Surface Water Supply of the United States 1953

Part 10. The Great Basin

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

GEOLOGICAL SURVEY WATER-SUPPLY PAPER 1284

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

UNITED STATES GOVERNMENT PRINTING OFFICE, WASHINGTON : 1955

UNITED STATES DEPARTMENT OF THE INTERIOR

Douglas McKay, *Secretary*

GEOLOGICAL SURVEY

W. E. Wrather, *Director*

For sale by the Superintendent of Documents, U. S. Government Printing Office
Washington 25, D. C. - Price $1.00 (Paper cover)

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, under the general direction of J. V. B. Wells, chief, Surface Water Branch, and B. J. Peterson, chief, Annual Reports Section.

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

F. M. Bell----------Denver, Colo.
R. C. Briggs----------San Francisco, Calif.
T. R. Newell----------Boise, Idaho
K. N. Phillips----------Portland, Oreg.
M. T. Wilson----------Salt Lake City, Utah

CALENDAR FOR WATER YEAR 1953

OCTOBER 1952

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

NOVEMBER 1952

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

DECEMBER 1952

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

JANUARY 1953

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

FEBRUARY 1953

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

MARCH 1953

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

APRIL 1953

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

MAY 1953

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

JUNE 1953

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

JULY 1953

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

AUGUST 1953

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

SEPTEMBER 1953

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

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SURFACE WATER SUPPLY OF THE GREAT BASIN, 1953

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, 1953. 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 12,800 gaging stations in the 48 States and at many others in the Territories of Alaska and Hawaii. On September 30, 1953, the Geological Survey and cooperating organizations were maintaining 6,750 gaging stations, including those in Alaska and Hawaii. Discharge measurements only were made at many other points in the 1953 water year, most of which are published at the end of this report.

COOPERATION

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

California: State Department of Public Works, F. B. Durkee, director, and A. D. Edmonston, State engineer; San Bernardino County Flood Control District.

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

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

Oregon: Office of State Engineer, C. E. Stricklin and State Highway Commission, B. R. Chandler, chairman.

Utah: Office of State Engineer, J. M. Tracy; Utah Water & Power Board, W. R. Wallace, chairman, succeeded by J. A. Howell.

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, and the Office of State Engineer of Wyoming.

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 3 gaging stations in Utah, 2 in California, 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.

State	District office	Address
California a/	San Francisco	541 Federal Office Building.
Idaho b/	Boise	429 Federal Building.
Nevada	Salt Lake City, Utah	300 Federal Building.
Oregon c/	Portland	606 Post Office Building.
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 C. E. Stricklin, 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 (cfsm) is the average number of cubic feet of water flowing per second from each square mile of area drained, assuming that the runoff is distributed uniformly in time and area.

Runoff in inches 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 from 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.

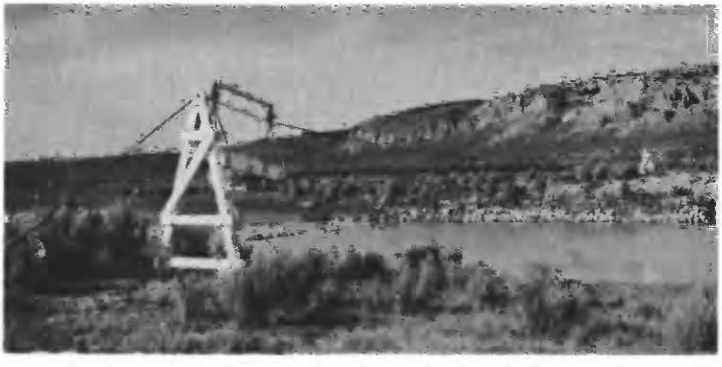
The order of listing used before the publication of the 1951 report listed first all stations on the main stem from headwaters toward mouth, then all stations on the uppermost tributary to the main stem from the tributary's source to mouth, and then all stations from source to mouth of the uppermost 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 measurements of peak discharge (such as slope-area or contracted-opening measurements, computation of flow over dams or weirs, and by other methods), velocity-area studies, and logarithmic plotting. The application of the daily mean gage height to those rating tables gives the daily mean discharge, from which the monthly and the yearly mean discharge are computed. If the stage-discharge relation is subject to change because of frequent or continual change in the physical features that form the control, the daily mean discharge is determined by the shifting-control method, in which correction factors based on individual discharge measurements and notes by engineers and observers are used in applying

A, DONNER UND BLITZEN RIVER NEAR FRENCHGLEN, OREG.



B, SEVIER RIVER NEAR JUAB, UTAH.

C, UTAH POWER & LIGHT CO. TAILRACE NEAR LOGAN, UTAH.

FIGURE 1.—GAGING-STATION STRUCTURES.

the gage heights to the rating tables. If the stage-discharge relation for a station is temporarily changed by the presence of aquatic growth or debris on the control, the daily mean discharge is computed by what is essentially the shifting-control method.

At some gaging stations the stage-discharge relation is affected by backwater from reservoirs, tributary streams, or other sources. This necessitates the use of the slope method in which the slope or fall in a reach of the stream is a factor in determining discharge. Information requisite for determining the slope or fall is obtained by means of an auxiliary gage set at some distance from the base gage. At some stations the stage-discharge relation is affected by changing stage. If so, the rate of change of 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 1953 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 the 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). 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 the 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 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 values for the maximum day and the minimum day for each month are underlined. If the value 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 values; 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"). Values 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 values 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 usually given in the first report in which data for the reservoir are published, but it is omitted from succeeding reports.

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, values 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 the 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 also be obtained by applying to the Director, Geological Survey, Washington, D. C.

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

3. Sets are available for consultation in the offices of the Water Resources Division of the Geological Survey. Addresses of the offices in the area covered by this report are given on page 2.

Early records of the flow of streams in the United States are published in the reports listed below. In many of these reports records for years earlier than those indicated have been included for some streams.

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

(A = Annual Reports; B = Bulletin)

Report	Character of data	Year
10th A, pt. 2	Descriptive information only.	
11th A, pt. 2	Monthly discharge and descriptive information.....	1884 to September 1890.
12th A, pt. 2	....do.....	1884 to June 30, 1891.
13th A, pt. 3	....do.....	1884-92.
14th A, pt. 2	Monthly discharge.....	1888-93.
B 131.....	Descriptions, measurements, gage heights, and ratings.....	1893-94.
16th A, pt. 2	Descriptive information only.	
B 140.....	Descriptions, measurements, gage heights, ratings, and monthly discharge.	1895.

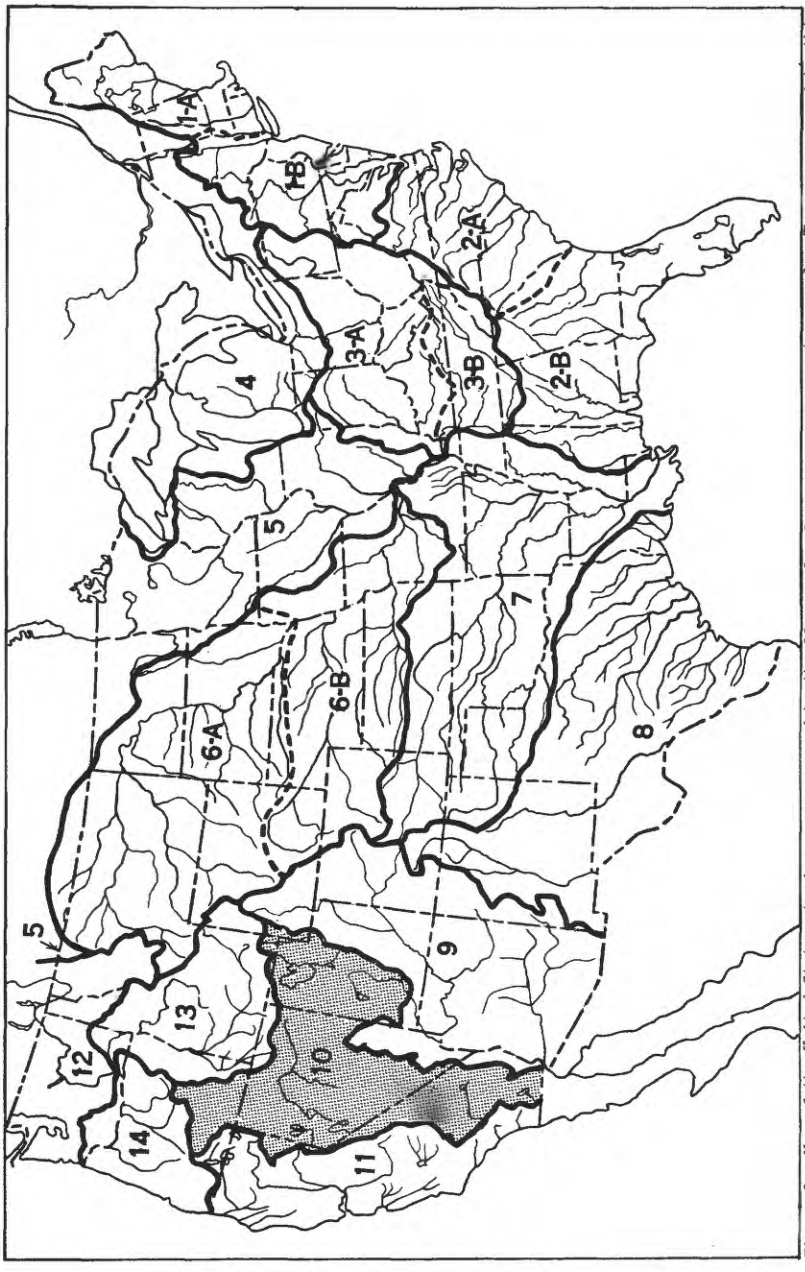


Figure 2.--Map of the United States showing areas covered by the 18 annual volumes on surface-water supply. The area covered by this report is shaded.

