	141	56	22	16
24	12	14	b13	14	b13	17	31	163	121	52	21	21
25	12	14	b13	14	*13	19	32	108	113	48	21	18
26	12	14	b14	13	12	20	25	112	112	44	20	16
27	12	14	b14	b13	b12	21	28	*129	108	42	19	*16
28	12	14	b15	14	b12	23	30	160	*110	40	19	16
29	12	13	b15	14	-	23	28	201	103	39	18	16
30	12	b11	b15	14	-----	21	26	198	99	37	18	16
31	12	-----	16	14	-----	22	-----	160	-----	36	18	-----
Total	404	407	439	436	379	485	838	2,940	5,059	2,002	817	493
Mean	13.0	13.6	14.2	14.1	13.5	15.6	27.9	94.8	169	64.6	26.4	16.4
Ac-ft	801	807	871	865	752	962	1,660	5,830	10,030	3,970	1,620	978

Calendar year 1954: Max 288 Min 11 Mean 46.4 Ac-ft 33,600

Water year 1954-55: Max 294 Min 11 Mean 40.3 Ac-ft 29,150

Peak discharge (base, 100 cfs).--May 13 (1 a.m.) 122 cfs (2.49 ft); May 23 (2 a.m.) 250 cfs

(2.94 ft); May 29 (11 p.m.) 305 cfs (3.10 ft); June 7 (11:30 p.m.) 438 cfs (3.43 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	12	14	b50		26	50	105	313	336	158	65
2	14	13	b14	*b49		25	46	116	324	305	145	65
3	14	13	b14	43		25	44	132	352	*272	135	64
4	14	13	b14	39		24	44	171	360	272	130	62
5	14	13	b17	57		24	47	134	309	272	124	60
6	14	12	b25	37		b24	52	122	283	258	117	60
7	14	12	b18	36	b50	b24	58	116	305	262	114	57
8	14	12	b17	34		24	61	109	340	269	114	55
9	14	12	b18	35		25	70	110	360	287	112	62
10	14	12	16	34		25	76	104	380	272	107	64
11	14	12	15	34		25	67	101	388	245	107	61
12	14	11	15	33		25	62	96	372	222	102	56
13	14	9.6	15	32	27	24	57	93	372	208	99	54
14	14	b12	15	32	27	25	54	90	352	205	97	52
15	14	b15	14	49	27	25	53	97	298	196	94	50
16	14	16	14	62	b26	26	54	116	269	199	91	49
17	14	14	14	46	b26	27	58	135	287	*202	88	47
18	*14	*16	14	39	b26	29	61	134	313	219	87	46
19	14	18	18	37	b26	31	63	149	348	255	87	51
20	14	20	19	37	25	32	*76	145	*328	266	84	55
21	14	18	21	35	27	34	93	194	316	276	80	50
22	14	b16	159	37	28	37	104	266	*328	272	78	48
23	14	16	*419	34	27	41	121	298	360	287	77	47
24	14	b16	126	b34	*26	49	126	336	372	265	*77	45
25	14	17	95	32	24	53	126	*324	368	245	76	44
26	14	19	81	34	26	52	112	348	356	276	73	44
27	14	16	83	36	b25	48	99	370	372	235	72	55
28	14	14	b56	b36	b25	48	93	294	400	228	72	48
29	14	14	b54	b34	25	53	93	313	455	208	74	45
30	14	14	b52	b32	-----	57	99	332	380	186	68	44
31	13	-----	b50	b32	-----	55	-----	332	-----	*171	67	-----
Total	434	427.6	1,496	1,171	803	1,042	2,219	5,752	10,360	7,670	3,006	1,605
Mean	14.0	14.3	48.3	37.8	27.7	33.6	74.0	186	345	247	97.0	53.5
Ac-ft	861	848	2,970	2,320	1,590	2,070	4,400	11,410	20,550	15,210	5,960	3,180

Calendar year 1955: Max 419 Min 9.6 Mean 43.3 Ac-ft 31,350

Water year 1955-56: Max 455 Min 9.6 Mean 98.3 Ac-ft 71,370

Peak discharge (base, 100 cfs).--Dec. 23 (7:30 a.m.) 700 cfs (4.00 ft); Jan. 16 (2 p.m.) 117 cfs (2.46 ft); Apr. 24 (9 p.m.) 135 cfs (2.56 ft); May 4 (4 a.m.) 185 cfs (2.78 ft); June 11 (1 a.m.) 510 cfs (3.63 ft); June 29 (2 a.m.) 590 cfs (3.79 ft); July 22 (9 p.m.) 490 cfs (3.59 ft).

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

WALKER LAKE BASIN

159

Swager Creek near Bridgeport, Calif.

Location--Lat 38°17', long 119°18', 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 1956.

Gage--Water-stage recorder. Altitude of gage is 6,700 ft (from topographic map). June 1911 to September 1915, staff gages at approximately same site at different datums.

Extremes--1953-54: Maximum discharge during water year, 77 cfs Mar. 9 (gage height, 2.74 ft), from rating curve extended above 23 cfs by logarithmic plotting; maximum gage height, 3.14 ft Feb. 20 (backwater from ice); minimum discharge, 1.6 cfs Aug. 3.

1954-55: Maximum discharge during water year, 24 cfs Mar. 11 (gage height, 2.22 ft); maximum gage height, 3.03 ft Jan. 20 (backwater from ice); minimum discharge, 1.5 cfs Sept. 1, 2, 3.

1955-56: Maximum discharge during water year, 585 cfs Dec. 23 (gage height, 6.24 ft), from rating curve extended above 80 cfs on basis of slope-area determination of peak flow; minimum, 1.9 cfs Oct. 4-8.

1911-15, 1953-56: Maximum discharge, that of Dec. 23, 1955; no flow April 20, 1912.

Remarks--Records good except those for periods of no gage-height record, which are fair. Diversions for irrigation of about 1,000 acres above station.

Rating tables, Oct. 1, 1953, to Sept. 30, 1956, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 19, 1956, to Sept. 30, 1956)

Oct. 1, 1953, to Dec. 22, 1955

Dec. 23, 1955, to Sept. 30, 1956

1.5	1.2	2.2	23	1.9	6.0	3.5	112
1.6	2.3	2.4	38	2.2	15	4.0	172
1.8	6.1	2.6	59	2.5	30	4.5	242
2.0	13			3.0	66		

Discharge, in cubic feet per second, water year October 1953 to September 1954

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a7.5	9.0	*7.8	7.8	7.8	b11	15	12	11	2.4	1.8	2.1
2		9.3	7.8	b7.2	7.8	b11	17	11	10	2.4	1.8	2.1
3		9.5	b7.8	7.8	b7.8	11	18	12	*11	2.4	1.8	2.1
4		9.3	b6.6	8.1	b7.8	11	19	11	9.6	2.4	1.8	2.1
5		*9.0	b6.9	8.1	b7.8	11	19	11	9.0	2.7	1.8	2.1
6	(*)	8.7	7.8	8.1	b7.8	12	*17	11	10	3.6	1.8	2.0
7		8.4	8.4	7.8	b7.8	12	17	10	9.3	3.0	1.7	2.0
8		9.0	7.2	b6.1	b7.8	23	18	11	9.6	*2.9	1.7	*2.1
9	6.9	8.7	9.3	b5.1	8.1	52	18	12	11	2.4	*1.8	2.0
10	6.6	9.0	9.0	7.5	8.4	23	18	13	11	2.7	1.7	2.0
11	8.1	9.0	8.4	7.5	9.0	b13	21	11	8.4	2.4	1.7	1.9
12	8.1	9.3	9.3	7.8	9.0	*b13	21	11	4.0	2.1	1.7	1.9
13	8.1	9.3	9.0	b6.9	6.6	b12	26	11	5.0	2.1	1.7	2.0
14	8.1	10	9.3	7.5	6.3	13	32	13	5.8	2.1	1.7	2.3
15	8.1	9.6	9.3	7.8	b6.9	14	31	13	6.6	2.1	1.9	2.4
16	8.4	9.6	9.3	8.1	b8.4	13	36	13	7.2	2.0	2.0	2.4
17	8.1	8.4	9.3	7.5	9.3	12	36	13	5.2	2.0	1.8	2.0
18	9.6	7.5	8.7	7.2	b7.5	b11	36	13	4.2	2.0	1.7	2.1
19	10	8.1	9.0	7.5	b8.7	12	32	13	4.2	1.9	1.7	2.6
20	10	8.7	8.7	b7.5	b9.0	12	*25	13	4.2	1.8	1.7	2.9
21	9.6	b8.1	6.1	b7.5	b9.3	12	22	12	4.2	1.9	1.8	2.4
22	9.3	10	b5.0	8.4	9.0	12	17	11	4.0	1.8	1.8	2.1
23	11	9.6	b5.0	8.4	b9.6	13	18	12	3.6	1.9	1.7	2.1
24	9.6	9.9	6.1	8.1	*b10	12	19	12	3.6	1.9	1.8	2.1
25	9.3	9.6	b5.6	b8.1	10	b11	18	12	3.4	2.3	1.8	2.1
26	9.3	9.6	b5.8	b8.1	11	12	16	12	3.2	2.3	1.9	2.6
27	9.3	9.6	7.2	b8.1	10	13	16	12	2.9	2.6	2.0	2.9
28	9.3	9.3	6.9	8.1	11	15	15	11	2.9	2.0	2.0	2.9
29	9.3	9.3	7.5	8.1	-	14	12	9.3	2.7	1.9	2.0	3.2
30	9.0	8.7	*b7.2	*7.5	-----	15	13	11	2.6	1.8	2.0	3.4
31	9.0	-----	b7.2	b7.8	-----	14	-----	11	-----	1.8	2.1	-----
Total	264.1	272.9	238.5	238.1	239.5	445	638	363.3	189.4	69.6	56.2	69.0
Mean	8.52	9.10	7.69	7.68	8.55	14.4	21.3	11.7	6.31	2.25	1.61	2.30
Ac-ft	524	541	473	472	475	883	1,270	721	376	138	111	137

Calendar year 1953: Max - Min - Mean - Ac-ft -
Water year 1953-54: Max 52 Min 1.7 Mean 8.45 Ac-ft 6,120

Peak discharge (base, 25 cfs)--Mar. 9 (2:30 a.m.) 77 cfs (2.74 ft); Apr. 18 (9 p.m.) 54 cfs (2.62 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of 1 discharge measurement and weather records.

b Stage-discharge relation affected by ice.

WALKER LAKE BASIN

Swager Creek near Bridgeport, Calif.--Continued

Discharge, in cubic feet per second, water year October 1954 to September 1955

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.4	6.6	5.6	8.4	7.8	b8.1	12	7.5	7.5	3.4	2.1	1.6
2	4.0	6.9	7.5	b7.5	7.8	8.7	9.3	5.8	7.2	3.8	2.7	1.6
3	4.8	6.9	9.0	b7.5	b7.5	9.0	9.0	4.4	7.8	3.2	2.4	1.6
4	6.1	6.9	7.8	b8.0	b7.5	8.4	9.9	5.4	8.1	3.0	2.1	1.7
5	6.1	6.9	6.9	8.4	8.4	8.4	8.7	5.6	8.7	2.7	2.1	1.6
6	6.8	6.6	*8.1	8.1	b8.1	b7.8	9.3	6.6	8.7	2.9	2.1	1.7
7	5.2	6.9	6.9	*b8.1	b8.1	10	9.9	9.0	8.7	4.0	2.0	1.7
8	*4.6	6.9	6.1	b8.4	*b8.1	*12	11	9.6	9.9	*4.0	2.0	1.8
9	4.8	6.9	7.5	b8.1	8.1	12	11	6.9	9.3	2.9	1.8	1.8
10	4.8	*6.9	6.9	8.7	b7.8	11	11	5.2	9.3	3.0	1.8	1.7
11	4.8	7.5	b5.6	b8.1	b7.8	13	8.7	5.8	7.8	2.6	1.8	1.7
12	4.6	7.8	b6.1	b7.8	8.1	13	7.8	5.8	6.6	2.1	*1.8	1.7
13	4.6	6.8	6.9	8.1	7.2	11	7.2	6.3	4.0	2.1	1.8	1.7
14	4.4	7.5	6.9	b7.8	9.0	9.9	7.2	7.8	4.6	2.4	1.8	1.8
15	2.6	8.4	8.1	8.1	10	9.0	5.2	9.3	5.4	2.6	1.7	1.8
16	3.2	6.3	6.6	8.1	12	8.4	3.6	8.4	6.1	2.3	1.7	1.8
17	2.9	6.9	b6.6	b7.5	13	9.2	*4.6	7.8	6.6	2.1	1.7	1.8
18	3.4	7.5	b6.9	*7.8	b7.2	9.5	4.2	8.1	6.9	2.3	1.8	2.1
19	4.8	7.2	b7.2	b8.1	b6.3	9.3	4.0	7.8	7.8	2.1	1.8	2.0
20	5.8	7.5	b7.5	b8.1	b7.5	b7.5	4.8	7.5	6.9	2.1	1.8	1.9
21	5.8	7.5	b7.5	b8.1	b7.8	8.6	5.6	7.5	5.0	2.3	1.8	1.8
22	5.8	8.1	8.1	b8.1	8.4	8.7	5.4	9.3	4.6	2.4	1.8	1.8
23	5.8	8.1	8.4	b7.8	b7.8	9.3	4.8	8.1	4.2	2.3	1.8	1.9
24	5.2	8.1	8.1	b8.1	b7.8	11	6.3	7.8	4.4	2.1	1.7	1.9
25	5.6	7.8	b5.8	7.8	8.1	12	6.6	9.3	4.8	2.0	1.7	1.9
26	5.8	7.8	b5.0	7.8	8.1	12	6.1	7.8	4.8	2.0	1.9	1.9
27	6.3	7.8	b4.4	b8.1	7.8	11	6.3	*7.8	3.0	2.0	2.0	*2.4
28	6.6	7.8	b5.2	b8.4	b7.5	12	7.8	9.6	2.7	2.1	1.8	1.9
29	6.9	6.6	6.3	8.4	-	12	5.8	11	3.0	2.1	1.9	1.9
30	6.9	b4.6	7.5	8.1	-----	9.9	5.8	11	3.2	2.1	1.9	2.0
31	6.9	-----	9.0	7.8	-----	11	-----	12	-----	2.1	1.6	-----
Total	158.3	215.8	216.0	249.2	231.5	312.7	218.9	241.8	187.6	79.1	58.7	54.5
Mean	5.11	7.19	6.97	8.04	8.27	10.1	7.30	7.80	6.25	2.55	1.89	1.82
Ac-ft	314	428	428	494	459	620	434	480	372	157	116	108
Calendar year 1954: Max	52			Min 1.7		Mean 7.94		Ac-ft 5,750				
Water year 1954-55: Max	13			Min 1.6		Mean 6.09		Ac-ft 4,410				

Peak discharge (base, 25 cfs).--No peak above base. * Discharge measurement made on this day.
 b Stage-discharge relation affected by ice.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.3	5.2		11	b12	b11	28	56	62	23	9.7	9.1
2	2.3	5.6		9.1	b12	12	25	60	64	19	9.7	9.1
3	2.4	5.8		11	b12	12	22	62	64	19	10	9.1
4	2.1	5.8		10	13	13	22	32	60	20	11	9.1
5	2.0	5.8		12	13	12	24	69	58	18	10	9.1
6	1.9	5.8		b11	13	b11	26	63	55	16	8.8	9.1
7	1.9	5.6		9.4	b12	b11	31	60	55	16	8.0	9.1
8	2.1	5.6		9.7	b12	12	34	53	52	15	8.5	9.1
9	3.2	5.8		10	*b12	14	40	65	49	15	8.8	9.7
10	4.2	5.4		11	b12	16	44	49	46	16	8.5	9.4
11	4.2	5.2		12	12	15	38	46	44	14	7.8	9.4
12	a4.2	4.6		12	12	b14	37	42	44	13	7.8	9.1
13	a4.4	4.6		12	12	b15	35	39	44	11	8.2	9.1
14	a4.6	a4.6		12	12	16	35	38	44	12	8.5	8.8
15	4.8	a4.6		20	11	*16	35	38	42	14	8.5	9.1
16	4.6	a4.8		26	b11	18	37	39	39	14	9.7	8.8
17	5.0	a5.2		18	b11	22	45	44	39	*14	9.7	8.5
18	*4.8	a5.6		17	b11	24	*52	51	33	14	10	8.2
19	4.8	a6.1		16	b11	25	49	55	28	17	10	9.1
20	5.0	a6.9		18	11	26	56	53	27	20	9.1	10
21	5.2	*5.2	7.8	16	11	30	59	60	26	20	8.5	9.7
22	5.2	b4.0		*45	*17	31	63	60	27	20	8.8	9.7
23	5.2	4.6		*228	17	12	*34	*68	47	26	17	8.2
24	5.2			29	14	11	39	70	60	26	14	7.2
25	5.4			20	15	11	42	75	*73	*26	14	9.4
26	5.4			19	13	11	38	68	73	25	19	9.7
27	5.2			17	b12	b11	34	52	72	25	19	10
28	5.4			*b12	b12	b11	34	46	72	25	14	9.7
29	5.4			b12	b12	11	37	49	69	24	13	9.7
30	5.4			b12	b12	-----	34	56	66	24	12	9.1
31	5.4			12	b12	-----	29	-----	65	-----	*12	*8.8
Total	129.2	157.4	554.9	419.2	337	697	1,321	1,791	1,205	494	281.4	276.0
Mean	4.17	5.25	17.9	13.5	11.6	22.5	44.0	57.8	40.2	15.9	9.08	9.20
Ac-ft	256	312	1,100	831	668	1,380	2,620	3,550	2,390	980	558	547
Calendar year 1955: Max	228			Min 1.6		Mean 6.78		Ac-ft 4,910				
Water year 1955-56: Max	228			Min 1.9		Mean 20.9		Ac-ft 15,190				

Peak discharge (base, 25 cfs).--Dec. 23 (4:30 a.m.) 585 cfs (6.24 ft); Jan. 15 (9:30 p.m.) 34 cfs (2.54 ft); Mar. 24 (6 p.m.) 54 cfs (2.84 ft); Apr. 9 (10 p.m.) 49 cfs (2.77 ft); Apr. 24 (7 p.m.) 103 cfs (3.37 ft); May 4 (5 p.m.) 106 cfs (3.43 ft); May 24 (8 p.m.) 99 cfs (3.38 ft); July 20 (6 p.m.) 50 cfs (2.62 ft); July 26 (8 p.m.) 38 cfs (2.75 ft).

* 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.

WALKER LAKE BASIN

161

Bridgeport Reservoir near Bridgeport, Calif.

Location.--Lat 38°19'30", long 119°12'50", in SE $\frac{1}{4}$ sec. 34, T. 6 N., R. 25 E., at Bridgeport Dam on East Walker River, 4 $\frac{1}{2}$ miles north of Bridgeport.

Drainage area.--362 sq mi.

Records available.--October 1931 to September 1956 in reports of Geological Survey. March 1926 to September 1956 in files of Walker River Irrigation District.

Gage.--Float gage read once daily. Datum of gage is at mean sea level.

Extremes.--Maximum contents during year, 43,370 acre-ft July 21, 23, 24 (elevation, 6,460.30 ft); minimum contents, 1,520 acre-ft Oct. 1, 2 (elevation, 6,431.40 ft), but may have been less during period of no elevation record.
1926-56: Maximum contents, 44,580 acre-ft June 12, 1938 (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. 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 1955-56 (elevation, in feet, and contents, in acre-feet)

6,431	1,400	6,445	11,380
6,434	2,450	6,450	18,780
6,437	4,050	6,455	29,180
6,440	6,240	6,461	45,490

Total contents, in acre-feet, at 8 a.m., water year October 1955 to September 1956											
Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Sept.
1	1,520	1,710	5,080	23,200	33,860	33,980	34,900	35,700	39,540	43,070	35,830
2	1,520	1,810	5,220	23,410	33,860	33,860	34,900	35,700	39,540	42,920	35,440
3	-	1,910	5,370	23,620	33,980	33,860	34,900	35,830	39,400	42,760	35,040
4	-	2,020	5,400	23,930	33,730	33,980	34,900	36,230	39,400	42,460	34,510
5	-	2,130	5,480	24,240	33,860	34,110	34,900	36,500	39,400	42,170	34,240
6	-	2,210	5,600	24,450	33,980	33,980	34,900	36,630	39,540	41,730	33,980
7	-	2,310	5,800	24,770	34,110	33,860	35,040	36,630	39,400	41,580	33,600
8	-	2,410	5,960	25,100	34,110	33,860	35,170	36,630	39,260	41,730	33,350
9	-	2,520	6,200	25,320	34,240	33,860	35,170	36,760	39,120	41,880	32,970
10	-	2,620	6,420	25,540	34,380	33,860	35,300	37,180	38,980	42,020	32,710
11	-	2,700	6,550	25,870	34,510	33,860	35,300	36,760	39,120	42,310	32,460
12	-	2,830	6,720	26,200	34,770	33,730	35,440	36,630	39,260	42,610	32,200
13	-	2,920	6,860	26,530	34,900	33,730	35,570	36,630	39,400	42,610	31,950
14	-	2,970	6,940	26,880	35,170	33,600	35,700	36,630	39,690	42,760	31,570
15	-	3,080	7,120	27,320	35,440	33,480	35,700	36,500	39,980	42,760	31,330
16	1,590	3,160	7,260	28,240	35,440	33,350	35,570	36,230	40,120	42,610	30,970
17	1,600	3,260	7,360	28,820	35,300	33,350	35,570	36,100	39,980	42,610	30,730
18	1,620	3,340	7,500	29,280	35,300	33,220	35,700	36,100	39,830	42,610	30,360
19	1,630	3,510	7,700	29,760	35,170	33,220	35,980	36,100	39,980	42,760	30,120
20	1,650	3,660	8,080	30,240	35,040	33,350	35,830	36,360	40,120	43,070	29,760
21	1,650	3,840	8,390	30,730	34,770	33,350	35,700	36,630	40,420	43,370	29,400
22	1,680	3,980	8,740	31,090	34,510	33,480	35,700	36,760	40,560	43,220	29,160
23	1,680	4,080	11,820	31,570	34,380	33,730	35,700	36,900	40,710	43,370	28,820
24	1,690	4,220	18,180	31,950	34,510	33,860	35,700	37,460	41,000	43,370	28,580
25	1,730	4,310	-	32,460	34,380	33,980	35,570	38,010	41,440	43,220	28,360
26	1,740	4,550	20,250	32,970	34,380	34,380	35,570	38,570	41,880	43,070	28,120
27	1,740	4,580	21,210	33,220	34,240	34,240	35,700	38,710	42,170	43,070	27,820
28	1,760	4,710	21,890	33,580	34,240	34,380	35,700	39,690	42,460	43,070	27,580
29	1,760	4,860	22,380	33,480	34,110	34,510	35,700	39,830	42,610	42,920	27,300
30	1,740	4,970	22,580	33,600	-----	34,640	35,700	39,830	42,920	42,610	27,780
31	1,740	-----	23,000	33,730	-----	34,770	-----	39,690	-----	42,460	27,500
(†)	6,432.10	6,438.35	6,452.20	6,458.85	6,457.00	6,457.23	6,457.61	6,459.10	6,460.13	6,460.01	6,457.77
(*)	+200	+3,230	+18,030	+10,730	+380	+660	+930	+3,990	+3,230	-460	-6,360

Calendar year 1955..... * +12,090

Water year 1955-56..... * +26,010

† Elevation, in feet, at end of month.

* Change in contents, in acre-feet.

WALKER LAKE BASIN

East Walker River near Bridgeport, Calif.

Location.--Lat 38°19'40", long 119°12'50", in SW¼ 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 1956.

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.--33 years (1922-24, 1925-56), 131 cfs (94,840 acre-ft per year).

Extremes.--Maximum discharge during year, 981 cfs July 1 (gage height, 3.77 ft); minimum daily, 0.2 cfs Nov. 2-29, Dec. 1-22, 25-28, Jan. 17-25.
1921-56: Maximum discharge, 1,240 cfs Jan. 22, 1943 (gage height, 4.5 ft); minimum daily, that of Nov. 2-29, Dec. 1-22, 25-28, 1955, Jan. 17-25, 1956.

Remarks.--Records excellent. Diversion for irrigation of meadow pasture lands near Bridgeport. Flow regulated by Bridgeport Reservoir (see preceding page).

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

-0.15	0	0.2	5.0	0.6	33	1.5	212
-.1	0.4	.3	9.0	.7	46	2.0	360
0.	1.3	.4	15	.8	61	3.0	693
.1	2.5	.5	23	1.0	96	3.6	916

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60	20		*41	96	171	92	178	662	*905	455	335
2	60			41	96	171	92	178	662	901	407	332
3	60			41	96	171	92	196	662	810	357	329
4	49			41	96	171	92	239	662	776	274	329
5	45			41	96	171	92	256	665	697	242	329
6	45			42	96	171	91	256	697	561	242	329
7	45			41	96	171	91	256	693	455	254	329
8	45			41	96	171	91	256	672	429	283	329
9	45			41	*96	171	91	256	672	433	283	329
10	45			42	72	171	91	292	676	436	283	329
11	45			42	14	171	91	280	676	436	280	326
12	*45		a0.2	42	14	171	98	265	676	445	280	326
13	45			42	14	171	129	265	679	452	280	326
14	45			42	14	171	196	265	679	452	277	326
15	45			43	65	*171	226	265	679	452	280	326
16	45		a.2	19	168	171	215	265	679	423	280	326
17	45				168	171	196	*265	679	413	280	326
18	45				171	171	212	265	598	*410	280	323
19	45				171	129	265	265	517	417	280	323
20	45				171	91	277	265	504	449	280	323
21	45			a.2	171	91	239	286	504	697	280	323
22	45	(*)			171	91	223	320	504	736	280	320
23	45		3.7		171	91	*223	332	507	711	298	320
24	45		a.6		171	91	223	332	507	772	335	320
25	45				171	91	196	363	544	765	335	289
26	45		a.2	47	171	92	181	413	612	736	335	239
27	45			96	171	92	181	374	682	743	335	239
28	50			110	171	92	181	520	*765	761	335	239
29	60			110	171	92	181	*602	617	700	335	239
30	60	7.3	36	106	-----	92	181	651	640	623	332	242
31	58	-----	41	96	-----	92	-----	662	-----	534	*332	-----
Total	1,492	32.9	161.5	1,208.8	3,445	4,305	4,629	9,883	19,371	18,530	9,409	9,320
Mean	48.1	1.10	5.21	39.0	119	139	161	319	646	598	304	311
Ac-Ft	2,960	65	320	2,400	6,830	8,540	9,580	19,600	38,420	36,750	18,660	18,490
Calendar year 1955: Max		242			Min 0.2	Mean	74.3	Ac-ft	53,790			
Water year 1955-56: Max		905			Min 0.2	Mean	224	Ac-ft	162,600			

* Discharge measurement made on this day.

a Low-water gage height not recorded; discharge estimated on basis of 1 discharge measurement and record for Bridgeport Dam.

East Walker River above Strosnider ditch, near Mason, Nev.

Location.--Lat 38°49', long 119°03', in sec. 14, T. 11 N., R. 26 E., on left bank 0.9 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 1956.

Gage.--Water-stage recorder. Datum of gage is 4,574.66 ft above mean sea level, datum of 1929.

Average discharge.--9 years (1947-56), 133 cfs (96,290 acre-ft per year).

Extremes.--Maximum discharge during year, 1,640 cfs Dec. 24 (gage height, 6.87 ft), from rating curve extended above 1,100 cfs by logarithmic plotting; minimum, 11 cfs Dec. 4, 1947-56; Maximum discharge, that of Dec. 24, 1955; minimum, 3.1 cfs Mar. 21, 1948; minimum daily, 3.4 cfs Mar. 21-24, 1948.

Remarks.--Records good. Diversions for irrigation above station. Flow regulated by Bridgeport Reservoir (see p.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 15

Apr. 16 to Sept. 30

0.9	8.0	2.0	168	1.5	90
1.0	16	3.0	392	2.0	196
1.2	37	4.0	645	3.0	426
1.6	94	6.0	1,300	5.0	960

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	53	51	16	94	125	172	111	189	700	834	522	291
2	53	*51	15	91	118	174	109	187	710	*855	452	291
3	53	41	17	88	118	176	106	181	*692	918	404	288
4	53	35	14	88	118	176	106	203	688	828	349	304
5	51	33	*14	86	127	176	106	262	688	798	286	302
6	45	30	14	86	115	176	108	275	700	728	255	302
7	44	29	14	81	115	176	108	293	722	598	242	313
8	42	28	14	81	115	180	104	297	718	502	242	*308
9	41	27	15	80	113	180	104	311	702	475	249	304
10	41	26	15	81	113	180	102	311	695	468	244	306
11	40	25	16	81	113	180	106	325	695	470	247	302
12	38	24	15	80	83	176	111	325	708	478	253	302
13	40	24	14	*80	72	178	122	311	708	470	247	302
14	40	23	15	80	68	180	162	306	710	468	247	299
15	37	23	15	80	65	178	196	295	720	472	244	302
16	35	22	15	92	68	178	220	288	712	462	242	304
17	35	21	15	86	*150	178	244	280	715	433	240	299
18	36	20	14	68	162	174	233	291	*710	428	238	293
19	35	20	14	61	166	*174	262	297	642	433	233	299
20	37	20	14	57	168	154	308	302	580	470	233	308
21	40	20	17	54	170	125	306	299	545	498	227	304
22	40	20	14	51	172	120	282	311	552	865	231	304
23	40	19	189	50	172	118	284	335	555	*792	233	306
24	40	19	1,130	50	172	118	282	349	562	742	249	308
25	40	18	224	49	172	120	277	388	572	798	277	311
26	41	18	155	51	172	118	258	412	602	795	284	288
27	40	18	197	58	172	116	238	*455	650	765	288	255
28	42	18	*113	99	172	113	220	452	695	771	297	253
29	44	18	91	106	172	111	205	570	750	765	302	244
30	47	17	83	116	---	113	203	638	*810	712	308	251
31	50	---	104	122	---	111	---	680	---	605	304	---
Total	1,313	758	2,618	2,417	3,838	4,799	5,583	10,418	20,208	19,498	8,669	8,841
Mean	42.4	25.3	84.5	78.0	132	155	188	336	674	629	280	295
Ac-ft	2,600	1,500	5,180	4,790	7,610	9,520	11,070	20,660	40,080	38,670	17,190	17,540

Calendar year 1955: Max 1,130 Min 9.6 Mean 70.0 Ac-ft 50,670
 Water year 1955-56: Max 1,130 Min 14 Mean 243 Ac-ft 176,400

* Discharge measurement made on this day.

WALKER LAKE BASIN

East Fork West Walker River near Bridgeport, Calif.

Location.--Lat 38°21'30", long 119°26'30", in NW¼ 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 1956.

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.--12 years (1944-56), 51.8 cfs (37,500 acre-ft per year).

Extremes.--Maximum discharge during year, 994 cfs Dec. 23 (gage height, 2.80 ft), from rating curve extended above 370 cfs on basis of slope-area determinations at gage heights, 2.60 and 2.80 ft; minimum, 7.9 cfs Nov. 12.

1910, 1944-56: Maximum discharge, that of Dec. 23, 1955; maximum gage height recorded, 3.63 ft Jan. 3, 1945 (backwater from ice); minimum discharge recorded, 4.9 cfs Nov. 17, 1948.

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

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 14 to Sept. 30)

Oct. 1 to Dec. 22

Dec. 23 to Sept. 30

0.6	10	1.5	140
.8	21	2.0	330
1.0	39		
1.2	70		

0.6	24	1.6	210
.8	41	2.0	360
1.0	66	2.5	660
1.3	123		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	*b12	*13	b55	b30	b26	50	*101	288	304	*114	48
2	13	b13	b13	b50	b30	b26	50	110	292	270	112	46
3	14	13	b13	b44	b30	26	45	121	304	245	105	46
4	13	12	b14	42	b30	26	46	164	312	242	99	*43
5	14	13	b18	43	b30	26	50	123	284	242	95	44
6	14	12	b29	b42	b30	b26	53	114	270	231	92	43
7	14	12	b19	b42	b30	b28	56	110	278	231	86	42
8	13	12	b16	b40	30	b28	59	105	284	242	84	41
9	13	12	b17	b37	b30	30	65	123	312	245	84	46
10	12	12	b16	37	b29	30	71	114	328	242	80	49
11	13	12	b15	37	b29	28	65	112	*336	*220	79	44
12	14	b11	14	37	b29	b28	62	110	336	204	77	43
13	14	b10	b15	36	b28	b28	60	105	328	184	74	41
14	14	b11	14	38	28	28	60	103	316	175	72	40
15	14	b13	b14	72	b28	30	68	108	273	169	68	39
16	14	b13	b14	82	b28	32	71	121	256	172	63	38
17	14	b14	14	*61	b27	36	79	119	258	172	63	37
18	14	b14	14	49	b27	40	86	126	276	184	63	36
19	14	16	22	45	b27	43	80	136	296	220	63	40
20	14	19	22	45	b26	43	86	139	284	258	63	43
21	14	15	24	41	b26	46	93	178	270	248	59	39
22	14	b14	254	b40	26	50	99	*224	292	231	58	38
23	14	b14	*580	b40	25	55	108	262	300	217	56	37
24	14	b14	149	b40	b25	62	112	292	328	a210	56	36
25	14	b15	103	b37	b25	65	116	292	328	a200	55	36
26	14	b16	95	b36	*b25	*59	112	304	320	a210	52	35
27	14	b15	*77	b36	b25	56	101	288	332	a190	52	43
28	14	b14	79	b35	b25	58	95	270	344	a180	52	37
29	14	14	72	b34	b25	59	97	276	365	a160	53	36
30	13	b14	b65	b32	-----	59	103	284	344	a145	49	35
31	12	-----	b60	b30	-----	53	-----	296	-----	130	49	-----
Total	424	401	1,884	1,335	803	1,230	2,298	5,330	9,118	6,573	2,227	1,221
Mean	13.7	13.4	60.8	43.1	27.7	39.7	76.8	172	304	212	71.8	40.7
Ac-ft	841	795	3,740	2,650	1,590	2,440	4,560	10,570	18,090	13,040	4,420	2,420
Calendar year 1955: Max	580			Min 10		Mean 38.3		Ac-ft 27,710				
Water year 1955-56: Max	580			Min 10		Mean 89.7		Ac-ft 65,160				

Peak discharge (base, 200 cfs).--Dec. 23 (3:40 a.m.) 994 cfs (2.80 ft); June 3 (9 p.m.) 344 cfs (1.96 ft); June 10 (11 p.m.) 375 cfs (2.06 ft); June 28 (11 p.m.) 420 cfs (2.16 ft); July 20 (7:30 p.m.) 445 cfs (2.23 ft); July 26 (time unknown) 332 cfs (2.00 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.

West Walker River below East Fork, near Coleville, Calif.

Location.--Lat 38°22'45", long 119°27'00", in SE¹ sec. 9, T. 6 N., R. 23 E., on left bank 75 ft downstream from East Fork, 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 1956.

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.--18 years, 262 cfs (189,700 acre-ft per year).

Extremes.--Maximum discharge during year, 5,180 cfs Dec. 23 (gage height 7.41 ft), from rating curve extended above 1,900 cfs on basis of slope-area determination at gage height 8.10 ft; minimum, 8.4 cfs Nov. 13, result of freezeup.

1938-56: 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 determination 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 determination.

Remarks.--Records good. Station is above diversions except a few small ranch ditches. Flow very slightly regulated by Poor Lake Reservoir (capacity unknown), 7 miles upstream.

Revisions (water years).--WSP 880: 1917 (runoff in acre-feet).

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.4	16	2.5	401
.6	27	3.0	607
.8	43	4.0	1,260
1.1	78	5.0	2,100
1.5	140	7.0	4,600
2.0	246		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	*27	*34	249	b145	104	*246	*535	1,600	*1,330	*493	181
2	31	29	34	246	b142	106	228	598	1,590	1,160	438	177
3	*30	29	b32	214	142	106	207	688	1,720	1,040	387	168
4	30	29	b34	196	151	*100	203	884	1,800	1,050	370	*151
5	30	30	b41	196	144	91	210	688	1,480	1,060	353	149
6	30	30	66	185	137	85	228	607	1,280	1,040	330	153
7	30	29	49	181	130	98	262	531	1,400	1,060	321	151
8	29	28	47	171	126	96	290	489	1,560	1,150	321	142
9	28	29	53	179	120	98	340	506	1,700	1,230	324	149
10	28	28	44	166	120	102	384	458	1,820	1,170	314	194
11	28	28	43	162	118	101	348	446	1,910	1,040	314	177
12	29	24	43	158	115	91	314	423	*1,820	919	296	158
13	29	20	42	154	121	95	293	405	1,790	814	279	144
14	30	25	41	160	120	98	282	401	1,680	778	282	133
15	32	27	40	287	118	95	273	458	1,360	760	268	126
16	31	31	39	390	117	106	270	579	1,190	796	254	120
17	31	30	40	*293	125	123	285	677	1,240	832	246	118
18	30	35	36	280	130	133	311	677	1,440	926	246	113
19	31	38	43	234	117	145	336	766	1,670	1,180	238	123
20	30	45	70	224	120	149	387	760	1,500	1,330	231	149
21	30	46	77	205	121	162	461	1,090	1,360	1,170	219	133
22	30	32	806	212	102	173	522	*1,440	1,470	1,040	212	125
23	30	34	3,550	221	109	192	607	1,700	1,600	1,040	205	117
24	29	34	1,050	194	109	234	715	1,820	1,710	995	205	112
25	30	37	636	188	96	265	726	1,700	1,640	884	203	109
26	30	38	522	179	101	265	656	1,790	1,560	953	194	106
27	29	37	*390	164	110	251	544	1,720	1,720	832	183	137
28	30	37	346	b175	112	246	473	1,470	1,820	760	181	115
29	30	38	308	b170	107	262	465	*1,520	1,970	693	190	101
30	30	37	265	b165	-----	279	493	1,640	1,690	593	173	*95
31	28	-----	262	b152	-----	273	-----	1,720	-----	548	175	-----
Total	925	961	9,084	6,330	3,525	4,724	11,357	29,186	48,070	30,173	8,445	4,126
Mean	29.8	32.0	293	204	122	152	379	941	1,602	973	272	138
Ac-ft	1,830	1,910	18,020	12,560	6,990	9,370	22,530	57,890	95,350	59,850	16,750	8,180

Calendar year 1955: Max 3,550 Min 20 Mean 205 Ac-ft 148,200
 Water year 1955-56: Max 3,550 Min 20 Mean 429 Ac-ft 311,200

Peak discharge (base, 1,120 cfs).--Dec. 23 (7 a.m.) 5,180 cfs (7.41 ft); May 24 (1:30 a.m.) 2,140 cfs (5.00 ft); June 11 (2 a.m.) 2,150 cfs (5.05 ft); June 29 (2 a.m.) 2,320 cfs (5.22 ft); July 20 (8:30 p.m.) 1,910 cfs (4.76 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

WALKER LAKE BASIN

Topaz Reservoir near Topaz, Calif.