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

(A = Annual Reports; B = Bulletin)

Report	Character of data	Year
WSP 11.....	Gage heights.....	1896.
18th A, pt. 4	Descriptions, measurements, ratings, and monthly discharge..	1895-96.
WSP 15.....	Descriptions, measurements, and gage heights of streams 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, 1899-1953

Year	WSP	Year	WSP	Year	WSP	Year	WSP	Year	WSP
1899	38, a39	1911	310	1923	570	1934	765	1944	1010
1900	51	1912	330	1924	590	1935	790	1945	1040
1901	66, 75	1913	360	1925	610	1936	810	1946	1060
1902	85	1914	390	1926	630	1937	830	1947	1090
1903	100	1915	410	1927	650	1938	860	1948	1120
1904	133, b134	1916	440	1928	670	1939	880	1949	1150
1905	176, b177	1917	460	1929	690	1940	900	1950	1180
1906	212, b213	1918	480	1930	705	1941	930	1951	1214
1907-8	250, b251	1919-20	510	1931	720	1942	960	1952	1244
1909	270, b271	1921	530	1932	735	1943	980	1953	1284
1910	290	1922	550	1933	750				

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 under "Miscellaneous discharge measurements" 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 this 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.

Reports containing compilations of discharge by States and drainage basins--Continued

WSP	Period	Report
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 in western Nevada.

RECORDS OF DISCHARGE COLLECTED BY AGENCIES OTHER THAN THE GEOLOGICAL SURVEY

The table below contains a list of gaging stations for the area covered by this report, at which records of discharge were collected during the water year October 1952 to September 1953 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.	1898-1953a	Salt Lake City.
Cottonwood Creek.	....do.....	1898-1953a	Do.
Donner Creek.....	Above Cold Creek, near Truckee, Calif.....	1929-53	Federal Court Watermaster for Truckee River.
Emigration Creek.	Salt Lake City, Utah, near mouth of canyon.	1898-1953a	Salt Lake City.
Ephraim Creek....	Near Ephraim, Utah.....	1914-53	Intermountain Forest & Range Experiment Station.
Little Cottonwood Creek.	Salt Lake City, Utah, near mouth of canyon.	1898-1953a	Salt Lake City.
Little Truckee River.	Above Boca Reservoir, near Boca, Calif.....	1942-53	Washoe County Water Conservation District.
Do.....	Below Boca Reservoir, near Boca, Calif.....	1942-53	Do.
Mill Creek.....	Salt Lake City, Utah, near mouth of canyon.	1898-1953a	Salt Lake City.

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.

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

Stream	Location	Period	Collected by
Otter Creek Outlet.	Antimony, Utah, at former Geological Survey gaging station near Coyote.	1920-53b	Sevier River water commissioner.
Parleys Creek....	Salt Lake City, Utah, near mouth of canyon.	1898-1953a	Salt Lake City.
Sevier River.....	Delta, Utah, at former Geological Survey gaging station.	1920-53b	Sevier River water commissioner.
Silver Creek.....	NW¼ sec. 17, T. 25 S., R. 28 E., 1/3 mile below Moon Reservoir, 10½ miles southeast of Riley, Oreg.	1953	Oregon State engineer.
Truckee River....	At Derby Dam, Nev.....	1907-10c, 1926-53	Federal Court Watermaster for Truckee River.
Do.....	At Farad, Calif.....	1938-53d	Truckee-Carson Irrigation District.
Do.....	At Pyramid Dam, Nev.....	1928-53	Federal Court Watermaster for Truckee River.
Do.....	At Tahoe, Calif.....	1895-96, 1900-53d	Federal Court Watermaster for Truckee River and Truckee-Carson Irrigation District.
Do.....	At Vista, Nev.....	1899-1907c, 1927-53	Federal Court Watermaster for Truckee River.
Walker River.....	Near Wabuska, Nev.....	1902-8c 1920-34c, 1940-53	Walker River Irrigation
West Walker River	Near Hudson, Nev.....	1921-25c, 1941-53	Do.
Wildhorse Creek.	SE¼ sec. 34, T. 34 S., R. 33 E., in canyon above all diversions, 5½ miles north of Andrews, Oreg.	1950-53	Oregon State engineer.

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

Although precipitation was generally deficient during the 1953 water year, runoff over most of the Great Basin remained near normal, except in southern California, because of a carryover of ground-water storage from the preceding year. In southern California runoff was deficient during most of the year. No outstanding floods occurred during the year in the area covered by this report. For three key gaging stations in the area covered by this report, a comparison of the monthly and yearly mean discharges during the 1953 water year with the median for the 25-year period 1921-45 is shown in figure 3 on the opposite page.

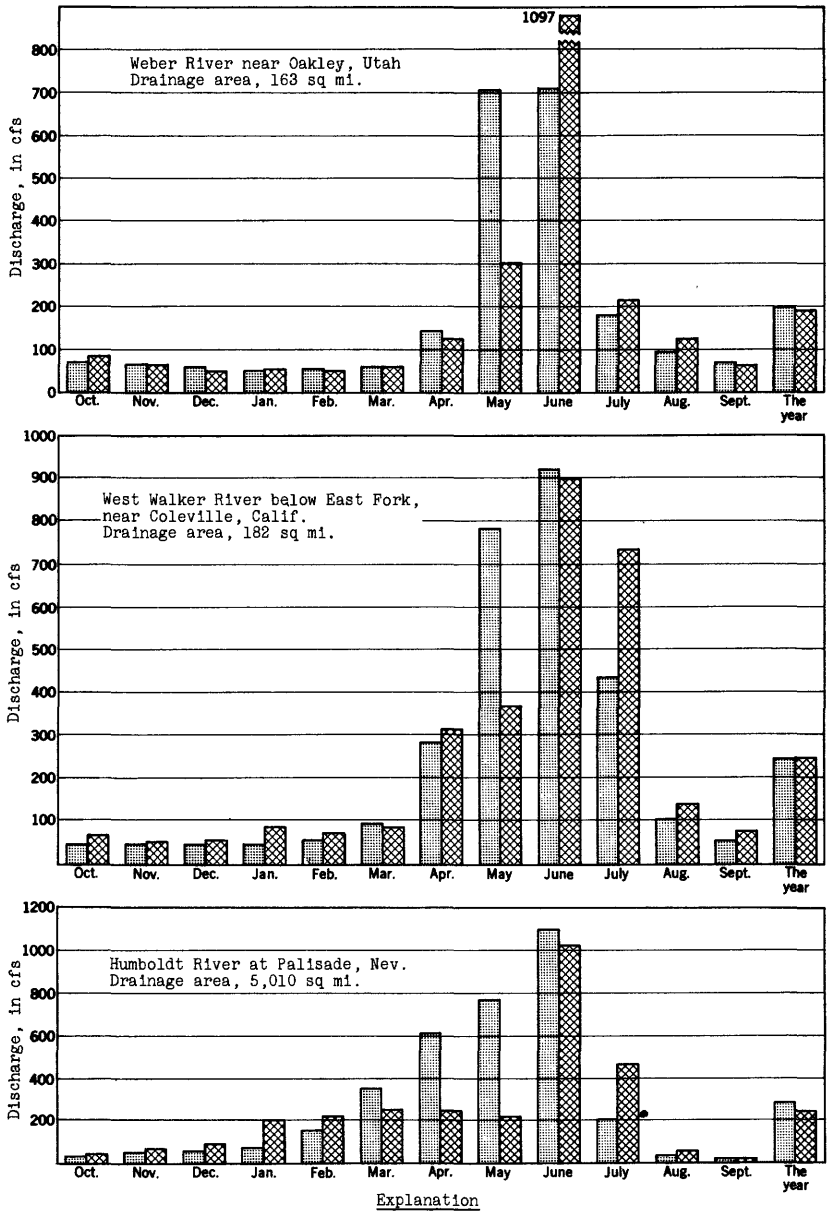


Figure 3.--Comparison of discharge at three key gaging stations during 1953 water year with median discharge for 25-year period.

GREAT SALT LAKE BASIN

Gages on Great Salt Lake, Utah

Location.--Lat 40°44'15", long. 112°12'30", in NW¼ sec. 17, T. 1 S., R. 3 W., at Salt Lake County Boat Harbor on southeast shore of lake, 17 miles west of Salt Lake City; 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 1953 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, 4,200.6 ft June 15 at Boat Harbor gage and June 1, 15, and July 1 at Midlake gage; minimum, 4,199.2 ft Dec. 1 at Midlake gage, and Sept. 15 at Boat Harbor gage.

1851-1953: 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 1952-53

Day	Boat Harbor	Midlake
Oct. 1	12.65	1.6
15	12.55	1.5
Nov. 1	12.5	1.35
15	12.45	1.15
Dec. 1	12.45	1.1
15	12.55	1.15
Jan. 1	12.7	1.25
15	12.85	1.6
Feb. 1	13.15	1.75
15	13.25	1.9
Mar. 1	13.3	2.1
15	13.35	2.25
Apr. 1	13.4	2.25
15	13.45	2.25
May 1	13.6	2.35
15	13.6	2.4
June 1	13.65	2.5
15	13.7	2.5
July 1	13.6	2.5
15	13.4	2.35
Aug. 1	13.1	2.1
15	12.8	1.9
Sept. 1	12.45	1.6
15	12.3	1.15

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 8 ft upstream from abandoned forest road bridge, 300 ft downstream from new road bridge, three-quarters of a mile downstream from head, and 25 miles southeast of Evanston.

Records available.--October 1949 to September 1953 in reports of Geological Survey. April 1944 to September 1949 (irrigation season only) in Bear River Hydrometric Data reports.

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

Extremes.--Maximum daily discharge during year, 33 cfs June 24; no flow Oct. 11 to June 12. 1949-53: Maximum daily discharge, 39 cfs June 15, 20, 1952; 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.

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 18-27)

0.4	0.4	1.6	13
.6	2.0	1.9	18
.8	3.8	2.3	25
1.0	5.8	2.7	34
1.3	9.0		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.4								0	25	19	5.3
2	8.3								0	26	26	*5.4
3	8.2								0	27	21	5.3
4	8.1								0	25	18	5.1
5	7.9								0	24	16	4.5
6	7.9								0	27	14	4.6
7	7.9								0	*29	*13	4.6
8	7.8								0	27	13	4.7
9	7.6								0	24	12	4.7
10	4.9								0	27	12	4.5
11	0								0	26	10	4.3
12	0								0	25	9.4	4.3
13	0								6.5	24	8.9	4.2
14	0								25	22	10	4.2
15	0								*13	20	10	4.7
18	0								13	19	8.7	4.9
17	0								16	19	8.6	*5.0
18	0								26	17	*8.6	5.0
19	0								26	14	7.9	4.6
20	0								25	13	7.6	4.5
21	0								24	*12	8.0	4.4
22	0								24	10	7.7	4.3
23	0								*26	12	7.5	4.2
24	0								33	14	6.7	4.2
25	0								31	13	6.6	4.1
26	0								29	13	6.6	4.1
27	0								28	12	6.5	4.0
28	0								28	12	6.2	4.2
29	0								28	12	5.9	4.2
30	0								*27	14	5.6	4.0
31	0								-	14	5.5	-
Total	77.0	0	0	0	0	0	0	0	428.5	598	326.5	136.1
Mean	2.48	0	0	0	0	0	0	0	14.3	19.3	10.5	4.54
Ac-ft	153	0	0	0	0	0	0	0	850	1,190	648	270

Calandar year 1952: Max 39 Min 0 Mean 6.74 Ac-ft 4,880
Water year 1952-53: Max 33 Min 0 Mean 4.29 Ac-ft 3,110

* Discharge measurement made on this day.

Bear River near Utah-Wyoming State line

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

Drainage area.--176 sq mi.

Records available.--July 1942 to September 1953.

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

Average discharge.--11 years, 199 cfs.

Extremes.--Maximum discharge during year, 2,750 cfs June 14 (gage height, 4.89 ft); minimum, 24 cfs Sept. 25.
1942-53: Maximum discharge, that of June 14, 1953; minimum, 16 cfs Apr. 11, 1951, 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 or no gage-height record, which are fair. Diversions above station for irrigation of land in drainage basin below station.

Rating tables, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 14 to July 24)

Oct. 1 to May 17		May 18 to Sept. 30			
1.0	38	1.1	23	2.7	750
1.1	46	1.3	49	3.3	1,240
1.3	69	1.5	92	3.9	1,780
1.5	108	1.8	194	4.5	2,360
1.8	198	2.2	400		
2.0	280				

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	54	50	a42	b47	42	41	48	149	774	593	207	38
2	54	47	a43	47	41	47	48	131	806	572	336	40
3	53	44	a43	43	42	45	48	108	*856	517	220	38
4	53	46	a40	b43	41	42	50	108	898	457	167	37
5	52	47	b47	43	41	45	44	129	932	413	141	36
6	53	46	55	*41	40	45	46	174	742	370	*124	34
7	53	47	55	40	41	45	42	233	856	*341	112	36
8	51	44	55	40	42	43	41	246	822	319	109	36
9	50	45	*51	41	41	42	45	229	890	309	112	37
10	50	50	51	41	b42	42	44	181	1,180	432	101	36
11	55	48	50	41	b42	43	49	167	1,430	406	90	34
12	55	50	50	40	b43	42	45	155	1,630	314	85	33
13	54	43	48	40	b41	42	44	149	*2,110	287	78	33
14	53	50	48	39	b43	42	42	152	2,280	262	82	32
15	51	45	46	39	44	45	42	167	1,950	243	87	32
16	54	49	46	b39	b43	44	43	181	1,670	212	75	33
17	55	b50	45	b41	*b41	43	46	218	*1,770	207	73	*33
18	52	b50	45	44	40	43	44	*258	*1,740	203	*73	32
19	53	b51	45	44	44	43	44	282	1,630	155	64	31
20	52	b49	45	45	b41	42	57	336	1,410	138	58	28
21	52	b47	45	44	b40	42	76	282	1,260	124	62	27
22	51	b44	b43	b44	b41	44	97	243	1,200	112	60	27
23	52	b42	b39	44	b42	44	134	258	*1,140	115	57	25
24	51	b40	b37	43	b43	*46	155	309	1,050	118	49	26
25	50	a38	b37	44	b43	47	167	303	864	118	44	25
26	49	a37	b37	43	b43	47	210	425	742	118	48	25
27	48	a37	b38	43	43	51	241	608	682	128	46	25
28	*48	a37	b40	b43	44	54	241	838	638	121	44	25
29	49	a38	b42	43	-	55	195	742	615	131	42	27
30	49	a40	b45	41	-	53	*174	622	*593	159	40	27
31	49	-	b47	b41	-	48	-	638	-	171	40	-
Total	1,605	1,351	1,400	1,311	1,174	1,397	2,602	9,021	35,160	8,165	2,926	948
Mean	51.8	45.0	45.2	42.3	41.9	45.1	86.7	291	1,172	263	94.4	31.6
Ac-ft	3,180	2,680	2,780	2,600	2,330	2,770	5,160	17,890	69,740	16,200	5,800	1,880

Calendar year 1952: Max 2,020 Min 37 Mean 266 Ac-ft 193,300
Water year 1952-53: Max 2,280 Min 25 Mean 184 Ac-ft 133,000

Peak discharge (base, 1,100 cfs).--June 14 (1 a.m.) 2,750 cfs (4.89 ft).
* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for stations on neary streems.
b Stage-discharge relation affected by ice.

Mill Creek at Utah-Wyoming State line

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

Drainage area.--59 sq mi, approximately.

Records available.--October 1949 to September 1953. July 1942 to September 1948 at site 1½ miles downstream, published as "near Evanston"; records not equivalent at times because of diversions between sites for irrigation.

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

Extremes.--Maximum discharge during year, 566 cfs June 13 (gage height, 3.95 ft); minimum, 1.0 cfs Nov. 13, result of freezeup.
1949-53: Maximum discharge, 626 cfs May 3, 1952 (gage height, 4.27 ft); 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 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 9-13, Feb. 11-19, Mar. 1-9)