Location.--Lat 38°41', long 119°31', in sec. 28, T. 10 N., R. 22 E., 6 miles north of Topaz.

Records available.--October 1931 to September 1956.

Gage.--Float and staff gages at outlet works of Topaz Reservoir. Datum of gage is at mean sea level (levels by Walker River Irrigation District).

Extremes.--Maximum contents during year, 60,040 acre-ft July 21 (elevation 5,005.26 ft); minimum, 2,460 acre-ft Oct. 31 (elevation, 4,973.90 ft).
1931-56: 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).

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. Water is used for irrigation in Walker River Irrigation District.

Cooperation.--Elevations furnished by Walker River Irrigation District.

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

4,973	1,080	4,990	28,970
4,976	5,740	4,995	38,100
4,980	12,130	5,000	46,350
4,985	20,390	5,006	61,750

Contents, in acre-feet, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,020	2,560	4,610	20,220	36,650	46,710	51,660	52,050	57,980	59,320	59,440	44,760
2	3,930	2,680	4,800	20,730	-	46,980	51,770	52,010	57,890	59,100	59,420	44,180
3	3,830	2,710	4,960	21,240	-	47,240	51,850	52,050	-	58,940	59,350	43,640
4	3,710	2,740	5,050	21,740	-	-	51,830	52,290	57,680	58,940	59,210	42,940
5	3,550	2,740	5,150	22,170	-	47,710	51,770	52,560	57,610	58,750	58,940	42,450
6	3,400	2,810	5,240	22,680	-	47,880	51,680	-	57,300	58,890	58,660	41,800
7	3,300	2,870	-	23,190	39,430	48,130	51,590	52,620	56,890	58,940	59,230	41,190
8	3,240	2,930	-	23,700	-	48,350	51,530	52,320	56,660	59,050	57,860	40,590
9	3,210	3,020	-	24,130	-	-	51,500	52,250	56,550	59,280	57,430	40,060
10	3,120	3,050	5,980	24,640	40,530	48,840	51,500	52,230	56,590	59,390	57,050	39,470
11	3,050	3,080	6,220	25,160	40,890	-	51,440	52,160	56,710	59,480	56,660	38,980
12	3,020	3,120	6,370	25,840	-	49,310	51,350	51,900	56,930	59,440	56,210	38,520
13	2,990	3,150	6,530	26,930	41,630	49,530	51,310	-	57,110	59,300	56,830	-
14	2,930	3,180	6,660	26,360	41,980	49,740	51,420	51,680	57,340	59,230	55,360	37,610
15	2,900	3,130	6,780	26,800	42,280	49,960	51,390	51,590	57,410	59,230	54,910	37,130
16	2,840	3,240	6,910	27,580	42,590	50,180	51,280	51,530	-	59,390	54,370	-
17	2,780	3,330	7,070	28,360	42,780	50,310	51,180	51,590	57,610	59,550	53,880	36,330
18	2,710	3,400	7,230	29,110	43,000	50,390	51,090	51,720	57,790	59,720	53,370	35,860
19	2,680	3,430	7,450	29,850	43,410	50,500	51,070	51,880	-	59,850	52,820	35,430
20	2,650	3,460	7,700	30,380	43,720	50,610	51,070	52,030	56,640	59,990	52,420	35,020
21	2,650	3,520	-	31,000	44,050	50,610	51,090	52,140	59,030	60,040	51,920	34,760
22	2,620	3,650	-	31,530	44,380	50,630	51,220	52,540	59,300	59,970	51,370	34,510
23	2,590	3,740	-	32,070	44,760	50,670	51,440	53,240	59,580	59,900	50,810	-
24	2,560	3,860	-	-	45,070	50,780	51,770	54,130	59,670	59,880	50,150	34,200
25	2,560	3,990	-	-	45,380	50,870	52,050	55,040	59,810	59,810	49,330	34,030
26	2,560	4,110	-	-	45,660	51,090	52,290	55,920	59,810	59,810	48,560	33,890
27	2,530	4,240	17,220	34,600	45,910	51,240	52,400	56,590	59,670	59,880	47,880	33,720
28	2,500	4,330	-	35,240	46,180	51,420	53,340	57,200	59,620	59,900	47,240	33,560
29	2,500	4,430	-	35,710	46,440	51,550	52,250	57,590	59,670	59,760	46,600	33,420
30	2,500	4,520	-	36,180	-	51,590	52,120	57,790	59,620	59,670	45,970	33,240
31	2,460	-	19,720	36,420	-	51,630	-	57,950	-	59,530	45,340	-
(†)	4,973.90	4,975.22	4,984.60	-	4,999.10	5,001.52	5,001.74	5,004.35	5,005.08	5,005.04	4,998.58	4,992.40
(‡)	-1,720	+2,060	+15,200	+16,700	+10,020	+5,190	+490	+5,830	+1,670	-90	-14,190	-12,100

Calendar year 1955..... \$ +7,990

Water year 1955-56..... \$ +29,060

† Elevation, in feet, at end of month.

‡ Change in contents, in acre-feet.

a No elevation record; contents interpolated.

West Walker River near Hudson, Nev.

Location.--Lat 38°49', long 119°14', in SW $\frac{1}{4}$ 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 1956. 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 $2\frac{1}{2}$ miles upstream at different datum. May 1921 to March 1925 water-stage recorder at approximately same site at different datum.

Average discharge.--19 years (1914-24, 1947-56), 202 cfs (146,200 acre-ft per year).

Extremes.--Maximum discharge during year, 2,700 cfs Dec. 24 (gage height, 7.42 ft, from flood marks), from rating curve extended above 1,700 cfs; minimum, 31 cfs Dec. 18. 1914-25, 1947-56: Maximum discharge, that of Dec. 24, 1955; minimum daily, 13 cfs Aug. 7 to Sept. 21, 1920.

Remarks.--Records good except those for periods of no gage-height record, which are poor. Flow regulated by off-channel storage in Topaz Reservoir since 1922 (see preceding page). Slight regulation by storage in Poor Lake Reservoir (capacity unknown). Many diversions above station for irrigation.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 30 to July 25)

0.9	28	2.0	312
1.1	52	4.0	1,110
1.3	88	7.0	2,550
1.6	171		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	60	47	38	188	58	48	93	286	1,270	1,440	339	214
2	55	*47	37	178	a56	48	95	261	1,300	*1,120	284	218
3	54	42	36	171	a54	47	95	268	*1,290	886	228	218
4	54	42	35	158	a52	48	98	308	1,300	762	243	208
5	54	39	*35	137	a52	48	112	402	1,380	750	250	194
6	55	43	37	107	52	49	126	378	1,280	690	250	188
7	60	44	36	88	52	52	123	382	1,190	630	286	181
8	57	44	35	76	54	52	115	366	1,130	634	327	*168
9	55	43	34	70	52	52	118	390	1,140	638	323	171
10	49	42	34	68	52	51	149	410	1,200	702	327	194
11	48	42	34	68	52	49	204	406	1,250	698	308	197
12	46	46	34	96	52	51	236	402	1,320	654	308	201
13	47	43	34	*110	52	51	261	382	1,290	578	312	214
14	48	42	34	74	52	49	305	366	1,280	478	316	218
15	48	40	34	65	52	49	354	350	1,250	410	301	204
16	48	40	34	66	49	49	335	342	1,090	366	279	194
17	47	42	32	86	*49	80	316	378	898	382	271	174
18	46	40	32	72	55	102	320	418	*894	402	286	178
19	46	39	35	62	52	*107	316	428	942	482	288	156
20	49	39	35	58	49	105	308	490	1,010	754	257	156
21	49	39	37	57	49	102	308	510	982	906	246	146
22	48	39	46	57	49	100	305	582	894	1,000	243	143
23	49	38	320	55	49	100	*312	658	930	*878	228	143
24	49	37	a2,450	54	48	98	323	778	1,110	838	253	134
25	49	37	a1,850	57	48	95	374	938	1,190	786	308	126
26	49	38	*1,050	65	48	95	382	974	1,250	674	316	102
27	49	38	852	84	49	95	402	*1,090	1,210	690	297	86
28	49	38	397	74	48	78	330	1,160	1,240	658	268	86
29	49	38	279	65	48	74	346	1,090	1,250	598	246	95
30	49	38	*232	58	-----	78	327	1,110	*1,400	530	253	86
31	49	-----	197	57	-----	88	-----	1,200	-----	426	250	-----
Total	1,564	1,226	8,205	2,679	1,483	2,181	7,548	17,501	35,140	21,460	8,651	5,007
Mean	50.5	40.9	265	86.4	51.1	70.4	252	585	1,171	692	279	167
Ac-ft	3,100	2,430	16,270	5,310	2,940	4,330	14,970	34,710	69,700	42,570	17,160	9,950
Calendar year 1955:	Max	2,450		Min	32		Mean	135		Ac-ft	97,620	
Water year 1955-56:	Max	2,450			Min	38		Mean	308		Ac-ft	223,400

Peak discharge (base, 500 cfs).--Dec. 24 (time unknown) 2,700 cfs (7.42 ft); June 5 (2 p.m.) 1,410 cfs (4.72 ft); July 1 (11 a.m.) 1,490 cfs (4.78 ft); July 22 (7 a.m.) 1,040 cfs (3.71 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge for Dec. 24-25 estimated on basis of flood peak and records for upstream stations; discharge for Feb. 2-6 estimated on basis of recorded range of stage and weather records.

CARSON RIVER BASIN

Silver Creek below Pennsylvania Creek, near Markleeville, Calif.

Location.--Lat 38°36', long 119°47', in 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 1956.

Gage.--Water-stage recorder. Altitude of gage is 6,500 ft (from topographic map). Prior to Aug. 3, 1954, at site 150 ft upstream at datum 2.20 ft higher.

Average discharge.--8 years (1948-56), 47.3 cfs (34,240 acre-ft per year).

Extremes.--Maximum discharge during year, 1,520 cfs Dec. 23 (gage height, 6.09 ft), from rating curve extended above 450 cfs on basis of slope-area measurement of peak flow; minimum, 1.0 cfs Nov. 13.
1946-56: Maximum discharge, that of Dec. 23, 1955; minimum, 0.7 cfs Oct. 25, 27, 28, 1954.

Remarks.--Records good, except those above 200 cfs during December, which are fair. Flow partly regulated by three small reservoirs (total capacity, about 1,700 acre-ft).

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 19-23, 26, 31, Aug. 18 to Sept. 21)

Oct. 1 to Dec. 23, May 21 to Sept. 30				Dec. 24 to May 20			
0.1	1.0	1.5	99	0.8	9.0	2.0	127
.3	5.0	2.0	170	1.0	20	2.5	208
.5	12	3.0	385	1.3	44	3.0	316
.7	23	4.0	680	1.6	75		
1.0	45						

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.6	2.4	4.8	32	21	12	45	175	312	157	a30	16
2	2.6	2.6	5.0	30	21	*12	40	190	312	138	a28	16
3	2.6	2.8	5.0	*30	21	13	36	190	362	128	a25	16
4	2.6	3.0	4.8	29	20	13	37	203	334	124	a23	16
5	2.6	3.2	5.3	29	19	13	42	154	285	118	a21	16
6	2.6	3.0	11	26	19	13	52	139	278	112	a20	16
7	3.0	3.0	6.2	25	18	14	63	126	294	115	*18	15
8	3.4	3.0	6.5	25	18	14	73	116	*317	117	18	15
9	2.8	3.0	7.4	24	17	14	85	114	324	118	16	16
10	2.8	3.0	6.5	23	17	14	83	103	356	*104	16	17
11	2.8	3.0	6.8	22	16	14	72	95	329	91	16	16
12	2.8	2.2	7.4	21	17	15	63	86	315	81	14	16
13	2.6	3.6	7.1	21	16	14	56	80	298	76	14	17
14	2.6	1.8	7.1	24	16	14	50	82	280	71	14	26
15	2.8	*2.6	6.8	105	16	15	48	101	238	70	13	27
16	2.8	3.6	*6.5	*88	15	16	51	139	224	70	12	34
17	2.8	3.6	6.2	53	15	19	58	160	228	67	12	34
18	2.8	4.2	5.6	44	15	21	65	185	250	67	17	34
19	*4.0	8.0	7.1	40	15	24	80	206	248	68	24	35
20	3.2	11	14	36	15	25	109	257	222	75	22	34
21	3.0	7.1	31	33	15	28	139	*312	214	66	21	32
22	2.8	4.2	556	36	14	32	168	356	222	60	21	15
23	2.8	4.4	*611	37	14	43	195	385	232	56	19	14
24	2.6	4.4	183	33	12	56	225	348	230	56	19	14
25	2.6	4.4	119	31	12	61	*175	342	*207	56	19	14
26	3.6	5.0	88	29	12	59	170	353	205	*49	18	14
27	3.0	5.3	70	28	12	52	156	301	211	44	18	14
28	2.8	5.9	57	26	12	*51	146	288	218	42	18	14
29	3.0	5.6	46	25	12	57	150	305	211	a39	18	13
30	2.8	5.3	39	25	-----	58	160	344	180	a36	*17	12
31	2.8	-----	34	23	-----	53	-----	*336	-----	a33	16	-----
Total	88.6	124.2	1,971.1	1,053	462	859	2,892	6,569	7,936	2,504	577	588
Mean	2.86	4.14	63.6	34.0	15.9	27.7	96.4	212	265	80.8	18.6	19.6
Ac-ft	176	246	3,910	2,090	916	1,700	5,740	13,030	15,740	4,970	1,140	1,170

Calendar year 1955: Max 611 Min 1.8 Mean 34.7 Ac-ft 25,140
Water year 1955-56: Max 611 Min 1.8 Mean 70.0 Ac-ft 50,820

Peak discharge (base, 190 cfs).--Dec. 23 (3 a.m.) 1,520 cfs (6.09 ft); Jan. 15 (5 p.m.) 221 cfs (2.57 ft); May 4 (12:30 a.m.) 268 cfs (2.77 ft); May 23 (6:30 p.m.) 500 cfs (3.50 ft); June 10 (5 p.m.) 488 cfs (3.32 ft); July 20 (5 p.m.) 246 cfs (2.48 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for Markleeville Creek above Grover Hot Springs, near Markleeville.

Markleeville Creek above Grover Hot Springs, near Markleeville, Calif.

Location.--Lat 38°42', long 119°51', in SE $\frac{1}{4}$ NE $\frac{1}{4}$ sec. 23, T. 10 N., R. 19 E., on right bank half a mile upstream from Buck Creek, 4 miles upstream from mouth, and 4 miles west of Markleeville.

Drainage area.--14 sq mi, approximately.

Records available.--October 1946 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 5,880-ft (from river profile map, extended). Prior to July 31, 1953, at site 25 ft upstream at datum 0.05 ft higher.

Average discharge.--10 years, 28.8 cfs (20,850 acre-ft per year).

Extremes.--Maximum discharge during year, 900 cfs Dec. 23 (gage height, 7.36 ft), from rating curve extended above 400 cfs on basis of slope-area measurement of peak flow; minimum, 0.4 cfs Nov. 12.

1946-56: Maximum discharge, 1,740 cfs Nov. 20, 1950 (gage height, 8.49 ft), from rating curve extended above 330 cfs on basis of slope-area determination of peak flow; minimum, 0.2 cfs Aug. 20, 23, Sept. 1-5, Oct. 13-16, 1949.

Remarks.--Records good.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 25 to May 6)

Oct. 1 to Dec. 22

Dec. 23 to Sept. 30

1.8	0.3	2.6	14	2.4	0.9	3.5	79
1.9	.8	2.8	21	2.5	1.9	4.0	145
2.0	1.5	3.1	38	2.6	4.2	5.0	291
2.1	2.5	3.4	65	2.7	8.5	6.0	488
2.2	4.0	4.0	130	2.8	14	7.0	775
2.4	8.0	4.5	202	3.1	36		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	0.6	1.7	35	20	11	36	132	249	80	15	2.6
2	.6	.6	1.5	32	20	*12	32	148	249	71	13	2.4
3	.6	.6	1.4	30	20	12	29	*180	284	65	12	2.1
4	.6	.7	1.4	29	19	11	*29	220	250	62	12	2.1
5	.6	.7	1.7	27	19	11	32	170	198	59	11	2.1
6	.6	.6	6.0	25	17	11	39	153	191	54	9.6	1.9
7	.6	.6	3.4	24	17	10	49	138	198	54	9.0	1.9
8	.6	.6	2.8	23	16	11	57	128	*213	53	8.5	1.9
9	.6	.6	3.1	22	15	11	68	130	208	55	8.1	2.4
10	.7	.6	2.6	21	15	11	75	113	225	*49	7.6	3.0
11	.7	.6	3.0	21	15	11	62	105	202	43	7.6	2.6
12	.6	.5	3.1	20	15	11	53	97	193	38	7.2	2.4
13	.6	.6	3.0	20	15	11	47	89	187	35	6.8	2.1
14	.6	1.0	2.8	22	15	11	43	88	180	34	6.8	1.9
15	.6	*1.0	2.6	58	15	11	40	102	158	33	6.4	1.9
16	.6	.9	*2.3	63	14	12	41	*122	145	33	5.9	1.8
17	.6	1.1	2.3	*49	14	13	45	132	141	33	5.5	1.9
18	.6	1.5	2.5	47	14	15	47	139	144	30	5.9	1.7
19	*.6	2.6	11	39	13	17	53	159	*138	30	5.9	2.1
20	.6	6.2	14	34	13	19	84	213	118	29	5.5	2.8
21	.6	4.4	13	32	13	22	102	280	114	28	4.6	2.1
22	.6	2.2	190	34	13	25	114	*326	118	28	4.2	1.9
23	.6	2.0	*535	35	13	30	130	375	121	28	3.7	1.9
24	.6	1.7	176	30	13	40	182	340	119	27	3.5	1.8
25	.6	1.6	108	31	12	47	152	290	*109	28	3.5	1.7
26	.7	1.5	106	29	12	47	131	*296	109	25	3.3	1.7
27	.8	1.5	71	27	12	40	109	258	109	*23	3.0	1.8
28	.6	1.5	*55	25	12	39	98	*224	109	22	3.0	1.8
29	.7	1.5	48	24	11	43	101	234	105	20	3.0	1.8
30	.6	1.4	42	22	-----	46	115	256	91	18	*2.8	1.8
31	.6	-----	39	21	-----	42	-----	262	-----	16	2.6	-----
Total	19.2	41.5	1,455.2	951	432	663	2,165	5,899	4,975	1,203	206.5	61.8
Mean	0.62	1.38	46.9	30.7	14.9	21.4	72.2	190	166	39.8	6.66	2.06
Ac-ft	38	82	2,890	1,890	857	1,320	4,290	11,700	9,870	2,590	410	123

Calendar year 1955: Max 535
Water year 1955-56: Max 535

Min 0.3
Min 0.5

Mean 22.2
Mean 49.4

Ac-ft 16,050
Ac-ft 35,860

Peak discharge (base, 175 cfs).--Dec. 23 (5 to 6 a.m.) 900 cfs (7.36 ft); May 3 (11:30 p.m.) 267 cfs (4.73 ft); May 23 (8 p.m.) 523 cfs (6.14 ft).

* Discharge measurement made on this day.

East Fork Carson River near Gardnerville, Nev.

Location.--Lat 38°51'30", long 119°41'50", in NE¹/₄ sec. 2, T. 11 N., R. 20 E., on left bank 2 miles east of Mud Lake Reservoir, 3 miles downstream from Leviathan Creek, and 7 miles southeast of Gardnerville.

Drainage area.--344 sq mi.

Records available.--April 1890 to December 1893, October 1900 to December 1906, March 1908 to December 1910, June to October 1917, December 1924 to September 1929, October 1935 to December 1937, May 1939 to September 1956.

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.--29 years (1890-93, 1901-3, 1908-10, 1925-28, 1935-37, 1939-56), 405 cfs (293,200 acre-ft per year).

Extremes.--Maximum discharge during year, 17,600 cfs Dec. 23 (gage height, 11.88 ft), from rating curve extended above 6,000 cfs on basis of slope-area determinations at gage heights 9.66 and 11.88 ft; minimum daily, 40 cfs Nov. 15.
1890-93, 1900-1906, 1908-10, 1917, 1924-29, 1935-37, 1939-56: Maximum discharge, that of Dec. 23, 1955; minimum observed, 8 cfs Dec. 4-10, 19-23, 1904.

Remarks.--Records good. 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).

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 22

Dec. 23 to Sept. 30

0.6	38	3.0	1,060	1.1	102	4.0	1,940
1.0	108	4.0	1,950	1.5	222	6.0	4,410
1.5	238	6.0	4,320	2.0	430	8.0	7,970
2.0	420			3.0	1,080	10.0	12,250

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	
1	48	50	75	522	332	212	576	1,060	2,050	1,150	323	168	
2	47	48	65	480	306	222	516	1,180	2,010	1,040	298	187	
3	52	55	445	319	236	465	1,290	2,220	958	282	187		
4	44	52	63	421	319	240	450	1,910	2,240	930	270	187	
5	44	53	60	416	315	240	465	1,330	1,740	895	258	198	
6	46	55	165	389	302	208	510	1,190	1,600	860	247	190	
7	46	53	129	375	*278	208	600	1,080	1,680	853	229	177	
8	46	52	98	344	278	233	673	986	1,810	860	222	155	
9	44	52	121	*349	262	251	744	1,050	1,950	*860	222	147	
10	42	52	102	340	266	258	860	930	2,120	818	215	184	
11	44	50	92	336	262	274	764	874	2,100	758	208	174	
12	48	48	90	332	266	218	692	811	1,960	699	198	168	
13	48	41	88	337	270	233	*648	751	1,900	642	194	165	
14	47	42	86	391	266	251	600	708	1,830	606	187	165	
15	50	40	84	1,160	254	236	570	*777	1,600	588	177	155	
16	53	52	84	1,330	236	*266	582	972	1,410	588	174	152	
17	50	62	83	806	240	306	612	1,120	*1,390	582	171	149	
18	48	60	85	*662	247	332	666	1,180	1,480	570	174	144	
19	*50	81	243	588	229	375	660	1,280	1,600	654	194	152	
20	55	94	308	552	233	380	811	1,450	1,430	770	*212	174	
21	53	*130	246	498	229	416	965	1,890	1,360	732	194	144	
22	50	77	3,610	504	236	460	1,050	2,320	1,370	624	198	127	
23	50	63	*12,200	725	258	516	1,210	2,600	1,460	606	190	117	
24	50	65	2,970	504	233	630	1,360	*2,700	1,470	594	177	112	
25	50	67	1,520	570	218	692	1,390	2,400	1,390	576	177	110	
26	50	75	1,640	552	218	706	1,210	2,360	1,330	624	181	107	
27	53	*1,140	455	212	232	630	1,020	2,330	1,410	*534	177	112	
28	52	72	884	440	212	588	909	1,890	1,410	455	181	114	
29	55	74	751	398	215	624	902	1,950	1,480	425	187	110	
30	55	70	618	389	-----	666	979	2,040	1,330	380	184	107	
31	53	-----	582	358	-----	642	-----	2,200	-----	349	171	-----	
Total	1,517	1,854	28,340	15,968	7,511	11,749	23,459	46,607	50,130	21,580	6,472	4,538	
Mean	48.9	61.8	914	515	259	379	782	1,503	1,671	698	209	151	
Ac-Ft	3,010	3,680	58,210	31,670	14,900	23,300	46,530	92,440	99,430	42,800	12,840	9,000	
Calendar year 1955: Max	12,200			Min	35			Mean	292			Ac-ft	211,400
Water year 1955-56: Max	12,200			Min	40			Mean	600			Ac-ft	435,800

Peak discharge (base, 1,300 cfs).--Dec. 23 (9:30 a.m.) 17,600 cfs (11.88 ft); Dec. 26 (2:30 p.m.) 2,440 cfs (4.46 ft); Jan. 15 (9:30 p.m.) 2,860 cfs (4.82 ft); Apr. 25 (1:30 a.m.) 1,580 cfs (3.62 ft); May 4 (10 a.m.) 2,130 cfs (4.18 ft); May 24 (1:30 a.m.) 3,210 cfs (5.11 ft).

* Discharge measurement made on this day.

CARSON RIVER BASIN

171

West Fork Carson River at Woodfords, Calif.

Location.--Lat 38°46'00", long 119°50'00", in SE $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 34, T. 11 N., R. 19 E., on left bank 0.3 mile downstream from bridge on State Highway 8, 0.8 mile west of Woodfords, and $3\frac{1}{4}$ 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 1956. 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 diversions 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.

Average discharge.--20 years (1901-3, 1905-6, 1939-56), 115 cfs (83,260 acre-ft per year).

Extremes.--Maximum discharge during year, 4,810 cfs Dec. 23 (gage height, 8.86 ft), from rating curve extended above 1,000 cfs on basis of slope-area determinations at gage heights 8.35 and 8.86 ft; minimum, 11 cfs Nov. 12.

1900-1907, 1910-11, 1938-56: Maximum discharge, that of Dec. 23, 1955; minimum (1900-1907, 1938-56), 8.2 cfs Nov. 30, 1954.

Flood of Dec. 11, 1937, reached a stage of 9.0 ft (present datum), from floodmarks (discharge, 3,500 cfs, by slope-area method).

Remarks.--Records good. One small diversion for irrigation above station. Flow slightly regulated by several small reservoirs (total capacity, about 1,500 acre-ft).

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 23				Dec. 23 to Sept. 30			
0.4	13	2.0	160	2.0	31	4.0	362
.6	20	2.5	252	2.3	55	5.0	790
.8	30	3.0	380	2.6	84	6.0	1,520
1.2	58	4.0	760	3.0	136	7.0	2,540
1.6	102			3.5	227	8.0	3,670

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	20	16	18	142	96	64	153	451	585	262	88	43
2	18	16	20	130	94	65	135	479	568	236	83	38
3	17	16	21	119	92	67	125	532	595	216	78	34
4	16	17	19	114	91	67	128	700	572	208	74	*36
5	17	17	21	107	89	60	146	476	496	*200	70	47
6	17	18	37	109	85	58	175	420	465	194	66	50
7	16	17	32	102	82	59	212	369	476	190	64	50
8	16	17	29	89	81	67	238	334	493	196	62	50
9	16	17	29	*58	78	68	283	385	516	200	*61	50
10	16	17	26	101	77	68	316	316	532	194	59	60
11	17	17	25	100	78	66	260	302	524	175	57	73
12	17	16	24	97	78	63	208	270	493	161	57	68
13	16	15	23	96	76	63	182	245	479	151	55	66
14	16	15	24	106	74	64	168	258	466	144	58	62
15	17	18	23	199	72	62	180	316	426	142	88	59
16	16	19	23	*348	71	*65	163	392	356	144	94	50
17	16	18	23	271	70	70	188	440	346	144	108	37
18	16	22	22	197	71	74	214	476	365	144	103	35
19	*16	29	21	163	66	80	278	520	398	148	71	40
20	16	35	29	150	55	79	356	610	346	173	56	53
21	17	*34	43	136	58	88	406	*720	*331	192	50	44
22	17	21	*754	140	71	96	434	814	331	151	45	38
23	16	21	*2,920	168	84	112	482	898	346	168	50	36
24	16	20	599	142	68	142	548	880	350	168	51	34
25	16	22	349	129	64	168	*516	730	328	170	*48	34
26	17	22	278	102	65	179	440	685	311	177	44	33
27	17	21	210	96	66	158	340	590	328	*140	59	34
28	17	20	198	114	65	156	319	590	334	125	77	37
29	17	21	*182	112	65	177	359	610	331	115	94	50
30	17	20	166	108	-----	194	412	615	297	103	78	48
31	16	-----	156	103	-----	182	-----	600	-----	95	66	-----
Total	515	594	6,344	4,188	2,162	2,991	8,342	16,023	12,804	5,226	2,114	1,389
Mean	16.6	19.8	205	135	74.6	98.5	278	517	427	169	68.2	46.3
Ac-ft	1,020	1,180	12,580	8,310	4,290	5,930	16,550	31,780	25,400	10,370	4,190	2,760

Calendar year 1955: Max 2,920 Min 12 Mean 83.9 Ac-ft 60,700
Water year 1955-56: Max 2,920 Min 15 Mean 171 Ac-ft 124,400

Peak discharge (base, 500 cfs).--Dec. 23 (5:45 a.m.) 4,810 cfs (8.86 ft); Apr. 24 (8 p.m.) 685 cfs (4.78 ft); May 4 (3:30 a.m.) 856 cfs (5.08 ft); May 23 (10:30 p.m.) 1,210 cfs (5.60 ft).

* Discharge measurement made on this day.

CARSON RIVER BASIN

Clear Creek near Carson City, Nev.

Location--Lat 39°07', long 119°49', in 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 1956.

Gage--Water-stage recorder and sharp-crested weir. Altitude of gage is 4,700 ft (from river-profile map).

Average discharge--8 years, 6.43 cfs (4,660 acre-ft per year).

Extremes--Maximum discharge during year, 117 cfs Dec. 23 (gage height, 2.03 ft); minimum, 1.7 cfs Oct. 1, 2, 3, 4.

1948-56: Maximum discharge, that of Dec. 23, 1955; minimum, 1.0 cfs Aug. 4, 5, 6, 20, 1949.

Revisions--The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede figures published in the water-supply papers indicated.

WSP	Water year	Date	Discharge (cfs)	Gage height (feet)
1180, 1137-H	1950	Jan. 22, 1950	60	1.58
1214	1951	Dec. 3, 1950	106	1.95
1244	1952	Apr. 25, 1952	70	1.67

Remarks--Records good except those for periods of ice effect or no gage-height record, which are fair. Four small diversions for irrigation of about 150 acres of hay meadows and pasture above station.

Revisions--Revised figures of discharge, in cubic feet per second, for high-water periods in the water years 1950-53, superseding those published in WSP 1180, 1137-H, 1214, and 1244, are given herewith:

1950
 Nov. 18.....45
 19.....28
 20.....30
 Dec. 3.....60
 4.....30

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
November 1950.....	334.6	45	-	11.2	664
December.....	472.9	80	-	15.3	938
Calendar year 1950.....	2,618.8	80	-	7.17	5,200
Water year 1950-51.....	2,530.1	60	-	6.93	5,020

Revised peak discharge--1950-51: Nov. 18 (9:30 p.m.) 73 cfs (1.70 ft); Dec. 3 (5:30 p.m.) 106 cfs (1.95 ft); Jan. 22 (4:45 a.m.) 44 cfs (1.39 ft). 1951-52: Apr. 6 (6 p.m.) 49 cfs (1.45 ft); Apr. 25 (6:30 p.m.) 70 cfs (1.67 ft).

Clear Creek near Carson City, Nev.--Continued

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.2	1.4	1.0	27
.3	2.9	1.5	53
.4	5.0	2.0	112
.6	11		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.8	2.2	4.6	8.7	10	8.7	12	13	13	4.4	3.3	2.9
2	1.8	2.2	4.2	8.4	b9	10	11	13	13	4.4	3.3	2.9
3	1.8	2.2	4.0	7.7	b9	11	11	14	13	4.4	3.5	2.9
4	1.8	2.2	3.7	7.4	a9.5	11	11	22	12	4.4	3.3	2.9
5	2.0	2.2	4.2	8.0	a10	10	11	16	11	4.2	3.3	2.9
6	2.0	2.2	8.0	7.7	a10	10	11	15	11	4.2	3.3	2.9
7	2.0	2.2	4.8	6.9	a10	10	12	15	11	4.2	3.3	2.6
8	2.2	2.2	*4.4	7.2	a10	10	12	13	9.7	4.0	3.3	2.6
9	2.2	2.2	4.6	7.2	a10	10	13	15	9.7	4.0	3.1	2.8
10	2.2	2.2	4.2	7.2	*9.7	11	13	13	9.4	4.0	3.1	2.8
11	2.2	2.4	4.0	7.7	10	9.7	12	13	9.0	4.0	3.1	2.8
12	2.2	2.8	4.0	7.4	11	9.4	12	13	8.7	4.0	3.1	2.8
13	2.2	2.9	4.0	8.4	12	9.7	12	12	8.0	4.0	3.1	2.8
14	2.2	3.1	4.0	11	11	9.7	12	11	8.7	3.5	3.1	2.6
15	2.2	3.1	4.0	*3.0	10	9.7	11	12	8.0	3.5	3.1	2.6
16	2.2	3.5	4.0	19	b9	9.7	11	*12	8.0	3.5	3.1	2.6
17	2.2	3.5	4.2	14	b9.5	11	11	13	7.2	3.5	3.1	2.6
18	2.2	4.0	4.2	12	b9.5	*11	11	14	*6.4	3.3	3.1	2.6
19	*2.2	5.3	14	11	9.4	11	12	15	6.4	4.6	3.3	3.5
20	2.2	5.0	12	10	9.4	11	13	15	6.1	*4.6	3.3	3.3
21	2.2	5.3	7.4	9.0	9.7	12	14	16	5.8	4.4	*3.1	3.1
22	2.2	*4.4	40	15	10	12	15	15	5.8	4.2	2.9	3.1
23	2.2	4.0	*78	18	10	13	15	16	5.5	4.2	2.9	2.9
24	2.2	4.0	28	13	9.0	14	*15	15	5.3	4.0	2.9	2.9
25	2.2	4.0	18	12	8.7	15	15	15	5.0	4.0	2.9	2.8
26	2.2	3.7	18	13	8.4	14	15	14	4.8	4.2	2.8	2.9
27	2.2	3.7	15	12	8.4	13	13	13	4.8	3.7	2.8	2.9
28	2.2	3.7	13	12	9.0	13	12	13	4.6	3.7	2.9	2.9
29	2.2	3.7	*10	13	8.0	13	12	13	4.6	3.5	2.9	2.9
30	2.2	4.0	9.0	11	-----	13	13	13	4.4	3.5	2.9	2.8
31	2.2	-----	8.4	b10	-----	13	-----	13	-----	3.5	2.9	-----
Total	68.0	98.1	349.9	344.9	278.2	348.6	373	435	239.9	123.6	96.1	84.9
Mean	2.13	3.27	11.3	11.1	9.59	11.2	12.4	14.0	8.00	3.99	3.10	2.83
Ac-ft	131	195	694	684	552	691	740	863	476	245	191	168

Calendar year 1955: Max 78 Min 1.7 Mean 4.34 Ac-ft 3,140
 Water year 1955-56: Max 78 Min 1.8 Mean 7.75 Ac-ft 5,630

Peak discharge (base, 15 cfs).--Dec. 19 (3 to 8 p.m.) 17 cfs (0.73 ft); Dec. 23 (5:30 p.m.) 117 cfs (2.03 ft); Dec. 26 (7 p.m.) 25 cfs (0.95 ft); Jan. 15 (6 p.m.) 68 cfs (1.64 ft); Jan. 22 (8 p.m.) 32 cfs (1.09 ft); Jan. 29 (1:30 p.m.) 18 cfs (0.72 ft); Mar. 3 (5 p.m.) 16 cfs (0.67 ft); May 4 (3:30 a.m.) 29 cfs (1.05 ft).

* 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 streams.

b Stage-discharge relation affected by ice.

Carson River near Carson City, Nev.

Location.--Lat 39°06'30", long 119°42'30", in NW¹ sec. 2, T. 14 N., R. 20 E., on left bank 2 miles downstream from Clear Creek, 2¹/₄ miles upstream from bridge on road to Mexican Dam, and 5 miles southeast of Carson City. Prior to Dec. 24, 1955, on right bank.

Drainage area.--876 sq mi.

Records available.--May 1939 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 4,621.48 ft above mean sea level, datum of 1929.

Average discharge.--17 years, 420 cfs (304,100 acre-ft per year).

Extremes.--Maximum discharge during year, 30,000 cfs Dec. 24 (gage height, 15.0 ft), from rating curve extended above 6,000 cfs on basis of slope-area determinations 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, 21 cfs Oct. 1, 2.
1939-56: Maximum discharge, that of Dec. 24, 1955; minimum daily, 4 cfs Aug. 17, 1939.

Remarks.--Records good except those for periods of ice effect or no gage-height record, and those above 6,000 cfs, which are fair. Many diversions for irrigation above station. Flow slightly regulated by several small reservoirs on tributaries.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.1	20	1.5	208	6.0	4,220
.3	29	2.0	410	8.0	7,220
.6	50	3.0	1,000	10.0	11,500
1.0	100	4.0	1,910	13.0	21,500

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	44	86	930	b740	360	a800	1,180	2,650	1,200	189	52
2	21	44	91	930	b680	360	764	1,250	2,590	1,020	146	61
3	29	*44	88	930	b600	410	674	1,380	2,470	*909	136	60
4	28	44	82	930	b565	410	626	1,740	2,620	776	123	62
5	24	48	81	860	b540	360	582	2,140	2,620	764	123	84
6	23	49	108	800	510	360	598	1,920	2,180	734	142	75
7	22	51	176	740	510	360	710	1,630	1,940	728	169	70
8	28	51	*159	*680	510	360	740	1,380	1,950	692	140	57
9	26	52	142	620	460	410	a790	1,300	2,040	704	130	58
10	25	53	142	680	460	410	a820	1,380	2,200	680	92	66
11	26	52	128	680	460	410	a960	1,220	2,400	620	86	62
12	26	52	132	680	460	410	a900	1,100	*2,330	560	67	67
13	28	51	136	620	510	360	a810	1,030	2,180	538	a65	66
14	30	51	132	620	565	375	a730	951	2,050	485	a60	68
15	26	53	132	858	510	375	a680	902	2,050	400	a56	65
16	26	59	130	1,860	460	370	a660	958	1,890	375	a60	67
17	31	73	126	1,740	565	400	a670	1,140	1,650	333	66	75
18	35	78	125	1,270	510	*450	a700	*1,280	1,610	275	65	75
19	36	80	184	*1,000	410	480	a760	1,460	1,680	217	94	59
20	34	84	474	860	460	516	a870	1,540	1,650	374	103	68
21	35	96	454	800	*460	532	a1,000	1,740	1,530	598	103	84
22	37	117	892	800	460	587	a1,200	*2,030	1,510	632	82	86
23	38	92	*6,960	930	510	626	a1,400	2,430	1,490	614	77	92
24	38	82	*20,400	930	460	728	*1,690	2,890	1,490	587	81	102
25	39	78	6,380	860	410	a760	1,780	3,150	1,520	532	76	98
26	39	82	4,500	1,000	410	a760	1,760	3,000	1,450	495	62	92
27	38	86	*3,470	1,000	360	a725	1,530	2,930	1,380	570	60	88
28	38	84	2,560	930	410	a700	1,210	2,850	1,400	485	57	96
29	42	82	1,710	860	360	a680	1,030	2,480	1,400	542	*64	81
30	44	82	*1,160	b860	---	a750	1,100	2,380	1,390	*268	57	108
31	41	-----	1,000	b800	-----	a800	-----	2,480	-----	236	58	-----
Total	976	1,994	52,340	28,058	14,325	15,594	28,604	55,241	57,310	17,723	2,879	2,254
Mean	31.5	66.5	1,688	905	494	503	953	1,782	1,910	572	92.9	75.1
Ac-ft	1,940	3,960	103,800	55,650	28,410	30,930	56,740	109,600	113,700	35,150	5,710	4,470

Calendar year 1955: Max 20,400 Min 8.8 Mean 315 Ac-ft 228,300
Water year 1955-56: Max 20,400 Min 21 Mean 758 Ac-ft 550,100

Peak discharge (base, 1,600 cfs).--Dec. 24 (4 to 6 a.m.) 30,000 cfs (15.0 ft); Jan. 16 (6 p.m.) 2,230 cfs (4.3 ft); Apr. 25 (6:30 p.m.) 1,870 cfs (3.96 ft); May 5 (11:30 a.m.) 2,200 cfs (4.27 ft); May 25 (6:30 a.m.) 3,220 cfs (5.20 ft).