0.5	3.4	1.6	86
.6	5.0	2.0	138
.8	12	2.4	199
1.0	22	2.8	273
1.3	50	3.3	384

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.7	7.1	b9.0	b9.0	10	b10	11	31	209	41	36	4.2
2	7.7	5.9	b10	b9.0	10	10	10	26	209	37	43	4.2
3	7.4	5.0	b10	9.2	10	10	9.6	22	*196	30	27	4.2
4	7.4	5.6	b9.0	9.2	9.6	9.6	12	22	181	28	18	4.2
5	7.4	6.8	b9.0	9.2	9.6	9.6	9.2	29	175	26	16	4.2
6	7.4	6.5	b10	*9.6	9.6	10	10	51	133	24	*14	4.0
7	7.4	6.8	b10	10	9.2	11	9.2	76	151	22	13	4.2
8	7.4	5.3	a10	11	8.8	12	7.1	77	166	20	14	4.4
9	7.4	4.8	*9.2	9.6	8.0	12	11	62	197	20	15	4.8
10	7.4	4.4	8.4	9.2	8.0	12	10	42	290	41	12	4.7
11	7.4	5.0	9.2	8.4	7.7	11	9.6	35	339	47	11	4.5
12	7.1	6.2	9.6	8.0	7.1	10	9.6	32	362	28	9.6	4.5
13	7.4	4.7	10	7.7	7.7	10	11	30	403	24	8.8	4.5
14	7.4	9.2	10	8.8	8.0	9.2	8.8	32	396	24	9.6	4.7
15	7.1	7.1	11	b8.5	7.7	9.6	8.0	42	326	25	12	4.7
16	7.4	7.1	11	b8.5	7.7	9.6	10	48	*279	21	8.8	4.8
17	7.7	10	11	b8.5	*8.4	8.0	14	69	257	20	8.4	*5.0
18	7.1	10	10	b9.0	7.7	9.6	12	*81	244	20	*9.2	5.3
19	7.4	9.2	10	9.2	7.7	8.8	11	78	214	17	8.4	5.0
20	7.4	9.2	10	9.2	b7.0	8.8	20	96	167	16	6.5	4.8
21	7.1	b8.5	10	9.2	b6.5	9.2	30	71	139	*14	5.0	4.8
22	7.1	b8.5	10	9.2	b7.0	11	41	55	124	13	4.8	4.8
23	7.4	b8.0	9.6	9.2	b7.5	9.6	54	59	*109	13	4.8	5.0
24	7.1	b8.0	9.2	8.8	b8.0	*8.8	58	76	96	12	4.7	5.3
25	7.1		b8.5	8.8	b8.5	11	61	74	77	12	4.4	5.3
26	7.1		b8.0	8.4	b9.0	14	73	122	68	16	4.4	5.3
27	7.1	b7.5	b8.0	8.4	b9.5	19	85	180	63	21	4.5	5.3
28	*7.1		b8.0	9.6	b10	20	74	238	56	14	4.8	5.0
29	7.1		b8.0	10	-	16	48	186	*51	16	4.5	5.3
30	7.4		b8.5	9.6	-	14	*38	149	44	17	4.5	5.3
31	7.1	-	b9.0	9.6	-	11	-	173	-	15	4.4	-
Total	226.7	213.9	293.2	281.6	235.5	344.4	775.1	2,364	5,721	694	351.1	142.3
Mean	7.31	7.13	9.46	9.08	8.41	11.1	25.8	76.3	191	22.4	11.3	4.74
Ac-ft	450	424	582	559	467	683	1,540	4,690	11,350	1,380	696	282

Calendar year 1952: Max 433 Min - Mean 50.5 Ac-ft 36,630
Water year 1952-53: Max 403 Min 4.0 Mean 31.9 Ac-ft 23,100

Peak discharge (base, 250 cfs).--May 28 (10 p.m.) 284 cfs (2.77 ft); June 13 (11 p.m.) 566 cfs (3.95 ft).
* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records.
b Stage-discharge relation affected by ice.

Bear River above Sulphur Creek, near Evanston, Wyo.

Location.--Lat 41°09', long. 110°53', in SW¼SE¼ sec. 31, T. 14 N., R. 119 W., on right bank 1⅔ miles upstream from Myers Bridge, 5.5 miles upstream from Sulphur Creek, and 9½ miles southeast of Evanston.

Drainage area.--282 sq mi.

Records available.--October 1946 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 7,125 ft (from river-profile map).

Average discharge.--7 years, 228 cfs.

Extremes.--Maximum discharge during year, 2,970 cfs June 14 (gage height, 5.73 ft); minimum, 5.1 cfs Sept. 12.
1946-53: Maximum discharge, that of June 14, 1953; minimum, that of Sept. 12, 1953.

Remarks.--Records good except those for period 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.

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	37	35					159	214	a800	*355	50	9.7
2	37	35					153	190	*877	355	117	8.6
3	38	29	45			60	150	159	891	308	130	8.6
4	34	28					165	162	898	258	90	a8.0
5	35	30			60		127	159	959	222	72	a7.5
6	35	32					109	190	779	222	60	a7.0
7	35	33		(*)			94	276	851	188	55	a6.5
8	36	32				65	72	308	891	*174	56	a6.5
9	37	23					74	308	857	174	59	a6.0
10	37	24	(*)				61	254	1,140	218	53	a6.0
11	38	28					56	232	1,480	299	60	6.3
12	40	36					63	221	1,700	241	59	6.3
13	43	36	55				63	207	*2,100	211	53	6.3
14	41	41					72	200	2,500	180	45	9.7
15	41	43		60		75	61	218	2,400	171	44	9.7
16	41	33					130	232	*2,040	156	44	9.2
17	44	45					138	272	*1,800	126	41	*10
18	45	50			*55		109	351	*1,670	105	*35	11
19	43	50					111	*360	1,630	85	33	11
20	45	50					168	516	1,410	*73	30	11
21	46						210	407	1,220	60	28	10
22	46					70	*232	338	1,120	52	27	9.7
23	37	45					239	316	1,070	42	26	8.6
24	30						239	393	*970	40	24	8.6
25	30		50			80	228	338	794	35	20	a8.5
26	29					100	257	a500	656	32	16	a8.5
27	29				60	200	304	a700	603	36	14	a8.5
28	*30	40				250	325	a950	481	*36	14	a8.5
29	33				-	275	261	a800	439	36	13	a9.0
30	34				-	*300	235	a700	360	34	12	a9.5
31	34	-			-	187	-	a750	-	39	11	-
Total	1,160	1,138	1,600	1,860	1,605	3,047	4,665	11,221	35,386	4,560	1,391	254.3
Mean	37.4	37.9	51.6	60	57.3	98.3	156	362	1,180	147	44.9	8.48
Ac-ft	2,300	2,260	3,170	3,690	3,180	6,040	9,250	22,260	70,190	9,040	2,760	504

Calendar year 1952: Max 2,030 Min 23 Mean 302 Ac-ft 219,100
Water year 1952-53: Max 2,500 Min 6.0 Mean 186 Ac-ft 134,600

Peak discharge (base, 1,100 cfs).--June 14 (10 a.m.) 2,970 cfs (5.73 ft).
* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for other nearby stations on Bear River.
Note.--Stage-discharge relation affected by ice Nov. 17 to Mar. 30.

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 1953.

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.--11 years, 24.6 cfs.

Extremes.--Maximum discharge during year, 196 cfs May 20 (gage height, 3.44 ft); minimum, 0.4 cfs Nov. 9, but may have been less during periods of ice effect.
1942-53: 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, which are fair. Natural flow of stream affected by diversions for irrigation and return flows from irrigated areas.

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

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0	1.4					50	25	66	*7.9	9.6	1.2
2	1.0	1.2					43	27	*65	6.7	48	1.3
3	1.0	1.1					44	21	67	6.4	49	1.3
4	1.1	1.1					53	19	62	5.9	28	1.3
5	1.1	1.2					40	16	59	5.1	19	1.2
			1.5	4.0								
6	1.0	1.5		(*)			34	15	56	5.1	15	1.2
7	1.0	1.7					29	17	68	5.1	*13	1.2
8	1.1	1.8					22	*20	96	6.2	26	1.2
9	1.4	1.7	(*)				21	19	66	5.1	38	1.3
10	1.2	1.1				(*)	17	19	58	16	19	1.2
						20						
11	1.2	1.1					18	20	50	46	11	1.2
12	1.1	2.0					17	21	54	30	6.7	1.1
13	1.0	3.0			6.0		17	17	43	26	4.9	1.0
14	1.0	3.0					18	14	38	16	4.6	1.1
15	.9	3.4	3.0				*18	13	34	10	5.1	1.5
16	.9	3.0					30	18	*26	9.0	4.9	1.4
17	.9	2.2					44	31	21	9.0	5.3	1.4
18	.9	2.8			(*)		36	*57	22	7.9	*5.1	1.3
19	.9	2.8					50	65	23	7.4	4.2	1.0
20	1.0	2.5				17	80	162	23	5.7	3.5	1.0
				6.0								
21	1.0					16	87	84	27	3.0	3.2	1.0
22	1.0					18	*77	53	26	2.1	3.2	1.0
23	.9					15	64	48	23	1.8	3.0	1.0
24	1.1					*18	47	50	19	1.6	2.2	1.0
25	1.2					22	37	43	17	1.4	1.8	1.0
		1.5	2.5									
26	1.4					49	34	35	16	1.5	1.5	1.0
27	1.4				10	68	34	64	15	2.4	1.5	1.0
28	*1.5					86	31	100	14	*2.0	1.5	1.1
29	1.5				-	116	27	82	11	2.5	1.4	1.1
30	1.5				-	120	*25	67	11	3.0	1.4	1.1
31	1.5	-			-	*71	-	67	-	3.6	1.3	-
Total	34.7	54.6	72.5	166.0	180.0	996	1,144	1,309	1,176	261.4	342.9	34.7
Mean	1.12	1.82	2.34	5.35	6.43	32.1	38.1	42.2	39.2	8.43	11.1	1.16
Ac-ft	69	108	144	329	357	1,980	2,270	2,600	2,330	518	680	69

Calendar year 1952: Max 795 Min 0.9 Mean 47.6 Ac-ft 34,580
Water year 1952-53: Max 162 Min - Mean 15.8 Ac-ft 11,450

Peak discharge (base, 300 cfs).--No peak above base.
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 19 to Mar. 19 (no gage-height record Dec. 6-8, Feb. 13-17).

Yellow Creek near Evanston, Wyo.

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

Drainage area.--80 sq mi, approximately.

Records available.--February 1943 to September 1945, October 1949 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 6,920 ft (from river-profile map). February 1943 to September 1945 at site 500 ft upstream at different datum.

Average discharge.--6 years, 14.8 cfs.

Extremes.--Maximum discharge during year, 58 cfs May 20 (gage height, 2.84 ft); no flow July 5-11, July 13 to Sept. 30.
1943-45, 1949-53: 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, which are fair. One small diversion for irrigation of hay meadows above station.

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.2	1.8					20	*16	42	*1.6		
2	1.2	1.6					15	15	40	1.0		
3	1.2	1.5				6.0	13	12	37	.4		
4	1.2	1.3					13	9.9	*31	.2		
5	1.2	1.4		(*)			12	8.4	30	.1		
			1.5	2.5								
6	1.3	1.4					11	7.3	34	0		
7	1.3	1.5					10	8.8	34	0		
8	1.3	1.5	(*)				9.0	*14	43	0		
9	1.4	1.3			3.5		9.0	16	43	0		
10	1.4	1.2					9.1	16	31	0		
11	1.5	1.2					9.1	14	22	0		
12	1.3	1.3					7.3	13	17	.1		
13	1.3	1.5					8.0	12	16	0		
14	1.4	1.8					9.1	11	14	0		
15	1.5	1.8					*9.1	10	12	0		
			2.0			10						
16	1.5	1.6					11	13	10	0		
17	1.5	1.9					15	16	9.1	0	(*)	
18	1.5				(*)		14	17	*8.0	0		
19	1.5	2.0					10	28	6.5	0		
20	1.5						13	49	5.3	0		
21	1.4			3.5	3.5		24	50	4.8	0		
22	1.4						*26	*37	4.0	0		
23	1.4						24	28	3.1	0		
24	1.5						23	34	2.3	0		
25	1.5					15	17	39	1.6	0		
		1.5	1.5									
26	1.5						15	34	1.5	0		
27	*1.5				6.0	(**)	15	43	1.5	0		
28	1.4					30	17	50	1.5	*0		
29	1.4				-		18	50	1.6	0		
30	1.4				-		15	42	1.6	0		
31	1.5	-			-	(*)	-	45	-	0		
Total	43.1	46.6	51.5	98.5	105.5	415.0	420.7	758.4	508.4	3.4	0	0
Mean	1.39	1.55	1.66	3.18	3.77	13.4	14.0	24.5	16.9	0.11	0	0
Ac-ft	85	92	102	195	209	823	834	1,500	1,010	6.7	0	0

Calendar year 1952: Max 397 Min - Mean 25.9 Ac-ft 18,820
Water year 1952-53: Max 50 Min 0 Mean 6.72 Ac-ft 4,860

Peak discharge (base, 100 cfs).--No peak above base.
* Discharge measurement or observation of no flow made on this day.
** Field estimate made on this day.
Note.--Stage-discharge relation affected by ice Nov. 18 to Apr. 9 (no gage-height record Nov. 26 to Feb. 17; discharge estimated on basis of 2 discharge measurements, 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 1953.

Gage.--Water-stage recorder. Altitude of gage is 6,610 ft (from river-profile map).

Average discharge.--40 years, 238 cfs.

Extremes.--Maximum discharge during year, 2,440 cfs June 14 (gage height, 6.15 ft); minimum, 1.3 cfs Sept. 30.
1913-53: 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.

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.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 29 to June 13, June 17-26)

0.6	1.0	1.9	171
.7	2.5	2.4	305
.8	6.0	3.0	495
.9	12	4.0	890
1.0	19	5.0	1,330
1.2	40	6.1	2,270
1.5	86		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	34					353	276	886	265	13	5.6
2	32	34					296	256	894	226	27	5.3
3	32	32	50			80	276	226	*902	198	109	4.6
4	32	32					314	205	914	169	78	3.9
5	31	34		(*)			282	183	922	144	60	3.6
6	31	35			70	90	237	193	930	*120	47	3.6
7	32	37				100	208	251	877	96	*35	3.6
8	32	37				110	164	296	898	81	32	3.2
9	33	32				120	155	317	910	74	50	2.8
10	34	30	(*)			*126	150	285	918	86	44	2.8
11	34	30				133	140	265	990	164	34	2.8
12	35	38				124	150	251	1,140	157	32	2.5
13	35	43	65			126	150	240	1,710	144	28	2.5
14	37	46				126	160	216	2,260	*109	28	2.2
15	37	51				124	150	205	*2,260	96	27	2.2
16	37	40		70	(*)	122	230	211	2,050	90	26	2.4
17	38	40				128	250	248	1,730	81	*28	*2.5
18	40	57			65	128	230	311	1,640	68	26	2.5
19	41	64				124	230	*412	1,550	58	24	2.5
20	43	55				137	300	500	1,460	48	20	2.5
21	46					118	370	400	1,310	32	18	2.5
22	48					105	370	350	*1,130	19	18	2.0
23	47	50				107	*380	320	1,070	15	17	1.9
24	39					116	353	400	994	12	16	1.6
25	38					139	323	370	902	9.8	15	1.6
26	35		60			193	314	*450	723	9.3	14	1.6
27	34				80	*245	347	600	589	*8.2	12	1.6
28	*33	45				323	356	800	488	9.8	10	1.4
29	35				-	448	329	938	*396	11	9.8	1.4
30	35				-	509	285	930	302	9.8	7.6	*1.4
31	37	-			-	399	-	910	-	10	6.6	-
Total	1,125	1,274	1,885	2,170	1,915	4,920	7,852	11,815	33,745	2,619.9	912.0	80.6
Mean	36.3	42.5	60.8	70	68.4	159	262	381	1,125	84.5	29.4	2.69
Ac-ft	2,230	2,530	3,740	4,300	3,800	9,760	15,570	23,430	66,930	5,200	1,810	160

Calendar year 1952: Max 2,720 Min 30 Mean 406 Ac-ft 294,600
Water year 1952-53: Max 2,260 Min 1.4 Mean 193 Ac-ft 139,500

Peak discharge (base, 1,200 cfs).--June 14 (10:30 a.m.) 2,440 cfs (6.15 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 21 to Mar. 9. No gage-height record Apr. 10-22, May 20-28; discharge estimated on basis of 1 discharge measurement, weather records, and records for other nearby stations on Bear River.

Chapman Canal at State line, near Evanston, Wyo.

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

Records available.--October 1945 to September 1953 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 Bear River Hydrometric Data reports.

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

Average discharge.--8 years (1945-53), 16.0 cfs.

Extremes.--1942-53: Maximum daily discharge observed, 129 cfs Apr. 14, 1946; no flow at times each year.

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

Rating table, water year 1952-53, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 10 to Apr. 13)

0.4	0	1.1	19
.5	.8	1.3	32
.6	2.2	1.7	68
.7	4.2	2.1	108
.9	9.7		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0			0	a40	75	10	74	40	3.8	*0.3
2		0			0	a40	70	9.7	77	*44	7.4	0
3		0			0	a40	72	9.1	*76	52	44	0
4		0			0	a40	77	8.8	76	50	37	0
5		0			0	a40	76	8.8	a78	48	29	0
6		0			0	a40	69	7.7	a80	*39	27	0
7		0			0	a40	64	a20	a82	25	18	0
8		0			0	a40	57	*32	a84	19	14	0
9		6.4			0	*a40	53	34	a86	15	22	0
10		18			0	49	51	35	a88	15	25	0
11		18			0	47	46	33	a90	43	*18	0
12		14			0	51	52	32	a91	52	15	0
13		17			0	40	51	30	a91	46	12	0
14		18			0	40	55	44	a94	*34	11	0
15		20			0	33	*54	33	*a91	28	12	0
16		15			0	32	58	36	91	30	10	0
17		18			0	27	80	32	91	27	*11	0
18		17			0	29	47	36	95	23	12	0
19		22			0	27	13	*52	100	22	11	0
20		25			0	30	13	64	98	19	8.8	0
21		b16			0	30	14	61	91	15	10	0
22		b8.0			0	30	14	50	*87	8.8	12	0
23		b0			0	27	14	52	84	6.5	11	0
24		0			0	25	14	57	90	4.5	10	0
25		0			0	28	13	58	82	3.6	8.2	0
26		0			0	43	13	61	75	3.2	8.0	0
27		0			0	*69	13	67	69	*3.2	6.3	0
28		0			20	77	13	81	64	2.4	2.6	0
29		0			-	89	12	*88	57	3.6	1.4	0
30		0			-	*91	11	78	46	2.8	.9	0
31		-			-	81	-	75	-	2.6	.6	-
Total	0	232.4	0	0	20	1,355	1,264	1,295.1	2,478	727.2	419.0	0.3
Mean	0	7.74	0	0	0.7	43.7	42.1	41.8	82.6	23.5	13.5	0.01
Ac-ft	0	461	0	0	40	2,690	2,510	2,570	4,920	1,440	831	0.6

Calendar year 1952: Max 122 Min 0 Mean 17.0 Ac-ft 12,310
Water year 1952-53: Max 100 Min 0 Mean 21.3 Ac-ft 15,470

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records, notes of watermaster, records for station on Bear River near Woodruff, Utah, or interpolated.
b Stage-discharge relation affected by ice.

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 1953.

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

Average discharge.--11 years, 240 cfs.

Extremes.--Maximum discharge during year, 2,350 cfs June 16 (gage height, 4.79 ft); minimum daily, 0.1 cfs Sept. 25-30.
1942-53: 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.