* 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 nearby streams.

b Stage-discharge relation affected by ice.

Location.--Lat 39°17', long 119°18', in SE $\frac{1}{4}$ sec. 32, T. 17 N., R. 24 E., 2 miles west of Fort Churchill and 6 miles east of Clifton.

Gage.--Water-stage recorder. Datum of gage is 4,216.34 ft above mean sea level (levels by Truckee-Carson Irrigation District). Prior to Apr. 25, 1924, staff gage at site 7 $\frac{1}{2}$ miles upstream at different datum. Apr. 25, 1924, to Dec. 31, 1933, water-stage recorder at site 8 miles upstream at different datum.

Extremes.--Maximum daily discharge during year, 9,680 cfs Dec. 26; no flow Oct. 1 to Nov. 8.

1911-56: Maximum daily discharge, that of Dec. 26, 1955; no flow during some periods in nearly every year since 1923.

Cooperation.--Records of daily discharge furnished by Truckee-Carson Irrigation District.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	60	1,000	699	450	850	1,280	2,460	1,300	246	20
2		0	63	1,000	717	400	850	1,310	2,540	1,220	222	17
3		0	66	1,000	722	400	800	1,390	2,460	1,090	201	16
4		0	69	1,000	645	450	750	1,560	2,380	935	183	14
5		0	72	1,000	600	450	680	2,050	2,540	806	164	14
6		0	72	900	550	400	680	2,260	2,390	690	161	14
7		0	78	800	550	400	720	1,990	2,140	631	134	20
8		0	137	569	500	400	760	1,710	2,050	594	105	20
9		19	155	665	550	400	850	1,500	2,070	571	113	22
10		18	140	631	500	450	950	1,510	2,140	542	107	22
11		20	137	761	500	450	1,000	1,450	2,220	520	101	19
12		28	134	619	500	450	1,000	1,300	2,340	475	98	16
13		28	128	614	500	450	900	1,180	2,270	435	92	14
14		30	134	677	550	400	850	1,180	2,130	389	88	13
15		51	131	623	600	400	800	958	2,150	381	84	10
16		26	131	900	550	400	750	935	2,130	365	81	10
17		34	125	1,000	500	400	750	1,030	1,960	333	75	14
18		40	125	1,470	550	480	802	1,260	1,760	305	66	14
19		51	128	1,500	500	520	877	1,440	1,700	281	46	16
20		57	183	1,140	500	550	981	1,600	1,730	271	30	30
21		60	397	855	500	600	1,120	1,680	1,670	243	48	37
22		75	406	900	500	650	1,320	1,960	1,560	243	37	37
23		63	1,520	950	500	700	1,650	2,200	1,510	357	37	48
24		40	4,000	1,000	550	750	1,700	2,540	1,490	397	37	63
25		30	9,150	1,000	500	800	1,860	2,870	1,460	393	33	78
26		25	9,680	1,050	450	800	1,990	2,960	1,500	377	30	78
27		57	1,050	1,050	450	800	1,870	1,440	1,440	368	30	30
28		69	3,500	1,000	420	750	1,560	2,870	1,370	338	26	92
29		72	2,500	900	430	720	1,320	2,710	1,330	343	25	82
30		75	1,500	670	-----	720	1,190	2,440	1,300	324	22	92
31		-----	1,200	800	-----	800	-----	2,380	-----	285	17	-----
Total	0	928	41,121	28,344	15,633	16,790	32,030	56,283	58,190	15,799	2,759	1,044
Mean	0	30.9	1,326	913	533	542	1,068	1,816	1,940	510	89.0	34.8
Ac-ft	0	1,840	81,560	56,220	31,010	33,300	63,530	111,800	115,400	31,340	5,470	2,070
Calendar year 1955: Max				9,680	Min	0	Mean	259	Ac-ft		187,200	
Water year 1955-56: Max				9,680	Min	0	Mean	735	Ac-ft		533,300	

HUMBOLDT RIVER BASIN

Marys River above Hot Springs Creek, near Deeth, Nev.

Location.--Lat 41°15', long 115°17', in NE¹/₄SE¹/₄ 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 1956. Published as "below Hot Springs Creek, near Deeth" prior to October 1950.

Gage.--Water-stage recorder. Altitude of gage is 5,500 ft (from river-profile map). Prior to Nov. 3, 1950, at site 1¹/₂ miles downstream at different datum.

Average discharge.--13 years, 61.0 cfs (44,160 acre-ft per year).

Extremes.--Maximum discharge during year, 610 cfs May 26 (gage height, 4.68 ft); minimum, 0.2 cfs Aug. 16.

1943-56: 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 for irrigation above station.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Dec. 13,
Aug. 2 to Sept. 30)

0.1	0.1	0.7	13	2.5	186
.2	.5	1.0	29	3.0	263
.3	1.6	1.5	70	3.8	412
.4	3.4	2.0	121	4.6	592
.5	5.8				

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	2.1	5.0	b28	b34	b31	215	249	278	19	a2.0	a0.8
2	.6	2.1	4.8	b27	30	29	206	220	285	20	*1.6	a.6
3	.6	2.3	4.3	b27	29	33	186	221	280	*20	1.6	a.5
4	.6	2.6	4.3	b25	31	36	165	235	261	19	1.4	*.4
5	.6	3.0	4.3	26	34	38	155	261	238	18	1.3	.5
6	.6	2.8	5.0	b27	33	38	165	293	226	17	1.6	.6
7	.6	2.8	5.5	b25	34	b36	161	291	200	14	1.6	.6
8	.6	3.0	5.5	b23	34	36	164	285	171	13	1.6	.7
9	.6	3.2	5.8	b20	32	38	176	272	152	12	1.2	.8
10	.6	3.2	5.8	22	29	41	*196	265	140	11	1.0	1.0
11	.6	3.2	5.8	24	30	38	227	270	132	10	.9	1.0
12	.6	3.6	6.1	29	30	38	265	243	121	8.9	.9	1.3
13	.7	3.4	6.6	31	29	*39	256	216	112	7.8	.7	.9
14	.6	3.4	7.2	33	b30	37	241	199	101	6.6	.7	1.2
15	.6	3.4	7.5	49	b30	39	232	178	107	5.8	.8	1.2
16	.6	3.4	7.8	61	b31	35	220	159	116	5.3	.6	1.2
17	.7	3.8	8.2	68	b28	40	240	153	101	4.8	.7	1.2
18	.7	3.8	8.9	70	b25	56	268	*168	*87	4.3	.6	1.2
19	.8	3.8	8.5	68	b25	93	256	200	74	4.3	.6	1.2
20	.8	4.1	9.7	54	24	121	266	248	66	4.3	.6	1.4
21	.9	4.1	9.3	58	b25	135	294	300	66	4.3	.6	1.3
22	1.0	4.3	13	56	b26	144	332	338	62	4.5	.6	1.3
23	1.3	4.1	30	59	26	146	361	362	56	4.1	.6	1.4
24	1.3	3.8	44	53	b28	173	378	400	51	3.8	.6	1.4
25	1.4	3.6	75	*41	b29	214	384	469	44	3.6	.6	1.6
26	1.4	4.1	65	b41	b28	*253	*370	580	40	3.2	.6	1.6
27	1.4	4.3	57	b43	28	266	332	563	37	3.0	.8	1.6
28	*1.6	*4.5	b44	b43	b30	244	325	491	30	a3.0	.7	1.6
29	1.9	4.3	b41	b43	b30	218	307	433	24	a3.0	.9	1.8
30	2.1	4.3	b32	b41	-----	202	284	359	19	a2.5	.9	1.8
31	2.1	-----	b28	b37	-----	204	-----	*302	-----	a2.5	1.0	-----
Total	29.1	104.4	564.9	1,252	852	3,091	7,627	9,241	3,677	262.6	29.8	33.7
Mean	0.94	3.48	18.2	40.4	29.4	99.7	254	298	123	8.47	0.96	1.12
Ac-ft	58	207	1,120	2,480	1,690	6,130	15,130	18,330	7,290	521	59	67
Calendar year 1955: Max	185				Min 0.2		Mean 27.1		Ac-ft 19,620			
Water year 1955-56: Max	580				Min 0.4		Mean 73.1		Ac-ft 53,080			

Peak discharge (base, 200 cfs).--Mar. 27 (2:30 p.m.) 268 cfs (3.00 ft); Apr. 25 (7 p.m.) 390 cfs (5.67 ft); May 26 (10 p.m.) 610 cfs (4.68 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge interpolated or estimated on basis of records for nearby streams.

b Stage-discharge relation affected by ice.

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 1956.

Gage.--Water-stage recorder. 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.--19 years (1915-16, 1917-22, 1943-56), 43.1 cfs (31,200 acre-ft per year).

Extremes.--Maximum discharge during year, 447 cfs May 24; minimum, 1.2 cfs Nov. 12. 1915-23, 1943-56: Maximum discharge recorded, 588 cfs July 6, 1950, 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 or no gage-height record, which are fair. Records include flow of McDermott Ditch, which diverts about 200 ft upstream from gage. 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 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.2	3.8	3.6	8.0	a7.6		13	*57	326	199	41	9.8
2	4.2	3.8	3.6	8.0			13	60	325	178	35	9.4
3	4.2	3.4	3.6	8.0	*7.3		14	70	344	164	32	9.0
4	4.0	*5.2		7.6			15	82	*342	161	28	8.9
5	4.2	3.4		7.6			16	79	302	157	27	8.6
6	4.2	3.6	b3.2	6.6	a6		16	82	269	155	26	8.3
7	4.0	3.4		7.3			17	83	273	155	24	8.3
8	4.0	3.2		6.9			17	83	297	154	23	8.0
9	4.0	3.6		*7.6			*18	87	319	149	21	7.6
10	4.0	3.4	3.2	7.3			20	85	330	146	*21	7.6
11	4.2	3.6	3.2	7.6	a7		22	84	326	136	20	7.6
12	4.2	2.8	3.4	8.0			21	79	318	*125	19	7.5
13	4.2	3.2	3.4	7.6	a7		22	75	320	107	18	7.1
14	4.2		3.4	8.0			22	72	305	96	18	*6.8
15	4.0		3.4	10		*6.0	22	72	291	90	17	6.7
16	4.2	b3.2	3.4	12		6.0	23	78	220	87	17	6.4
17	4.4		3.6	10		6.0	23	91	188	84	16	6.5
18	4.4	3.4	3.6	9.7		6.6	24	114	181	81	14	6.1
19	4.7	3.4	3.6	9.7		7.3	26	161	*206	78	13	6.1
20	4.7	3.2	3.6	9.3		7.3	29	212	214	78	13	6.4
21	4.7	3.4	3.6	9.3		7.6	34	249	194	79	13	7.1
22	4.7	2.8	7.1	9.3		8.3	44	*320	202	79	12	6.5
23	4.4	b2.8	15	9.0		9.3	54	368	229	*68	12	6.4
24	4.4	3.2	14	8.6		11	62	411	253	70	12	6.4
25	4.2	b3.2	12	8.3		13	62	377	246	65	12	6.3
26	4.4	3.2	11	b8.3	a6	13	67	349	245	60	11	5.7
27	4.2	3.2	11	b8.3		12	65	338	247	58	11	6.1
28	4.2	3.4	9.3	8.0		12	62	296	254	62	11	6.0
29	4.2	*3.2	8.6	b8.0		12	60	272	256	57	11	5.7
30	4.2	3.2	8.6	b8.0		13	59	303	226	49	11	5.7
31	4.0	-----	8.6	a8.0	-----	13	-----	334	-----	45	10	-----
Total	131.8	98.8	176.6	259.9	199.1	247.4	962	5,423	8,048	3,272	569	214.6
Mean	4.26	3.29	5.70	8.38	6.87	7.98	321	175	268	106	18.4	7.15
Ac-ft	261	196	350	516	395	491	1,910	10,760	15,960	6,490	1,130	426
Calendar year 1955: Max		275		Min	-	Mean	25.3	Ac-ft	18,280			
Water year 1955-56: Max		411		Min	2.8	Mean	53.6	Ac-ft	38,880			

Peak discharge (base, 310 cfs).--May 24 (6:30 p.m.) 447 cfs.

* 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.

HUMBOLDT RIVER BASIN

North Fork Humboldt River at Devils Gate, near Halleck, Nev.

Location.--Lat 41°11', long 115°29', in SE $\frac{1}{4}$ 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 1956.

Gage.--Water-stage recorder. Datum of gage is 5,368 ft above mean sea level (Geological Survey planetable benchmark). November 1913 to September 1921 at site a quarter of a mile upstream at different datum.

Average discharge.--18 years (1914-19, 1943-56), 70.3 cfs (50,900 acre-ft per year).

Extremes.--Maximum discharge during year, 1,200 cfs Mar. 26 (gage height, 8.39 ft); minimum, 2.0 cfs July 20, 21.

1913-21, 1943-56: 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 or no gage-height record, which are fair. Many diversions above station.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 21-27, May 25 to June 4, Aug. 11 to Sept. 30)

Oct. 1 to Mar. 20

Mar. 21 to Sept. 30

1.5	3.7	2.5	58	2.0	2.0	4.0	203
1.6	6.1	3.0	107	2.2	9.0	5.0	395
1.7	9.4	4.0	241	2.4	20	6.0	635
2.0	24	5.0	398	2.8	50	8.0	1,180
				3.3	101		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.9	b9.0		b33	b55	45	342	212	206	40	25	7.0
2	5.9	b9.0		b32	b50	50	259	187	185	33	*20	7.0
3	5.9	b9.0		b32	b48	62	203	173	193	*31	17	6.2
4	5.9	b9.0		b32	b52	86	200	171	197	33	15	*6.6
5	5.9	9.8		b32	b56	111	241	185	187	33	15	6.2
6	6.1	9.1	bl4	b33	b54	80	232	212	189	33	15	6.6
7	6.4	9.8		b31	b56	b82	222	228	195	35	13	7.0
8	6.4	9.1		b28	b56	b65	234	*264	177	31	12	7.0
9	6.4	9.1		b25	b54	a64	227	286	147	28	10	7.0
10	6.8	9.1		b27	b48	a64	*242	315	122	27	8.6	7.0
11	6.8	11	bl6	28	b50	a64	264	266	111	24	8.2	7.8
12	6.8	9.8		30	b50	a64	259	262	105	20	7.8	7.8
13	6.8			33	b48	*a64	271	218	102	18	7.0	7.8
14	6.8			35	b50	57	277	185	105	16	7.4	7.8
15	7.4			44	b50	53	281	159	127	14	6.6	7.4
16	7.4	bl0	bl6	188	b52	52	279	140	152	12	5.4	7.4
17	7.8			272	b45	124	279	120	177	9.5	5.8	7.4
18	7.8			199	b40	254	260	110	*153	5.8	5.0	7.4
19	7.8			189	b40	337	260	113	123	4.1	4.4	7.4
20	7.8			*146	b40	382	262	124	110	3.2	4.7	7.8
21	8.1		b18	118	b40	525	269	142	100	2.6	6.6	8.2
22	8.4		19	105	b42	558	271	176	110	2.9	6.6	8.6
23	8.1		29	107	b45	745	275	210	102	4.4	6.6	9.0
24	8.1	bl2	77	91	b45	*920	284	244	80	8.2	5.8	9.0
25	8.1		75	b70	b47	1,060	286	367	67	9.5	5.8	9.0
26	8.4		69	b70	b45	*986	290	491	61	8.6	6.2	8.6
27	9.1	12	b60	b70	a45	673	290	442	55	8.2	6.6	8.6
28	*8.7	*11	b53	b70	a45	408	307	380	49	8.2	6.6	9.0
29	8.7	12	b46	b70	44	342	290	402	44	130	7.4	8.6
30	8.4	12	b40	b68	-----	368	248	317	44	38	7.0	8.6
31	b6.8	-----	b35	b62	-----	413	-----	*257	-----	32	6.6	-----
Total	227.7	311.8	821	2,370	1,390	9,178	7,904	7,378	3,775	701.2	284.7	230.8
Mean	7.35	10.4	26.5	76.5	47.9	296	263	238	126	22.6	9.18	7.69
Ac-ft	452	618	1,630	4,700	2,760	18,200	15,680	14,630	7,490	1,390	565	458

Calendar year 1955: Max 77 Min 2.3 Mean 14.5 Ac-ft 10,460
Water year 1955-56: Max 1,060 Min 2.6 Mean 94.5 Ac-ft 68,570

Peak discharge (base, 170 cfs).--Jan. 17 (1:30 p.m.) 301 cfs (4.38 ft); Mar. 26 (12:30 a.m.) 1,200 cfs (8.39 ft); May 10 (1 p.m.) 323 cfs (4.67 ft); May 26 (5:30 p.m.) 503 cfs (5.57 ft); June 17 (11 a.m.) 184 cfs (3.86 ft); July 29 (4 a.m.) 449 cfs (5.17 ft).

* 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.

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 1956.

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.--17 years (1897-1902, 1944-56), 229 cfs (165,800 acre-ft per year).

Extremes.--Maximum discharge during year, 2,180 cfs May 30 (gage height, 7.55 ft); minimum, 0.6 cfs Oct. 1.
1895-1902, 1944-56: Maximum discharge, 3,860 cfs Apr. 30, 1952 (gage height, 9.60 ft); no flow for several days in August and September 1948.

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

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-30, Jan. 15-27, July 7-16)

0.8	0.4	1.4	28	4.0	635
.9	1.5	1.7	60	5.0	1,000
1.0	3.7	2.0	102	6.0	1,400
1.1	7.2	2.5	193	7.0	1,900
1.2	12	3.0	317	7.5	2,150

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.7	1.5	9.5	118	b200	146	822	710	1,540	345	25	1.3
2	.7	1.5	7.6	98	b190	153	765	635	1,390	314	21	1.3
3	.7	1.5	6.4	107	b180	197	686	572	1,390	280	*18	1.2
4	.7	*1.6	6.8	102	b170	239	641	522	1,370	246	15	1.3
5	.8	1.6	7.2	83	b160	269	628	486	1,320	217	17	*1.3
6	.8	1.6	13	86	b155	295	628	495	1,280	193	15	1.3
7	.8	1.6	4.6	90	b150	262	593	550	1,260	187	11	1.3
8	.8	2.9	6.0	77	b140	277	544	*534	1,200	178	9.0	1.3
9	.8	e3	5.0	80	b135	285	534	562	1,080	176	7.2	1.3
10	1.0	e6	5.0	65	b130	381	526	618	980	168	6.0	1.5
11	1.1	e6	6.4	70	b125	429	*548	668	*924	159	5.0	1.5
12	1.0	e8	6.8	83	121	381	593	704	892	*137	4.0	1.3
13	1.1	e7	6.4	104	b125	337	607	721	864	121	3.4	1.2
14	1.1	2.9	7.2	139	b125	301	635	690	833	110	2.9	.8
15	1.1	3.1	6.4	185	b125	*274	650	624	848	98	2.6	.8
16	1.1	3.1	6.4	252	b120	277	659	548	936	86	2.4	.8
17	1.1	2.6	7.2	348	b120	320	659	474	1,060	74	2.2	.8
18	1.5	2.6	10	414	b115	453	656	420	1,070	66	1.8	.8
19	1.6	2.6	13	405	b110	576	628	372	900	61	1.8	.8
20	1.5	2.2	14	402	b115	735	593	351	742	54	1.6	1.0
21	1.5	2.4	20	360	b120	900	590	357	650	52	1.5	.8
22	1.3	2.0	36	345	b120	976	595	423	607	52	1.5	.8
23	1.3	3.7	63	363	b120	948	600	537	576	47	1.5	.0
24	1.3	4.6	79	345	b125	*1,040	590	707	548	44	1.3	.0
25	1.3	4.3	70	325	b125	1,170	595	1,110	498	43	1.3	1.0
26	1.6	4.6	155	*277	128	1,350	596	1,390	444	41	1.3	1.1
27	1.8	6.8	182	*254	130	1,360	614	1,900	429	38	1.3	1.1
28	1.6	*6.4	140	b240	135	1,120	668	1,970	*417	34	1.5	1.1
29	1.5	6.0	170	b230	137	680	728	2,100	396	31	1.5	1.1
30	1.6	7.2	142	b220	-----	808	756	2,120	363	34	1.5	1.1
31	1.6	-----	123	b210	-----	805	-----	*1,650	-----	30	1.3	-----
Total	36.2	108.9	1,314.9	6,477	3,951	17,944	18,921	25,701	26,807	3,718	187.4	33.0
Mean	1.17	3.63	42.4	209	136	579	631	829	894	120	6.05	1.10
Ac-ft	72	216	2,610	12,850	7,840	35,590	37,530	50,980	53,170	7,370	372	65
Calendar year 1955: Max 408 Min 0.4 Mean 46.2 Ac-ft 33,460												
Water year 1955-56: Max 2,120 Min 0.7 Mean 287 Ac-ft 208,700												

Peak discharge (base, 550 cfs).--Mar. 27 (3 a.m.) 1,440 cfs (6.09 ft); May 30 (5:50 a.m.) 2,180 cfs (7.55 ft).

* Discharge measurement made on this day.

e Stage-discharge relation affected by ice.

----- Stage-discharge relation indefinite; discharge estimated on basis of records for stations at Carlin and Palisade.

HUMBOLDT RIVER BASIN

Huntington Creek near Lee, Nev.

Location.--Lat 40°33', long 115°43', in SW¹/₄ sec. 19, T. 31 N., R. 56 E., on right bank $\frac{5}{8}$ miles upstream from mouth and 6 miles west of Lee.

Records available.--December 1948 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 5,315 ft (from river-profile map).

Average discharge.--7 years (1949-56), 36.5 cfs (26,420 acre-ft per year).

Extremes.--Maximum discharge, during year, 422 cfs May 25 (gage height, 3.98 ft); minimum, 1.1 cfs Sept. 6, 7, 9 (gage height, 0.89 ft).
1948-56: 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, 0.5 cfs Sept. 5, 1955.

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

Revisions (water years).--WSP 1244: 1949(M). WSP 1344: 1953.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Nov. 30, Mar. 6 to Apr. 6, June 22-27)

0.8	0.4	1.3	12	2.5	121
.9	1.3	1.6	30	3.0	198
1.0	2.8	2.0	64	4.0	410
1.1	5.1				

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.3	5.4		b18		a30	104	167	216	21	2.3	1.8
2	3.3	b5.4		16		a35	109	146	225	21	2.1	1.7
3	3.3	b5.4		15		a40	98	138	221	20	2.3	1.6
4	2.6	b5.4		16		a60	90	141	*209	19	2.5	1.6
5	2.6	5.7		15		*127	85	162	200	16	4.2	1.3
6	3.0	5.4		14		99	80	168	190	14	4.6	1.2
7	*3.5	5.7		14		72	78	158	168	13	4.4	1.1
8	3.0	b5.7	*b7.5	13		75	80	142	141	12	4.4	1.2
9	3.0	5.7		b13		90	88	135	125	10	4.0	1.2
10	3.3	5.7		12		104	94	138	120	8.7	3.5	1.3
11	3.5	7.7		14	a25	78	111	158	113	7.3	2.9	1.6
12	3.5	b6.7		17		68	132	167	109	6.4	2.0	1.8
13	3.7	b6.7		18		62	129	136	98	5.1	3.0	1.8
14	4.0	*6.4		24		60	128	121	83	4.6	*2.8	1.8
15	4.0	b6.0		40		57	112	103	93	4.2	2.6	2.0
16	4.4	b8.0		47		59	*104	88	148	4.2	2.5	2.1
17	4.4	9.9		*50		66	101	82	108	*4.4	2.3	2.1
18	4.4	12		44		80	102	82	78	4.4	2.6	2.3
19	4.6	12	b8	41		97	102	100	64	4.0	2.6	2.3
20	5.1	11		45		122	100	129	a58	3.5	2.1	2.5
21	5.1	10		47		*131	107	*156	a50	3.7	2.0	*2.8
22	5.1	b8.0	19	48		128	116	188	*46	4.0	2.0	2.8
23	5.1	b8.0	43	66		128	134	225	38	3.0	2.0	3.0
24	5.1	b8.0	38	55		131	147	314	31	3.3	1.8	3.0
25	5.1	b7.0	38	43	a30	135	153	392	29	3.3	1.7	3.0
26	5.1	b7.0	37	b40		142	144	*400	29	2.6	1.7	2.8
27	5.4	7.0	38	b35		135	170	347	28	2.6	1.7	3.0
28	5.7	7.0	29	b30		120	249	338	28	3.3	1.7	3.0
29	5.7	6.7	23	b27		111	261	359	24	3.5	1.7	2.8
30	6.1	6.4	25	b26	-----	78	*200	284	22	3.0	1.8	3.0
31	5.4	-----	20	b25	-----	89	-----	223	-----	2.6	1.8	-----
Total	131.4	217.0	469.5	928	770	2,808	3,708	5,887	3,092	237.7	79.6	63.5
Mean	4.24	7.23	15.1	29.9	26.6	90.6	124	190	103	7.67	2.57	2.12
Ac-ft	261	430	951	1,840	1,530	5,570	7,350	11,690	6,130	471	158	126

Calendar year 1955: Max 100 Min 0.6 Mean 11.4 Ac-ft 8,260
Water year 1955-56: Max 400 Min 1.1 Mean 50.3 Ac-ft 36,480

Peak discharge (base, 200 cfs).--Apr. 29 (10 a.m.) 273 cfs (338 ft); May 25 (7 p.m.) 422 cfs (3.98 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for stations on nearby streams.

b Stage-discharge relation affected by ice.

South Fork Humboldt River above Dixie Creek, near Elko, Nev.

Location.--Lat 40°41'05", long 115°48'45", in NW $\frac{1}{4}$ SW $\frac{1}{4}$ sec. 5, T. 32 N., R. 55 E.,
1 $\frac{1}{2}$ miles upstream from Dixie Creek and 10 $\frac{1}{2}$ miles south of Elko.

Records available.--December 1948 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 5,140 ft (from topographic map).

Average discharge.--7 years, 111 cfs (80,360 acre-ft per year).

Extremes.--Maximum discharge during year, 1,360 cfs May 25 (gage height, 5.26 ft); minimum, 2.7 cfs Sept. 9 (gage height, 1.91 ft).
1948-56: Maximum discharge, 1,700 cfs Apr. 29, 1952 (gage height, 5.46 ft); minimum, 0.6 cfs Sept. 11, 1954, Sept. 15, 1955.

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

Revisions (water years).--WSP 1284: 1952(M).

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.1	14				b70	204	322	848	294	42	6.8
2	3.3	b13				89	*216	299	840	256	40	5.8
3	3.3	b14		b50		95	199	288	856	223	34	4.6
4	3.6					135	179	307	910	207	30	4.3
5	3.8					*190	165	347	871	196	27	4.3
6	4.0					152	147	352	*759	184	26	4.0
7	*3.8			b43		b120	147	352	650	176	25	3.8
8	4.3		(*)			b97	145	326	624	170	24	3.6
9	4.6			44		129	157	307	637	162	24	3.1
10	4.6					155	181	310	650	150	*22	3.3
11	4.8		b14	44		129	216	347	656	135	21	3.8
12	5.4			57		b95	262	347	643	122	19	3.8
13	6.1			72		b82	266	310	637	105	15	3.6
14	7.1			89		b80	259	276	587	91	14	3.6
15	8.0			213		75	232	242	696	87	13	3.6
16	8.4	b15		242		77	210	223	670	*78	11	3.6
17	8.4	(*)		*155		89	207	213	516	72	11	3.8
18	10			118		111	207	219	388	68	9.3	4.0
19	9.8			103		152	213	276	347	66	9.3	4.0
20	9.8			103		210	219	397	365	61	9.3	4.0
21	10		b33	103		245	232	*556	365	61	8.8	*4.6
22	10		64	101		252	276	696	331	60	8.4	4.6
23	10		126	143		273	326	910	331	54	8.0	4.8
24	10		165	124		299	347	1,140	331	52	6.8	4.8
25	11		152	b95		314	352	1,260	343	48	6.8	5.1
26	13		129	b80		310	352	1,240	339	44	6.4	5.1
27	13		138	b70		270	441	1,130	335	42	6.4	5.1
28	13		b99			232	451	*1,020	326	43	7.1	5.1
29	14	b14	b60		b60	213	456	926	*314	49	7.5	4.8
30	14		b60			179	*378	810	303	45	7.5	5.1
31	14		b50			176		803		46	7.5	
Total	248.2	443	1,376	2,611	1,830	5,095	7,641	16,551	16,468	3,437	507.1	130.5
Mean	8.01	14.8	44.4	84.2	63.1	164	255	534	549	111	16.4	4.35
Ac-ft	492	879	2,730	5,180	3,630	10,110	15,160	32,830	32,660	6,820	1,010	259

Calendar year 1955: Max 624 Min 0.8 Mean 51.9 Ac-ft 37,610
Water year 1955-56: Max 1,260 Min 3.1 Mean 154 Ac-ft 111,800

Peak discharge (base, 400 cfs)--Apr. 27 (9 p.m.) 522 cfs (4.22 ft); May 25 (12:30 p.m.) 1,360 cfs (5.26 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

HUMBOLDT RIVER BASIN

South Fork Humboldt River near Elko, Nev.

Location.--Lat 40°43'25", long 115°49'45", in NE 1/4 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. Prior to Oct. 13, 1955, at site 900 ft upstream.

Drainage area.--1,150 sq mi, approximately.

Records available.--August 1896 to September 1922, October 1923 to September 1932, October 1936 to September 1956.

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.--48 years (1896-1903, 1904-9, 1910-18, 1923-26, 1927-32, 1936-56), 128 cfs (92,670 acre-ft per year).

Extremes.--Maximum discharge during year, 1,270 cfs May 26 (gage height, 5.42 ft); minimum, 0.3 cfs Sept. 10.
1896-1923, 1923-32, 1936-56: Maximum daily discharge, 2,400 cfs Jan. 26, 1914; maximum gage height observed, 12.0 ft Jan. 26, 1914 (affected by ice jam) (revised); no flow Aug. 10 to Oct. 24, 1954.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Many diversions for irrigation above station. Station is below all diversions except those of Hunter & Banks ranch 3 miles downstream.

Revisions (water years).--WSP 1090: 1932.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1-12

Oct. 13 to Sept. 30

1.1	0.6	1.3	0.2	1.8	13	3.5	300
1.2	2.8	1.4	.8	2.0	25	4.0	476
		1.5	2.0	2.3	51	4.7	810
		1.6	4.2	2.6	92	5.4	1,260
		1.7	7.9	3.0	169		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9	5.9	b13			a70	219	368	810	276	41	3.2
2	1.1	5.8	b13			a90	221	335	834	248	35	2.5
3	1.1	6.9		b40		a100	211	329	858	211	*33	1.5
4	1.1	7.5				a145	187	342	870	190	29	1.0
5	1.3	8.8				a205	187	386	852	178	26	*1.0
6	1.3	9.2				a165	169	390	755	161	24	1.0
7	1.3	9.2		b33		a130	171	393	852	148	23	.8
8	1.3	9.2				a108	171	368	624	144	22	.7
9	1.5	9.7				*148	178	*345	638	132	20	.7
10	1.5	9.7				167	192	348	662	122	19	.6
11	1.8	12		34	a60	144	211	390	*677	115	17	.8
12	1.8	9.4		43		b104	245	386	667	102	15	.8
13	*2.5	a9.0	(*)	51		b95	256	339	652	90	13	.8
14	2.5	a9.0		69		b91	259	297	592	79	11	.8
15	2.7	a6.0		a260		b90	245	256	672	78	9.7	.7
16	3.2	a10		a300		98	229	232	687	*75	7.9	.7
17	3.4	*all	b13	*a204		122	221	216	558	68	7.1	.8
18	3.4			a160		165	226	216	418	64	5.9	.9
19	4.2					228	234	270	365	60	5.2	.8
20	3.9					267	*242	393	368	57	5.2	.8
21	4.2		b35			291	256	547	368	57	4.8	1.1
22	4.5		68	a132		303	288	*682	332	57	3.9	1.2
23	4.5		176	a185		*316	329	846	332	51	3.9	1.4
24	4.5	b13	140	a152		348	345	996	332	48	3.0	1.6
25	4.5		124	a112		352	348	1,140	345	45	2.5	1.8
26	5.2		111	a91	a70	342	348	*1,230	345	42	3.0	1.6
27	5.5		126	a76		300	382	1,130	*339	41	2.5	1.8
28	5.9		75			267	484	1,040	326	40	3.2	1.8
29	5.9		a60			248	488	954	303	46	3.4	2.0
30	6.3		b50	a60		219	426	840	291	44	3.7	2.1
31	6.3	-----	b40		-----	209	-----	788	-----	44	3.7	-----
Total	99.1	319.3	1,267	2,872	1,630	5,925	7,978	16,792	16,504	3,111	407.6	37.3
Mean	3.20	10.6	40.9	92.6	63.1	191	266	542	550	100	13.1	1.24
Ac-ft	197	633	2,510	5,700	3,630	11,750	15,820	33,010	32,740	6,170	808	74

Calendar year 1955: Max 627 Min 0.1 Mean 48.1 Ac-ft 34,800
Water year 1955-56: Max 1,230 Min 0.6 Mean 156 Ac-ft 113,300

Peak discharge (base, 410 cfs).--Apr. 29 (12:30 a.m.) 530 cfs (4.14 ft); May 26 (12 m.) 1,270 cfs (5.42 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of 4 discharge measurements, weather records, and records for stations on nearby streams.

b Stage-discharge relation affected by ice.

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 $4\frac{1}{2}$ miles southwest of Moleen, 5 miles upstream from Susie Creek, $5\frac{1}{2}$ miles east of Carlin, and 15 miles southwest of Elko.

Drainage area.--4,310 sq mi, approximately.

Records available.--October 1943 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 4,931.91 ft above mean sea level (levels by Nevada State Highway Department).

Average discharge.--13 years, 344 cfs (249,000 acre-ft per year).

Extremes.--Maximum discharge during year, 2,960 cfs May 29 (gage height, 6.83 ft); minimum, 2.4 cfs Oct. 9, 10.

1943-56: Maximum discharge, 5,220 cfs May 1, 1952 (gage height, 9.35 ft); minimum, 0.3 cfs Sept. 10, 1954, Oct. 11, 1955.

High water of February 1943 reached a stage of 9.8 ft (discharge, 5,900 cfs, by slope-area determination of peak flow).

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

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 21-24, May 30 to June 16)

0.5	2.0	1.3	62	3.5	736
.6	4.0	1.6	109	4.0	980
.7	8.0	2.0	193	5.0	1,540
.8	13	2.5	337	6.0	2,220
1.0	28	3.0	520	7.0	3,020

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.6	16	28	152	a250	218	1,080	1,060	2,840	607	*57	10
2	5.6	8.0	29	150	b240	248	1,080	1,040	2,600	*557	53	10
3	6.4	8.8	26	140	b230	305	1,080	995	2,340	504	57	9.5
4	6.8	14	b25	134	b220	370	1,000	945	2,210	465	53	9.5
5	5.2	15	b24	132	b230	420	920	940	2,210	427	48	9.5
6	3.6	9.5	b28	134	b230	446	846	915	2,130	380	46	9.5
7	3.0	*9.0	b25	128	b220	398	797	890	2,020	344	44	9.0
8	2.8	14	b27	122	b210	424	783	875	1,900	321	40	8.5
9	2.6	14	115	b200	446	760	860	*1,860	299	38	10	
10	2.6	18	117	b200	*488	741	885	1,810	280	37	11	
11	2.6	19	117	b200	500	760	945	1,720	265	35	9.5	
12	2.8	19	124	206	500	797	970	1,620	245	32	9.5	
13	3.0	a19	140	208	512	826	975	1,520	218	29	8.5	
14	3.4	a20	163	208	512	865	*975	1,470	200	27	*8.5	
15	3.6	a15	305	b200	469	841	a900	1,490	182	25	9.0	
16	3.8	a14	553	b160	438	831	a850	1,530	170	22	8.5	
17	4.4	a21	520	b180	427	*836	a780	1,440	*150	21	9.0	
18	5.2	a21	427	b180	461	836	736	1,350	136	19	10	
19	5.2	a23	438	b160	561	841	699	1,330	128	18	11	
20	4.8	a27	520	b185	708	831	695	1,400	120	17	12	
21	4.8	a27	32	549	b190	851	812	797	1,340	109	16	13
22	5.2	a28	36	545	203	1,000	807	920	*1,150	102	14	12
23	5.2	a26	59	582	218	*1,180	821	1,040	1,010	94	13	12
24	6.8	a25	117	595	206	1,280	851	1,280	920	87	12	12
25	7.2	a23	113	545	191	1,310	865	1,580	860	66	12	12
26	7.2	a23	138	*480	206	1,400	865	1,760	821	81	11	12
27	11	a22	150	508	206	1,510	915	2,030	774	79	10	12
28	12	a25	181	442	200	1,660	1,060	*2,450	705	75	10	13
29	14	a24	142	360	208	1,580	1,130	2,320	672	72	10	13
30	15	*25	140	299	-----	1,340	1,100	2,920	633	69	10	13
31	16	-----	170	a270	-----	1,140	-----	2,880	-----	61	10	-----
Total	187.4	572.3	1,834	9,806	5,945	23,082	26,577	38,487	45,728	6,913	846	316.0
Mean	6.05	19.1	59.2	316	205	745	886	1,242	1,524	223	27.3	10.5
Ac-ft	372	1,140	3,640	19,450	11,790	45,780	52,710	76,340	90,700	13,710	1,680	627
Calendar year 1955: Max 699 Min 1.1 Mean 81.6 Ac-ft 59,090												
Water year 1955-56: Max 2,920 Min 2.6 Mean 438 Ac-ft 317,900												

* 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.