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 Saleratus Basin, and return flow from irrigated areas.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.45	0	1.0	15	2.5	395
.5	.4	1.2	34	3.0	680
.6	1.3	1.5	79	3.6	1,090
.7	3.5	1.8	146	4.2	1,620
.8	6.0	2.1	239	4.9	2,410

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	39					285	289	719	197	11	1.5
2	31	39					253	270	*804	*166	14	1.2
3	30	40	60			45	219	242	790	143	35	1.0
4	28	37					222	216	797	123	42	1.0
5	28	37			75		239	206	790	102	42	1.1
6	27	39					194	187	810	88	37	1.2
7	28	40		(*)			175	197	706	69	28	1.1
8	30	42				55	143	246	804	*56	23	1.2
9	30	38					118	260	797	44	19	1.2
10	31	25	(*)				109	270	*758	44	17	1.1
11	32	21					100	242	999	54	20	1.2
12	34	21					90	226	1,270	74	17	1.1
13	34	21	70			70	92	213	1,470	70	12	1.0
14	34	23					90	184	1,710	83	12	1.0
15	37	25		75			100	163	2,120	74	12	.9
16	38	31					92	184	*2,300	*64	12	.8
17	38	33					130	175	2,190	58	11	.7
18	39	26			70	80	190	209	1,760	48	11	*.5
19	42	39			(*)		216	289	1,520	40	*10	.3
20	43	43					242	*395	1,410	34	9.2	.2
21	46	42					311	560	1,220	30	10	.2
22	48	40					351	415	1,030	26	11	.2
23	53	40				65	*364	355	915	23	8.4	.2
24	52	40					347	347	*817	19	6.7	a.2
25	44	40				130	319	369	732	16	4.8	a.1
26	42	45	65			*146	300	327	584	13	4.0	a.1
27	40	50			85	163	311	377	476	12	3.5	a.1
28	39	55				209	331	526	405	11	3.3	**a.1
29	*38	60			-	300	347	804	335	9.5	2.8	a.1
30	38	60			-	391	296	866	264	*8.4	2.4	a.1
31	40	-			-	351	-	745	-	9.2	1.7	-
Total	1,146	1,131	2,065	2,325	2,055	3,200	6,576	10,354	31,302	1,808.1	452.8	20.7
Mean	37.0	37.7	66.6	75	73.4	103	219	334	1,043	58.3	14.6	0.69
Ac-ft	2,270	2,240	4,100	4,610	4,080	6,350	13,040	20,540	62,090	3,590	898	41

Calendar year 1952: Max 2,760 Min 21 Mean 391 Ac-ft 284,000
Water year 1952-53: Max 2,300 Min 0.1 Mean 171 Ac-ft 123,800

Peak discharge (base, 1,300 cfs).--June 16 (2 a.m.) 2,350 cfs (4.79 ft).
* Discharge measurement made on this day.
** Field estimate made on this day.
a No gage-height record; discharge estimated on basis of field estimate and record of stage obtained.
Note.--Stage-discharge relation affected by ice Nov. 23 to Mar. 24 (no gage-height record Dec. 7 to Feb. 18; discharge estimated on basis of 3 discharge measurements, weather records, and records for nearby stations on Bear River).

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 in reports of Geological Survey. Seasonal records available 1944-47, 1949 in Bear River Hydrometric Data report. All canals equipped with water-stage recorders. Prior to 1949, 6 canals equipped with staff gages only, which were read at least three or four times weekly. Records of discharge are combined to show total diverted flow. Records good.

Discharge, in cubic feet per second, May to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								343	903	464	56	31
2								330	945	410	56	33
3								304	968	367	72	36
4								274	970	320	38	34
5								255	988	280	28	38
6								251	969	253	28	37
7								247	957	228	22	35
8								273	961	193	18	35
9								294	959	170	16	33
10								312	929	191	14	23
11								306	973	219	12	27
12								294	1,050	226	17	28
13								282	1,100	224	16	28
14								261	1,160	217	11	30
15								233	1,250	226	11	28
16								273	1,300	210	19	28
17								253	1,250	178	31	26
18								280	1,190	158	18	27
19								340	1,130	148	7.6	27
20								452	1,080	161	7.3	28
21								592	1,000	124	6.6	30
22								595	933	84	18	33
23								575	893	53	26	30
24								591	849	51	22	28
25								570	826	47	16	28
26								553	795	40	5.0	27
27								564	705	35	18	26
28								641	656	31	43	26
29								777	602	31	37	26
30								924	554	28	34	26
31								919	-	32	30	-
Total								13,158	28,845	5,399	753.5	892
Mean								424	962	174	24.3	29.7
Ac-ft								26,100	57,210	10,710	1,490	1,770

Calendar year	: Max	Min	Mean
The period	: Max -	Min -	Mean -

Ac-ft

Ac-ft 97,280

Woodruff Creek near Woodruff, Utah

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

Drainage area.--65 sq mi, approximately.

Records available.--October 1949 to September 1953 in reports of Geological Survey. October 1937 to September 1943 records for site 1½ miles upstream available in files at Logan project office, Geological Survey, under name of South Fork Woodruff Creek near Woodruff.

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

Extremes.--Maximum discharge during year, 203 cfs June 11 (gage height, 4.11 ft); minimum, 3.5 cfs Mar. 16.
1949-53: Maximum discharge, 528 cfs May 25, 1950 (gage height, 5.72 ft); minimum, 2.9 cfs Mar. 29, 1951, 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.

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	15	a10	12	12	12	26	36	130	32	15	9.0
2	15	14	a11	12	12	10	22	31	160	30	16	*9.0
3	15	13	a11	12	13	9.5	22	29	160	29	16	9.5
4	15	14	a11	13	13	9.5	24	27	163	27	14	9.5
5	15	15	a11	13	13	9.5	25	33	182	26	13	9.0
6	15	14	a12	13	14	9.0	22	46	163	26	12	9.0
7	15	12	a12	*13	12	9.5	21	*62	165	24	12	8.5
8	15	12	*12	14	14	10	18	67	176	*22	12	8.5
9	15	10	12	14	11	12	18	64	*160	22	12	8.5
10	15	12	12	14	b9.0	14	15	53	183	27	12	8.5
11	15	12	13	14	a8.0	15	14	45	180	26	12	8.5
12	15	14	13	15	a8.0	14	14	39	168	23	11	8.5
13	15	15	14	15	a9.0	14	12	35	151	22	10	8.5
14	15	15	14	16	a10	11	13	34	129	21	11	8.5
15	15	15	b13	12	a10	12	12	38	*107	20	12	8.2
16	15	12	14	13	a10	12	12	54	95	20	11	8.5
17	15	b12	13	15	a9.5	13	16	62	83	18	10	8.5
18	15	b12	14	15	9.0	10	16	77	76	18	10	9.0
19	15	b12	14	17	b9.0	12	15	99	68	18	*10	8.5
20	15	12	14	15	*b8.5	12	20	*141	61	17	9.5	8.2
21	15	b12	14	14	b7.0	12	30	110	55	16	9.5	8.2
22	15	b11	14	11	b7.5	10	40	89	51	16	10	8.2
23	15	b10	b12	14	7.9	11	*48	85	48	16	9.5	8.2
24	15	b10	b11	12	b8.0	12	47	82	*47	15	9.5	8.5
25	16	b10	b10	12	b8.0	16	48	76	44	15	9.5	8.2
26	15	b10	b9.0	13	8.5	*22	52	76	41	14	9.5	8.5
27	15	b10	b10	9.0	9.5	25	58	78	38	14	9.0	8.5
28	15	b10	b11	14	10	29	56	122	37	14	9.0	9.0
29	*15	b10	12	14	-	31	49	157	35	14	9.0	*10
30	15	b10	12	14	-	34	43	123	33	14	9.0	10
31	15	-	12	12	-	29	-	107	-	*14	9.0	-
Total	466	385	377.0	416.0	280.4	461.0	828	2,177	3,189	630	343.0	261.2
Mean	15.0	12.2	12.2	13.4	10.0	14.9	27.6	70.2	106	20.3	11.1	8.71
Ac-ft	924	724	748	825	556	914	1,640	4,320	6,330	1,250	680	518

Calendar year 1952: Max 420 Min - Mean 49.1 Ac-ft 35,630
Water year 1952-53: Max 183 Min 7.0 Mean 26.8 Ac-ft 19,430

* 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 NE¼ 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 1953.

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

Extremes.--Maximum discharge during year, 36 cfs May 29 (gage height, 2.28 ft); practically no flow at times in winter during periods of ice effect or no gage-height record.
1949-53: Maximum discharge, 172 cfs May 22, 1950 (gage height, 3.73 ft); practically no flow at times each winter during periods of ice effect or no gage-height record since 1952.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. No diversions above station. Flow regulated by two small reservoirs 1¼ miles upstream (capacity, 2,430 acre-ft). Birch Creek Reservoir (capacity, 2,260 acre-ft) completed in November 1951.