HUMBOLDT RIVER BASIN

Susie Creek near Carlin, Nev.

Location--Lat 40°56', long 115°58', in SW¹/₄ sec. 12, T. 35 N., R. 53 E., on left bank half a mile upstream from Adobe Creek, 16 miles upstream from mouth, and 17 miles north-east of Carlin.

Records available--October 1955 to September 1956.

Gage--Water-stage recorder.

Extremes--Maximum discharge during year, 184 cfs Jan. 15 (gage height, 3.49 ft); minimum daily, 0.1 cfs many days during July and August.

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

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 11 to Sept. 30)

0.9	0.1	1.3	2.9	2.3	36
1.0	.2	1.4	4.5	2.7	68
1.1	.7	1.6	8.4	3.0	104
1.2	1.6	1.9	17		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.5	0.4	0.9	1.6		15	21	14	*3.4	0.1	0.2	0.2
2	.5	.5	.9	1.5		25	16	*13	2.2	*.1	.2	.2
3	.5	1.0	.7	1.3		40	*15	13	2.3	.1	.2	.2
4	.5	.9	b.7	1.2		50	13	14	2.3	.1	.2	.3
5	*.5	.7	.6	1.5		30	14	14	2.3	.1	.2	.3
6	.5	.8	.4	1.3	4.0	15	14	14	2.3	.1	.2	.3
7	.5	.7	b.8	1.2		9.0	12	15	1.9	.1	.1	.3
8	.5	*.7	b.8	1.4		15	10	15	.9	.1	.1	.3
9	.5	.7	.8	1.2		24	10	13	1.3	.1	.1	.3
10	.5	.8	.8	1.3		25	10	15	1.2	.1	.1	.4
11	.6	.8	.8	1.4		15	10	15	1.2	.1	.1	.4
12	.6	.4	.8	1.5		9.0	13	12	1.0	.1	.1	.4
13	.6	.3	1.0	1.8	5.0	10	16	11	.3	.1	.1	.4
14	.6	b.3	.7	7.1	5.0	9.0	16	9.8	.5	.1	*.1	.4
15	.6	b.3	.9	8.2	4.0	7.0	16	8.6	1.3	.1	.1	.4
16	.6	.4	.9	63		*10	*15	8.0	1.0	.1	.1	.5
17	.6	.5	1.0	22		16	15	6.9	.8	.1	.1	.5
18	.7	b.6	1.0	13	3.5	28	15	6.7	.6	.1	.1	.5
19	.7	.8	1.0	11		49	15	6.7	.5	.1	.1	.5
20	.8	.9	.8	9.8		55	16	7.1	.8	.2	.1	*.6
21	.8	.9	.8	8.0	5.0	52	16	7.4	.6	.6	.1	.5
22	.8	b.6	2.1	7.8	6.0	*58	16	7.8	.4	.4	.1	.5
23	.6	.6	23	8.2	10	58	17	7.4	.4	.3	.1	.6
24	.6	b.6	17	6.3	13	60	17	7.1	.3	.2	.1	.6
25	.6	.6	6.3	4.0	12	57	16	7.4	.3	.2	.1	.6
26	.8	.6	9.7	4.5	8.0	42	17	6.5	.3	.1	.1	.6
27	1.0	1.0	12	*4.6	8.0	28	17	6.3	.3	.2	.2	.6
28	.8	.8	4.9		13	24	19	6.7	.3	1.0	.2	.6
29	.7	*.8	4.0		14	25	16	7.6	.3	.4	.2	.6
30	.8	.9	1.7	b4.0		26	14	5.8	.2	.3	.2	.6
31	.6	-----	1.6		-----	24	-----	5.0	-----	.2	.2	-----
Total	19.5	19.9	99.4	285.5	168.5	909	447	306.8	31.5	6.0	4.2	13.2
Mean	0.63	0.66	3.21	9.21	5.91	29.3	14.9	9.90	1.05	0.19	0.14	0.44
Ac-ft	39	39	197	566	334	1,800	897	609	62	12	8.3	26

Calendar year 1955: Max - Min - Mean - Ac-ft -
Water year 1955-56: Max 82 Min 0.1 Mean 6.31 Ac-ft 4,580

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.--No gage-height record Feb. 1 to Mar. 15, Apr. 8-15, June 30, July 1; discharge estimated on basis of weather records and records for stations on nearby streams.

Humboldt River at Palisade, Nev.

Location.--Lat 40°36'25", long 116°12'05", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ 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 1956.

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.--48 years (1903-6, 1911-56), 362 cfs (262,100 acre-ft per year).

Extremes.--Maximum discharge during year, 2,940 cfs May 30 (gage height, 6.78 ft); minimum, 12 cfs Oct. 1.

1902-6, 1911-56: Maximum discharge, 6,250 cfs Feb. 26, 1943 (gage height, 9.92 ft); minimum, 2 cfs Aug. 25-28, 1931.

Remarks.--Records good except those for periods of ice effect, which are fair. Diversion for irrigation of about 150,000 acres of hay and pasture land above station.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 27 to June 11)

1.4	7.0	2.1	110	5.0	1,480
1.5	14	2.5	205	6.0	2,380
1.6	24	3.0	355	6.6	2,950
1.8	53	4.0	800		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	28	50	168	b270	*254	1,240	1,200	*2,830	645	*76	23
2	15	28	48	165	b266	236	1,200	1,180	2,680	600	72	22
3	16	22	47	155	b250	352	1,180	1,120	2,420	550	70	21
4	16	22	42	148	b240	411	1,120	1,070	2,240	506	72	21
5	17	27	b57	139	b230	449	1,050	1,070	2,200	465	68	21
6	17	28	b47	146	b250	474	957	1,050	2,180	418	63	21
7	15	23	b39	139	b240	433	897	1,040	2,040	383	60	21
8	14	23	37	134	b235	445	879	1,010	1,880	352	58	21
9	14	28	43	125	b215	492	867	993	1,830	330	55	21
10	14	28	34	123	b210	546	855	1,020	1,800	308	53	23
11	14	32	39	125	b212	550	867	1,070	1,720	293	51	22
12	14	32	37	134	225	532	915	1,100	1,630	272	51	22
13	14	32	39	146	230	542	951	1,090	1,520	*245	47	22
14	15	34	39	180	233	542	1,000	1,080	1,480	225	45	21
15	16	b29	40	468	b220	510	981	1,060	1,520	208	42	21
16	16	b28	43	909	b170	478	939	1,010	1,560	192	39	20
17	17	b36	45	720	b195	478	909	897	1,500	172	36	20
18	17	36	48	555	190	550	879	800	1,380	162	34	20
19	19	39	50	519	170	720	879	760	1,340	153	33	21
20	20	45	50	578	202	945	879	750	1,450	144	32	22
21	19	45	50	620	215	1,110	879	811	*1,420	134	30	23
22	18	47	60	620	233	1,280	897	933	1,230	125	29	25
23	19	43	170	*690	254	1,500	921	1,040	1,060	121	28	25
24	19	42	257	675	236	1,680	963	1,240	963	112	27	25
25	19	39	182	615	b215	1,740	975	1,520	891	108	25	28
26	21	39	185	550	b212	1,800	993	1,780	855	104	23	27
27	22	37	220	555	242	1,810	1,080	1,980	811	100	23	25
28	24	42	192	510	236	*1,900	*1,230	2,340	*760	95	23	25
29	25	40	168	425	233	1,850	1,310	2,830	710	91	23	27
30	27	*40	159	b330	-----	1,620	1,270	2,910	675	91	23	25
31	28	-----	170	b290	-----	1,360	-----	2,870	-----	83	*23	-----
Total	554	1,014	2,647	11,656	6,529	27,649	29,912	40,624	46,555	7,787	1,334	681
Mean	17.9	33.8	85.4	376	225	892	997	1,310	1,552	251	43.0	22.7
Ac-ft	1,100	2,010	5,250	23,120	12,950	54,840	59,330	80,580	92,340	15,450	2,650	1,350

Calendar year 1955: Max 695 Min 8.8 Mean 94.6 Ac-ft 68,510
Water year 1955-56: Max 2,910 Min 13 Mean 483 Ac-ft 351,000

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

Pine Creek near Palisade, Nev.

Location.--Lat 40°35'45", long 116°10'25" in NW 1/4 sec. 1, T. 31 N., R. 51 E., on right bank 1 1/4 miles upstream from mouth and 1 1/2 miles southeast of Palisade.

Records available.--November 1902 to December 1904 (gage heights only), January 1912 to September 1914, January 1946 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 4,900 ft (from topographic map). Prior to Jan. 1, 1946, staff gages at site half a mile downstream at different datums. Jan. 1 to July 18, 1946, water-stage recorder at site 1,000 ft downstream at different datum.

Average discharge.--12 years (1912-14, 1946-56), 14.3 cfs (10,350 acre-ft per year).

Extremes.--Maximum discharge during year, 190 cfs Mar. 4 (gage height, 2.57 ft); minimum daily, 0.1 cfs for many days during July to September.
1912-14, 1946-56: Maximum discharge, 1,010 cfs Mar. 27, 1952 (gage height, 4.69 ft), from rating curve extended above 330 cfs on basis of slope-area determination of peak flow; no flow for many days during 1951, 1953-55.

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

Revisions (water years).--WSP 1120: 1946 (calendar year mean).

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.3	3.9	9.3	6.8		*41	44	a21	*6.7	0.2	*0.2	0.1
2	2.6	4.0	8.9	7.4		64	38	a19	3.6	.2	.2	.1
3	2.7	4.4	8.9	7.0		96	32	a18	3.6	.2	.2	.1
4	2.6	4.4	11	7.4		135	24	a17	1.2	.4	.6	.1
5	2.6	4.4		9.7		82	22	a17	1.8	.2	.4	.1
6	2.7	4.4		9.3	b10	31	19	a16	1.8	.1	.5	.2
7	2.6	4.5		8.5		18	16	a18	.9	.1	.5	.1
8	2.6	4.8		9.5		32	11	a15	.7	.1	.4	.1
9	2.6	4.8	b9.0	8.5		50	12	a14	.7	.2	.4	.1
10	2.6	5.0		9.7		52	14	a13	.5	.1	.2	.1
11	2.7	5.5		8.9	10	30	13	a12	2.9	.1	.1	.1
12	2.8	b5.3		10	10	18	24	a11	2.6	.1	.1	.1
13	2.8	b5.3		13	12	20	*31	a10	1.2	*.1	.1	.1
14	2.7	b5.3		17	12	18	32	a8.5	1.6	.1	.1	.1
15	2.8	b4.7	b10	57	10	15	29	a7.0	9.2	.1	.1	.1
16	2.9	b4.7		*109	8.1	17	24	5.5	5.7	.1	.1	.1
17	2.9	b4.7	13	64	b8.0	22	22	3.4	5.4	.2	.1	.1
18	3.0	4.8	14	41	b8.0	40	22	2.6	2.5	.2	.1	.4
19	3.0	6.2	15	31	b8.0	22	19	1.8	2.8	.2	.1	.6
20	3.0	7.8	16	32	8.9	*95	11	1.8	4.6	.2	.1	3.2
21	3.2	7.8	16	33	14	99	6.5	1.8	*5.0	.4	.2	2.5
22	2.8	6.5	20	45	14	112	6.2	1.8	3.6	.1	.2	2.8
23	2.3	6.8	48	*90	24	119	5.5	*1.8	2.0	.1	.1	3.6
24	1.8	b6.0	34	74	32	120	5.2	1.8	1.6	.1	.2	3.6
25	1.9	b6.0	30	35	29	119	4.5	2.0	.4	.1	.1	3.6
26	2.2	6.0	34	22	20	120	4.0	1.2	.4	.1	.1	3.6
27	2.4	6.2	39	b20	19	106	13	.4	.4	.2	.1	3.3
28	3.1	7.8	17	b15	22	*69	*72	6.8	.5	.2	.1	3.6
29	3.8	7.4	8.9	b12	31	57	a35	14	.4	.1	.1	3.9
30	3.8	*7.4	6.8	b10	-----	47	a25	12	.2	.1	.1	3.3
31	*3.8	-----	7.8	b10	-----	46	-----	12	-----	.1	*.1	-----
Total	85.6	166.8	469.6	831.7	400	1,912	635.9	285.2	74.5	4.8	6.0	39.8
Mean	2.76	5.56	15.1	26.8	13.8	61.7	21.2	9.20	2.48	0.15	0.19	1.33
Ac-ft	170	333	931	1,650	793	3,790	1,260	566	148	9.5	12	79

Calendar year 1955: Max 48 Min 0

Water year 1955-56: Max 155 Min 0.1 Mean 5.48 Ac-ft 3,970

Peak discharge (base, 50 cfs).--Dec. 23 (7 p.m.) 78 cfs (1.98 ft); Jan. 16 (7 a.m.) 120 cfs (2.16 ft); Jan. 24 (1 a.m.) 93 cfs (1.95 ft); Mar. 4 (4 p.m.) 190 cfs (2.57 ft); Mar. 23 (10 p.m.) 127 cfs (2.20 ft); Apr. 28 (4 p.m.) 160 cfs (2.39 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of engineer's notes and records for nearby streams.

b Stage-discharge relation affected by ice.

Humboldt River near Argenta, Nev.

Location.--Lat 40°40', long 116°40', in NW $\frac{1}{4}$ sec. 2, T. 32 N., R. 47 E., on left bank $2\frac{1}{2}$ miles east of Argenta and 15 $\frac{1}{2}$ miles east of Battle Mountain.

Records available.--February 1946 to September 1956.

Gage.--Water-stage recorder.

Average discharge.--10 years, 297 cfs (215,000 acre-ft per year).

Extremes.--Maximum discharge during year, 2,430 cfs June 3 (gage height, 9.41 ft); minimum daily, 0.2 cfs Oct. 1-18.
1946-56: Maximum daily discharge, 5,700 cfs May 2, 1952; minimum daily, 0.2 cfs Sept. 15 to Oct. 18, 1955.

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

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 28 to Dec. 25)

Oct. 1 to Mar. 18

Mar. 19 to Sept. 30

1.5	0	2.7	64	1.7	0.6	2.9	76
1.6	.3	3.0	102	1.8	1.5	3.4	151
1.7	1.2	3.5	182	1.9	3.1	4.0	268
1.8	2.9	4.0	286	2.0	5.6	5.0	543
1.9	5.6	4.5	411	2.1	9.3	7.0	1,280
2.1	14	5.0	561	2.2	14	9.0	2,220
2.4	36	5.4	699	2.5	34	9.4	2,420

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	0.4	25	b190	*b320	257	1,290	1,120	2,380	675	52	2.2
2	.2	.4	*26	173	b250	282	1,180	1,050	*2,400	644	47	2.2
3	.2	.4	31	168	b240	336	1,130	1,040	2,400	601	44	1.9
4	.2	.4	32	161	b230	408	1,110	988	2,260	562	41	1.9
5	.2	.4	33	152	b230	489	1,050	942	2,070	514	38	1.9
6	.2	.4	23	147	b240	*510	953	934	1,970	474	37	1.9
7	.2	*.4	17	149	b230	483	886	927	1,940	430	34	1.8
8	.2	.4	19	144	b230	448	825	930	1,880	390	32	1.8
9	.2	.4	32	137	b220	459	797	904	1,780	356	30	1.8
10	.2	.4	29	131	b210	504	784	868	1,690	325	28	1.6
11	.2	.4	31	125	b220	548	797	878	1,640	296	22	1.6
12	.2	.4	27	125	b230	545	808	925	1,590	261	19	1.5
13	.2	.4	29	128	b230	529	850	958	1,530	*242	18	1.4
14	.2	.5	30	142	b230	532	889	930	1,460	225	14	1.4
15	.2	.6	29	175	b230	526	927	*930	1,460	209	12	1.4
16	.2	.6	28	368	b220	501	908	908	1,430	186	12	1.4
17	.2	.6	35	670	b220	480	875	857	1,430	177	11	1.3
18	.3	.7	36	642	197	489	*835	784	1,410	158	9.3	1.3
19	.4	.7	40	529	195	569	780	716	1,350	139	7.3	1.3
20	.4	7.0	b44	504	190	719	767	665	1,310	128	6.3	1.4
21	.4	12	b44	555	b220	864	767	644	*1,330	118	*6.0	1.3
22	.4	16	45	587	b230	976	763	672	1,320	112	5.1	1.2
23	.4	18	51	564	b240	1,110	767	746	1,220	102	4.2	1.2
24	.3	21	115	517	b230	1,260	770	836	1,060	95	3.8	1.2
25	.3	24	234	507	b220	1,350	801	984	965	89	3.1	*1.2
26	.4	20	199	555	b230	1,430	814	1,190	901	86	2.7	1.2
27	.4	20	201	608	260	1,470	875	1,350	853	*80	2.7	1.2
28	.4	20	227	614	260	1,480	919	1,500	808	75	2.7	1.2
29	.4	20	199	558	257	*1,510	1,070	1,680	760	72	2.5	1.2
30	.4	23	b160	b490	-----	1,540	1,180	1,970	709	64	2.4	1.2
31	.4	-----	b170	b340	-----	1,480	-----	2,300	-----	56	2.4	-----
Total	8.7	209.9	2,241	10,855	6,709	24,084	27,167	32,104	45,306	7,941	549.5	45.1
Mean	0.28	7.00	72.3	350	231	777	906	1,036	1,510	256	17.7	1.50
Ac-ft	17	416	4,440	21,530	13,310	47,770	53,880	63,680	89,860	15,750	1,090	89
Calendar year 1955: Max 514 Min 0.2 Mean 69.1 Ac-ft 49,890												
Water year 1955-56: Max 2,400 Min 0.2 Mean 430 Ac-ft 311,800												

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

HUMBOLDT RIVER BASIN

Rock Creek near Battle Mountain, Nev.

Location.--Lat 40°51', long 116°36', in NE $\frac{1}{4}$ 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 1956.

Gage.--Water-stage recorder. Altitude of gage is 4,600 ft. Prior to Jan. 3, 1946, at different datum.

Average discharge.--15 years (1918-23, 1946-56), 31.7 cfs (22,950 acre-ft per year).

Extremes.--Maximum discharge during year, 500 cfs Jan. 15 (gage height, 2.99 ft); no flow Oct. 1-25, Aug. 1 to Sept. 26.

1918-25, 1927-29, 1946-56: Maximum discharge, 3,000 cfs Apr. 7, 1952 (gage height, 5.60 ft); no flow at times during July, August, September, and October nearly every year.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Several irrigation diversions in valleys upstream. Station is above all diversions in Boulder Flat and is 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 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 26 to Nov. 3)

0.0	0	0.5	2.5	1.4	50
.1	.2	.6	4.2	1.7	90
.2	.4	.8	9.8	2.0	150
.3	.8	1.0	19	2.5	295
.4	1.4	1.2	32	2.9	455

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0	0.4	1.4		*b11	52	103	38	37	1.4		0
2	0	.4	*1.7		b10	117	84	33	26	1.2		0
3	0	*.4	1.4		9.2	130	66	25	20	.9		0
4	0	.4	1.2		8.2	129	68	27	16	.8		0
5	0	.5			9.2	139	61	30	15	.7		0
6	0	.6			11	91	58	36	14	.6		0
7	0	.6	al.3	al4	11	47	49	43	12	.5		0
8	0	.6			b10	49	48	59	11	.4		0
9	0	.6			b10	79	49	66	11	.4		0
10	0	.6			b10	129	51	*66	9.2	.3		0
11	0	1.0			b10	114	49	79	7.2	.3		0
12	0	.8			b10	71	*49	92	6.1	.2		0
13	0	.7			b10	52	61	84	*4.9	.2		0
14	0	.7			b10	*41	69	74	4.2	.2		0
15	0	.7	a2.0	a450	b10	32	69	69	5.6	.2		0
16	0	.8			a400	b10	28	48	60	4.2		0
17	0	.7			*a350	b8.0	49	56	9.8	.2		0
18	0	.8			177	b7.0	127	48	50	12	*.1	0
19	0	1.2	al0	95	8.2	246	47	51	10	.1		0
20	0	1.4	a30	68	9.8	309	42	53	8.8	.1		0
21	0	1.4	a80	73	10	*316	43	52	8.5	.3	(*)	0
22	0	1.2	a500	64	19	338	45	57	16	.4		0
23	0	.9	a400	116	127	354	54	59	18	.3		0
24	0	.8	a200	128	22	323	49	65	13	.3		0
25	0	.8	a100	77	19	323	46	71	11	.2		*0
26	.1	1.0	a70	52	16	295	49	74	6.9	.1		0
27	.4	1.1	a60	b40	14	229	56	70	5.4	.1		.2
28	.6	1.2	a35	b22	13	184	56	84	4.0	.1		.1
29	.5	1.1	a25	b23	45	135	51	77	3.2	.1		.2
30	.4	1.1	a14	b14	----	120	42	60	2.2	.1		.4
31	.4	-----	a14	b12	-----	114	-----	51	-----	.1		-----
Total	2.4	24.3	1,367.5	2,375	477.6	4,722	1,666	1,805	332.2	11.1	0	0.9
Mean	0.08	0.81	44.1	76.6	16.5	152	56.2	58.2	11.1	0.36	0	0.03
Ac-ft	4.8	48	2,710	4,710	947	9,370	3,340	3,580	659	22	0	1.8
Calendar year 1955: Max	400			Min	0	Mean	7.91	Ac-ft	5,720			
Water year 1955-56: Max	450			Min	0	Mean	35.0	Ac-ft	25,390			

Peak discharge (base, 75 cfs).--Jan. 15 (time unknown) 500 cfs (2.99 ft); Jan. 24 (2 a.m.) 187 cfs (2.12 ft); Feb. 23 (2:30 a.m.) 354 cfs (2.62 ft); Mar. 3 (2 a.m.) 248 cfs (2.31 ft); Mar. 21 (9 a.m.) 414 cfs (2.82 ft); May 12 (2 a.m.) 95 cfs (1.70 ft); May 28 (6 a.m.) 87 cfs (1.62 ft).

* Discharge measurement or observation of no flow made on this day.
a No gage-height record; discharge estimated on basis of 1 discharge measurement, weather records, and records for nearby streams.

b Stage-discharge relation affected by ice.

Humboldt River at Battle Mountain, Nev.

Location.--Lat 40°39', long 116°56', in SE $\frac{1}{4}$ sec. 8, 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 1897, March 1921 to April 1924, January 1946 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 4,600 ft (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.--11 years (1921-22, 1946-56), 297 cfs (215,000 acre-ft per year).

Extremes.--Maximum discharge during year, 1,560 cfs June 5 (gage height, 9.18 ft); minimum daily, 0.1 cfs for many days in October, November and September.

1921-24, 1946-56: Maximum daily discharge, 5,800 cfs May 3, 4, 1952; no flow Sept. 8 to Oct. 22, 1948, Sept. 21-26, 1949.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Records do not include flow in secondary channels or ditches, much of which is used for irrigation. Many diversions for irrigation above station.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 25 to Jan. 28, Feb. 27 to Mar. 22, June 15 to July 1)

0.9	0.1	1.3	3.8	2.5	90	6.0	721
1.0	.2	1.4	6.6	3.0	146	7.0	971
1.1	.6	1.6	15	4.0	291	8.0	1,230
1.2	1.8	2.0	44	5.0	486	9.2	1,570

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0.1	19	142	b240	245	1,220	1,010	1,430	687	64	2.3
2	.1	.1	*21	168	b215	256	1,190	1,030	*1,480	659	59	2.0
3	.1	.1	21	157	b215	279	1,130	1,010	1,500	615	56	1.7
4	.1	.1	b20	153	b215	330	1,080	978	1,540	572	52	1.8
5	.1	.1	b21	148	b210	404	1,050	946	1,550	540	48	2.2
6	.1	.1	21	144	b220	466	1,030	921	1,540	495	45	1.8
7	.1	*.1	b16	141	b215	447	958	918	1,510	454	43	1.6
8	.1	.1	b13	141	b210	441	896	921	1,500	418	40	1.3
9	.1	.1	14	138	b210	420	841	924	1,480	*384	38	1.0
10	.1	.1	b18	140	b210	451	808	896	1,440	350	36	.9
11	.1	.1	22	131	b210	490	788	874	1,400	326	32	.6
12	.1	.2	b22	128	b215	526	794	876	1,370	293	27	.6
13	.1	.3	b22	130	b215	533	806	906	1,330	268	*24	.5
14	.1	.3	b22	139	b215	*520	836	916	1,300	247	21	.4
15	.1	.4	b21	152	b210	520	881	*926	1,320	227	18	.5
16	.1	.4	b22	208	b190	504	888	938	1,320	212	16	.4
17	.1	.4	b25	a350	b200	473	896	921	1,310	191	14	.4
18	.1	.5	32	a540	b190	458	*861	871	1,290	180	12	.4
19	.1	.6	36	a470	b180	477	804	801	1,280	156	11	.4
20	.1	.6	40	a450	b190	577	761	726	1,280	*144	9.2	.4
21	.1	.7	b42	a470	b200	758	744	680	1,240	133	7.6	.3
22	.1	.8	47	a480	b220	891	731	656	1,220	126	6.6	.2
23	.1	4.3	44	a500	b240	961	724	687	1,200	118	6.0	.2
24	.1	8.0	53	517	b230	1,010	724	736	1,180	109	5.1	.2
25	.1	17	144	a500	b220	1,050	734	811	1,090	101	4.3	.2
26	.1	14	174	a500	b215	1,100	764	888	*981	96	3.8	*.2
27	.1	14	164	a500	252	1,150	804	851	904	92	3.1	.1
28	.1	16	174	*508	250	1,190	831	1,060	844	86	2.9	.2
29	.1	16	185	b490	248	*1,210	871	1,160	786	82	3.1	.2
30	.1	16	153	b400	-----	1,220	948	1,250	728	78	2.9	.2
31	.1	-----	145	b340	-----	1,230	-----	1,340	-----	70	2.7	-----
Total	3.1	111.6	1,773	9,374	6,250	20,587	26,393	28,526	38,323	8,509	713.3	23.2
Mean	0.10	3.72	57.2	302	216	664	880	920	1,277	274	23.0	0.77
Ac-ft	6.1	221	3,520	18,590	12,400	40,830	52,350	56,580	76,010	16,880	1,410	46
Calendar year 1955: Max			397	Min	0.1	Mean	59.3	Ac-ft	42,960			
Water year 1955-56: Max			1,550	Min	0.1	Mean	384	Ac-ft	278,800			

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for other Humboldt River stations.

b Stage-discharge relation affected by ice.

HUMBOLDT RIVER BASIN

Reese River near Ione, Nev.

Location--Lat 38°51', long 117°28', in sec. 4, 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 1956.

Gage--Water-stage recorder. Altitude of gage is 7,350 ft (from topographic map). Prior to Sept. 9, 1955, at site 200 ft upstream at different datum.

Average discharge--5 years, 10.4 cfs (7,530 acre-ft per year).

Extremes--Maximum discharge during year, 512 cfs July 27 (gage height, 4.86 ft), from rating curve extended above 45 cfs on basis of slope-area determination of peak flow; minimum daily, 1.1 cfs Nov. 2.

1951-56: Maximum discharge, that of July 27, 1956; minimum daily, 0.6 cfs Sept. 2-14, 1955.

Remarks--Records fair except those above 45 cfs, which are poor. No diversion above station.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 19-26)

Oct. 1 to May 18

May 19 to Sept. 30

0.6	1.0	1.3	13	0.1	2.6	1.0	15
.7	1.8	1.5	22	.3	3.5	1.3	28
.9	4.2	1.7	34	.5	5.2	1.6	47
1.1	7.7			.7	8.1	1.9	75

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	1.3	2.1	4.2	b1.7	b2.5	12	24	59	15	5.5	3.2
2	1.4	1.1	1.6	3.8	b1.6	2.7	10	25	58	14	5.2	3.1
3	1.2	1.4	1.7	4.1	b1.6	3.0	8.8	26	57	14	5.1	3.0
4	1.2	1.5	1.5	3.7	b1.8	b2.9	10	31	56	13	5.0	3.1
5	1.2	1.6	1.9	3.7	b2.0	b1.5	11	31	54	13	4.9	3.0
6	1.3	1.7	2.4	3.0	b2.2	b1.8	10	32	52	*12	4.8	3.0
7	1.2	1.6	2.2	2.9	b2.3	b3.0	12	31	48	12	4.7	3.0
8	1.2	1.6	2.1	2.9	b2.3	*b3.2	12	30	45	11	4.7	3.0
9	1.2	1.6	2.5	3.6	b2.3	b3.4	*13	30	*43	11	*4.5	3.0
10	1.2	1.6	2.1	3.6	b2.4	b3.7	16	30	41	11	4.1	3.0
11	1.3	1.6	2.4	3.2	b2.4	b3.5	16	28	39	11	4.1	3.0
12	1.3	1.2	2.5	*3.3	b2.5	b3.5	15	28	38	11	3.8	3.0
13	1.3	1.2	2.0	3.2	b2.3	b3.0	15	26	36	11	3.8	2.9
14	*1.3	b1.2	2.4	3.3	b2.2	b3.3	12	24	36	11	3.7	2.9
15	1.4	1.2	2.1	5.0	b2.1	b3.0	12	24	36	10	3.7	2.9
16	1.4	1.3	b2.0	5.3	b2.0	b4.2	12	26	32	10	3.6	2.9
17	1.3	1.6	b1.8	b2.9	b1.9	b7.9	12	28	29	9.8	3.5	2.8
18	1.3	2.0	b1.8	b3.3	b2.0	8.6	12	*34	26	9.6	3.5	2.8
19	1.4	2.1	b1.7	b3.2	b2.2	7.1	13	39	26	9.4	3.5	2.8
20	1.4	2.2	b1.6	3.6	b2.3	6.4	16	46	24	11	3.4	3.2
21	1.5	1.9	2.1	3.7	b2.3	8.8	18	55	23	10	3.4	3.1
22	1.6	*1.3	2.9	3.8	b2.3	11	20	60	21	10	3.4	3.0
23	1.5	1.3	9.2	3.3	b2.3	12	22	63	21	8.0	3.2	2.9
24	1.5	1.6	18	b2.1	b2.3	15	24	73	20	8.0	3.2	2.8
25	1.5	1.6	12	b2.5	b2.3	15	24	71	19	7.0	3.2	2.8
26	1.6	1.9	9.1	b2.6	b2.4	14	24	67	18	6.0	3.2	2.8
27	1.5	2.0	b6.4	b2.0	b2.4	10	26	70	17	*20	3.2	2.8
28	1.4	2.0	b4.1	b2.0	b2.5	11	24	67	16	9.4	3.2	2.8
29	1.5	2.0	3.8	b2.0	b2.5	12	24	60	15	7.1	3.2	2.7
30	1.6	2.0	3.8	b1.8	-----	14	24	59	15	6.1	3.2	2.7
31	1.5	-----	4.1	b1.8	-----	15	-----	58	-----	5.7	3.2	-----
Total	42.6	48.2	115.9	99.4	63.4	216.0	479.8	1,297	1,020	327.1	120.7	88.0
Mean	1.37	1.61	3.74	3.21	2.19	6.97	16.0	41.8	34.0	10.6	3.89	2.93
Ac-ft	84	96	230	197	126	428	952	2,570	2,020	649	239	175

Calendar year 1955: Max 18 Min 0.6 Mean 4.24 Ac-ft 3,070

Water year 1955-56: Max 73 Min 1.1 Mean 10.7 Ac-ft 7,770

Peak discharge (base, 130 cfs)--July 27 (8:20 p.m.) 512 cfs (4.86 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

HUMBOLDT RIVER BASIN

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Humboldt River near Valmy, Nev.

Location--Lat 40°48', long 117°04', in NE 1/4 sec. 30, T. 34 N., R. 44 E., on left bank 3 1/2 miles east of Valmy and 13 miles northwest of Battle Mountain.

Records available--March 1950 to September 1956.

Gage--Water-stage recorder. Altitude of gage is 4,440 ft (from topographic map).

Extremes--Maximum discharge during year, 1,250 cfs June 7, 8; maximum gage height, 7.73 ft June 7; no flow Oct. 1 to Dec. 7, Sept. 16-30.
1950-56: Maximum daily discharge, 5,800 cfs May 5, 6, 1952; no flow most years for many days during late summer.

Remarks--Records good except those for periods of ice effect or no gage-height record, which are fair. Flow bypassing station at high stages not included in this report. Diversions for irrigation above station.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 27, 28, Apr. 4)

0.8	0	1.3	7.0	3.0	262
.9	.5	1.5	15	5.0	643
1.0	1.5	1.7	27	7.0	1,060
1.1	2.8	2.0	62	7.8	1,250
1.2	4.5	2.4	135		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		(*)	0	b127	b300	242	948	792	968	746	80	6.2
2			0	b116	219	236	974	822	1,030	697	74	5.2
3			0	b127	210	248	964	850	1,080	661	69	4.3
4			0	b124	b210	276	*974	863	1,130	628	65	3.6
5			*0	122	b215	325	954	866	1,180	593	59	3.0
6			0	116	b220	*368	928	858	1,220	557	55	2.5
7			0	112	b220	436	910	850	1,250	521	51	2.5
8			.1	110	b220	434	881	852	*1,250	482	47	1.9
9			6.8	112	b220	428	840	844	1,240	*443	45	1.4
10			4.9	110	b220	415	804	*842	1,230	409	41	1.4
11			7.0	112	b220	434	774	838	1,220	378	39	.8
12			8.0	106	b215	465	*750	822	1,200	354	36	.4
13			10	102	215	492	750	808	1,180	322	*32	.2
14			11	a110	225	499	764	808	1,180	299	27	.2
15			10	a160	b220	496	764	810	1,160	276	25	.1
16			14	a170	b200	496	770	806	1,150	258	22	0
17			15	a160	b210	486	784	804	1,140	236	20	0
18			17	a300	b210	465	792	802	1,130	213	18	0
19			21		b200	455	790	788	1,110	194	17	0
20			22		b210	469	766	758	1,110	172	15	0
21			29		b220	523	736	715	1,100	159	14	0
22			34		215	595	713	676	1,090	146	12	0
23			45	a495	b240	645	699	657	1,070	135	10	0
24			49		b230	690	692	667	1,050	129	9.4	0
25			52		b220	734	690	692	1,040	120	8.4	0
26			114		b230	764	695	727	*1,020	114	7.4	*0
27			163		b240	792	715	760	984	*106	7.0	0
28			177	*501	246	816	742	798	940	104	7.4	0
29			b161	482	244	834	762	832	875	98	7.4	0
30			b139	b430	-----	858	772	881	806	91	7.4	0
31			b135	b360	-----	902	-----	928	-----	87	6.7	-----
Total	0	0	1,244.8	8,624	6,464	16,340	24,117	24,814	33,113	9,728	934.1	33.7
Mean	0	0	40.2	278	223	527	804	800	1,104	314	30.1	1.12
Ac-ft	0	0	2,470	17,110	12,820	32,410	47,840	49,220	65,680	19,300	1,850	67

Calendar year 1955: Max 310 Min 0 Mean 51.3 Ac-ft 37,170
Water year 1955-56: Max 1,250 Min 0 Mean 343 Ac-ft 248,800

* Discharge measurement or observation of no flow made on this day.
a No gage-height record; discharge estimated on basis of weather records, engineers' notes, and records for nearby streams.
b Stage-discharge relation affected by ice.

HUMBOLDT RIVER BASIN

Humboldt River at Comus, Nev.

Location.--Lat 41°00', long 117°19', in SE $\frac{1}{4}$ sec. 14, T. 36 N., R. 41 E., on left bank at Comus section house of Southern Pacific Railroad, 9 miles northeast of Golconda and 32 miles northwest of Battle Mountain.

Records available.--September 1917 to June 1923, May 1925 to May 1926, February 1946 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 4,350 ft (from topographic map). Prior to February 1946, staff gage at site half a mile downstream at different datum.

Average discharge.--15 years (1917-22, 1946-56), 261 cfs (189,000 acre-ft per year).

Extremes.--Maximum discharge during year; 1,200 cfs June 10, 11, 15, 16; maximum gage height, 8.10 ft June 12; no flow Nov. 3.
1917-23, 1925-26, 1946-56: Maximum discharge, 5,860 cfs May 6, 1952 (gage height, 11.52 ft); no flow during periods in 1918-20, 1954-56.

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

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	*0.1	0.1	100	b310	264	779	679	795	886	90	2.2
2	.2	.1	.1	b100	b260	260	811	694	836	816	82	1.8
3	.2	.1	.1	b100		256	859	719	861	756	75	1.5
4	.1	.1	.1	b100		262	*888	792	912	705	71	1.0
5	.1	.1	*.1	b100		283	859	864	990	664	65	.9
6	.1	.1	.1	b95		320	881	883	1,050	624	60	*.6
7	.1	.1	.1	b95		370	871	925	1,100	584	*53	.6
8	.1	.1	.1	b95		*412	871	955	1,140	540	50	.5
9	.1	.1	.1	93	b220	422	883	920	1,180	498	46	.5
10	.1	.1	.1	93		418	874	920	1,190	450	41	.5
11	.1	.1	.1	92		408	845	886	1,180	410	39	.5
12	.1	.1	.1	92		428	816	857	1,180	*376	36	.5
13	.1	.1	.1	87		454	786	842	*1,180	344	32	.5
14	.1	.1	.1	106		474	788	821	1,170	316	28	.5
15	.1	.1	.1	150		486	781	806	*1,200	289	25	.4
16	.1	.1	.1	157		488	770	802	1,180	268	22	.4
17	.1	.1	.1	126		492	770	802	1,170	249	19	.4
18	.2	.1	.1	165	b210	488	767	799	1,160	230	17	.5
19	.2	.1	.1	272		476	767	804	1,140	212	15	.6
20	.2	.1	.1	360		464	772	792	1,160	198	13	.6
21	.2	.1	.8	418	b220	474	765	772	1,130	180	11	.5
22	.1	.1	1.0	432	b230	506	733	740	1,110	169	10	.4
23	.1	.1	1.4	512	b240	546	706	703	1,120	157	9.5	.4
24	.1	.1	.5	510	b230	572	681	672	1,110	149	8.5	.4
25	.1	.1	.4	484	b220	590	*624	*657	1,080	137	7.5	.4
26	.2	.1	3.6	*474	b230	609	626	655	1,060	129	6.5	.4
27	.1	.1	.28	482	b250	646	637	670	1,040	*120	6.0	.4
28	.1	.1	b70	b475	b260	666	644	694	1,020	114	5.4	.4
29	.1	.1	b110	b470	b260	679	648	721	982	112	4.5	.4
30	.1	.1	b105	b450	-----	694	664	744	930	106	3.3	.4
31	.1	-----	b105	b400	-----	735	-----	765	-----	98	2.6	-----
Total	3.8	3.0	427.7	7,685	6,620	14,642	23,178	24,355	32,358	10,886	953.6	19.1
Mean	0.12	0.10	13.8	248	228	472	773	786	1,079	351	30.8	0.64
Ac-ft	7.5	6.0	848	15,240	13,130	29,040	45,970	48,310	64,180	21,590	1,890	38

Calendar year 1955: Max 236 Min 0 Mean 39.2 Ac-ft 28,370

Water year 1955-56: Max 1,200 Min 0.1 Mean 331 Ac-ft 240,200

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

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 1956.

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.--13 years (1943-56), 24.0 cfs (17,380 acre-ft per year).

Extremes.--Maximum discharge during year, 154 cfs Mar. 27 (gage height, 2.72 ft); minimum, 5.6 cfs Sept. 20.

1921-28, 1943-56: 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 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

1.5	3.0	2.0	39
1.6	8.1	2.4	88
1.8	22	2.8	159

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.6	6.1	7.1	14	14	16	77	70	60	7.1	7.1	6.6
2	6.6	6.1	6.6	14	13	20	69	64	51	8.1	7.1	6.6
3	6.6	*6.6	6.6	14	*13	21	60	61	49	8.1	7.1	6.1
4	6.1	6.6	6.6	13	12	34	50	59	45	8.1	6.6	6.6
5	6.6	6.6	6.6	13	12	47	45	61	42	8.1	6.6	6.6
6	8.1	6.6	6.6	14	13	36	*42	69	41	8.1	6.6	6.6
7	6.1	6.6	*6.6	14	13	28	44	77	39	8.1	6.6	6.1
8	6.1	6.6	6.6	14	13	*24	40	73	35	8.1	6.6	6.1
9	6.1	6.6	6.6	13	12	23	43	71	29	8.1	*6.6	6.1
10	6.6	6.6	6.6	12	11	24	48	75	25	7.6	6.6	6.1
11	6.6	6.6	6.6	12	11	29	51	74	21	7.6	6.6	6.1
12	6.6	6.6	6.6	11	14	27	56	74	19	7.1	6.6	6.1
13	6.6	6.6	6.6	13	14	17	62	77	17	7.1	6.6	6.1
14	6.1	6.6	6.6	*13	16	18	69	74	*14	7.1	6.6	6.1
15	6.6	6.6	6.6	27	16	17	74	68	15	7.1	6.1	6.1
16	6.1	6.6	6.6	27	12	16	71	62	14	7.1	6.6	6.1
17	6.1	6.6	7.1	*48	10	15	62	57	18	7.1	6.6	6.1
18	6.1	6.6	7.1	*81	9.4	19	57	57	22	7.1	6.6	6.1
19	6.1	6.6	7.6	73	9.4	30	57	57	18	7.1	6.6	6.1
20	6.1	6.6	8.7	65	13	43	53	60	17	*7.1	6.6	6.6
21	6.1	6.6	8.7	59	14	60	56	64	16	7.1	6.6	6.6
22	6.1	6.6	8.1	50	14	66	57	65	15	7.1	6.6	6.6
23	6.1	6.6	9.4	48	16	71	59	70	14	7.1	6.6	6.6
24	6.1	6.6	17	66	16	82	*64	78	14	7.1	6.6	6.6
25	6.1	6.6	20	69	18	108	68	*85	14	7.1	6.6	6.6
26	6.1	6.6	29	44	18	133	77	85	13	7.1	6.6	6.6
27	6.1	6.6	27	32	17	146	84	96	13	7.1	6.6	6.6
28	6.1	6.6	23	28	16	133	88	98	13	7.1	6.6	*6.6
29	6.1	6.6	18	23	15	96	91	96	11	7.1	6.6	6.6
30	6.1	6.6	14	21	-----	81	80	85	8.7	7.1	6.6	7.1
31	6.1	-----	15	17	-----	75	-----	73	-----	7.1	6.6	-----
Total	193.6	197.0	325.8	962	394.8	1,555	1,854	2,235	722.7	229.1	205.6	191.5
Mean	6.25	6.57	10.5	31.0	13.6	50.2	61.8	72.1	24.1	7.39	6.63	6.38
Ac-ft	384	391	646	1,910	783	3,080	3,680	4,430	1,430	454	408	380

Calendar year 1955: Max 29 Min 5.6 Mean 9.31 Ac-ft 6,740

Water year 1955-56: Max 146 Min 6.1 Mean 24.8 Ac-ft 17,980

Peak discharge (base, 35 cfs).--Jan. 18 (8 p.m.) 88 cfs (2.32 ft); Mar. 5 (11 p.m.) 55 cfs (2.10 ft); Mar. 27 (10 p.m.) 154 cfs (2.72 ft); Apr. 14 (9 p.m.) 81 cfs (2.30 ft); Apr. 28 (7 p.m.) 101 cfs (2.45 ft); May 7 (6 p.m.) 78 cfs (2.31 ft); May 27 (9 p.m.) 106 cfs (2.52 ft).

* Discharge measurement made on this day.

HUMBOLDT RIVER BASIN

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 north-east of Paradise Valley.

Drainage area.--172 sq mi.

Records available.--October 1921 to September 1956.

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.--34 years (1921-26, 1927-56), 29.5 cfs (21,360 acre-ft per year).

Extremes.--Maximum discharge during year, 1,200 cfs Jan. 15 (gage height, 5.49 ft); minimum, 3.7 cfs Nov. 12.

1921-56: Maximum discharge, 9,000 cfs Jan. 21, 1943 (gage height, 11.1 ft, site and datum then in use), by slope-area determination of peak flow; minimum, 1.8 cfs Feb. 6, 1945.

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

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 22 to Sept. 19, Sept. 28-30)

1.3	3.0	2.2	77
1.4	5.9	2.5	131
1.6	15	3.0	257
1.9	40	4.0	601

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.9	5.9	7.8	26	13	19	70	97	121	22	6.6	5.2
2	5.9	5.6	8.0	23	16	45	61	100	111	21	6.3	4.9
3	5.9	5.9	7.8	21	*20	45	55	104	106	20	6.6	4.9
4	5.9	*5.9	5.9	20	22	37	53	123	100	19	6.3	5.2
5	5.9	5.9	4.9	24	23	23	61	115	85	17	6.3	5.2
6	5.9	5.6	5.6	22	20	15	*56	109	76	15	6.3	5.2
7	5.9	5.6	*7.0	28	17	15	63	115	67	15	6.3	4.9
8	5.9	5.9	7.4	19	15	*27	69	106	66	14	6.3	4.9
9	5.9	5.6	8.2	15	14	46	70	107	67	13	*5.9	5.2
10	5.6	5.6	7.8	19	15	28	82	106	66	12	5.9	5.2
11	5.9	5.6	8.6	17	16	17	91	109	64	12	5.9	5.2
12	5.9	5.6	8.2	17	18	17	79	100	59	12	5.9	5.2
13	5.9	4.9	8.6	20	18	18	82	93	57	11	5.6	5.2
14	6.3	5.9	8.6	*35	15	17	87	87	*56	10	5.6	5.2
15	6.3	6.3	8.2	*506	12	16	76	83	56	10	5.6	5.2
16	6.3	6.3	8.6	*346	6.3	37	80	87	50	10	5.6	4.9
17	6.3	7.0	10	134	9.1	52	82	95	46	9.5	5.6	4.9
18	6.3	7.8	9.5	95	12	88	80	111	41	9.1	5.6	4.9
19	6.3	9.1	14	79	14	90	97	123	41	*8.6	5.6	4.9
20	5.9	8.2	34	67	15	98	109	142	41	7.8	5.6	4.9
21	6.3	7.8	38	58	21	107	117	163	37	7.8	5.6	4.9
22	6.3	6.2	350	66	27	142	125	172	35	7.8	4.9	4.9
23	5.9	6.6	538	106	24	182	140	182	32	7.8	4.9	4.9
24	5.9	6.3	204	53	14	202	*142	197	31	7.4	4.9	4.9
25	5.9	6.1	90	47	13	202	129	*167	30	7.0	4.9	4.9
26	6.3	7.4	70	41	14	165	149	158	28	7.0	4.9	4.9
27	6.3	7.4	56	35	13	111	133	165	27	9.5	5.2	4.9
28	6.3	7.0	42	25	14	95	117	135	25	9.1	5.2	*5.6
29	6.3	7.0	30	27	15	90	104	121	24	7.8	5.2	5.6
30	5.9	7.8	26	23	-----	93	98	117	23	7.4	5.2	5.6
31	5.9	-----	26	12	-----	85	-----	123	-----	6.6	5.2	-----
Total	187.4	193.8	1,658.7	2,026	465.4	2,224	2,757	3,612	1,668	353.2	175.5	152.4
Mean	6.05	6.46	53.5	65.4	16.0	71.7	91.9	123	55.6	11.4	5.66	5.08
Ac-ft	372	384	3,290	4,020	923	4,410	5,470	7,560	3,310	701	348	302
Calendar year 1955: Max 538 Min 4.6 Mean 17.8 Ac-ft 12,880												
Water year 1955-56: Max 538 Min 4.9 Mean 42.8 Ac-ft 31,090												

Peak discharge (base, 100 cfs).--Dec. 23 (8:30 p.m.) 1,060 cfs (5.14 ft); Jan. 15 (8:30 p.m.) 1,200 cfs (5.49 ft); Jan. 23 (5 to 6 a.m.) 167 cfs (2.65 ft); Mar. 2 (6:30 p.m.) 190 cfs (2.72 ft); Mar. 9 (7:30 p.m.) 123 cfs (2.42 ft); Mar. 23 (10:30 p.m.) 298 cfs (3.11 ft); Apr. 26 (8 a.m.) 167 cfs (2.67 ft); May 4 (11:30 a.m.) 135 cfs (2.53 ft); May 24 (2 to 3 a.m.) 210 cfs (2.83 ft).

* Discharge measurement made on this day.

Humboldt River near Rose Creek, Nev.

Location.--Lat 40°52', long 118°00', in NW $\frac{1}{4}$ sec. 36, T. 35 N., R. 35 E., on right bank $\frac{5}{8}$ miles southwest of Rose Creek and $15\frac{1}{2}$ miles southwest of Winnemucca.

Records available.--April 1948 to September 1956.

Gage.--Water-stage recorder.

Average discharge.--8 years, 242 cfs (175,200 acre-ft per year).

Extremes.--Maximum discharge during year, 950 cfs June 26 (gage height, 5.06 ft); minimum, 5.8 cfs Dec. 4, result of freezeup.

1948-56: Maximum discharge, 5,810 cfs May 8, 1952 (gage height, 11.41 ft); minimum, that of Dec. 4, 1955.

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

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 4, to Sept. 30)

Oct. 1 to Jan. 21

Jan. 22 to Sept. 30

0.6	5.8	1.5	68	1.2	30	3.0	322
.8	14	1.9	117	1.6	68	4.0	600
1.1	32	2.2	162	2.0	121	5.1	950
				2.5	207		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	*12	15	18		300	448	478	564	874	164	51
2	10	13	15	15		282	470	487	561	844	157	50
3	9.5		15	15		275	495	521	576	825	150	48
4	10	12	12	25		271	512	582	576	808	142	47
5	10	12	(*)	37		264	535	597	597	783	136	46
6	10	12		45		259	*547	550	642	754	132	*44
7	9.5		b14	55	b230	271	556	538	642	710	*127	43
8	9.5	12		81		*278	564	588	651	672	128	42
9	9.5	13		86		295	576	642	741	639	121	42
10	10	13		84		314	576	635	728	606	117	41
11	10	13	16	*87		325	506	636	697	561	111	41
12	10	b12	15	93		343	518	621	691	490	106	40
13	10	b12	15	95	b220	345	576	612	700	462	101	40
14	10	b11	15	104	b210	353	579	597	719	448	97	39
15	10	b10	15	108	b215	366	606	639	*748	423	93	39
16	10	b11	15	108		369	591	666	770	401	88	39
17	10	b12	16	109		377	558	697	754	377	86	38
18	10	b14	17	138		392	521	669	759	*364	83	38
19	10	17	17	149	b220	390	538	648	773	343	80	37
20	10	15	18	148		396	573	642	792	322	78	40
21	10	15	18	159		390	541	624	805	302	73	38
22	11	15	18	195	189	385	561	606	808	287	68	38
23	11	14	18	255	226	379	573	*618	854	266	64	37
24	11	b14	19	304	b240	388	564	645	877	235	61	36
25	11	b13	19	312	b245	401	*491	648	920	224	60	36
26	12	13	19	322	b240	425	541	591	940	215	58	36
27	11	14	19	*327	280	442	576	588	920	201	57	35
28	11	14	19	b320	285	473	561	558	927	195	56	35
29	11	14	18	b300	297	453	553	556	924	185	54	34
30	11	14	18	b290	---	439	515	588	904	178	53	34
31	11	-----	18	b280	-----	459	-----	512	-----	171	52	-----
Total	319.0	389	505	4,644	6,727	11,099	16,291	18,577	22,539	14,165	2,953	1,201
Mean	10.3	13.0	16.3	150	232	358	543	599	751	457	95.3	40.0
Ac-ft	633	772	1,000	9,210	13,340	22,010	32,310	36,850	44,700	28,100	5,860	2,380

Calendar year 1955: Max 176

Min 8.3

Mean 29.5

Ac-ft 21,340

Water year 1955-56: Max 940

Min 9.5

Mean 272

Ac-ft 197,200

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

Humboldt-Lovelock Irrigation, Light & Power Co.'s feeder canal near Imlay, Nev.

Location--Lat 40°40', long 118°12', in NE $\frac{1}{4}$ 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 1956.

Gage--Water-stage recorder. Altitude of gage is 4,170 ft (from topographic map).

Extremes--No flow for entire year.

1946-56: Maximum discharge, 117 cfs Apr. 25, 1952 (gage height, 3.69 ft); no flow for long periods.

Remarks--This canal diverts water from Humboldt River in NW $\frac{1}{4}$ sec. 29, T. 33 N., R. 35 E., for storage in Taylor-Pitt Reservoir near Humboldt. Water is released during irrigation season, 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.

Humboldt River near Imlay, Nev.

Location--Lat 40°41'30", long 118°12'10", in SE $\frac{1}{4}$ 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 1956.

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--17 years, 162 cfs (117,300 acre-ft per year).

Extremes--Maximum discharge during year, 882 cfs June 30 (gage height, 6.48 ft); minimum, 4.3 cfs Oct. 1, 3, 4.

1935-41, 1945-56: 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. Humboldt-Lovelock Irrigation, Light & Power Co.'s feeder canal diverts water from river above station to Pitt-Taylor Reservoirs. This water is ordinarily released during irrigation season through Rye Patch Reservoir to Humboldt River for irrigation in Lovelock district. No diversion into Pitt-Taylor Reservoir this water year. Flow affected by many other diversions for irrigation above station.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.6	3.3	1.6	57	5.0	583
.7	5.5	2.0	97	6.0	780
1.9	12	3.0	223	6.5	880
1.2	27	4.0	396		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.6	9.8	15	18		280	428	534	534	868	174	51
2	4.8	9.5	14	20		282	423	498	574	845	166	49
3	4.8	9.1	14	18		275	448	505	566	828	158	48
4	4.6	11	b11	18		264	473	537	536	818	152	47
5	4.8	11	b11	20		257	490	589	581	810	144	*46
6	5.0	10	b12	25		*252	515	608	608	782	138	44
7	5.2	10	b12	38	b210	245	524	*581	640	756	132	44
8	5.5	9.5	b14	*38		252	532	570	644	720	127	42
9	5.2	9.8	b14	58		258	547	610	656	*686	124	42
10	5.2	9.8	b19	65		274	562	652	698	652	119	40
11	*5.8	10	20	67		294	*553	650	702	617	115	40
12	6.1	9.5	18	69		304	509	650	*680	577	108	39
13	6.1	7.0	19	78		320	528	640	676	511	104	38
14	6.1	8.8	18	66		324	581	630	688	482	98	38
15	6.4	b6.1	16	98	207	331	591	615	710	465	94	38
16	6.1	b8.1	16	100	b200	344	606	644	732	443	89	37
17	6.4	b9.8	19	96	187	351	559	668	749	418	85	37
18	6.1	*11	18	97		358	543	690	742	394	82	36
19	6.4	15	19	115		365	530	670	730	376	80	36
20	7.0	20	18	128		378	549	650	758	355	77	39
21	7.2	18	18	136	b210	380	574	642	774	335	75	38
22	7.5	15	20	146		380	553	629	782	315	71	37
23	7.5	12	23	172		374	570	615	788	294	67	36
24	7.8	11	20	212	229	371	581	627	812	270	63	36
25	8.4	12	21	267	241	380	568	648	828	241	60	35
26	8.4	16	21	282	242	392	509	650	856	226	59	35
27	8.8	16	20	*294	237	416	560	612	872	220	57	34
28	9.1	14	18	286	264	421	589	604	872	205	56	33
29	9.5	13	16	b280	272	436	579	572	878	195	55	33
30	9.5	14	b18	b260	-----	421	566	572	878	186	53	33
31	9.1	-----	20	b230	-----	414	-----	592	-----	*179	52	-----
Total	205.0	345.8	532	3,817	6,279	10,393	16,170	18,954	21,543	15,070	3,034	1,181
Mean	6.61	11.5	17.2	123	217	335	539	611	718	486	97.9	39.4
Ac-ft	407	686	1,060	7,570	12,450	20,610	32,070	37,590	42,730	29,890	6,020	2,340
Calendar year 1955: Max	146			Min	0.8		Mean	25.2	Ac-ft	18,280		
Water year 1955-56: Max	878			Min	4.6		Mean	266	Ac-ft	193,400		

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

HUMBOLDT RIVER BASIN

197

Rye Patch Reservoir near Rye Patch, Nev.

Location.--Lat 40°28'15", long 118°18'20", in NE $\frac{1}{4}$ 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 1956.

Gage.--Mercury-indicating gage. Datum of gage is at mean sea level (Southern Pacific Railroad datum).

Extremes.--Maximum contents during year, 61,570 acre-ft July 7 (elevation, 4,119.38 ft); minimum, 803 acre-ft Oct. 1 (elevation, 4,084.70 ft).
1936-56: 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 elevation 4,072.5 ft (sill of trash-rack structure) and 4,133.0 ft (top of spillway gates). Dead storage negligible. Elevation of spillway (gage sill) is 4,116 ft. Water is used for irrigation on Humboldt project.

Cooperation.--Records of daily elevation furnished by Pershing County Water Conservation District of Nevada.

Capacity table, water year 1955-56 (elevation, in feet, and contents, in acre-feet)

4,084	680	4,095	4,800	4,110	24,540
4,087	1,310	4,100	8,620	4,115	39,800
4,090	2,270	4,105	14,390	4,120	55,420

Contents, in acre-feet, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	803	1,420	2,410	3,670	10,320	22,340	41,150	52,180	44,470	59,950	51,500	42,570
2	821	1,430	2,470	3,720	10,630	22,590	42,500	51,660	44,560	60,320	51,350	42,760
3	830	1,450	2,510	3,780	10,910	22,950	41,800	51,350	44,340	60,630	51,350	41,460
4	838	1,490	2,530	3,810	11,310	23,560	42,190	50,090	44,340	60,820	51,350	40,650
5	856	1,520	2,580	3,840	11,830	24,170	42,800	49,770	44,340	61,070	51,080	39,910
6	866	1,540	2,600	3,890	12,330	24,800	43,420	49,150	44,340	61,380	50,770	39,040
7	887	1,570	2,620	3,950	12,780	25,070	43,650	49,040	44,560	61,570	50,510	38,240
8	908	1,620	2,660	3,970	13,180	25,330	44,790	48,990	44,880	61,190	50,300	37,580
9	918	1,650	2,700	4,030	13,610	25,990	45,110	48,730	45,380	60,760	50,040	36,960
10	939	1,680	2,720	4,110	13,890	26,780	45,750	47,520	45,560	60,510	49,880	36,440
11	960	1,710	2,750	4,230	14,180	27,320	46,160	47,610	46,520	60,380	49,880	35,850
12	981	1,740	2,790	4,350	14,640	27,610	46,700	48,110	46,840	60,070	49,560	35,430
13	1,000	1,760	2,840	4,470	14,960	28,040	47,380	47,520	47,020	59,760	49,250	34,840
14	1,010	1,790	2,880	4,620	15,450	28,750	47,070	46,840	47,430	59,200	48,990	34,250
15	1,040	1,820	2,930	4,830	16,010	29,320	47,750	47,110	48,310	58,970	48,830	33,900
16	1,060	1,840	2,980	5,030	16,470	30,030	48,520	47,070	48,730	58,170	48,620	33,600
17	1,080	1,870	3,040	5,230	16,650	30,640	49,510	46,930	50,400	58,050	48,460	33,240
18	1,110	1,900	3,090	5,420	16,740	31,400	50,190	46,750	50,720	58,050	48,200	33,020
19	1,140	1,960	3,110	5,600	16,920	32,010	50,510	46,880	51,190	57,010	48,020	32,620
20	1,140	2,000	3,160	5,810	17,290	32,620	50,610	46,840	52,130	56,840	47,840	32,380
21	1,150	2,030	3,210	6,080	17,650	33,410	50,820	46,930	52,390	56,550	47,750	32,320
22	1,180	2,090	3,240	6,320	18,140	34,060	51,140	46,880	53,440	56,320	47,610	32,170
23	1,210	2,100	3,290	6,650	18,750	34,870	51,350	46,680	54,820	55,920	47,520	31,950
24	1,220	2,140	3,360	6,930	19,150	35,360	51,550	46,520	55,170	55,630	47,290	31,860
25	1,250	2,180	3,410	7,360	19,460	36,170	51,660	46,360	55,660	55,000	46,930	31,740
26	1,270	2,230	3,460	7,750	20,090	36,860	51,870	45,560	56,210	54,710	46,610	31,620
27	1,290	2,290	3,510	8,230	20,530	37,380	51,610	45,700	56,780	54,300	45,610	31,560
28	1,320	2,310	3,560	8,860	20,980	37,890	52,130	45,110	57,530	53,670	45,200	31,430
29	1,350	2,350	3,620	9,320	21,430	38,590	51,970	45,020	58,450	53,440	44,540	31,510
30	1,380	2,370	3,640	9,710	-----	39,100	52,290	45,020	59,090	53,020	43,880	31,190
31	1,390	-----	3,640	10,070	-----	40,180	-----	44,790	-----	52,650	43,420	-----
(+)	4,087.30	4,090.25	4,093.00	4,101.50	4,108.70	4,115.10	4,117.78	4,116.25	4,118.98	4,117.85	4,115.94	4,112.38
(+)	+604	+980	+1,270	+6,430	+11,360	+18,750	+12,110	-7,500	+14,300	-8,440	-9,230	-12,230

Calendar year 1955..... † -1,850
Water year 1955-56..... † +30,404

† Elevation, in feet, at end of month.

† Change in contents, in acre-feet.

Humboldt River near Rye Patch, Nev.

Location.--Lat 40°27'33", long 118°18'30", in NE¼ 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 1956. 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.--42 years (1899-1909, 1910-16, 1917-22, 1930-32, 1935-41, 1943-56), 204 cfs (147,700 acre-ft per year).

Extremes.--Maximum discharge during year, 758 cfs May 4 (gage height, 4.04 ft); minimum not determined, occurred during period of no gage height record, 1896-1922, 1924-32, 1935-41, 1943-56: Maximum discharge, 4,720 cfs May 11, 12, 1952 (gage height, 10.26 ft); no flow at times during years.

Remarks.--Records good except those for periods of no gage-height record, which are poor. Flow completely regulated by Rye Patch Reservoir (see preceding page). Many diversions for irrigation above station. Records of chemical analyses and water temperatures for the water year 1956 are given in WSP 1453.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 14 to May 13)

1.3	47	3.0	410
1.8	131	3.6	584
2.4	257	4.2	771

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							0.1	581	510	530	271	364
2							102	639	507	596	234	361
3							103	733	492	587	227	372
4							99	752	475	611	227	383
5							142	723	463	676	243	*391
6			0.1			(**)	142	710	410	692	257	380
7							142	*673	388	557	212	340
8					(**)		137	657	359	657	185	315
9					0.2		135	726	315	*664	185	257
10							199	692	293	664	195	257
11	(*)						*227	664	320	664	179	257
12							241	692	*333	667	178	257
13							241	685	328	626	178	255
14							230	682	330	617	193	230
15							208	688	293	593	202	195
16	0.1	0.1			0.1	0.1	221	685	241	536	227	180
17							243	685	214	475	236	185
18		(**)					281	710	219	460	239	193
19							315	704	212	492	225	180
20							325	623	283	504	206	123
21			.2				340	602	364	475	191	114
22							346	630	330	446	191	112
23					.1		359	698	303	407	214	60
24							399	704	322	427	267	71
25							407	704	399	421	279	77
26							410	701	460	407	279	57
27					(**)		438	698	472	416	293	58
28							486	651	438	396	310	86
29							498	581	383	346	308	86
30							536	542	410	293	325	86
31							-----	530	-----	*279	351	-----
Total	3.1	3.0	5.2	4.6	2.9	3.1	7,952.1	20,735	10,866	16,281	7,306	6,282
Mean	0.10	0.10	0.17	0.15	0.10	1.10	265	669	562	525	236	209
Ac-ft	6.1	6.0	10	9.1	5.8	6.1	15,770	41,130	21,550	32,290	14,490	12,460
Calendar year 1955: Max	356				Min 0	Mean 29.3		Ac-ft 21,170				
Water year 1955-56: Max	752				Min 0.1	Mean 190		Ac-ft 137,700				

* Discharge measurement made on this day.

** Field estimate made on this day.

Note.--No gage-height record Oct. 1 to Apr. 1; discharge estimated on basis of 1 discharge measurement and 4 field estimates.

Humboldt River near Lovelock, Nev.

Location.--Lat 40°03', long 118°28', in NE $\frac{1}{4}$ 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 1956.

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.--15 years (1913-16, 1918-22, 1924, 1927, 1950-56), 97.1 cfs (70,300 acre-ft per year).

Extremes.--Maximum discharge during year, 64 cfs June 18 (gage height, 3.16 ft); minimum, 0.2 cfs July 17. 1912-27, 1950-56: Maximum discharge, 3,540 cfs May 19, 1952 (gage height, 9.36 ft); no flow for several months during many years prior to construction of Rye Patch Dam.

Remarks.--Records good except those for periods of ice effect, which are fair. Flow regulated by Rye Patch Reservoir (since Feb. 20, 1936) and affected by irrigation in Lovelock Valley.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-25, May 2 to July 23)

0.9	0.2	1.2	2.2	1.5	10
1.0	.5	1.3	4.0	1.8	24
1.1	1.1	1.4	6.6	2.1	45

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.8	2.2	0.6	3.3	b1.8	1.4	1.3	1.8	0.8	4.2	30	2.0
2	1.8	2.2	1.0	3.0	1.8	1.5	1.3	1.6	0.6	2.6	27	2.2
3	1.8	2.3	b1.0	2.8	1.8	1.3	1.5	2.0	4.7	2.3	23	33
4	1.6	2.3	b.7	2.6	1.9	1.3	1.9	1.8	16	2.3	19	33
5	1.8	2.6	.6	3.3	b1.9	1.0	1.6	3.6	12	2.6	16	*1.9
6	1.8	2.8	1.3	3.0	b1.9	*1.1	1.8	23	11	3.1	16	1.9
7	1.8	2.8	b1.5	2.4	b2.2	1.3	1.9	*27	7.2	6.0	16	2.4
8	1.8	2.6	1.5	*b2.2	b2.4	1.3	1.4	22	12	7.9	15	1.9
9	1.6	2.6	1.5	2.2	b2.3	1.2	1.4	13	6.0	*3.8	14	1.8
10	1.8	2.4	1.4	3.1	2.2	1.1	1.5	5.8	2.0	2.0	12	1.1
11	*1.8	2.3	1.3	2.8	2.2	1.0	*1.6	2.0	2.0	3.6	12	1.3
12	2.4	b2.2	1.3	2.8	2.6	1.2	1.6	4.4	*1.9	5.0	12	1.3
13	1.8	b2.2	1.4	2.6	2.2	1.2	4.9	.9	2.6	5.2	12	3.2
14	.8	b2.2	1.5	3.0	2.0	1.2	2.2	1.1	4.0	10	20	3.8
15	.8	b2.3	1.5	3.1	b1.9	1.1	1.8	3.0	7.9	1.5	16	2.8
16	1.7	b2.3	1.6	3.3	b1.9	1.1	1.9	9.6	18	.5	3.3	8.5
17	3.0	b2.5	1.8	2.6	b1.5	1.1	1.5	7.5	22	.4	6.3	14
18	2.2	*3.3	1.9	3.1	b1.4	1.1	1.3	2.0	42	5.8	11	18
19	1.9	4.0	1.9	3.6	1.5	1.0	1.5	1.2	16	12	11	21
20	1.9	3.1	1.8	3.3	2.0	1.1	2.0	2.2	13	.6	12	26
21	2.0	2.6	2.0	3.3	1.9	1.2	2.2	33	1.1	.9	13	24
22	2.0	b2.3	2.2	3.8	1.6	1.3	2.2	10	2.3	2.9	13	27
23	2.0	1.9	2.4	4.0	1.4	1.3	2.3	.9	3.8	8.5	13	28
24	1.9	b1.5	3.8	3.6	1.6	1.3	2.3	.7	3.6	7.1	13	32
25	1.9	b1.2	3.8	3.6	1.4	1.3	2.3	.7	3.8	1.4	14	38
26	2.2	1.3	4.0	4.8	1.5	1.3	2.4	1.1	3.1	1.6	20	22
27	2.3	1.1	3.1	*6.1	1.5	1.0	7.6	2.6	4.2	2.3	24	20
28	2.3	1.0	b2.0	3.3	1.6	.8	2.8	3.0	15	1.5	20	20
29	2.3	1.0	b2.2	3.1	1.5	.6	2.0	7.8	13	1.5	15	14
30	2.2	1.0	2.3	b2.3	-----	.5	1.9	3.1	5.8	3.0	4.5	12
31	2.3	-----	2.0	b1.8	-----	.7	-----	1.0	-----	*20	2.8	-----
Total	59.3	66.1	56.9	97.8	53.4	34.9	63.9	199.4	257.6	131.9	455.9	418.1
Mean	1.91	2.20	1.84	3.15	1.84	1.13	2.13	6.43	8.59	4.25	14.7	13.9
Ac-ft	1.8	131	113	194	106	68	127	396	511	262	904	829

Calendar year 1955: Max - Min 0.1 Mean 1.78 Ac-ft 1,290
Water year 1955-56: Max 42 Min 0.4 Mean 5.18 Ac-ft 3,760

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

PYRAMID AND WINNEMUCCA LAKES BASIN

Pyramid Lake near Nixon, Nev.

Location.--Lat 39°50'30", long 119°28'00", in SE $\frac{1}{4}$ SE $\frac{1}{4}$ 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 to 1925 (occasional elevations in some years), June 1926 to September 1956 (occasional elevations in each year).

Gage.--Benchmark 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. From January 1934 to September 1955, elevations were determined from benchmark 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). Prior to January 1934, elevations were determined from benchmark No. 1 of General Land Office using elevation of 3,882.26 ft, adjustment of 1912 (to convert these records to supplementary adjustment of 1956, add 0.81 ft).

Extremes.--1926-56: Maximum elevation observed, 3,848.75 ft June 1926; minimum observed, 3,801.68 ft Nov. 15, 1950.

Revisions (water years).--WSP 880: 1934-38 (benchmark). WSP 1090: 1926(M).

Elevation, in feet, October 1955 to September 1956

Oct. 20.....	3,801.90	Apr. 10.....	3,804.10
Jan. 10.....	3,802.67	June 7.....	3,805.45
Feb. 24.....	3,803.19	July 19.....	3,805.56

Truckee River near Truckee, Calif.

Location.--Lat 39°17'30", long 120°12'30", in SW $\frac{1}{4}$ NE $\frac{1}{4}$ 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 1956.

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

Average discharge.--11 years (1945-56), 358 cfs (259,200 acre-ft per year).

Extremes.--Maximum discharge during year, 7,760 cfs Dec. 23 (gage height, 7.92 ft), from rating curve extended above 1,500 cfs on basis of slope-area determinations at gage heights 7.62 and 7.92 ft; minimum, 63 cfs Feb. 17.

1944-56: Maximum discharge, that of Dec. 23, 1955; maximum gage height, that of Dec. 23, 1955; minimum, 11 cfs Jan. 27, 1948.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Flow regulated by Lake Tahoe (operating capacity about 730,000 acre-ft).

Revisions.--WSP 1394: Drainage area.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 22

Dec. 23 to Sept. 30

1.5	67	3.0	870	1.1	72	4.0	1,820
1.6	140	4.0	1,620	1.5	164	5.0	2,920
2.0	275	5.0	2,800	2.0	358	6.0	4,100
2.5	545	6.0	3,950	3.0	990	7.0	5,800

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	355	113	166	159	a125	1,380	195	372	1,390	247	119	86
2	355	111	163	146	a120	1,370	172	392	1,390	223	116	84
3	330	108	163	153	116	1,370	161	454	1,450	214	*114	84
4	350	163	160	151	112	1,350	164	703	1,370	204	112	84
5	325	163	163	128	103	1,340	181	537	1,230	201	110	84
6	320	157	210	126	101	1,350	204	504	1,110	*192	107	84
7	316	152	184	114	96	1,340	237	426	1,120	195	105	84
8	316	149	181	103	92	1,330	254	377	962	204	103	82
9	316	149	*134	103	90	1,330	280	372	454	204	103	82
10	263	149	178	99	90	1,330	299	325	479	192	101	82
11	219	154	172	94	98	1,320	272	299	448	167	101	84
12	213	152	169	92	86	1,300	240	272	451	133	99	84
13	218	149	169	96	86	1,200	217	247	414	136	99	84
14	221	146	140	125	88	591	201	240	442	131	96	84
15	221	146	78	590	84	584	189	261	955	128	96	82
16	221	152	76	*524	80	591	182	312	934	126	96	82
17	218	157	76	311	80	598	201	362	934	128	96	82
18	214	157	80	240	248	612	223	431	976	126	96	82
19	218	163	153	a220	*622	626	261	479	1,100	133	96	88
20	218	175	292	a210	1,340	539	316	599	1,290	126	96	86
21	218	188	403	a200	1,410	237	358	696	1,280	114	94	86
22	218	163	3,260	236	1,410	*161	404	794	1,300	110	*94	84
23	218	160	*5,280	257	1,430	181	436	*857	1,310	105	92	82
24	218	160	1,090	a230	1,430	214	504	766	1,290	107	90	184
25	218	157	541	a200	*1,420	243	479	675	990	121	90	442
26	210	157	521	a180	1,410	243	414	675	584	346	90	436
27	176	157	379	a170	1,410	214	*343	612	524	582	90	431
28	*175	160	312	a150	1,400	208	316	612	343	675	88	420
29	175	163	*240	a140	1,380	220	321	1,400	312	668	88	426
30	163	163	195	a140	-----	233	343	1,450	272	510	88	426
31	113	-----	175	a130	-----	223	-----	1,420	-----	131	86	-----
Total	7,475	4,593	15,541	5,671	16,745	23,828	8,377	17,920	27,074	6,979	3,051	4,691
Mean	241	153	501	183	577	769	279	578	902	225	98.4	156
Ac-ft	14,830	9,110	30,850	11,250	33,210	47,260	16,620	35,540	53,700	13,640	6,050	9,300
Calendar year 1955: Max	5,280			Min	74		Mean	302		Ac-ft	218,900	
Water year 1955-56: Max	5,280			Min	76		Mean	388		Ac-ft	281,500	

* Discharge measurement made on this day. a No gage-height record; discharge estimated on basis of trend of flow, weather records, record for Little Truckee River near Hobart Mills, and unpublished record for Truckee River at Tahoe City.

Prosser Creek near Boca, Calif.

Location.--Lat 39°23', long 120°07', in NW¼ 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.--51 sq mi, approximately.

Records available.--April 1889 to November 1890, October 1902 to June 1903 (gage heights only), June 1951 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 5,574.66 ft above mean sea level (levels by Bureau of Reclamation). April 1889 to November 1890 and October 1902 to June 1903, staff gages at same site at different datums.

Average discharge.--5 years, 103 cfs (74,570 acre-ft per year).

Extremes.--Maximum discharge during year, 4,560 cfs Dec. 23 (gage height, 8.13 ft), from rating curve extended above 890 cfs on basis of slope-area determination of peak flow; minimum, 4.9 cfs Nov. 13.

1951-56: Maximum discharge, that of Dec. 23, 1955; minimum, 4.0 cfs Sept. 7, 1955. Flood of November 20, 1950, reached a stage of 9.0 ft (present datum), from flood-marks (discharge 4,320 cfs by slope-area study).

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair; and those for period of shifting control, which are poor.