Rating tables, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 30 to June 13, July 8-11)

Oct. 1 to May 28		May 29 to Sept. 30			
0.7	0.4	0.7	0.3	1.2	5.6
.8	.8	.8	.8	1.4	9.8
.9	2.1	.9	1.6	1.7	17
1.1	5.8	1.0	2.7	2.1	28
1.3	10				

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.4	0.4			0.6	0.9	1.8	3.5	27	4.3	24	*1.2
2	.4	.4			.6		1.6	3.0	27	4.2	24	1.1
3	.4	.4			.6		1.4	2.6	27	4.0	23	1.1
4	.4	.4		0.5	.7		1.4	2.3	27	3.9	22	1.0
5	.4	.4	bo.4		.6		1.6	2.6	*26	3.6	22	1.0
6	.4	.4			.6		1.4	3.1	26	3.5	22	1.0
7	.4	.4		*.6	.6		.7	*4.0	26	11	21	1.0
8	.4	.4		.5	.7	b.7	.7	4.6	26	*23	21	.9
9	.4	.4		.5	.6		.7	4.8	*24	24	21	.9
10	.4	.4		.6	.7		.7	4.6	22	24	21	.9
11	.4	.4		.6	.7		.9	4.2	22	23	21	.8
12	.4	.4		.6	.7		.7	4.0	20	21	20	.8
13	.4	.4		.6	b.7		.7	3.8	16	22	20	.8
14	.4	.4		.6	.7	.8	.7	3.6	9.1	25	21	.7
15	.5	.4		.6	.7	.7	.7	4.0	*8.2	25	22	.7
16	.5	.5		.6	.7	.7	.6	5.4	8.4	*25	20	.7
17	.5	.4		.6	.7	.7	.7	5.4	8.0	25	20	.7
18	.4	.4		.6	.7	.7	.8	5.8	8.6	24	20	.7
19	.4	.4		.8	*.7	.7	.8	6.5	11	24	*19	.6
20	.4	.6	.4	.7	.7	.7	.8	*8.2	10	24	18	.6
21	.5	.4		.6	b.7	.7	1.4	8.0	10	24	18	.6
22	.5	.4		.6	b.7	.8	2.1	7.6	10	24	17	.6
23	.5	.5		.6	b.8	.8	*3.0	8.0	9.6	24	16	.6
24	.5			.6	.9	.8	3.3	8.0	*8.9	24	15	.6
25	.5			.6	b.9	1.1	3.3	7.6	8.4	24	8.2	.6
26	.5			.6	b.8	*1.3	3.3	7.3	8.0	24	8.0	.6
27	.4	b.4		.6	.9	1.3	3.8	7.3	7.1	24	7.5	.6
28	.4			b.6	.9	1.7	4.0	9.4	6.9	24	7.1	.5
29	*.4			.6	-	2.0	3.8	26	6.0	24	6.9	*.5
30	.4			.6	-	2.3	3.8	26	4.5	24	5.2	.5
31	.4	-		.6	-	2.0	-	26	-	*24	1.4	-
Total	13.3	12.4	12.4	18.1	19.9	29.1	51.2	227.2	458.7	607.5	532.3	22.9
Mean	0.43	0.41	0.40	0.58	0.71	0.94	1.71	7.33	15.3	19.6	17.2	0.76
Ac-ft	26	25	25	36	39	58	102	451	910	1,200	1,060	45

Calendar year 1952: Max 90 Min - Mean 8.90 Ac-ft 6,470
Water year 1952-53: Max 27 Min - Mean 5.49 Ac-ft 3,980

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Dec. 9 to Jan. 6; discharge estimated on basis of 1 discharge measurement, weather records, and records for stations on nearby streams.

Big Creek near Randolph, Utah

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

Drainage area.--52.2 sq mi.

Records available.--October 1949 to September 1953. March 1939 to September 1944 (fragmentary), at site a quarter of a mile downstream, records not equivalent at times because of two small diversions between sites for irrigation.

Gage.--Water-stage recorder. Altitude of gage is 6,390 ft (from topographic map). Prior to Oct. 1, 1949, water stage recorder at site a quarter of a mile downstream at different datum.

Extremes.--Maximum discharge during year, 45 cfs May 30 (gage height, 1.12 ft); minimum observed, 4.6 cfs Feb. 20, discharge measurement (result of freezeup).
1949-53: 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 diversions above station.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 20, 21, Jan. 11-14, 18-21, 23-26, Jan. 30 to Feb. 9, Sept. 26-30)

0.4	12
.6	19
.8	28
1.1	46

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	25			16		17	18	36	26	23	18
2	26	25		a16	15		16	18	37	26	24	18
3	26	26	a17		16		16	17	*36	26	24	*18
4	26	26			16		16	17	36	26	22	18
5	26	25			16		16	18	36	25	22	18
				a18		a14						
6	26	24	a18		16		16	18	36	25	21	18
7	26	25	a20		16		16	*21	38	25	21	18
8	26	24	a20	*b20	16		15	24	38	25	21	18
9	26	b23	*b20	b20	16		15	25	*36	25	21	18
10	26	b21	b20	b20		*16	15	23	35	*29	21	18
11	26	b22	b21	20		15	15	22	35	28	20	17
12	26	22	b21	20	a12	15	14	21	35	25	20	17
13	26	23	b22	20		15	14	20	35	25	20	17
14	26	22	b22	21		15	14	20	35	25	20	17
15	26	23	b20	b17		14	14	22	34	24	20	17
16	26	b21	b20	b18		15	14	27	33	24	20	17
17	26	b22	b20	b20		15	15	26	32	24	20	17
18	26	22	b22	21		15	16	26	32	24	21	17
19	26	22	b22	24		14	15	*29	*32	23	20	17
20	26	23	22	20	(*)	15	14	36	31	23	*20	16
21	26	22	21	20		15	15	35	30	23	20	16
22	26	b20	b20	b16	a12	15	16	32	29	23	20	16
23	26		b20	19		15	*16	34	29	23	20	16
24	26		b16	18		15	18	35	28	23	20	16
25	26		b15	19		16	17	31	*28	22	19	16
26	26	b16	b13	18		*17	18	31	28	22	19	16
27	26		b14	b14		17	20	32	28	22	19	16
28	26		b15	b15		17	20	37	27	23	19	16
29	*26		a16	b16	-	17	19	40	26	24	19	16
30	26		a16	16	-	18	19	38	26	23	19	*15
31	25	-	a16	16	-	17	-	35	-	*23	18	-
Total	805	636	577	568	371	469	481	828	977	754	633	508
Mean	26.0	21.2	18.6	18.3	13.2	15.1	16.0	26.7	32.6	24.3	20.4	16.9
Ac-ft	1,600	1,260	1,140	1,130	736	930	954	1,640	1,940	1,500	1,260	1,010

Calendar year 1952: Max 122 Min - Mean 32.0 Ac-ft 23,240
Water year 1952-53: Max 40 Min - Mean 20.8 Ac-ft 15,100

* 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.

Randolph Creek near Randolph, Utah

Location.--Lat 41°40'30", long. 111°14'00", in SW¼ 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 2⅔ miles west of Randolph.

Drainage area.--30.3 sq mi.

Records available.--October 1949 to September 1953.

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

Extremes.--Maximum discharge during year, 10 cfs May 16 (gage height, 1.21 ft); minimum, 0.5 cfs Aug. 14.
1949-53: Maximum discharge, 32 cfs Mar. 21, 1951 (gage height, 1.44 ft); minimum, that of Aug. 14, 1953.

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

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.6	0.6	0.9	3.6
.7	1.2	1.0	5.6
.8	2.2	1.1	8.1