Rating tables, water year 1955-56, except periods of ice effect or shifting control (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 23

Dec. 23 to Sept. 30

1.0	7.0	2.5	152	5.0	1,060	-0.7	11	0.5	144	3.0	1,130
1.2	15	3.0	257	6.0	1,876	-1.5	22	1.0	247	5.0	2,270
1.6	40	3.5	393	7.1	2,490	-1.3	37	1.5	395	6.6	3,490
2.0	78	4.0	573			0	63	2.0	610		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.4	8.1	17	146	80		190	339	406	170	46	16
2	7.4	8.5	b17	140			170	384	392	152	40	16
3	7.0	8.5	b18	130			*160	388	438	137	37	16
4	7.0	8.5	b20	130			177	670	412	134	35	15
5	7.4	8.3	b20	130			191	434	311	129	35	14
6	7.8	10	b25	120	60		225	412	283	125	33	14
7	7.8	9.7	b23	110			264	351	294	124	32	14
8	7.8	9.3	b22	100			267	315	*309	137	31	14
9	7.4	9.3	b21	*100			306	324	324	139	31	14
10	7.8	9.3	b20	100			312	292	339	134	30	14
11	8.5	8.9	b19	100	70	(*)	282	180	307	130	30	14
12	8.5	8.9	b18	100			235	250	309	123	29	14
13	8.1	9.3	b17	100			216	225	300	116	28	14
14	8.1	10	b17	130			201	225	280	109	26	14
15	8.1	15	b17	390			205	257	235	102	26	14
16	8.1	13	b17	*570	70		65	193	309	235	95	13
17	8.1	13	b17	299			70	203	342	223	96	13
18	8.1	12	b17	225			75	233	374	242	97	13
19	8.5	11	76	190			90	*270	*398	264	*36	13
20	9.3	38	187	160			95	321	550	212	96	13
21	9.5	50	*263	150	(*)		110	360	580	205	94	11
22	8.9	b17	2,420	150			*100	392	650	212	92	15
23	8.9	b16	*3,490	150			130	416	*705	235	90	14
24	8.9	b16	981	*140			150	450	640	233	98	14
25	8.9	b16	491	130			160	434	520	202	79	14
26	9.7	b16	507	110	-----		170	361	515	*205	*77	12
27	*11	15	353	100			150	300	502	233	69	12
28	9.7	*15	280	100			160	275	418	237	62	12
29	9.3	15	*216	100			170	233	*409	223	57	12
30	8.9	14	186	100			180	309	430	191	50	17
31	8.5	-----	160	90	-----	-----	190	-----	454	-----	45	17
Total	260.2	429.6	3,938	4,790	2,130	2,975	8,191	12,913	8,311	3,249	906	431
Mean	8.39	14.3	321	155	73.4	96.0	273	417	277	105	26.0	14.4
Ac-ft	516	852	19,710	9,500	4,220	5,900	18,260	25,610	16,490	6,440	1,600	885

Calendar year 1955: Max 3,490 Min 4.6 Mean 74.6 Ac-ft 54,110
 Water year 1955-56: Max 3,490 Min 7.0 Mean 143 Ac-ft 107,900

Peak discharge (base, 500 cfs).--Dec. 23 (5:30 a.m.) 4,560 cfs (8.13 ft); Dec. 26 (4:30 p.m.) 700 cfs (2.18 ft); Jan. 16 (1 a.m.) 800 cfs (2.31 ft); Apr. 9 (7 p.m.) 345 cfs (1.33 ft); Apr. 24 (11 a.m.) 506 cfs (1.83 ft); May 4 (10 a.m.) 765 cfs (2.35 ft); May 23 (12 p.m.) 660 cfs (2.54 ft).
 * Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.--Shifting-control method used 9 p.m. Dec. 21 to 2 a.m. Dec. 23. No gage-height record Jan. 2-13, Jan. 20 to Apr. 2, July 11-24; discharge estimated on basis of 19 discharge measurements, occasional staff-gage readings 2 miles upstream, weather records, and record for Little Truckee River near Hobart Mills.

Little Truckee River near Hobart Mills, Calif.

Location.--Lat 39°30', long 120°16', in 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 1956.

Gage.--Water-stage recorder. Altitude of gage is 6,330 ft (from topographic map).

Average discharge.--9 years (1947-56), 95.3 cfs (68,990 acre-ft per year).

Extremes.--Maximum discharge during year, 5,690 cfs Dec. 23 (gage height, 6.82 ft), from rating curve extended above 1,100 cfs on basis of slope-area determination of peak flow; minimum, 2.8 cfs Sept. 26.

1946-56: 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 determination of peak flow; minimum, 1.1 cfs Aug. 19, 20, 23, 24, 1949.

Remarks.--Records good except those above 1,000 cfs, which are fair. One transmountain diversion to Sierra Valley above station.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 21

Dec. 22 to Sept. 30

0.9	2.9	0.6	2.0	3.0	320
1.0	5.2	.7	3.6	3.5	480
1.1	9.0	.8	5.8	4.0	700
1.3	20	1.0	12.5	4.5	970
1.5	36	1.3	28	5.0	1,350
2.0	99	1.6	53	5.5	1,890
2.5	186	2.0	100	6.0	2,720
		2.5	196	6.5	4,170

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.7	5.0	8.2	135	b70	48	102	325	700	234	9.4	3.6
2	4.7	5.0	8.2	119	b68	45	92	353	680	198	8.0	3.4
3	4.5	5.2	7.9	113	b66	44	*85	420	765	175	8.4	3.3
4	4.5	5.2	7.1	108	b66	44	85	592	750	156	8.0	3.3
5	4.7	6.0	7.9	113	b68	41	94	408	532	135	7.4	3.3
6	4.7	6.0	15	99	*b68	b37	106	367	448	121	7.1	3.1
7	4.7	5.6	14	82	b70	b40	123	323	444	119	7.1	3.0
8	4.7	5.6	12	71	b66	46	137	297	*496	124	7.4	3.0
9	4.5	5.2	12	85	b64	b46	162	302	536	124	7.1	3.0
10	5.0	5.2	10	84	b64	b42	194	261	568	116	7.1	3.1
11	5.6	5.0	9.5	81	b63	*b41	175	242	548	99	7.1	3.3
12	5.2	4.5	9.5	80	62	b40	154	215	512	81	6.8	3.4
13	5.0	4.0	9.0	81	61	b40	133	203	480	70	6.1	3.4
14	4.7	4.7	9.0	87	60	b40	124	218	430	63	5.8	3.3
15	4.7	6.0	8.6	*184	57	b40	114	271	361	56	6.1	3.1
16	4.7	5.6	9.0	302	b53	b41	121	350	334	51	6.1	3.1
17	4.7	6.0	9.0	274	b53	41	131	412	312	50	6.4	3.0
18	4.5	6.0	11	208	b54	b42	150	444	347	49	7.4	3.0
19	5.0	12	36	171	53	47	187	464	378	45	8.0	3.6
20	5.6	29	69	148	51	b47	234	650	317	41	5.4	4.3
21	5.0	26	*151	130	60	b50	278	800	294	37	4.7	3.6
22	5.0	11	1,230	130	60	55	310	904	310	34	*4.3	3.3
23	5.0	9.0	*3,680	133	56	62	350	*1,010	331	36	4.0	3.3
24	5.0	8.2	1,130	114	61	73	387	952	328	37	3.8	3.1
25	5.0	8.2	498	100	60	66	390	850	294	33	3.6	*3.0
26	6.0	8.6	363	70	54	92	336	800	*299	*27	3.8	3.0
27	6.3	8.6	*260	84	52	89	*263	810	334	21	4.0	3.0
28	*5.6	*8.2	230	b85	54	89	246	700	336	17	4.0	5.1
29	5.2	8.2	198	b80	48	99	251	*690	312	12	4.0	8.4
30	5.2	8.2	171	b75	-----	110	284	710	271	11	3.8	8.0
31	5.2	-----	156	b75	-----	110	-----	780	-----	10	3.8	-----
Total	154.9	241.0	8,548.9	3,701	1,742	1,767	5,799	16,103	13,047	2,384	187.2	109.4
Mean	5.00	8.03	276	119	60.1	57.0	193	519	435	76.9	6.04	3.65
Ac-ft	307	478	16,960	7,340	3,460	3,500	11,500	31,940	25,880	4,730	371	217

Calendar year 1955: Max 3,880 Min 2.3 Mean 71.0 Ac-ft 51,410
 Water year 1955-56: Max 3,880 Min 3.0 Mean 147 Ac-ft 106,700

Peak discharge (base, 500 cfs).--Dec. 23 (11 a.m.) 5,690 cfs (6.82 ft); May 4 (3 a.m.) 665 cfs (3.33 ft); May 23 (12 p.m.) 1,130 cfs (4.73 ft); June 10 (12 p.m.) 635 cfs (3.87 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Sagehen Creek near Truckee, Calif.

Location.--Lat 39°25'50", long 120°14'10", in NE $\frac{1}{4}$ 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.--11.1 sq mi.

Records available.--October 1953 to September 1956.

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.

Extremes.--Maximum discharge during year, 495 cfs Dec. 23 (gage height, 4.28 ft), from rating curve extended above 70 cfs on basis of slope-area determination of peak flow; minimum, 1.4 cfs Nov. 13.

1953-56: Maximum discharge, that of Dec. 23, 1955; minimum, 1.3 cfs Aug. 24, 1954.

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

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.4	1.3	1.9	2.9	76
1.5	2.0	2.1	5.3	134
1.6	2.9	2.3	7.7	230
1.7	4.5	2.6	4.1	400

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.9	2.1	2.4	16	b9.5	4.9	21	69	72	23	*4.9	2.6
2	1.9	2.1	2.4	14	b9.0	4.9	19	73	70	21	4.7	2.6
3	1.9	2.1	2.4	13	b9.0	5.1	18	91	72	20	4.7	2.6
4	1.9	2.1	2.3	12	8.9	5.1	20	124	85	18	4.7	2.5
5	1.9	2.2	2.5	11	8.4	5.1	24	92	60	17	4.5	2.5
6	1.9	2.2	7.8	11	8.1	b5.0	27	84	57	16	4.3	2.5
7	1.9	2.2	4.1	10	7.8	b5.0	32	75	54	15	4.1	2.4
8	1.9	2.2	3.2	9.8	7.6	4.9	34	69	54	14	4.1	2.3
9	1.9	2.1	3.0	9.2	7.6	5.1	39	64	52	13	3.8	2.4
10	2.0	2.1	2.8	8.9	7.3	5.1	41	57	51	13	3.8	2.5
11	2.0	2.1	2.7	8.7	*7.1	5.1	36	54	50	12	3.6	2.5
12	2.0	2.1	2.7	8.7	6.8	4.9	32	50	47	12	3.4	2.6
13	1.9	2.0	2.7	8.9	6.8	4.9	30	48	*47	11	3.3	2.5
14	1.9	2.2	2.7	10	6.6	5.1	28	*50	45	10	3.3	2.4
15	1.9	2.2	2.7	34	6.3	4.9	28	55	43	10	3.2	2.4
16	1.9	2.2	2.7	44	6.3	5.4	29	62	40	9.8	3.2	2.4
17	1.9	2.2	2.7	28	6.3	a5.8	32	*65	38	9.2	3.2	2.4
18	*1.9	2.3	2.6	21	5.8	a6.5	37	*67	37	8.7	3.3	2.5
19	2.1	3.3	9.2	18	5.6	a7.0	46	76	37	8.7	3.4	2.9
20	2.1	6.7	24	18	b5.2	a7.5	55	95	34	8.4	3.2	2.8
21	2.0	4.9	28	16	b5.0	*a8.0	60	99	33	8.1	2.9	2.7
22	2.0	2.7	174	17	5.8	11	70	110	32	8.1	2.9	2.6
23	2.0	2.5	*398	20	5.8	13	70	114	32	7.8	2.8	2.5
24	2.0	2.4	96	15	5.4	17	82	106	30	7.6	2.7	2.5
25	2.0	2.3	53	14	5.4	20	77	98	29	7.8	2.7	2.5
26	2.2	2.4	46	12	5.1	20	66	95	28	7.8	2.7	2.5
27	2.2	2.4	34	12	4.9	18	54	88	28	6.8	2.8	*2.4
28	2.1	2.4	27	b11	4.9	19	55	81	28	6.1	2.8	2.5
29	2.1	2.4	24	b10	4.9	22	60	75	27	5.8	2.7	2.5
30	2.1	2.5	21	b10	-----	26	60	75	25	5.4	2.7	2.4
31	2.1	-----	17	b9.5	-----	25	-----	74	-----	5.1	2.7	-----
Total	61.5	75.4	1,005.6	460.7	195.0	306.3	1,286	2,433	1,317	346.2	107.1	75.3
Mean	1.98	2.51	32.4	14.9	6.66	9.88	42.9	78.5	43.9	11.2	3.45	2.51
Ac-ft	122	150	1,990	914	383	608	2,550	4,850	2,610	687	212	149

Calendar year 1955: Max 398 Min 1.7 Mean 8.68 Ac-ft 6,280
water year 1955-56: Max 398 Min 1.9 Mean 20.9 Ac-ft 15,200

Peak discharge (base, 50 cfs).--Dec. 23 (6 a.m.) 495 cfs (4.28 ft); Jan. 15 (8 p.m.) 72 cfs (2.86 ft); Apr. 24 (5 p.m.) 99 cfs (3.08 ft); May 3 (10:30 p.m.) 173 cfs (3.49 ft); May 22 (5:30 p.m.) 145 cfs (3.36 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of 1 discharge measurement and recorded range in stage.

b Stage-discharge relation affected by ice.

PYRAMID AND WINNEMUCCA LAKES BASIN

Truckee River at Reno, Nev.

Location.--Lat 39°32', long 119°47', in sec. 12, T. 19 N., R. 19 E., on left bank 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 1956.

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.--22 years, 826 cfs (598,000 acre-ft per year).

Extremes.--Maximum discharge during year, 20,800 cfs Dec. 23, from rating curve extended above 14,000 cfs; maximum gage height, 13.63 ft Dec. 23; minimum, 86 cfs July 16.
1906-19, 1947-56: Maximum discharge, that of Dec. 23, 1955; maximum gage height, 13.83 ft Nov. 21, 1950; minimum discharge observed, 18 cfs July 2, 3, 1912.

Remarks.--Records good. Flow regulated by Lake Tahoe, Boca Reservoir, Donner and Independence Lakes, and by several powerplants. Many diversions above station.

Rating tables, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 19 to June 26)
(Rate of change in stage used as a factor Dec. 22-26)

Oct. 1 to Dec. 24 June 19 to Sept. 30				Dec. 25 to June 18			
2.0	98	5.0	1,780	3.0	625		
2.2	145	6.0	2,810	4.0	1,250		
2.5	242	8.0	5,430	6.0	3,040		
3.0	450	10.0	9,210	8.0	5,430		
4.0	1,010	12.9	16,320				

Note.--Same as preceding table above 8.0 feet.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	160	276	352	1,390	904	1,890	1,470	1,880	3,150	766	154	132
2	150	265	340	1,450	904	1,900	1,380	1,960	*3,110	672	151	135
3	158	257	332	1,620	852	1,890	1,300	1,980	3,230	586	*165	130
4	158	253	280	1,590	*845	1,890	1,270	2,410	3,240	520	188	130
5	142	280	284	1,840	827	1,850	1,310	2,280	2,880	490	194	154
6	140	269	396	1,520	791	1,820	1,350	2,420	2,620	423	179	157
7	140	272	382	1,240	650	1,790	1,470	2,300	2,520	344	172	163
8	130	269	328	*1,170	645	1,790	1,550	2,110	2,610	360	160	157
9	130	276	336	1,080	625	1,790	1,630	2,130	2,150	400	154	163
10	148	265	320	852	620	1,790	1,720	1,970	2,040	369	149	160
11	154	265	324	702	620	1,780	1,680	1,900	1,850	308	148	169
12	195	284	358	692	625	1,750	1,590	1,820	1,470	194	149	175
13	188	289	320	692	625	1,740	1,540	1,710	1,310	*194	142	175
14	210	309	328	752	625	1,350	1,560	1,650	1,160	163	158	175
15	239	300	352	1,380	686	1,100	1,540	1,630	1,290	140	145	166
16	221	306	328	2,480	708	1,070	1,530	1,710	1,400	*118	142	166
17	221	312	332	1,650	697	1,030	1,520	1,790	1,400	122	148	169
18	235	304	336	1,550	650	1,090	1,570	*1,910	*1,330	132	142	175
19	229	316	644	1,480	645	1,130	1,650	1,990	1,490	140	154	235
20	*250	328	391	*1,410	1,530	*1,240	1,780	2,530	1,680	264	154	284
21	246	414	*820	1,340	1,770	1,060	1,950	2,550	1,860	284	160	246
22	232	332	7,080	1,290	1,630	1,000	2,050	2,620	1,950	214	145	228
23	228	*300	16,200	1,540	1,670	1,070	2,280	2,840	2,000	194	132	224
24	232	296	10,700	1,350	1,530	1,230	*2,300	*2,840	2,070	204	132	207
25	228	254	*5,990	1,280	1,790	1,410	2,380	2,570	1,940	166	130	210
26	246	280	4,350	1,190	1,770	1,510	2,270	2,650	1,280	161	135	212
27	276	276	3,280	1,010	1,760	1,350	1,990	2,650	1,280	431	*135	232
28	308	280	2,500	949	1,790	1,360	1,840	2,380	1,140	446	132	221
29	272	280	2,190	890	1,900	1,420	1,800	2,960	1,060	441	140	218
30	296	324	*1,960	827	-----	1,550	1,830	3,220	898	414	135	224
31	304	-----	1,730	903	-----	1,620	-----	3,280	-----	207	135	-----
Total	5,394	8,727	64,435	59,009	31,640	46,250	51,020	70,420	57,398	9,876	4,637	5,598
Mean	206	291	2,078	1,258	1,091	1,492	1,701	2,272	1,913	319	150	187
Ac-ft	12,680	17,310	127,800	77,370	62,760	91,740	101,200	139,700	113,800	19,590	9,200	11,100

Calendar year 1955: Max 16,200 Min 99 Mean 453 Ac-ft 323,200
Water year 1955-56: Max 16,200 Min 118 Mean 1,080 Ac-ft 784,200

Peak discharge (base, 1,600 cfs).--Dec. 23 (8:30 a.m.) 20,800 cfs (13.63 ft at 11 a.m.); Dec. 26 (1:30 p.m.) 5,260 cfs (7.89 ft); Jan. 5 (6 a.m.) 2,120 cfs (5.07 ft); Jan. 16 (4 a.m.) 3,100 cfs (6.05 ft); Feb. 23 (2 a.m.) 2,040 cfs (5.00 ft); Mar. 31 (1 a.m.) 1,780 cfs (4.74 ft); Apr. 25 (5 a.m.) 2,510 cfs (5.58 ft); May 4 (6 a.m.) 2,780 cfs (5.82 ft); May 24 (4 a.m.) 3,240 cfs (6.28 ft); May 31 (4 a.m.) 3,480 cfs (6.50 ft); June 24 (5 a.m.) 2,170 cfs (5.31 ft).
* Discharge measurement made on this day.

McDermitt Creek near McDermitt, Nev.

Location.--Lat 41°58', long 117°50', in SE $\frac{1}{4}$ SE $\frac{1}{4}$ sec. 8, T. 47 N., R. 37 E., on left bank $\frac{1}{2}$ miles southwest of McDermitt.

Records available.--October 1948 to September 1956.

Gage.--Water-stage recorder and concrete control.

Average discharge.--8 years, 31.8 cfs (23,020 acre-ft per year).

Extremes.--Maximum discharge during year, 2,100 cfs Jan. 15 (gage height, 8.60 ft, from Floodmark), from rating curve extended above 500 cfs on basis of slope-area determinations at gage heights 7.74 and 8.60 ft; minimum, 0.7 cfs Nov. 25, caused by temporary obstruction upstream.

1948-56: Maximum discharge, that of Jan. 15, 1956; no flow Sept. 8-15, 1955; minimum discharge unaffected by regulation, 0.3 cfs Sept. 2, 1955.

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

Revisions (water years).--WSP 1214: 1949-50(P).

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 7 to Dec. 1)

1.6	1.2	2.2	26
1.7	1.9	2.5	26
1.8	3.4	3.0	153
1.9	6.4	4.0	395
2.0	11	5.0	690

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.2	3.0	5.0	37	b26	26	a120	92	63	11	3.6	2.0
2	2.3	*2.6	b4.5	32	*b24	40	a110	87	60	11	3.4	1.9
3	2.3	2.6	b4.0	27	b23	61	a100	89	57	9.8	4.6	1.8
4	2.4	2.5	a3.5	28	b22	52	a100	108	54	9.8	5.0	1.9
5	2.4	2.5	a3.0	26	b21	35	*114	113	54	8.9	4.4	1.9
6	2.5	2.7	*3.6	23	b20	26	106	96	48	6.5	4.4	1.8
7	2.5	2.7	2.7	24		*22	116	99	43	7.6	4.4	1.8
8	2.8	2.5	3.4	21		32	120	96	38	6.8	*4.1	1.6
9	2.4	2.5	4.4	24		48	123	a96	35	6.0	3.8	1.6
10	2.4	2.7	5.6	24		43	136	a115	33	5.0	3.6	1.5
11	2.7	2.8	5.6	19	b15	29	136	a140	32	4.6	3.4	1.5
12	2.8	b2.4	6.0	17		23	116	a165	30	5.0	3.0	1.6
13	2.5	b2.0	5.0	20		30	109	a150	27	6.4	2.8	1.7
14	2.5	2.4	6.4	*20		30	118	a130	*28	7.2	2.5	1.6
15	2.5	2.2	6.0	*690		32	114	a115	30	6.0	2.2	1.4
16	2.4	2.4	7.2	*600	b13	47	114	a105	27	7.6	1.9	1.4
17	2.4	2.7	6.8	169	b16	72	113	a100	26	6.8	1.9	1.4
18	2.4	3.0	6.8	127	b20	94	a115	a102	23	6.4	2.0	1.5
19	2.8	4.6	10	*102		144	a118	a104	21	*6.8	2.4	1.7
20	2.7	6.8	20	92		140	a120	a106	23	6.4	2.3	1.9
21	2.7	7.2	43	80	b21	147	a120	a110	22	6.8	2.2	2.2
22	2.7	b5.8	155	77	b22	203	a124	a115	18	6.8	2.0	2.2
23	2.5	b4.8	*470	151	b22	406	*127	a120	17	6.0	1.8	2.0
24	2.5	b3.5	256	94	b23	497	125	*130	17	5.6	1.8	2.2
25	2.7	b3.2	118	76	b23	413	118	109	17	7.2	1.8	2.2
26	2.7	5.3	99	68	b24	293	147	94	13	7.2	2.2	1.9
27	2.7	5.6	136	54	24	165	140	92	12	7.2	2.5	*1.8
28	2.8	5.0	76	b33	25	142	120	82	11	7.2	2.5	1.8
29	2.8	4.6	43	b29	24	142	104	79	10	6.0	2.5	1.8
30	2.8	4.6	b40	b27	-----	157	101	72	10	4.6	2.4	1.9
31	2.8	-----	43	b26	-----	a140	-----	84	-----	4.1	2.3	-----
Total	79.6	107.4	1,578.5	2,837	608	3,731	3,544	3,275	699	218.3	89.7	53.5
Mean	2.57	3.58	50.9	91.5	21.0	118	106	106	30	7.04	2.89	1.78
Ac-ft	158	213	3,130	5,630	1,210	7,400	7,030	6,500	1,780	433	178	106

Calendar year 1955: Max 470 Min 0 Mean 11.2 Ac-ft 8,090
Water year 1955-56: Max 690 Min 1.4 Mean 48.5 Ac-ft 33,770

Peak discharge (base, 150 cfs).--Dec. 23 (7 p.m.) 1,650 cfs (7.74 ft); Dec. 27 (4 a.m.) 196 cfs (3.21 ft); Jan. 15 (12 p.m.) 2,100 cfs (8.60 ft); Jan. 23 (9 a.m.) 201 cfs (3.23 ft); Mar. 19 (2 to 4 a.m.) 194 cfs (3.12 ft); Mar. 24 (9:30 p.m.) 828 cfs (5.36 ft); Apr. 26 (1:30 p.m.) 165 cfs (2.97 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of discharge measurements, weather records, and records for nearby stations.

b Stage-discharge relation affected by ice.

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.

Records available.--October 1948 to September 1956.

Gage.--Water-stage recorder.

Average discharge.--8 years, 27.2 cfs (19,690 acre-ft per year).

Extremes.--Maximum discharge during year, 1,270 cfs Jan. 15 (gage height, 8.52 ft); minimum, 0.3 cfs Oct. 15, probably caused by temporary storage behind beaver dam.

1948-56: Maximum discharge, that of Jan. 15, 1955; minimum, 0.1 cfs Sept. 6, 7, 1955.

Remarks.--Records good.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 16-22, Jan. 15-22, Mar. 22-25)

Oct. 1 to Dec. 15

Dec. 16 to Mar. 22

Mar. 23 to Sept. 30

2.7	0.5	2.8	5.1	4.5	143	2.0	0.6	3.0	30
2.8	1.6	3.0	12	5.0	222	2.1	1.4	3.5	72
2.9	3.4	3.3	29	6.0	445	2.2	2.5	4.0	132
3.1	8.7	3.5	43	7.0	730	2.4	5.9	4.5	206
		4.0	84			2.6	11		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.9	2.4	4.8	32	b33	13	72	68	54	6.4	1.6	1.1
2	.8	*2.4	4.3	28	*b31	17	64	68	50	6.4	1.8	1.0
3	.7	2.6	4.5	26	30	19	58	67	46	6.1	1.8	1.1
4	.8	2.8	3.0	24	27	17	59	80	44	5.7	1.7	1.1
5	.9	3.0	2.8	36	25	16	*69	73	42	5.5	1.7	1.1
6	.9	3.0	*3.6	32	*24	14	62	71	38	4.9	1.8	1.0
7	.9	3.0	4.1	30	21	*13	71	72	34	4.5	1.8	*1.0
8	.8	3.0	4.3	28	20	17	71	70	32	4.1	*1.6	1.1
9	.8	3.0	5.0	24	19	16	76	70	29	3.5	1.5	1.0
10	.9	3.2	4.5	24	18	17	82	85	26	3.2	1.4	1.1
11	1.1	3.2	5.3	24	19	15	81	118	24	3.2	1.4	1.1
12	1.0	2.8	5.8	23	20	15	76	143	22	3.0	1.3	1.2
13	1.0	2.2	5.8	*24	19	15	79	132	20	2.9	1.2	1.0
14	.9	2.6	4.5	61	18	15	83	105	*20	2.7	1.2	1.0
15	.9	2.6	5.0	*64b	13	13	83	95	21	2.6	1.2	1.0
16	.8	2.8	6.0	*45b	b12	14	85	90	20	2.5	1.1	1.0
17	.9	3.4	6.0	181	18	17	83	86	18	2.5	1.2	1.0
18	.9	3.8	6.6	111	16	23	85	83	16	2.2	1.2	1.0
19	1.1	5.8	14	90	16	42	86	82	15	*2.0	1.2	1.0
20	1.2	6.3	26	76	16	55	88	78	16	2.0	1.1	1.2
21	1.2	5.8	33	70	17	70	88	78	14	2.1	1.0	1.3
22	1.3	4.8	260	102	18	101	92	74	13	2.1	1.0	1.2
23	1.5	4.3	363	111	18	174	*94	73	12	2.0	1.0	1.2
24	1.5	3.8	148	80	14	199	93	*82	11	1.9	1.0	1.1
25	1.6	3.6	95	70	14	203	88	74	10	1.7	1.1	1.2
26	1.9	4.5	81	63	14	164	119	76	9.6	2.1	1.1	1.0
27	2.0	4.5	72	55	14	107	105	61	8.7	3.2	1.2	1.0
28	2.0	4.5	57	46	13	92	84	76	7.9	2.6	1.2	1.2
29	2.2	4.5	44	42	13	94	76	72	7.4	2.2	1.2	1.2
30	2.2	4.3	39	36	-----	93	72	65	6.9	1.8	1.2	1.3
31	2.4	-----	35	b35	-----	82	-----	58	-----	1.7	1.2	-----
Total	38.0	108.5	1,352.9	2,684	550	1,764	2,426	2,545	687.5	99.3	41.0	32.8
Mean	1.23	3.62	43.6	86.6	19.0	56.9	80.9	82.1	22.9	3.20	1.32	1.09
Ac-ft	75	215	2,680	5,320	1,090	3,500	4,810	5,050	1,360	197	81	65

Calendar year 1955: Max 363

Min 0.2

Mean 17.8

Ac-ft 12,860

Water year 1955-56: Max 646

Min 0.7

Mean 33.7

Ac-ft 24,440

Peak discharge (base, 100 cfs).--Dec. 23 (3 p.m.) 1,250 cfs (8.48 ft); Jan. 15 (7 p.m.) 1,270 cfs (8.52 ft); Jan. 22 (6:30 p.m.) 169 cfs (4.58 ft); Mar. 24 (6 p.m.) 294 cfs (5.18 ft); Apr. 26 (9:30 p.m.) 145 cfs (4.06 ft); May 12 (6:45 p.m.) 217 cfs (4.54 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Quinn River near McDermitt, Nev.

Location.--Lat 41°47', long 117°48', in SW $\frac{1}{4}$ sec. 15, T. 45 N., R. 37 E., on left bank $\frac{1}{2}$ miles upstream from Flat Creek and 15 $\frac{1}{2}$ miles south of McDermitt.

Records available.--October 1948 to September 1956.

Gage.--Water-stage recorder. Altitude of gage is 4,240 ft (from river-profile map).

Average discharge.--8 years, 34.2 cfs (24,760 acre-ft per year).

Extremes.--Maximum discharge during year, 423 cfs Mar. 27 (gage height, 4.13 ft); minimum daily, 0.4 cfs Oct. 1-3.

1948-56: 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 except those for periods of ice effect, which are fair. Several diversions for irrigation above station.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 3 to Nov. 2)

Oct. 1 to Dec. 22

Dec. 23 to Sept. 30

0.2	0.2	0.2	0.2	1.5	46
.3	.6	.3	.8	2.0	87
.4	1.3	.4	1.8	2.5	149
.5	2.5	.5	3.4	3.0	225
		1.0	8.0	4.0	399
			19		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	0.6	0.7	15	b32	24	217	178	157	2.4	0.9	0.6
2	.4	*.6	.6	14	b22	24	192	153	122	2.7	.9	.6
3	.4	.6	.7	12		27	157	142	96	2.2	.8	.6
4	.5	.6	.7	b11		30	135	155	76	2.0	.7	.7
5	.5	.6	.7	13		31	*122	166	67	1.8	.7	.7
6	.5	.6	*.7	14	b22	27	115	169	59	1.8	.7	.6
7	.5	.6	.7	*15		*24	114	175	53	1.7	.7	*.6
8	.5	.6	.7	b13		23	106	176	44	1.5	*.7	.6
9	.5	.5	.7	b11		25	109	169	38	1.5	.7	.6
10	.5	.6	.7	11		26	117	180	31	1.4	.7	.6
11	.5	.6	.7	10		25	136	238	25	1.3	.7	.6
12	.6	.6	.7	9.6		23	164	294	24	1.3	.7	.6
13	.7	.6	.7	9.6	b20	24	164	294	22	1.1	.6	.6
14	.7	.6	.7	16		23	160	272	*20	1.1	.6	.6
15	.7	.6	.7	28		23	160	246	21	1.1	.6	.6
16	.6	.6	.7	176	b18	22	156	217	20	1.1	.6	.6
17	.6	.7	.7	*204	b16	23	175	193	19	1.1	.7	.6
18	.6	.7	.7	*135	b15	28	155	172	17	1.1	.7	.6
19	.7	.7	1.3	138	b15	33	135	160	15	*1.1	.7	.6
20	.7	.7	2.1	136	15	41	130	148	15	1.1	.7	.7
21	.7	.7	.9	127	b19	52	128	139	14	1.1	.7	.7
22	.7	.6	1.3	132	b20	69	130	130	12	1.1	.7	.7
23	.7	.7	11	160	b21	117	139	123	11	1.1	.7	.7
24	.7	.6	30	181	b22	212	*143	*150	9.2	1.0	.7	.7
25	.7	.6	34	160	b22	320	150	180	8.9	1.0	.7	.7
26	.7	.7	27	135	b23	392	244	181	7.7	1.0	.7	.7
27	.6	.7	25	125	b23	385	325	201	6.4	1.0	.7	.7
28	.6	.6	22	b80	b23	307	284	211	5.2	1.0	.7	.7
29	.6	.6	b16	b70	b24	261	238	214	4.1	1.0	.6	.7
30	.6	.6	b14	b60	-----	231	206	231	3.2	.9	.6	.7
31	.7	-----	b13	b45	-----	222	-----	195	-----	.9	.6	-----
Total	18.4	18.7	210.1	2,268.2	606	3,092	4,906	5,853	1,022.7	41.5	21.5	19.3
Mean	0.59	0.62	6.78	73.7	20.9	99.7	164	189	34.1	1.34	0.69	0.64
Ac-ft	36	37	417	4,530	1,200	6,130	9,730	11,610	2,030	82	43	38

Calendar year 1955: Max 34 Min 0.3 Mean 1.98 Ac-ft 1,430
Water year 1955-56: Max 392 Min 0.4 Mean 49.4 Ac-ft 35,860

Peak discharge (base, 100 cfs).--Jan. 17 (1 to 2 a.m.) 261 cfs (3.22 ft); Jan. 24 (7 p.m.) 217 cfs (2.95 ft); Mar. 27 (9 a.m.) 423 cfs (4.13 ft); April 16 (10 p.m.) 176 cfs (2.69 ft); April 27 (2:30 a.m.) 345 cfs (3.70 ft); May 12 (2 to 5 p.m.) 300 cfs (3.45 ft); May 30 (5 a.m.) 244 cfs (3.12 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

HONEY LAKE BASIN
Susan River at Susanville, Calif.

Location--Lat 40°25', long 120°40' in NE $\frac{1}{4}$ sec. 31, T. 30 N., R. 12 E., on left bank 0.5 mile west of Susanville and 1.1 miles upstream from Plute Creek.

Drainage area--192 sq mi.

Records available--June 1900 to December 1905 (gage heights only 1902), March to May 1913, February 1917 to June 1921, October 1950 to September 1956.

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--9 years (1917-20, 1950-56), 92.7 cfs (67,110 acre-ft per year).

Extremes--Maximum discharge during year, 3,540 cfs Dec. 23 (gage height, 6.62 ft), from rating curve extended above 840 cfs on basis of slope-area determination of peak flow; minimum, 3.4 cfs Oct. 3.

1900-1905, 1913, 1917-21, 1950-56: Maximum discharge, that of Dec. 23, 1955; minimum, 0.8 cfs Aug. 10, 1918 (site then in use).

Revisions--The figures of maximum discharge for some water years have been revised, as shown in the following table. They supersede those published in the water-supply papers indicated.

WSP	Water year	Date	Discharge (cfs)	Gage height (feet)
1244	1951	Nov. 19, 1950	1,800	5.30
1284	1953	Jan. 9, 1953	2,260	5.50
1344	1954	Mar. 9, 1954	1,390	4.89

Remarks--Records good except those for periods of no gage-height record or ice effect, which are fair. Flow regulated by McCoy Flat and Hog Flat Reservoirs (combined capacity, 25,300 acre-ft). Diversions for irrigation of about 1,400 acres above station.

Revisions--Revised figures of discharge, in cubic feet per second, for high-water period in 1950 and supplementary peak discharge, for the water year 1952, superseding those published in WSP 1214 and 1244 respectively, are given herewith:

1950	
Nov. 18	883
19	654
20	944
21	940

Month	Cfs-days	Maximum	Minimum	Mean	Run-off in acre-feet
November 1950	4,896	944	16	163	9,710
Water year 1950-51	37,458.6	944	2.5	103	74,310

Revised peak discharge--1951-52: Feb. 1 (12 p.m.) 1,290 cfs (4.80 ft).

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.7	5.5	12	150	90	82	a400	888	352	42	125	10
2	3.6	5.4	12	128	95	93	a530	915	328	42	125	10
3	3.5	5.5	11	115	95	123	*280	942	311	42	126	9.6
4	3.5	6.2	9.6	109	95	142	236	1,240	193	40	126	9.1
5	3.8	6.0	11	108	95	120	352	1,160	178	42	125	8.8
6	3.3	5.4	12	103	100	103	580	1,130	237	40	123	8.6
7	3.8	4.7	14	102	100	93	415	1,030	178	54	122	8.1
8	3.7	6.2	15	100	*97	108	460	960	158	32	118	7.5
9	3.7	6.2	17	104	90	156	490	*897	154	30	117	7.8
10	5.3	6.5	15	97	89	150	542	789	150	27	117	7.8
11	5.8	6.3	14	95	85	145	460	704	145	27	115	7.7
12	4.5	8.3	15	97	85	128	415	352	138	26	115	9.1
13	4.0	8.5	15	127	84	156	435	238	133	32	110	9.2
14	3.9	7.0	14	358	75	*150	450	278	147	30	89	9.1
15	4.0	6.5	13	1,150	70	145	440	340	145	28	*59	9.1
16	4.1	7.2	14	*776	65	167	430	450	*106	26	36	9.0
17	4.0	7.4	19	450	65	214	450	530	87	67	19	9.0
18	4.0	7.6	31	328	85	248	500	560	80	*109	16	9.4
19	*4.1	12	125	296	60	299	609	561	78	109	15	23
20	4.8	28	701	303	61	340	724	608	76	115	15	22
21	4.2	41	864	293	68	388	825	630	71	123	14	16
22	4.1	17	2,490	311	129	425	906	658	65	126	13	13
23	4.1	13	2,340	332	172	456	1,060	644	63	126	12	11
24	4.1	10	948	264	122	548	1,170	595	59	123	12	11
25	4.1	9.6	446	237	102	588	1,340	542	56	126	11	*10
26	5.0	11	624	218	91	581	1,240	500	54	128	11	9.9
27	4.9	11	465	196	84	a501	1,100	470	50	125	11	9.7
28	5.5	11	294	180	82	a480	997	430	48	125	11	11
29	5.6	11	*551	144	91	a430	870	400	45	125	11	10
30	5.5	*11	188	120	-----	a450	870	410	44	125	11	9.1
31	5.5	-----	171	110	-----	a450	-----	380	-----	125	11	-----
Total	134.8	298.2	1,160.8	7,532	2,592	8,447	19,186	20,317	4,129	2,324	1,941	314.6
Mean	4.35	9.94	328	243	89.4	272	640	655	138	75.0	62.6	10.5
Ac-ft	267	591	20,150	14,940	5,140	16,750	38,050	40,300	8,190	4,610	3,850	624

Calendar year 1955: Max 2,490

Min 2.6

Mean 52.2

Ac-ft 38,510

Water year 1955-56: Max 2,490

Min 3.5

Mean 211

Ac-ft 153,500

Peak discharge (base, 300 cfs)--Dec. 20 (6 p.m.) 882 cfs (4.26 ft); Dec. 23 (3:30 p.m.) 3,540 cfs (6.62 ft); Dec. 26 (4 p.m.) 1,110 cfs (4.67 ft); Jan. 15 (4 p.m.) 2,070 cfs (5.54 ft); Jan. 25 (1 a.m.) 435 cfs (3.77 ft); Mar. 24 (7 p.m.) 756 cfs (4.27 ft); Apr. 9 (10 p.m.) 609 cfs (4.07 ft); Apr. 25 (12:30 a.m.) 1,500 cfs (5.05 ft); May 4 (3:30 a.m.) 1,360 cfs (4.92 ft); May 22 (7 p.m.) 700 cfs (4.29 ft).

* Discharge measurement made on this day.

a N. gage-height record; discharge estimated on basis of records for Indian Creek near Crescent Mills.

Note--Stage-discharge relation affected by ice Dec. 5-7, Jan. 28 to Feb. 9, Feb. 14-19.

HONEY LAKE BASIN

209

Willow Creek near Susanville, Calif.

Location--Lat 40°29', long 120°32', in NW $\frac{1}{4}$ 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 1956.

Gage--Water-stage recorder. Datum of gage is 4,836.27 ft above mean sea level, unadjusted.

Average discharge--6 years, 30.6 cfs (22,150 acre-ft per year).

Extremes--Maximum discharge during year, 712 cfs Dec. 23 (gage height, 5.36 ft), from rating curve extended above 420 cfs on basis of logarithmic plotting; minimum, 11 cfs July 8 to Aug. 11.

1950-56: Maximum discharge, that of Dec. 23, 1955; minimum, 8.1 cfs Nov. 16, 1951.

Revisions--The maximum discharge for the water year 1952 has been revised to 694 cfs Apr. 6, 1952 (gage height, 5.32 ft), superseding figure published in WSP 1244.

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.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-5)

2.1	10	3.2	100
2.2	12	3.6	162
2.4	20	4.0	245
2.6	33	4.5	380
2.8	52	5.0	560

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	16	25	96	60	84	77	59	17	12	11	13
2	12	16	25	89	57	68	69	27	16	12	11	13
3	12	16	24	84	54	80	*74	20	16	12	11	12
4	12	16	23	72	54	104	96	20	16	12	11	12
5	12	16	24	65	57	100	100	27	15	12	11	12
6	12	16	25	96	58	80	86	30	15	12	11	12
7	12	16	24	86	57	90	71	30	14	12	11	12
8	12	16	24	74	*54	92	63	27	14	11	11	12
9	12	16	23	95	51	99	59	*29	14	11	11	12
10	13	16	22	101	49	115	59	53	14	11	11	12
11	12	16	22	110	50	118	54	38	13	11	11	12
12	12	16	22	130	51	95	51	41	13	11	12	12
13	12	16	21	225	53	100	71	44	13	11	12	12
14	13	16	21	312	54	*125	114	44	13	11	12	12
15	13	16	21	364	50	148	136	42	*13	11	*12	12
16	13	18	21	*298	39	175	139	38	13	11	12	13
17	13	18	22	185	42	225	124	38	13	11	12	13
18	13	18	23	133	39	270	95	36	13	*11	12	13
19	*13	19	62	114	39	290	83	34	13	11	12	14
20	12	19	201	115	30	300	75	30	13	11	12	13
21	12	20	194	111	30	292	72	29	13	11	12	13
22	12	20	357	103	39	288	72	27	13	11	12	14
23	12	20	559	98	52	272	74	25	13	11	12	14
24	13	20	546	90	68	260	71	23	13	11	12	14
25	13	20	371	55	69	216	70	21	13	11	12	14
26	13	21	357	74	63	204	78	20	13	11	12	*14
27	13	25	348	87	64	158	80	20	13	11	12	14
28	15	25	239	113	64	117	69	18	13	11	13	14
29	15	25	*100	95	63	92	56	18	12	11	13	14
30	15	*25	115	80	-----	78	48	18	12	11	13	14
31	15	-----	108	70	-----	76	-----	18	-----	11	13	-----
Total	395	557	3,964	3,820	1,509	4,791	2,388	904	409	348	365	387
Mean	12.7	18.6	128	123	52.0	155	79.6	29.2	13.6	11.2	11.8	12.9
Ac-ft	783	1,100	7,860	7,580	2,990	9,500	4,740	1,790	611	690	724	768
Calendar year 1955: Max	559				Min 9.6	Mean 24.4	Ac-ft 17,680					
Water year 1955-56: Max	559				Min 11	Mean 51.2	Ac-ft 39,340					

Peak discharge (base, 200 cfs)--Dec. 20 (5 p.m.) 270 cfs (4.10 ft); Dec. 23 (2 p.m.) 712 cfs (5.36 ft); Dec. 26 (4 p.m.) 457 cfs (4.72 ft); Jan. 15 (3 p.m.) 432 cfs (4.65 ft); Mar. 20 (5 p.m.); 335 cfs (4.35 ft).

* Discharge measurement made on this day.

Pine Creek near Westwood, Calif.

Location.--Lat 40°35', long 121°06', in SE $\frac{1}{4}$ sec. 5, T. 31 N., R. 8 E., on right bank 1 mile southwest of Board Guard Station and 19 miles north of Westwood.

Drainage area.--22.6 sq mi.

Records available.--October 1950 to September 1956.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 5,700 ft (from topographic map).

Average discharge.--6 years, 8.94 cfs (6,470 acre-ft per year).

Extremes.--Maximum discharge during year, 174 cfs Dec. 23 (gage height, 3.95 ft), from rating curve extended above 62 cfs parallel to previous curve defined by current-meter measurements to 90 cfs; minimum, 0.1 cfs many days in October and November.
1950-56: Maximum discharge, that of Dec. 23, 1955; no flow Sept. 1, 2, 6-9, 11-13, 1955.

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

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 3-18)

Oct. 1 to Dec. 23

Dec. 23 to Sept. 30

2.4	0.1	3.0	11	2.7	1.6	3.2	23
2.5	.2	3.1	16	2.8	3.4	3.3	33
2.6	.7	3.2	23	2.9	6.6	3.5	66
2.7	1.6	3.3	30	3.0	11	3.9	161
2.8	3.6	3.4	42	3.1	16		
2.9	6.6	3.6	78				

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.1	0.2	0.6	12	3.1	2.4	5.6	44	94	12	5.6	2.8
2	.2	.2	.6	12	3.0	2.4	5.2	48	92	12	5.6	2.6
3	.2	.3	.6	12	3.0	2.5	5.2	57	96	12	5.2	2.6
4	.2	.3	.6	12	3.1	2.4	5.6	79	89	11	5.2	2.6
5	.3	.3	.6	14	3.2	2.2	6.2	76	70	11	5.2	2.6
6	.3	.3	.6	9.8	3.3	2.1	7.0	70	64	10	4.8	2.4
7	.3	.3	.7	7.3	*3.4	2.0	7.7	66	60	9.8	4.8	2.4
8	.3	.3	.7	8.0	3.5	2.0	8.5	68	60	9.3	4.8	2.4
9	.4	.3	.7	9.0	3.5	2.0	9.8	*64	59	8.9	4.5	2.4
10	.7	.2	.7	10	3.6	2.0	10	60	55	8.5	4.2	2.2
11	.6	.2	.7	8.1	3.6	2.0	9.8	53	48	8.5	4.2	2.2
12	.4	.1	.7	7.7	3.6	2.0	9.3	46	43	8.5	4.2	2.2
13	.4	.2	.7	7.3	3.5	2.1	9.3	46	38	8.5	3.9	2.0
14	.3	.2	.7	7.0	3.4	2.2	10	51	38	8.1	3.9	2.2
15	.3	.2	.7	7.7	3.3	2.3	11	64	37	7.7	*3.9	2.0
16	.2	.2	.7	9.8	3.2	2.4	11	76	*30	7.3	3.6	2.0
17	.2	.3	.7	9.8	2.9	2.6	13	83	25	7.0	3.4	2.0
18	.2	.5	.6	10	2.7	2.8	14	85	23	*7.3	3.6	2.6
19	*.4	1.0	2.5	9.3	2.6	3.0	17	96	25	7.3	3.6	5.9
20	.3	16	27	8.9	2.5	3.4	20	112	22	7.3	3.6	3.6
21	.3	4.4	41	8.9	2.4	3.9	22	125	20	7.3	3.4	2.8
22	.3	2.6	78	8.5	2.4	4.5	25	135	18	7.0	3.4	2.4
23	.2	1.0	127	7.7	2.4	4.8	32	135	17	7.0	3.1	2.2
24	.2	.9	60	7.3	2.4	5.2	34	130	16	7.3	3.1	2.2
25	.2	.9	40	7.3	2.3	5.9	38	138	15	7.3	3.1	2.0
26	.5	.8	20	6.2	2.3	6.2	37	128	14	6.6	3.1	*2.0
27	.3	.8	15	5.8	2.3	5.2	35	128	14	6.6	3.1	2.0
28	.3	.8	14	5.4	2.3	5.2	32	120	13	5.9	3.1	2.0
29	.3	.6	14	4.8	2.3	5.6	34	115	12	5.9	3.1	2.0
30	.3	*.6	13	3.8	-----	5.9	38	110	12	5.9	3.1	1.8
31	.2	-----	13	3.3	-----	5.9	-----	101	-----	5.6	2.8	-----
Total	9.4	35.0	476.4	260.7	85.1	105.1	520.2	2,709	1,219	254.4	122.2	73.1
Mean	0.30	1.17	15.4	8.41	2.93	3.39	17.3	87.4	40.6	8.21	3.94	2.44
Ac-ft	19	69	945	517	169	208	1,030	5,370	2,420	505	242	145

Calendar year 1955: Max 127

Min 0

Mean 2.83

Ac-ft 2,050

Water year 1955-56: Max 138

Min 0.1

Mean 16.0

Ac-ft 11,640

Peak discharge (base, 35 cfs).--Dec. 20 (9 a.m.) 39 cfs (3.38 ft); Dec. 23 (6:30 a.m.) 174 cfs (3.95 ft); Jan. 8 (8 p.m.) 37 cfs (3.33 ft); May 4 (9 p.m.) 83 cfs (3.58 ft); May 22 (8 p.m.) 156 cfs (3.88 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 15-17, 24-26, Dec. 3-10, Dec. 28 to Jan. 2, Jan. 8, 9, Jan. 27 to Feb. 20, Feb. 22 to Mar. 19.

Twentymile Creek near Adel, Oreg.

Location.--Lat 42°04', long 119°57', in NW $\frac{1}{4}$ sec. 25, T. 40 S., R. 23 E., on left bank 2 miles downstream from twelvemile Creek 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, March 1921 to June 1922 (published as "near Warner Lake"), September 1940 to September 1956.

Gage.--Water-stage recorder and concrete control. Datum of gage is 4,560.43 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to June 30, 1922, staff gage or water-stage recorder at site three-quarters of a mile downstream at various datums. Sept. 21, 1940, to Nov. 30, 1944, water-stage recorder at site $\frac{1}{2}$ miles upstream at different datum. Mar. 12, 1945, to June 28, 1952, water-stage recorder at site 70 ft upstream at datum 2.9 ft higher.

Average discharge.--21 years (1910-15, 1918-19, 1940-44, 1945-56), 49.8 cfs (36,050 acre-ft per year).

Extremes.--Maximum discharge during year, 3,260 cfs Dec. 23 (gage height, 14.80 ft), from rating curve extended above 300 cfs on basis of contracted-opening determination of peak flow; minimum, 0.3 cfs Dec. 7. 1910-16, 1917-19, 1921-22, 1940-56: Maximum discharge, that of Dec. 23, 1956; no flow part of Sept. 7, 1955.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. Diversions for irrigation of 240 acres above station.

Revisions (water years).--WSP 1090: 1945.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Backwater from diversion dam Oct. 1 to Dec. 22)

Oct. 1 to Dec. 22

Dec. 23 to Sept. 30

0.9	2.0	2.5	175	2.1	1.9	3.5	190	8.0	1,130
1.0	4.8	3.0	250	2.2	3.5	4.0	290	9.0	1,380
1.2	14	4.0	440	2.3	7	5.0	490	10.0	1,670
1.5	36	5.0	650	2.5	25	6.0	690	11.0	1,970
2.0	100			3.0	100	7.0	890		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.8	5.2	8.2	44	26	21	244	104	*129	37	7	3.2
2	3.1	4.8	7.7	31	b25	b23	162	*112	125	40	7	3.2
3	3.1	4.5	7.7	25	b25	b25	164	112	122	34	7	3.2
4	3.1	4.5	b4.5	24	b26	b24	266	143	122	30	6	3.2
5	*3.4	4.5	b5	22	b30	b22	302	127	102	26	6	3.2
6	4.2	4.8	b5.5	22	b28	b20	264	115	90	26	6	3.2
7	3.7	4.5	6.1	21	b26	b22	290	*109	86	24	5.5	3.2
8	3.4	4.5	6.5	20	b25	b24	248	103	90	23	5	3.2
9	3.1	4.8	7.7	17	b25	b25	238	100	91	22	4.5	3.2
10	3.4	5.2	8.2	18	b28	b25	260	104	92	22	4.5	3.2
11	3.4	4.8	9.0	17	31	b25	330	115	88	21	4	3.3
12	3.7	4.5	27	17	31	b35	*292	122	80	21	4	3.3
13	4.0	4.2	78	20	34	b50	210	102	79	*21	4	3.5
14	4.0	b4	64	140	34	90	182	97	92	21	3.5	3.3
15	4.0	b4	34	1,370	28	103	124	86	88	20	3.5	3.3
16	4.0	b5	34	720	25	204	112	97	74	18	3.5	3.3
17	4.0	b6	34	725	b24	328	103	108	66	17	3.5	3.3
18	4.0	7.3	33	235	b22	370	125	117	61	16	3.5	3.3
19	4.0	9.6	562	222	b20	*480	125	141	64	15	3.5	4.2
20	4.0	16	645	233	b22	460	118	164	66	15	3.5	4.9
21	4.0	16	394	169	26	518	120	180	58	14	*3.5	4.6
22	4.0	9.6	452	481	b30	546	125	156	56	12	3.5	4.2
23	4.0	7.7	*1,920	504	b35	728	132	204	52	11	3.3	4.2
24	4.0	7.7	524	165	b34	982	139	194	52	10	3.2	3.6
25	4.0	5.6	184	92	b30	796	136	168	49	9	3.2	3.5
26	4.5	7.7	216	84	b28	492	136	154	46	8	3.3	3.3
27	4.2	7.7	203	64	b25	250	115	137	42	8	3.3	3.3
28	3.7	7.7	88	b50	24	196	108	117	44	8	*3.5	3.5
29	4.5	7.7	70	b40	22	332	103	129	44	7.5	3.3	3.5
30	4.5	7.3	68	35	-----	416	103	132	42	7	3.3	3.5
31	4.5	-----	58	*b30	-----	336	-----	134	-----	7	3.3	-----
Total	118.3	197.4	5,964.1	5,275	789	7,868	5,376	4,017	2,292	570.5	131.7	105.1
Mean	3.82	6.58	192	170	27.2	254	179	130	76.4	18.4	4.25	3.50
Ac-ft	235	392	11,830	10,460	1,560	15,610	10,660	7,970	4,550	1,130	261	208

Calendar year 1955: Max 1,920 Min 0.3 Mean 39.6 Ac-ft 28,690
Water year 1955-56: Max 1,920 Min 2.8 Mean 89.4 Ac-ft 64,870

Peak discharge (base, 400 cfs).--Dec. 19 (9 p.m.) 1,550 cfs (9.37 ft); Dec. 23 (12 m.) 3,260 cfs (14.80 ft); Jan. 15 (4 p.m.) 2,320 cfs (12.12 ft); Jan. 22 (11 p.m.) 896 cfs (7.03 ft); Mar. 24 (8 p.m.) 1,230 cfs (8.39 ft); Mar. 29 (11 p.m.) 594 cfs (5.52 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.--No gage-height record Jan. 30, Feb. 1, July 16 to Aug. 20; discharge estimated on basis of records for Deep Creek above Adel, recorded range in stage when available, and weather records.

WARNER LAKES BASIN

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 May 1915, December 1949 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 5,472.41 ft above mean sea level (Oregon State Highway Department construction survey benchmark). Sept. 11, 1912, to May 9, 1915, water-stage recorder at staff gage at site 500 ft upstream at different datum.

Average discharge.--8 years (1912-14, 1950-56), 51.3 cfs (37,140 acre-ft per year).

Extremes.--Maximum discharge during year, 1,630 cfs Dec. 22 (gage height, 5.15 ft), from rating curve extended above 350 cfs on basis of slope-area determination of peak flow; minimum, 2.4 cfs Nov. 2. 1912-14, 1949-56: Maximum discharge, that of Dec. 22, 1955 minimum, 1.5 cfs Aug. 4, 1955.

Remarks.--Records good except those for periods of ice effect, which are poor. Diversions for irrigation of about 1,200 acres above station.

Revisions.--WSP 410: Drainage area.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 21

Dec. 22 to Sept. 30

0.4	1.5	1.5	59	1.5	59	3.5	455
.5	3.2	2.0	111	2.0	113	4.0	690
.6	6.0	2.5	180	2.5	195	4.5	1,040
.8	15	3.0	275	3.0	305	5.0	1,480
1.1	30						

Note.--Same as preceding table below 1.5 ft.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.4	4.5	16	137	b50	26	162	258	*113	25	9.6	5.4
2	3.4	4.0	b16	91	b52	26	131	280	103	25	9.6	5.1
3	3.4	5.7	b15	70	b55	26	119	*272	97	25	9.6	5.1
4	3.7	5.4	b12	66	60	22	125	396	113	25	9.6	5.1
5	*4.0	5.4	16	61	53	b25	168	360	116	24	9.6	4.8
6	3.4	5.1	19	57	49	b25	*177	354	97	24	9.6	4.8
7	3.2	4.5	24	54	45	b25	217	*318	86	22	9.2	4.8
8	2.8	4.5	24	51	42	24	221	288	76	21	9.2	4.8
9	3.0	4.5	24	b50	42	25	246	268	70	20	8.8	4.8
10	4.0	4.8	21	49	42	b25	285	275	64	19	8.8	4.8
11	5.4	4.2	21	49	41	b25	275	308	61	18	8.4	5.1
12	4.2	b4	49	49	42	b24	248	255	57	18	8.4	5.1
13	3.7	3.7	86	49	38	b24	246	223	53	18	8.4	5.1
14	3.7	b3.5	87	54	35	23	270	195	69	18	8.0	5.1
15	3.7	b3.5	57	257	b34	b24	315	182	86	17	8.0	5.1
16	3.7	b4	46	330	b33	b27	342	188	67	16	7.6	5.1
17	3.7	b4.5	32	237	32	32	330	199	57	16	7.6	5.1
18	3.7	5.1	31	172	32	41	320	206	53	14	8.0	5.1
19	4.0	9.6	69	155	31	57	*363	221	49	*14	8.0	6.4
20	4.2	31	168	132	28	73	381	231	49	14	8.0	6.8
21	4.2	28	266	109	28	82	393	577	44	14	7.6	6.0
22	4.2	b22	*1,160	113	29	92	402	236	38	13	7.6	5.7
23	4.0	b18	772	*104	30	120	420	236	38	12	7.6	5.7
24	4.0	b15	399	87	b30	163	420	221	*36	12	*7.6	5.7
25	4.2	b16	298	73	28	191	384	199	33	12	7.6	6.0
26	5.1	12	248	b70	28	190	375	184	31	12	7.2	5.7
27	5.1	18	190	b65	26	158	318	179	29	11	6.8	5.4
28	4.5	b28	137	b60	27	158	292	157	28	10	*6.4	5.4
29	4.5	*23	132	b55	26	175	268	140	28	10	6.0	5.7
30	5.1	23	152	b52	---	---	208	138	26	10	5.7	5.7
31	5.1	---	158	b50	---	---	195	130	---	10	5.7	---
Total	124.3	324.5	4,725	3,008	1,088	2,331	8,475	7,350	1,868	519	249.8	160.5
Mean	4.01	10.8	152	97.0	37.5	75.2	282	237	62.3	16.7	8.06	5.35
Ac-ft	247	644	9,370	5,970	2,180	4,620	16,810	14,580	3,710	1,030	495	318

Calendar year 1955: Max 1,160 Min 1.8 Mean 36.4 Ac-ft 26,360
 Water year 1955-56: Max 1,160 Min 2.8 Mean 82.6 Ac-ft 59,950

Peak discharge (base, 200 cfs).--Dec. 22 (3:30 p.m.) 1,630 cfs (5.15 ft); Jan. 15 (12 p.m.) 469 cfs (3.54 ft); Mar. 25 (9 p.m.) 251 cfs (2.78 ft); Apr. 10 (11 p.m.) 310 cfs (3.02 ft); Apr. 24 (2 a.m.) 483 cfs (3.58 ft); May 11 (1 a.m.) 357 cfs (3.19 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

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 $\frac{5}{8}$ 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 1956.

Gage.--Water-stage recorder. Datum of gage is 5,076.42 ft above mean sea level (Oregon State Highway Department construction survey benchmark). Prior to May 9, 1923, staff gage at highway bridge at different datum. Dec. 16, 1949, to June 21, 1951, water-stage recorder at site 900 ft upstream at different datum.

Average discharge.--6 years (1950-56), 15.3 cfs (11,080 acre-ft per year).

Extremes.--Maximum discharge during year, 1,100 cfs Dec. 23 (gage height, 3.93 ft), from rating curve extended above 300 cfs; minimum, 2.2 cfs Nov. 15 (gage height, 0.47 ft). 1915, 1922-23, 1949-56: Maximum discharge, that of Dec. 23, 1955; minimum, 1.9 cfs Mar. 1, 1955 (gage height, 0.44 ft).

Remarks.--Records fair except those for periods of ice effect or no gage-height record, which are poor. Diversions for irrigation of about 620 acres above station.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 22				Dec. 23 to Sept. 30			
0.5	2.5	1.2	37	0.6	4.5	1.5	96
.6	4.5	1.5	77	.7	8	2.0	215
.7	6.8	1.7	112	.8	14	2.5	375
.8	10	2.0	175	1.0	29	3.0	585
1.0	20	2.5	320	1.2	51		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.1	4.1	4.3	7.6	b8	7.6	39	a17	*12	8.0	8.6	8.6
2	4.1	4.1	4.1	7.3	b8	8.6	23	*17	10	8.6	8.6	8.0
3	4.1	4.3	4.1	7.3	b8.5	10	22	16	10	8.6	8.6	8.0
4	4.1	4.1	b4.0	7.3	b9	8.0	35	21	11	8.0	8.6	8.0
5	*4.1	4.1	b3.5	7.3	b9	8.0	65	23	12	8.0	8.6	8.0
6	4.1	3.9	b4.0	7.0	8.6	b8	39	22	11	8.0	8.6	8.0
7	3.9	3.9	b4.5	7.0	7.6	b8.5	60	*20	9.8	8.0	8.0	8.0
8	3.9	4.1	b4.5	7.0	7.6	b9.5	39	18	9.2	8.0	8.0	8.0
9	3.9	4.1	b4.5	b7.5	7.3	b9.5	39	a16	8.6	7.6	8.0	8.0
10	4.1	3.7	5.0	7.6	7.0	9.2	54	a15	8.0	7.6	8.0	8.0
11	4.1	3.5	5.0	7.6	7.6	8.6	67	a16	8.0	8.0	8.0	8.0
12	4.1	3.3	6.6	7.6	9.8	8.0	64	a18	8.0	8.0	8.6	8.0
13	3.9	b3.2	11	8.6	9.2	12	47	a20	8.0	8.6	8.0	8.0
14	3.9	b5.1	9.4	15	8.0	16	34	19	10	8.0	8.0	8.0
15	3.9	b3.0	6.3	21.3	7.3	20	32	14	9.8	8.0	8.0	7.6
16	3.7	b3.5	6.3	192	b7	53	31	13	8.6	8.0	8.0	7.6
17	3.9	b4.0	6.1	111	b8	72	27	13	8.0	7.6	8.0	7.6
18	3.9	4.7	6.3	59	b6.5	102	23	12	7.6	7.6	8.0	8.0
19	3.9	5.9	63	36	7.0	149	25	12	8.0	*7.6	8.6	8.6
20	3.9	6.6	121	39	7.3	*203	26	12	8.6	8.0	8.0	8.6
21	3.9	4.7	119	28	9.2	230	27	13	8.0	8.0	8.0	8.0
22	3.9	3.9	347	39	20	233	28	14	8.0	8.0	7.6	8.0
23	3.7	3.7	561	*55	21	302	28	15	8.0	8.0	7.6	7.6
24	3.7	3.7	66	28	12	340	a27	14	8.0	8.0	8.0	7.6
25	3.7	b4.0	27	20	8.6	287	a28	14	9.0	8.0	8.0	7.6
26	4.1	4.1	23	20	8.0	172	a24	13	8.0	8.0	8.0	7.6
27	3.9	4.3	16	13	8.0	87	a22	13	8.0	8.0	8.0	7.6
28	3.9	3.9	12	b13	7.6	65	a20	13	8.0	8.0	*8.6	7.6
29	3.9	*4.1	12	13	7.3	83	a19	13	8.0	8.0	8.6	7.6
30	4.1	4.1	8.0	12	-----	113	a18	13	8.0	8.0	8.6	7.6
31	3.9	-----	8.0	b10	-----	72	-----	12	-----	8.0	8.6	-----
Total	122.3	121.7	1,482.5	1,012.7	258.0	2,714.5	1,029	481	266.2	247.8	254.4	237.4
Mean	3.95	4.06	47.8	32.7	8.90	87.6	34.3	15.5	8.87	7.99	8.21	7.91
Ac-ft	243	241	2,940	2,010	512	5,380	2,040	954	528	492	505	471

Calendar year 1955: Max 561 Min 2.9 Mean 10.4 Ac-ft 7,560
Water year 1955-56: Max 561 Min 3.0 Mean 22.5 Ac-ft 16,320

Peak discharge (base, 150 cfs).--Dec. 19 (7 p.m.) 160 cfs (1.80 ft); Dec. 23 (4 a.m.) 1,100 cfs (3.93 ft); Jan. 15 (5 p.m.) 391 cfs (2.54 ft); Mar. 23 (9 p.m.) 513 cfs (2.84 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of recorded range in stage and records for Deep Creek above Adel and Camas Creek near Lakeview.

b Stage-discharge relation affected by ice.

WARNER LAKES BASIN

Deep Creek above Adel, Oreg.

Location.--Lat 42°11', long 119°59', in E¹/₄ 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 1956 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 (Oregon State Highway Department construction survey benchmark). Prior to Dec. 21, 1922, staff gage at same site and datum.

Average discharge.--28 years (1922-23, 1929-56), 118 cfs (85,430 acre-ft per year).

Extremes.--Maximum discharge during year, 4,540 cfs Dec. 23 (gage height, 7.29 ft), from rating curve extended above 1,300 cfs on basis of slope-area determination of peak flow; minimum, 6.4 cfs Nov. 15 (gage height, 0.40 ft).

1922-23, 1929-56: 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; 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. Diversions for irrigation of about 5,500 acres above station.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 22					Dec. 23 to Sept. 30				
0.5	10	2.0	190	4.0	950	2.0	190	4.0	1,010
.6	14	2.5	310	5.0	1,650	2.5	320	5.0	1,780
.8	25	3.0	470	6.0	2,630	3.0	500	6.0	2,760
1.0	41	3.5	670	6.5	3,270	3.5	730	6.5	3,380
1.5	101								

Note.--Same as preceding table below 2.0 ft.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	18	42	a190	b105	79	452	665	*590	112	23	21
2	11	18	30	a185	*b100	83	354	*725	558	124	23	21
3	11	21	b28	a180	b100	86	329	715	536	114	23	21
4	11	22	b25	170	b110	77	385	992	556	106	23	21
5	*12	21	b27	152	b120	75	468	974	512	95	24	21
6	12	21	28	150	b115	83	452	872	428	91	23	21
7	12	18	28	145	b110	90	552	*790	378	84	23	21
8	12	18	36	119	b106	82	540	755	357	77	23	21
9	11	18	36	b120	b104	83	572	720	360	63	23	20
10	12	18	36	130	b100	80	680	720	364	50	22	20
11	15	16	38	126	110	77	705	860	341	49	21	21
12	16	13	89	121	113	73	620	705	317	50	21	21
13	14	b13	222	124	110	82	580	625	299	60	21	21
14	14	13	196	157	100	84	615	552	376	59	20	21
15	14	b13	146	1,190	97	92	680	520	444	55	19	21
16	14	b15	127	1,200	91	135	730	536	341	56	19	20
17	13	b17	93	721	b80	180	700	585	287	53	20	21
18	14	18	86	556	b75	243	*675	630	252	47	20	20
19	14	26	197	484	b70	363	765	705	252	*40	20	24
20	16	96	563	444	b70	*476	815	795	252	40	21	26
21	16	107	688	347	77	601	872	842	228	39	20	26
22	16	66	2,960	378	104	665	920	866	204	32	19	25
23	15	50	3,360	438	101	893	962	920	178	28	19	24
24	14	56	1,090	305	88	1,080	1,020	898	166	28	*19	24
25	14	b35	689	248	83	1,020	956	805	156	26	19	24
26	16	39	585	228	84	765	950	740	141	26	19	23
27	20	53	468	178	78	540	810	685	134	26	20	23
28	18	60	a350	b160	80	500	740	595	134	25	*20	23
29	18	59	a250	b150	78	564	705	580	127	24	21	23
30	18	49	a220	b130	-----	670	665	605	118	24	21	23
31	18	-----	a200	b110	-----	572	-----	630	-----	23	21	-----
Total	443	987	12,933	9,334	2,759	10,493	20,309	22,605	9,584	1,724	650	661
Mean	14.3	32.9	417	301	95.1	336	677	729	313	55.6	21.0	22.0
Ac-ft	879	1,960	25,650	18,510	5,470	20,810	40,280	44,840	18,610	3,420	1,290	1,310

Calendar year 1955: Max 3,360 Min 5.6 Mean 109 Ac-ft 79,230
Water year 1955-56: Max 3,360 Min 11 Mean 252 Ac-ft 183,000

Peak discharge (base, 600 cfs).--Dec. 23 (5 a.m.) 4,540 cfs (7.29 ft); Jan. 15 (7 p.m.) 2,060 cfs (5.33 ft); Mar. 24 (9 to 10 p.m.) 1,570 cfs (4.79 ft); Apr. 24 (6 to 7 a.m.) 1,110 cfs (4.17 ft); May 4 (6 p.m.) 1,090 cfs (4.13 ft); May 23 (8 to 9 a.m.) 950 cfs (3.90 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records at Lakeview and records for Twenty-mile Creek near Adel and Camas Creek near Lakeview.

b Stage-discharge relation affected by ice.

Honey Creek near Plush, Oreg.

Location.--Lat 42°25', long 119°55', in NW¹/₄ 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 to December 1909 (gage heights only), January 1910 to September 1914, March to May 1915, March to August 1921, March to June 1922, and October 1949 to September 1956 in reports of Geological Survey. April 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 4,538.00 ft above mean sea level, datum of 1929, supplementary adjustment of 1947. Prior to Feb. 23, 1910, staff gage at wagon bridge at Plush 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 Aug. 31, 1921, water-stage recorder, and Mar. 19 to June 30, 1922, staff gage, all at site half a mile upstream from present gage at different datums.

Average discharge.--26 years (1910-14, 1930-41, 1945-56), 26.7 cfs (19,330 acre-ft per year)

Extremes.--Maximum discharge during year not determined, occurred Dec. 22; minimum, 0.1 cfs Oct. 9, 10.

1909-15, 1921-22, 1930-56: Maximum discharge, about 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. About 2,300 acres is irrigated above station.

Revisions.--WSP 410: Drainage area.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 10-16)

Oct. 1 to Dec. 21

Dec. 22 to Sept. 30

-0.1	0.1	0.4	4.6	0.4	0.5	2.0	100
0.0	.2	.7	16	.5	2.0	3.0	208
.1	.6	1.0	32	.6	5.0	4.0	355
.2	1.2	2.0	94	.7	9.0	6.0	730
.3	2.5	2.3	116	1.0	24	7.5	1,100
				1.5	57		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	1.0	3.0	a25	*b16	a15	120	168	*147	28	3.2	1.2
2	.2	1.0	2.6	a24	b18	a15	99	*180	136	35	3.2	1.0
3	.2	1.0	b2	a22	b20	a15	91	178	127	32	3.2	.8
4	.2	1.2	a1.5	b20	b25	a15	180	233	144	29	2.6	.8
5	*.2	1.4	b1.7	b19	b20	a15	107	229	154	25	2.3	.6
6	.2	1.3	1.9	b18	b19	a15	99	207	135	25	2.3	.6
7	.2	.7	2.5	b17	b18	a15	117	*194	108	26	2.3	.8
8	.2	.9	3.2	b16	b17	a16	117	178	89	21	2.0	1.1
9	.1	1.8	3.2	b15	b16	a17	129	183	84	17	1.8	1.0
10	.2	2.1	3.6	b15	b15	*19	161	171	75	*15	1.7	1.0
11	.2	2.1	4.8	b16	b15	17	176	176	72	16	1.7	1.0
12	.2	1.7	12	b25	b15	14	*156	175	68	15	1.6	1.0
13	.2	b1.5	22	40	b15	28	155	175	63	14	1.4	1.0
14	.2	b1.4	13	65	b15	28	164	170	84	14	1.2	1.1
15	.2	a1.3	*9.2	548	b15	28	174	153	106	12	1.2	1.1
16	.2	a1.5	8.4	313	a15	62	188	148	79	10	1.1	1.2
17	.2	a2	5.8	142	a15	101	177	151	68	9.0	1.1	1.4
18	.2	a3	6.4	103	a15	127	185	160	60	7.8	1.2	1.6
19	.3	4.3	8.0	81	a15	*176	191	182	54	*7.4	1.2	1.7
20	.4	10	98	75	a15	178	215	202	56	7.8	1.4	1.7
21	.5	12	111	64	a15	203	243	211	53	8.2	*1.2	2.0
22	.5	4.8	a1000	63	a15	222	264	216	47	7.4	1.1	2.3
23	.6	4.3	a500	63	a15	219	277	253	43	7.0	1.1	2.3
24	.7	3.0	a300	46	a15	268	286	235	45	7.4	1.1	2.3
25	.4	2.5	a200	44	a15	265	266	214	42	6.2	1.7	2.3
26	.8	3.6	a100	41	a15	212	337	196	37	5.8	1.8	2.3
27	.9	3.4	a80	26	a15	146	263	212	32	5.4	2.0	2.3
28	1.1	3.4	a60	24	a15	127	232	190	*29	5.0	2.0	2.6
29	.9	3.2	a40	b20	a15	127	194	168	28	4.4	1.8	3.2
30	1.0	3.0	a35	b18	-----	148	181	176	28	4.1	1.6	3.5
31	.9	-----	a30	a17	-----	143	-----	153	-----	3.8	1.2	-----
Total	12.5	84.4	2,668.8	2,025	469	2,992	5,464	5,837	2,293	430.7	54.3	46.8
Mean	0.40	2.61	86.1	65.3	16.2	96.5	182	188	76.4	13.9	1.75	1.56
Ac-ft	25	167	5,290	4,020	950	5,930	10,840	11,580	4,550	854	108	93
Calendar year 1955: Max	1,000			Min	0.1	Mean	20.4	Ac-ft	14,770			
Water year 1955-56: Max	1,000			Min	0.1	Mean	61.1	Ac-ft	44,790			

Peak discharge (base, 200 cfs).--Dec. 22 (time and discharge unknown); Jan. 15 (7 p.m.), 1,060 cfs (7.30 ft); Mar. 24 (12 p.m.), 367 cfs (4.08 ft); Apr. 16 (7 a.m.), 202 cfs (2.95 ft); Apr. 24 (5 a.m.) 310 cfs (3.70 ft); Apr. 26 (7 a.m.) 366 cfs (4.07 ft); May 5 (1 a.m.) 271 cfs (3.44 ft); May 23 (5 a.m.) 270 cfs (3.43 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records at Lakeview and records for Deep Creek above Adel and Twentymile Creek near Adel.

b Stage-discharge relation affected by ice.

Chewaucan River near Paisley, Oreg.
(Formerly published as Chewaucan River above Conn ditch, near Paisley)

Location.--Lat 42°41', long 120°35', in SW $\frac{1}{4}$ sec. 27, T. 33 S., R. 18 E., on right bank at footbridge 20 ft downstream from former powerplant of Paisley Electric Co., a quarter of a mile downstream from Mill Creek, and 2 $\frac{1}{2}$ miles west of Paisley.

Drainage area.--275 sq mi.

Records available.--April 1912 to September 1921, May 1924 to September 1956. Published as "above Mill Creek near Paisley" November 1912 to September 1914, and as "above Conn ditch near Paisley" May 1924 to September 1955 (Conn ditch not used since 1940).

Gage.--Water-stage recorder. Datum of gage is 4,504.9 ft above mean sea level (river-profile survey). Apr. 3 to July 13, 1912, reference point at present site at different datum. Nov. 6, 1912, to Sept. 30, 1914, staff gage and Oct. 1, 1914, to Sept. 30, 1921, water-stage recorder, at various sites half a mile upstream above Mill Creek at various datums. Station destroyed by flood of Dec. 22, 1955, and gage-height record obtained at temporary staff-gage sites 2 miles downstream Jan. 27 to Sept. 30, 1956.

Average discharge.--41 years, 134 cfs (97,010 acre-ft per year).

Extremes.--Maximum discharge during year, 3,260 cfs Dec. 22 (gage height, 7.8 ft, from floodmarks); minimum, 28 cfs Oct. 1-3 (gage height, 1.51 ft).
1912-21, 1924-56: Maximum discharge, that of Dec. 22, 1955; no flow part of each day Dec. 7, 1929, Dec. 12, 1932 (result of freezeup).
Maximum discharge known; 4,000 cfs, Nov. 23, 1909, from records at site 2 miles downstream below Conn ditch where records are equivalent at high flows.

Remarks.--Records fair except those for periods of no gage-height record, which are poor. Diversions for irrigation of about 2,500 acres above station.

Revisions.--WSP 860: Drainage area.

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	28	40	55	240	165	*108	458	*910	1,200	256	71	44
2	28	40	50	220	215	119	403	940	1,080	249	69	44
3	29	42	48	210	205	126	418	1,030	1,030	235	69	44
4	29	45	45	200	220	112	426	*1,280	1,080	223	69	42
5	31	44	45	190	220	126	434	1,230	928	211	66	40
6	31	42	45	180	143	119	450	1,140	760	205	66	40
7	*31	40	45	170	170	122	474	1,090	706	175	69	42
8	30	38	45	170	*154	126	530	*1,050	656	165	66	42
9	30	38	45	160	126	108	566	928	629	155	61	40
10	30	37	50	160	139	108	665	860	647	165	*59	38
11	30	36	80	160	161	101	750	805	611	175	57	40
12	32	36	200	160	180	88	647	760	584	187	52	42
13	34	35	300	160	170	126	*647	656	566	199	*51	42
14	35	35	260	400	134	122	715	584	539	193	50	40
15	35	35	200	1,000	98	134	805	611	530	165	48	40
16	35	40	150	1,500	88	170	770	665	514	141	50	40
17	35	50	130	1,000	130	274	850	940	482	*120	50	38
18	35	60	200	800	119	268	860	1,090	450	112	52	40
19	35	80	500	700	108	361	940	1,260	522	116	57	42
20	35	100	800	550	108	403	1,030	1,520	450	108	52	46
21	35	120	1,500	450	122	522	*1,080	1,620	420	101	48	46
22	35	100	*2,500	400	119	514	1,240	1,700	400	90	48	44
23	35	80	2,000	360	122	*498	1,420	1,700	380	90	46	44
24	35	60	1,500	340	126	557	1,340	1,650	350	*87	48	42
25	35	50	1,000	300	91	575	1,420	1,000	340	90	48	44
26	38	50	800	260	108	566	1,490	1,500	320	205	48	*45
27	40	70	500	*338	119	442	1,240	1,400	300	108	46	46
28	40	75	400	210	119	410	1,020	1,200	290	90	44	44
29	40	70	350	195	119	566	905	1,100	280	77	*47	44
30	40	60	300	147	-----	557	860	1,200	*270	74	44	46
31	40	-----	250	122	-----	548	-----	*1,330	-----	69	46	-----
Total	1,051	1,648	14,383	11,352	4,078	8,976	24,853	34,749	17,324	4,636	1,697	1,271
Mean	33.9	54.9	464	366	141	290	828	1,120	577	150	54.7	42.4
Ac-ft	2,080	3,270	26,530	22,520	8,090	17,800	49,300	68,920	34,360	9,200	3,370	2,520
Calendar year 1955: Max 2,500 Min 19 Mean 106 Ac-ft 76,450												
Water year 1955-56: Max 2,500 Min 28 Mean 344 Ac-ft 250,000												

Peak discharge (base, 500 cfs).--Dec. 22 (time unknown) 3,260 cfs (7.8 ft); Jan. 16 (time and discharge unknown); Mar. 23 (time and discharge unknown); Apr. 23 (time and discharge unknown); May 4 (time and discharge unknown); May 20 (time and discharge unknown).

* Discharge measurement made on this day.

Note.--No gage-height record Oct. 8 to Jan. 26, May 22-30, June 1, 21-29; discharge estimated on basis of weather records at Lakeview and records for Deep Creek above Adel and Silver Creek near Silver Lake.

Ana River near Summer Lake, Oreg.

Location.--Lat 43°00', long 120°45', in SE $\frac{1}{4}$ 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 1956 in reports of Geological Survey. October 1929 to September 1939 (river only) and 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.--8 years (1930-32, 1935-36, 1951-56), 91.3 cfs (66,100 acre-ft per year).

Extremes.--Maximum discharge during year, 124 cfs Oct. 16; minimum daily, 31 cfs May 21. 1929-39, 1951-56: 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. Records 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 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	98	97	94	100	99	98	96	*93	81	81	81	74
2	84	97	94	100	99	98	96	93	80	81	77	82
3	*86	97	94	100	99	98	96	93	79	81	78	90
4	86	96	94	100	99	98	96	92	80	81	82	87
5	86	96	94	101	99	98	96	93	83	80	81	84
6	86	96	94	*101	99	98	99	93	82	79	81	84
7	87	96	94	101	99	98	99	92	80	78	81	84
8	87	96	94	101	99	98	96	*92	77	82	81	84
9	87	96	94	101	99	98	92	93	76	83	81	84
10	87	96	94	101	99	98	93	93	76	82	*80	84
11	87	96	95	100	99	98	94	93	74	82	80	84
12	87	96	95	100	99	98	94	93	74	*82	80	84
13	87	96	95	100	*99	98	94	93	74	83	80	84
14	87	96	95	100	99	98	94	93	74	83	80	84
15	87	96	95	100	99	98	94	93	74	83	82	84
16	98	96	95	100	99	98	94	94	74	82	82	85
17	120	96	96	99	99	98	94	94	75	82	82	85
18	118	96	96	99	99	98	94	94	75	82	81	85
19	115	96	96	99	99	98	94	83	75	83	79	85
20	114	95	96	99	99	98	94	49	77	82	77	85
21	113	95	96	99	99	98	94	31	78	82	78	85
22	111	95	96	99	99	98	94	43	78	82	79	84
23	105	95	96	99	99	98	94	66	73	80	79	84
24	99	95	96	99	99	98	94	85	74	82	80	84
25	99	95	96	99	98	96	94	87	77	83	80	84
26	99	95	96	99	98	96	94	88	83	82	80	85
27	99	95	96	99	98	96	94	88	83	82	80	85
28	97	*95	96	99	98	96	94	88	81	82	80	85
29	97	95	96	99	98	96	94	81	80	81	*80	85
30	97	94	96	99	-----	96	94	81	81	81	73	85
31	97	-----	98	99	-----	96	-----	*82	-----	81	71	-----
Total	2,977	2,871	2,952	3,091	2,866	3,024	2,847	2,626	2,328	2,530	2,466	2,528
Mean	96.0	95.7	95.2	99.7	98.8	97.5	94.9	84.7	77.6	81.6	79.5	84.3
Ac-ft	5,900	5,690	5,860	6,130	5,660	6,000	5,650	5,210	4,620	5,020	4,890	5,010

Calendar year 1955: Max 120 Min 25 Mean 89.6 Ac-ft 64,900
 Water year 1955-56: Max 120 Min 31 Mean 90.5 Ac-ft 65,660

* Discharge measurement made on this day.

Silver Creek near Silver Lake, Oreg.

Location.--Lat 43°07', long 121°04', in SW $\frac{1}{4}$ sec. 28, T. 28 S., R. 14 E., on right bank $\frac{1}{2}$ miles downstream from former diversion dam, $\frac{1}{2}$ 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 1956.

Gage.--Water-stage recorder and, since Sept. 15, 1932, concrete control. 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 gages or water-stage recorder at practically same location at datum 1.00 ft higher, or staff gages at diversion dam outlet $\frac{1}{2}$ miles upstream at different datum.

Average discharge.--44 years (1905-6, 1909-27, 1929-41, 1943-56), including Silver Lake Irrigation District Canal used only 1922-27, 1929-41, 27.5 cfs (19,910 acre-ft per year).

Extremes.--Maximum discharge during year, 930 cfs Dec. 22 (gage height, 7.65 ft), from rating curve extended above 600 cfs on basis of slope-area determination at 930 cfs; minimum, 3.6 cfs Oct. 4.

1905-7, 1909-56: 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, 1932, 1934, 1937.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. Flow regulated by reservoir (capacity, 800 acre-ft) above former diversion dam $\frac{1}{2}$ miles above station and by Thompson Valley Reservoir (capacity, 17,400 acre-ft) 11 miles above station, both of which are owned by the Silver Lake Irrigation District.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.6	2.0	2.5	53
1.7	4.7	3.0	100
1.8	8.5	4.0	228
2.0	18	6.0	600
2.2	30	7.0	800

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.2	6.2	8.5	a34	a18	b16	307	362	111	41	38	25
2	4.2	5.8	7.7	a32	a17	b16	*381	349	102	41	38	25
3	*4.2	5.8	7.4	a30	a16	b16	316	348	91	41	36	25
4	3.9	6.2	7.0	a29	a15	b16	270	375	91	41	24	24
5	4.2	6.2	5.8	a28	a16	b17	262	476	90	40	22	22
6	4.2	6.2	5.8	*26	a18	b16	251	482	85	39	20	17
7	4.2	6.2	6.2	25	a16	b16	270	476	78	39	20	13
8	3.9	6.6	6.6	b25	a15	b16	290	440	77	39	19	11
9	3.9	6.6	6.6	b24	a14	b17	319	365	74	39	9.4	9.8
10	4.2	6.6	7.4	23	a13	b16	383	349	69	58	*11	9.0
11	4.2	6.2	7.7	22	a15	b15	550	324	64	47	12	8.5
12	4.7	6.2	9.0	b21	a18	b14	516	289	59	*47	13	8.1
13	4.7	5.8	13	b20	23	b17	484	254	55	50	13	7.7
14	4.7	5.1	13	25	b22	b17	482	226	58	47	13	7.7
15	5.1	b5	12	97	b18	b18	518	209	59	45	13	7.4
16	5.1	4.7	11	136	b15	29	512	205	57	43	15	7.4
17	5.1	4.7	9.8	89	b15	28	502	214	53	43	17	7.4
18	5.1	5.5	9.8	66	b16	29	502	231	51	43	18	7.0
19	4.7	6.2	12	58	b16	38	528	240	49	42	20	7.0
20	4.7	8.5	24	59	16	47	558	248	47	41	23	7.0
21	5.1	a9	96	59	22	70	596	249	44	40	23	7.0
22	5.1	a8	*612	60	22	97	590	246	43	40	23	7.0
23	5.1	a8	244	73	b20	116	578	238	43	39	23	7.0
24	5.1	a8	134	53	b19	128	568	224	43	39	24	7.0
25	5.1	a8	98	43	b18	109	*604	203	43	39	24	6.2
26	5.1	a8	80	b40	b18	81	600	184	43	39	25	5.8
27	5.5	a8.5	71	b50	b17	74	580	162	43	39	25	5.5
28	5.5	*8.5	59	b28	b17	a80	496	143	43	39	25	5.1
29	5.5	8.5	b50	b25	b16	*90	432	129	42	39	*25	4.7
30	5.8	8.5	a40	b22	-----	103	*394	116	41	39	25	4.7
31	5.8	-----	a35	a20	-----	149	-----	*116	-----	38	25	-----
Total	147.9	203.3	1,709.3	1,322	501	1,501	13,639	8,492	1,848	1,296	661.4	316.0
Mean	4.77	6.78	55.1	42.6	17.3	48.4	455	274	61.6	41.8	21.3	10.5
Ac-ft	293	403	3,390	2,620	994	2,980	27,050	16,840	3,670	2,570	1,310	627
Calendar year 1955: Max 612 Min 3.9 Mean 20.1 Ac-ft 14,570												
Water year 1955-56: Max 612 Min 3.9 Mean 86.4 Ac-ft 62,750												

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for Deep Creek above Adel.

b Stage-discharge relation affected by ice.

Silvies River near Burns, Oreg.

Location--Lat 43°43', long 119°11', in NW $\frac{1}{4}$ sec. 31, T. 21 S., R. 30 E., on left bank 1 mile downstream from dam site for proposed lower Silvies Reservoir, 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 September 1956.

Gage--Water-stage recorder. Altitude of gage is 4,190 ft (by barometer). 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 $1\frac{1}{2}$ 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 present datum.

Average discharge--43 years (1903-5, 1909-12, 1917-21, 1922-56), 159 cfs (115,100 acre-ft per year).

Extremes--Maximum discharge during year, 2,090 cfs Mar. 26 (gage height, 12.96 ft); minimum, 5.9 cfs Oct. 6, 7.

1903-6, 1908-56: 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. Diversions for irrigation above station primarily with floodwater.

Revisions--WSP 860: Drainage area.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 13-31)

Oct. 1 to Mar. 26

Mar. 27 to Sept. 30

0.8	4.5	6.0	575	1.1	6.0	575
1.0	14	9.0	1,000	1.3	16	9.0
1.5	44	11.0	1,400	1.5	30	11.0
2.0	87	13.0	2,110	2.0	71	13.0
3.0	190			3.0	176	

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.8	19	57	a130	60	160	1,690	898	473	59	26	16
2	8.8	20	54	a120	65	200	1,590	816	434	57	22	16
3	8.8	20	48	a115	70	170	1,360	753	408	57	22	16
4	8.8	21	45	a110	80	150	*1,170	751	386	57	20	16
5	*8.8	24	40	*105	90	130	1,110	874	360	56	21	16
6	7.7	23	35	100	100	120	1,110	939	343	55	23	16
7	8.2	23	40	100	95	110	1,250	1,090	329	53	22	15
8	10	23	42	96	90	130	1,280	1,280	297	52	21	15
9	9.7	23	45	92	85	160	1,240	1,340	269	53	20	14
10	11	23	49	90	80	190	1,310	*1,270	244	55	17	14
11	12	23	50	90	100	a160	1,460	1,210	205	57	16	14
12	13	21	52	90	120	a130	1,850	1,110	172	55	15	17
13	13	20	48	95	110	a110	1,700	1,020	*153	60	*14	17
14	13	16	45	120	100	a140	*1,630	945	160	62	12	16
15	13	15	46	158	80	a180	1,830	842	164	53	12	16
16	13	16	50	198	70	a220	1,830	761	150	46	11	17
17	14	20	55	180	80	a280	1,810	680	145	43	10	*16
18	14	25	60	160	90	a350	1,750	614	151	42	10	16
19	14	28	78	150	100	a400	1,680	569	151	39	10	16
20	15	33	88	150	120	a380	1,640	546	164	40	10	16
21	16	45	156	160	140	*a400	1,620	529	153	39	9.6	16
22	16	*44	279	170	150	550	1,600	515	146	36	9.2	16
23	15	50	341	200	140	772	1,570	518	140	35	8.8	16
24	15	43	297	170	130	1,130	1,530	490	129	34	8.8	16
25	*14	40	239	150	130	1,590	1,460	457	118	*32	9.2	19
26	15	42	283	130	140	1,990	1,360	459	107	31	11	16
27	15	45	326	110	130	1,550	1,290	459	32	31	14	15
28	15	a200	100	125	1,400	1,200	533	69	31	15	16	16
29	15	54	a150	90	120	1,610	1,090	597	64	30	15	17
30	15	63	a100	60	-----	1,760	987	585	60	29	14	20
31	16	-----	a120	70	-----	1,730	-----	512	-----	28	16	-----
Total	391.6	913	3,518	3,879	2,990	18,382	43,997	24,005	6,233	1,408	464.6	482
Mean	12.6	30.4	113	125	103	593	1,467	774	208	45.4	15.0	16.1
Ac-ft	777	1,810	6,980	7,690	5,930	36,480	87,270	47,610	12,360	2,790	922	956

Calendar year 1955: Max 565 Min 4.0 Mean 79.9 Ac-ft 57,850
Water year 1955-56: Max 1,990 Min 7.7 Mean 291 Ac-ft 211,800

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of records for Malheur River near Drewsey and Silver Creek near Riley.

Note.--Stage-discharge relation affected by ice Nov. 13-18, 25-27, Dec. 2-9, 13-18, Jan. 5-14, Jan. 17 to Mar. 9, Mar. 22.

Donner und Blitzen River near Frenchglen, Oreg.

Location.--Lat 42°47', long 118°52', in NW $\frac{1}{4}$ sec. 20, T. 32 S., R. 32 $\frac{1}{2}$ E., on left bank $\frac{1}{4}$ miles upstream from upper diversions for Malheur Migratory Waterfowl Refuge, $\frac{2}{3}$ miles downstream from Fish Creek, and $\frac{3}{4}$ miles southeast of Frenchglen.

Drainage area.--180 sq mi, approximately.

Records available.--December 1937 to September 1956 in reports of Geological Survey. May 1910 to September 1921 (published as "near Diamond") and July 1929 to September 1930 in reports of State engineer.

Gage.--Water-stage recorder and concrete control. Datum of gage is 4,254 ft above mean sea level (surveys of U. S. Fish and Wildlife Service). Prior to December 1937 staff gages at several sites downstream at various datums.

Average discharge.--26 years (1911-13, 1914-16, 1917-21, 1938-56), 126 cfs (91,220 acre-ft per year).

Extremes.--Maximum discharge during year, 2,140 cfs Jan. 15 (gage height, 5.72 ft); minimum, 13 cfs Dec. 4, result of freezeup.

1910-21, 1937-56: Maximum discharge, 3,390 cfs May 19, 1953 (gage height, 6.29 ft), from rating curve extended above 1,100 cfs on basis of velocity-area studies and logarithmic plotting; minimum, 8 cfs Jan. 14, 1940, caused by temporary storage behind ice jam upstream.

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

Revisions.--WSP 330: Drainage area (former site). WSP 860: Drainage area (present site).

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.9	23	3.0	220
2.0	29	3.5	430
2.3	56	4.0	740
2.6	107	5.0	1,490

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	38	39	47	67	636	50	193	263	528	143	55	42
2	37	39	48	60	55	117	174	283	480	148	56	41
3	37	41	47	77	80	121	156	287	488	133	57	41
4	37	40	32	70	64	78	153	358	455	123	54	41
5	38	40	38	69	84	49	185	*315	344	125	53	41
6	*38	39	56	*64	73	47	162	299	287	130	53	40
7	37	39	47	62	64	44	193	307	287	128	52	40
8	38	36	49	59	57	59	186	295	315	125	50	40
9	36	38	46	60	53	90	227	283	353	125	49	40
10	37	39	49	65	60	72	287	365	553	123	47	40
11	40	38	69	59	66	49	299	591	303	112	46	40
12	40	30	37	59	72	44	244	353	299	105	45	41
13	39	b30	77	60	64	49	275	307	307	109	44	41
14	38	b30	48	245	*55	49	279	283	*239	103	44	40
15	38	28	48	1,400	40	83	311	271	287	99	44	40
16	38	46	48	275	28	206	307	287	220	91	43	40
17	37	60	48	151	80	224	295	327	193	85	43	40
18	37	55	57	135	59	260	299	395	186	85	43	*40
19	37	55	183	151	53	249	335	504	227	78	44	41
20	38	80	400	174	55	224	358	576	213	78	44	49
21	38	67	480	183	56	224	376	677	196	82	43	44
22	38	45	263	549	168	206	371	733	193	75	42	43
23	37	*44	1,030	596	128	*335	395	810	210	72	42	42
24	37	45	283	183	56	395	395	747	196	70	42	42
25	37	42	143	114	50	303	366	588	186	*67	42	41
26	40	45	148	105	48	287	395	614	183	67	43	40
27	40	46	140	89	46	234	390	831	193	89	45	40
28	39	47	97	b50	45	203	315	528	200	84	45	41
29	39	45	b50	b55	45	200	279	469	196	82	44	41
30	40	44	b70	b55	-----	227	267	572	159	59	43	41
31	41	-----	82	40	-----	213	-----	628	-----	58	42	-----
Total	1,177	1,314	4,680	5,419	1,838	4,791	8,437	14,137	8,334	2,991	1,439	1,233
Mean	38.0	43.8	138	175	63.4	155	281	456	278	96.5	46.4	41.1
Ac-Ft	2,330	2,610	8,490	10,750	3,650	9,500	16,730	28,040	16,530	5,930	2,850	2,450
Calendar year 1955: Max			1,030		Min 23		Mean 106		Ac-ft 77,040			
Water year 1955-56: Max			1,400		Min 28		Mean 151		Ac-ft 109,900			

Peak discharge (base, 650 cfs).--Dec. 23 (2 p.m.) 2,130 cfs (5.71 ft); Jan. 15 (11 a.m.) 2,140 cfs (5.72 ft); Jan. 22 (11 p.m.) 1,280 cfs (4.75 ft); May 11 (2 a.m.) 845 cfs (4.15 ft); May 26 (10 p.m.) 999 cfs (4.37 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Bridge Creek near Frenchglen, Oreg.

Location--Lat 42°50', long 118°51', in NW $\frac{1}{4}$ sec. 33, T. 31 S., R. 32 $\frac{1}{2}$ E., on right bank at mouth of canyon, 3 $\frac{1}{2}$ miles northeast of Frenchglen.

Drainage area--30 sq mi, approximately.

Records available--March 1911 to September 1916, December 1937 to September 1956.

Gage--Water-stage recorder and concrete control. Datum of gage is 4,184.93 ft above mean sea level (surveys of U. S. Fish and Wildlife Service). Mar. 18, 1911, to Sept. 30, 1916, staff gage at site half a mile upstream at different datum. 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--22 years (1912-16, 1938-56), 14.1 cfs (10,210 acre-ft per year).

Extremes--Maximum discharge during year, 169 cfs Dec. 23 (gage height, 2.08 ft, from recorded range in stage), from rating curve extended above 65 cfs by logarithmic plotting; minimum, 9.9 cfs many days December to February. 1911-16, 1937-56: Maximum discharge, 415 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 no gage-height record, which are good. No regulation or diversion above station. Low-water flow is sustained by large springs.

Rating table, water year 1955-56 (gage height, in feet, and discharge, in cubic feet per second)

0.9	6.7	1.4	41
1.0	11	1.6	67
1.1	16	2.0	148
1.2	23		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12	12	11	12	10	12	19	22	21	12	12	12
2	12	12	11	10	10	12	17	21	20	12	12	12
3	12	12	10	10	10	12	17	21	19	12	12	12
4	12	12	10	10	10	15	17	29	18	12	12	12
5	12	12	11	10	10	13	17	*26	19	12	12	12
6	*12	12	11	*9.9	10	12	17	24	18	12	12	12
7	12	12	10	9.9	10	11	18	24	17	12	12	12
8	12	12	10	9.9	10	11	17	24	16	12	12	12
9	12	12	10	10	10	12	19	24	14	12	12	12
10	12	12	10	11	10	12	21	32	14	12	12	12
11	12	12	21	10	11	11	23	35	13	12	12	12
12	12	12	22	10	11	11	21	25	13	12	12	12
13	12	12	13	12	12	12	21	24	13	12	12	12
14	12	12	11	15	*12	12	22	24	*13	12	12	12
15	12	12	10	20	12	12	23	24	14	12	12	12
16	12	11	9.9	15	10	12	24	24	13	12	12	12
17	12	11	9.9	11	12	13	24	24	12	12	12	12
18	12	11	12	12	12	15	23	24	12	12	12	*12
19	12	11	13	12	12	17	24	24	12	12	12	12
20	12	11	14	12	12	19	24	24	12	12	12	11
21	12	11	13	12	15	18	25	24	12	12	12	11
22	12	11	12	15	15	17	24	24	12	12	12	11
23	12	*11	80	12	12	*20	24	24	12	13	12	11
24	12	11	40	12	12	23	24	24	13	13	12	11
25	12	11	20	12	12	24	24	22	12	*13	12	11
26	12	11	12	12	12	24	24	20	12	13	12	11
27	12	11	12	12	12	21	29	25	12	13	12	11
28	12	11	12	11	12	20	28	24	12	13	12	11
29	12	11	11	11	12	21	25	24	12	13	12	11
30	12	11	11	10	-----	21	24	24	12	13	12	11
31	12	-----	10	10	-----	20	-----	22	-----	13	12	-----
Total	372	345	472.8	360.7	350	485	659	756	424	381	372	349
Mean	12.0	11.5	15.3	11.6	11.4	15.6	22.0	24.4	14.1	12.3	12.0	11.6
Ac-ft	758	684	938	715	655	962	1,310	1,500	841	756	738	692

Calendar year 1955: Max 80 Min 8.3 Mean 12.7 Ac-ft 9,160
 Water year 1955-56: Max 80 Min 9.9 Mean 14.5 Ac-ft 10,530

Peak discharge (base, 30 cfs)--Dec. 11 (5:30 p.m.) 45 cfs (1.42 ft); Dec. 23 (about 1 p.m.) 169 cfs (2.08 ft); May 10 (9 p.m.) 143 cfs (1.98 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Dec. 18 to Jan. 5, Jan. 9 to Feb. 12, Feb. 16 to Mar. 23; discharge estimated on basis of 1 discharge measurement, recorded range in stage, weather records, and records for Donner und Blitzen River near Frenchglen.

Silver Creek near Riley, Oreg.

Location--Lat 43°41', long 119°39', in E $\frac{1}{2}$ 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 1956.

Gage--Water-stage recorder. Altitude of gage is 4,450 ft (by barometer).

Average discharge--5 years, 50.8 cfs (36,780 acre-ft per year).

Extremes--Maximum discharge during year, 1,090 cfs Mar. 25 (gage height, 6.20 ft); minimum, 1.7 cfs Oct. 4.

1951-56: Maximum discharge, 1,300 cfs Apr. 6, 1952 (gage height, 6.65 ft); minimum, 0.4 cfs Sept. 7, 1955.

Remarks--Records good except those for periods of ice effect, which are fair, and those for periods of no gage-height record, which are poor. Diversions for irrigation of about 500 acres above station.

Rating tables, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 25

Mar. 26 to Sept. 30

1.3	1.0	2.4	59	1.4	2.5	2.4	64
1.4	2.1	3.0	140	1.5	4.2	3.0	151
1.5	4.3	4.0	345	1.6	6.7	4.0	365
1.7	10	5.0	640	1.7	10	5.0	640
2.0	25	6.0	1,010	2.0	28	6.0	1,010

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.8	2.6	b6.0	b32	10	28	402	102	57	16	4.9	3.2
2	1.8	3.3	b5.5	b30	13	30	342	92	48	16	4.9	3.2
3	1.8	3.3	5.1	b34	15	30	294	89	42	16	4.9	3.0
4	2.0	3.8	5.7	b38	16	24	304	115	41	14	4.9	3.2
5	*2.0	3.5	*3.0	*b22	18	20	342	*132	41	14	5.1	3.2
6	2.1	3.3	4.3	20	20	20	345	132	40	14	5.1	3.0
7	2.0	3.0	5.4	19	22	20	370	158	37	13	4.6	3.0
8	2.0	2.8	b5.0	b18	18	20	350	241	34	12	4.4	2.8
9	2.0	2.8	b5.5	b18	18	24	388	238	30	13	4.4	2.8
10	2.1	3.0	b5.5	b20	18	20	485	230	28	14	4.0	2.8
11	2.6	2.8	b6.0	20	22	16	562	232	27	16	4.2	3.0
12	2.6	2.6	b6.5	18	22	15	493	204	25	16	4.4	3.0
13	2.4	3.0	b7.0	16	16	15	478	184	*25	28	4.2	3.0
14	2.3	3.0	5.1	17	*14	18	*488	162	29	18	4.2	3.0
15	2.1	2.4	6.5	55	13	20	517	141	37	13	4.2	2.8
16	2.3	2.8	b7.0	52	12	30	490	124	30	11	4.2	2.8
17	2.1	3.5	b6.5	45	16	50	452	114	28	9.6	4.2	*2.6
18	2.1	5.4	b7.0	51	18	80	410	102	25	9.0	4.0	2.6
19	2.1	8.5	9.5	46	16	100	385	97	24	8.6	4.0	3.0
20	2.4	8.8	10	48	16	90	360	89	25	8.2	4.0	3.2
21	2.3	b8.5	12	45	20	150	335	79	22	7.9	4.0	3.2
22	2.3	*b7.5	20	57	26	*340	297	70	20	7.3	3.8	3.2
23	2.4	b7.0	50	63	24	496	266	65	20	7.0	3.8	3.2
24	2.4	6.3	b40	b48	22	677	234	63	19	6.7	3.8	3.0
25	2.3	6.8	b26	b38	22	810	204	60	18	*6.2	4.2	2.8
26	2.6	6.3	b36	b30	22	800	186	56	18	5.9	4.0	2.6
27	2.6	6.5	b30	b32	24	*559	169	63	18	5.9	4.0	2.8
28	2.6	6.1	b28	b24	24	450	146	54	17	5.7	3.6	3.2
29	2.6	6.8	b26	b26	26	432	128	50	16	5.1	3.4	3.2
30	2.6	6.5	b30	b20	-----	465	115	53	18	4.9	3.2	3.0
31	2.8	-----	b32	15	-----	458	-----	74	-----	4.6	3.2	-----
Total	70.1	144.5	452.1	1,011	541	6,307	10,337	3,665	857	346.6	129.8	89.4
Mean	2.26	4.82	14.6	32.6	18.7	203	345	118	28.6	11.2	4.19	2.98
Ac-ft	139	287	897	2,010	1,070	12,510	20,500	7,270	1,700	687	257	177

Calendar year 1955: Max 256 Min 0.5 Mean 20.0 Ac-ft 14,450
 Water year 1955-56: Max 810 Min 1.8 Mean 65.4 Ac-ft 47,500

Peak discharge (base, 350 cfs)--Mar. 25 (10 p.m.) 1,090 cfs (6.20 ft); Apr. 11 (7 a.m.) 583 cfs (4.81 ft).

* Discharge measurement made on this day.

b Stage-discharge relation affected by ice.

Note.--No gage-height record Nov. 15-17, Jan. 31 to Mar. 21; discharge estimated on basis of weather records and records for South Fork John Day River near Dayville. There probably was ice effect during most of the January to March period.

Trout Creek near Denio, Oreg.

Location.--Lat 42°10', long 118°28', in SW¹/₄ 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, April 1925 to September 1956.

Gage.--Water-stage recorder. Datum of gage is 4,351.59 ft above mean sea level, datum of 1929. 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.--25 years (1922-23, 1932-56), 14.7 cfs (10,640 acre-ft per year).

Extremes.--Maximum discharge during year, 112 cfs May 21 (gage height, 3.34 ft); minimum, 2.2 cfs Nov. 13.

1911-12, 1922-23, 1925-56: Maximum discharge, 343 cfs Aug. 1, 1933 (gage height, 5.26 ft), from rating curve extended above 125 cfs; probably no flow at times.

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. Diversions for irrigation of about 800 acres above station.

Rating table, water year 1955-56, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second) (Shifting-control method used Oct. 1-6)

1.4	1.8	2.3	23
1.6	3.0	2.6	41
1.8	5.5	3.2	99
2.0	10		

Discharge, in cubic feet per second, water year October 1955 to September 1956

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.5	3.3	4.6	b8.5	b4.5	6.8	33	38	65	14	4.8	2.8
2	2.5	3.2	4.4	b7	a5	7.0	30	38	58	14	4.6	2.6
3	2.3	3.7	b4	b7.5	a5.5	7.2	28	59	49	14	4.8	2.6
4	2.3	3.6	b3.5	7.9	a6	7.0	26	*59	48	12	4.6	2.7
5	2.4	3.7	b2.5	8.2	a7	b6	25	54	44	11	4.0	2.9
6	2.5	3.6	b3	*7.6	a6.5	b5	25	50	37	12	4.3	2.9
7	2.5	4.0	b3.5	7.4	a6	b5.5	24	52	34	18	4.3	2.9
8	2.3	3.5	b4	6.6	a5.5	b6	25	48	33	16	4.2	2.9
9	2.3	3.7	b4.5	7.0	a5	7.2	27	48	33	14	4.0	2.8
10	2.3	3.8	b4.8	8.2	a5.5	7.0	31	57	32	13	3.9	2.8
11	2.8	3.8	5.2	7.2	a6.5	b6	35	62	31	12	3.8	2.9
12	2.8	3.6	5.4	6.8	a8	b5	35	49	29	12	3.8	2.9
13	2.8	2.9	5.0	7.2	a6	b5.5	34	46	29	11	*3.7	2.9
14	2.8	b2.7	4.8	8.5	a5	b6	35	43	*29	11	3.5	2.9
15	2.8	b2.5	4.3	26	b4	6.3	36	41	26	11	3.3	2.9
16	2.7	b2.7	4.9	31	b5	7.4	36	42	24	10	3.0	2.9
17	2.8	b3	4.9	27	b6	7.6	35	48	22	9.6	3.0	2.9
18	2.8	b3.5	4.9	24	b6.5	9.3	33	62	17	9	3.1	2.9
19	2.8	b4.5	4.8	22	b5.5	12	39	78	17	8.8	3.0	2.9
20	2.9	5.5	5.2	20	b7	13	41	90	18	8.2	2.9	3.4
21	2.9	5.5	5.2	19	8.8	15	40	98	16	8.2	2.9	3.4
22	3.1	4.6	6.1	22	8.2	18	47	94	14	7.9	2.9	3.4
23	3.1	4.2	11	22	b7	*21	56	91	15	7.6	2.9	3.4
24	3.1	4.0	13	20	b5.5	27	*65	99	16	*7.4	2.9	3.4
25	3.1	4.4	10	b15	b6	36	54	89	15	6.6	2.9	3.4
26	*3.1	4.8	10	b11	b5.5	43	60	81	15	6.3	2.8	3.3
27	3.2	4.4	9.9	b9	b6	40	54	86	15	6.3	2.8	3.4
28	3.2	4.4	7.6	b7	b6.2	36	47	72	17	6.3	2.8	3.5
29	3.3	4.3	b6	b7	b6.5	34	43	67	16	5.9	2.8	3.6
30	3.2	4.6	b7	b6.5	-----	33	41	65	14	5.4	2.8	3.6
31	3.4	-----	b8	b5.5	-----	34	-----	66	-----	5.2	2.8	-----
Total	86.6	116.0	182.0	399.6	175.7	479.8	1,140	1,952	828	313.7	107.9	91.8
Mean	2.79	3.87	5.87	12.9	6.06	15.5	38.0	63.0	27.5	10.1	3.48	3.08
Ac-ft	172	230	361	793	348	952	2,260	3,870	1,640	622	214	182
Calendar year 1955: Max	47.0			Min	0.9	Mean	8.00	Ac-ft	5,790			
Water year 1955-56: Max	99			Min	2.3	Mean	16.0	Ac-ft	11,640			

Peak discharge (base, 50 cfs).--Apr. 24 (6 a.m. to 12 m.) 70 cfs (2.92 ft); May 4 (5:30 a.m.) 74 cfs (2.99 ft); May 10 (9:30 p.m.) 86 cfs (3.11 ft); May 21 (9 a.m.) 112 cfs (3.34 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of records for Donner und Blitzen River near Frenchglen and Malheur River near Drewsey.

b Stage-discharge relation affected by ice.

DISCHARGE MEASUREMENTS AT POINTS OTHER THAN GAGING STATIONS

Measurements of streamflow in the Great Basin made at points other than regular gaging stations are given in the following table. Most of these measurements were made during periods of base flow when streamflow is primarily from ground-water storage. Measurements believed to have been made under base-flow conditions are identified by an asterisk (*) to the left of the discharge figure. These measurements when correlated with the simultaneous discharge of a nearby stream where continuous records are available will give a picture of the low-flow potentiality of stream. The column headed, "Measured previously" shows the water years in which measurements were made at the same, or practically the same, site.

Determinations of peak flow at points other than regular gaging stations are given in a separate table on page 225.

Discharge measurements made at points other than gaging stations in the Great Basin during the water year 1956

Great Salt Lake basin

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Otter Creek.	Bear River...	NE $\frac{1}{4}$ sec. 3, T. 11 N., R. 6 E., above diversions 3 miles above South Branch Otter Creek and 5 $\frac{1}{2}$ miles northwest of Randolph, Utah.	17.1	1950-55	Oct. 26 Dec. 1 22 Jan. 16 Mar. 6 29 Apr. 18 May 11 June 2 27 July 18 Aug. 8 Sept. 7 30	*3.47 *3.69 10.9 *4.12 *3.29 *5.62 *3.79 *4.22 *3.74 *4.17 *4.00 *3.62 *3.82 *3.78
South Branch Otter Creek.	Otter Creek...	SW $\frac{1}{4}$ sec. 10, T. 11 N., R. 6 E., above diversions 1 $\frac{1}{2}$ miles above Middle Branch Otter Creek and 4 $\frac{1}{2}$ miles northwest of Randolph, Utah.	5.0	1950-55	Oct. 26 Dec. 1 22 Jan. 16 Mar. 6 29 Apr. 18 May 11 June 2 27 July 18 Aug. 8 Sept. 7 30	*4.38 *4.35 *4.13 *5.05 *3.74 *4.98 *4.82 *4.83 *4.67 *4.10 *4.03 *4.00 *4.23 *4.30
Middle Branch Otter Creek.	South Branch Otter Creek	SW $\frac{1}{4}$ sec. 3, T. 11 N., R. 6 E., above diversions 1 $\frac{1}{2}$ miles above mouth and 5 miles northwest of Randolph, Utah.	3.5	1950-55	Oct. 26 Dec. 1 22 Jan. 16 Mar. 6 29 Apr. 18 May 11 June 2 27 July 18 Aug. 8 Sept. 7 30	*4.27 *4.79 8.84 *4.78 *4.37 *6.44 *5.79 *5.72 *4.94 *4.70 *4.66 *4.85 *4.80 *4.56
Logan River.	Little Bear River.	SW $\frac{1}{4}$ sec. 36, T. 12 N., R. 1 E., 100 ft upstream from Logan Northern Canal, 300 ft below State Dam, and 2 $\frac{1}{2}$ miles east of Logan, Utah. At site of regular gaging station operated 1913-14.	219	1956	June 27 Aug. 4	324 187
Malad River.	Bear River...	Sec. 10, T. 14 S., R. 35 E., at springs, at flow line, 1 mile upstream from dam on Samaria Reservoir No. 2, 5 $\frac{1}{2}$ miles northwest of Malad City, Idaho, and 8 $\frac{1}{2}$ miles upstream from Little Malad River. At site of regular gaging station operated 1931-32, 1940-47.	35.3	1946-55	Oct. 7 Nov. 8 Dec. 14 Jan. 14 Feb. 25 Apr. 8 24 May 21 June 16 July 20 Aug. 26	*9.39 *7.22 *8.05 *9.04 *7.79 11.8 14.4 12.3 *9.37 *8.29 *6.10

Sevier Lake basin, Utah

Blue Spring.	Blue Creek...	Sec. 8, T. 36 S., R. 7 W., 100 ft below spring pool and 14 miles northwest of Hatch.	-	1915, 1917, 1945-47, 1953-54	Sept. 19	*4.02
Sevier River	Sevier Lake..	Sec. 5, T. 37 S., R. 5 W., 350 ft upstream from Mammoth Creek and 2 miles south of Hatch.	-	1938	Sept. 20	*29.2
Mammoth Creek.	Sevier River.	Sec. 5, T. 37 S., R. 5 W., 200 ft upstream from mouth and 2 miles south of Hatch.	-	1937, 1939, 1940, 1956	Sept. 20	*6.02
East Fork Sevier River.	....do.....	Sec. 8, T. 37 S., R. 4 W., $\frac{3}{4}$ mile upstream from dam on Tropic Reservoir and 9 $\frac{1}{2}$ miles west of Tropic.	-		Sept. 28	*2.99

* Base flow.

a Flow derived largely from springs.

DISCHARGE MEASUREMENTS AT POINTS OTHER THAN GAGING STATIONS

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Discharge measurements made at points other than gaging stations in the Great Basin during the water year 1956--Continued

Pyramid and Winnemucca Lakes basin, Nev.

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Dog Creek...	Truckee River	Sec. 35, T. 20 N., R. 17 E., at head of Dog Creek Canyon, 3½ miles above mouth and 4 miles northwest of Verdi.	-		May 11	22.1

Malheur and Harney Lakes basin, Oreg.

Malheur Lake Outlet.	Harney Lake..	Sec. 26, T. 26 S., R. 31 E., at highway bridge 21 miles south of Burns.	-	1943, 1952-53 1955	June 13	83.9
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The following table contains determinations of peak discharge made at crest stage by indirect methods or by current meter or computed from rating curve at points other than regular gaging stations.

Determinations of peak discharge during water year October 1955 to September 1956

Stream	Tributary to	Location	Drainage area (sq mi)	Measured previously (water years)	Date	Discharge (cfs)
Truckee River.	Pyramid and Winnemucca Lakes.	Sec. 12, T. 18 N., R. 17 E., at site of former gaging station at Farad, Nev.	940	1951	Dec. 23	14,400
Peavine Creek.	Truckee River	Sec. 4, T. 19 N., R. 19 E., 1/3 mile above Highland ditch and 1 mile west of Reno, Nev.	-		July 20	2,190
Long Valley Creek.	.....do.....	Sec. 21, T. 19 N., R. 21 E., 1 mile above mouth and 9 miles southeast of Reno, Nev.	-		Dec. 23	2,500
Truckee River.	Pyramid and Winnemucca Lakes.	Sec 18, T. 22 N., R. 24 E., at Pyramid Indian Reservation diversion dam, 5 miles south of Nixon, Nev.	-		Dec. 24	14,000

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