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.6	5.0	5.4	5.2	6.1	5.4	6.1	3.1	6.1	2.6	3.6	3.4
2	4.8	4.8	5.4	5.2	6.1	5.2	5.8	3.0	6.1	2.6	5.2	3.6
3	5.0	4.8	5.4	5.6	6.1	5.0	5.8	2.7	*6.1	2.6	3.4	*3.8
4	4.8	4.8	5.4	5.6	6.1	5.2	5.8	2.4	6.1	2.2	2.2	3.6
5	4.6	5.0	5.4	5.6	6.1	5.2	5.8	2.1	6.3	2.7	4.6	3.1
6	4.8	5.0	5.4	5.8	6.1	5.4	5.8	2.0	6.3	2.1	4.0	3.6
7	4.8	5.2	5.6	5.8	6.1	5.6	5.8	*2.3	6.3	2.1	2.6	4.0
8	4.8	5.2	5.6	*5.8	6.1	5.8	5.8	2.4	6.3	2.0	2.6	4.2
9	4.8	5.2	*5.8	5.8	5.8	5.8	5.6	2.0	6.1	*2.3	2.6	3.8
10	4.8	5.2	5.8	5.8	b5.5	*5.8	5.2	2.1	6.1	3.0	2.2	3.3
11	4.8	5.2	5.6	6.1	b5.5	5.6	5.2	2.3	5.8	3.1	.6	2.1
12	4.8	5.2	5.8	6.1	5.8	5.4	5.2	2.6	4.4	3.6	.6	2.2
13	5.0	5.2	5.8	6.3	5.8	5.4	5.4	2.0	2.7	5.6	.6	2.0
14	5.0	5.2	6.1	6.3	5.8	5.4	5.4	1.5	3.0	5.6	.6	1.9
15	5.0	5.2	5.8	5.8	b5.5	5.4	5.4	2.4	3.3	3.6	1.5	2.1
16	5.0	5.0	5.8	6.1	b5.5	5.4	5.4	7.3	3.1	2.7	2.6	2.4
17	5.0	5.2	5.8	6.1	5.4	5.4	5.8	6.3	3.6	2.8	2.6	2.2
18	5.0	5.2	5.8	6.3	5.4	5.4	6.3	6.1	*4.0	2.8	2.4	2.4
19	5.0	5.6	5.8	6.6	5.4	5.4	5.8	*6.1	4.4	2.7	2.1	1.8
20	5.0	6.1	5.8	6.1	*5.6	5.4	5.6	5.8	3.4	3.0	*2.0	1.6
21	5.0	6.1	5.8	6.1	b5.0	5.4	5.4	5.6	5.6	5.2	2.2	1.6
22	5.0	6.1	5.8	5.8	b5.0	b5.5	3.1	5.6	2.7	5.2	5.0	1.6
23	5.0	5.2	5.8	5.8	5.2	b5.5	1.2	6.3	1.2	5.0	4.8	1.7
24	5.0	5.6	5.6	5.8	5.2	5.6	*1.6	6.1	1.1	5.0	4.4	2.0
25	5.0	5.6	b5.5	5.8	5.4	6.1	2.3	5.2	1.1	3.1	3.8	2.8
26	5.0	5.8	5.4	5.8	5.0	*6.1	2.6	3.8	*1.0	2.6	3.0	3.1
27	5.0	5.6	5.4	5.8	5.2	6.1	2.7	4.2	2.6	2.3	3.1	2.8
28	5.0	5.6	5.4	5.8	5.4	6.1	2.4	3.8	2.6	2.4	3.0	3.1
29	*5.0	6.1	5.4	5.8	-	6.1	2.6	4.4	2.6	2.4	2.6	3.3
30	5.0	5.8	5.4	6.3	-	6.1	3.0	6.6	2.6	*1.7	2.7	*3.1
31	5.0	-	5.4	6.1	-	6.1	-	6.1	-	1.6	3.3	-
Total	152.4	160.4	174.0	182.9	157.2	173.3	139.9	124.2	122.6	96.2	86.5	82.2
Mean	4.92	5.36	5.61	5.90	5.61	5.59	4.66	4.01	4.09	3.10	2.79	2.74
Ac-ft	302	319	345	363	312	344	277	248	243	191	172	163

Calendar year 1952: Max 8.7 Min 1.0 Mean 5.10 Ac-ft 3,700
Water year 1952-53: Max 7.3 Min 0.6 Mean 4.53 Ac-ft 3,280

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

B. Q. West Side Canal at Kennedy Ranch, near Randolph, Utah

Location.--Lat 41°48'00", long. 111°05'30", in NE¼SW¼ sec. 7, T. 12 N., R. 8 E., on left bank 800 ft upstream from road bridge, three-quarters of a mile west of Kennedy Ranch, and 10½ miles northeast of Randolph.

Records available.--October 1949 to September 1952, May to September 1953, in reports of Geological Survey. April 1944 to September 1949 (irrigation seasons only) in Bear River Hydrometric Data reports.

Gage.--Water-stage recorder.

Extremes.--Maximum daily discharge during period May to September, 136 cfs June 7; no flow Aug. 8-27.
1949-53: Maximum daily discharge, 144 cfs May 26, 1952; no flow at times each year.

Remarks.--Records good. Records show flow bypassing Bear River near Randolph, Utah gaging station. About 3,800 acres of land irrigated from canal below station in Utah and Wyoming.

Discharge, in cubic feet per second, May to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	†0.9							73	118	*38	0	29
2	-							66	122	34	0	31
3	-							58	118	35	2.9	*31
4	-							55	*130	32	3.7	29
5	-							53	128	27	3.6	26
6	-							45	134	26	3.2	25
7	-							33	136	28	.4	22
8	-							38	132	26	0	21
9	-							38	131	*25	0	20
10	-							35	123	24	0	12
11	-							32	*117	23	0	9.7
12	-							36	115	21	0	12
13	-							34	112	19	0	14
14	-							34	108	18	0	15
15	-							34	105	17	0	15
16	-							35	104	17	0	15
17	-							28	*102	*16	0	15
18	-							37	94	19	0	*16
19	-							64	91	23	0	16
20	-							70	88	25	0	17
21	-							85	87	30	0	17
22	-							99	87	38	0	18
23	-							106	83	36	0	17
24	-							107	*79	26	0	16
25	-							106	73	18	0	16
26	-							100	70	11	0	17
27	-							94	70	0	0	17
28	-							*92	69	4.5	23	17
29	-							96	62	2.7	30	17
30	†1.4							104	50	*1.8	28	17
31	-							113	-	0	27	-
Total	-							2,000	3,038	661.0	121.8	559.7
Mean	-							64.5	101	21.3	3.93	18.7
Ac-ft	-							3,970	6,030	1,310	242	1,110

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

* Discharge measurement made on this day.
† Result of discharge measurement.

Bear River near Randolph, Utah

Location.--Lat 41°48', long. 111°06', in SE¼NE¼ sec. 7, T. 12 N., R. 8 E., on left bank 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 1953.

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

Average discharge.--9 years (1944-53), 240 cfs.

Extremes.--Maximum discharge during year, 1,690 cfs June 19 (gage height, 7.39 ft); minimum daily, 12 cfs Sept. 11, 26-30.
1943-53: Maximum discharge, 2,660 cfs May 8, 1952 (gage height, 8.80 ft); minimum daily, that of Sept. 11, 26-30, 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 diversions for irrigation and return flow from irrigated areas.

Rating table, water year 1952-53, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 15-30, June 1-22, Aug. 13 to Sept. 30)

1.5	11	3.5	318
1.6	19	4.5	532
1.8	38	5.0	661
2.0	61	7.0	1,390
2.5	136	7.6	1,700

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*61	64					267	146	228	*201	53	17
2	61	62					228	93	240	175	55	17
3	60	61	85	100			222	80	*280	148	98	17
4	59	60					217	73	343	110	89	17
5	59	62				140	218	71	417	101	66	16
6	59	71					228	61	447	96	75	16
7	59	77					237	51	503	82	75	15
8	59	75		*120			218	44	525	74	75	14
9	57	71					213	39	534	*68	77	14
10	57	68	90			160	199	37	560	71	74	13
11	57	68	(*)			*192	186	37	*534	74	70	12
12	57	68				195	181	34	532	70	66	13
13	57	71		130		204	175	32	653	70	64	13
14	57	74				206	172	32	805	59	61	13
15	57	74			140	190	170	31	885	60	64	13
16	57	71				175	a173	35	997	61	61	14
17	57	70				172	a176	35	*1,140	*51	56	14
18	59	70				168	a179	*36	1,360	47	46	*14
19	56	75			(*)	162	183	38	1,610	42	49	a14
20	53	75				165	*201	48	1,800	39	*59	a14
21	55	72				174	213	54	1,400	41	59	a14
22	56	69				165	210	55	1,220	40	59	a13
23	64		100	140		158	226	66	1,040	61	55	a13
24	68					162	240	77	*817	66	46	a13
25	66	70				170	250	78	644	61	44	a13
26	71					179	255	90	513	51	44	a12
27	78					156	250	81	428	49	51	a12
28	78	80				*141	240	77	359	57	32	12
29	78				-	156	233	82	288	55	22	a12
30	*75				-	151	202	106	218	*53	19	a12
31	66	-			-	222	-	186	-	51	17	-
Total	1,913	2,128	2,925	3,990	3,920	5,083	6,360	2,005	21,120	2,284	1,761	416
Mean	61.7	70.9	94.4	129	140	164	212	64.7	704	73.7	56.8	13.9
Ac-ft	3,790	4,220	5,800	7,910	7,780	10,080	12,610	3,980	41,890	4,530	3,490	825

Calendar year 1952: Max 2,610 Min 53 Mean 417 Ac-ft 302,600
Water year 1952-53: Max 1,610 Min 12 Mean 148 Ac-ft 106,900

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for other nearby stations on Bear River.
Note.--Stage-discharge relation affected by ice Nov. 10-12, 17-21, Nov. 23 to Mar. 10.

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 1953.

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.--10 years, 22.9 cfs.

Extremes.--Maximum discharge during year, 65 cfs Mar. 27 (gage height, 2.30 ft); minimum, 0.6 cfs Mar. 18, result of freezeup.
1943-53: Maximum discharge, 649 cfs Mar. 18, 1947 (gage height, 6.08 ft); minimum, that of Mar. 18, 1953.

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

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 25 to July 13, Aug. 28 to Sept. 30)

1.3	1.0	1.7	14
1.4	2.7	1.9	26
1.5	5.5	2.1	41
1.6	9.0	2.3	58

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.2	11				20	26	*9.9	8.0	3.5	3.3	2.4
2	8.0	9.9				25	20	10	8.0	4.4	4.1	2.4
3	7.6	9.0				20	18	9.4	8.3	4.4	4.9	2.2
4	7.2	8.3		9.0		15	20	9.9	*8.6	4.4	4.4	2.2
5	7.2	12				12	22	9.9	12	4.1	3.5	2.0
6	7.6	12			11	12	21	9.9	11	4.4	3.3	2.5
7	7.6	9.4		(*)		17	18	9.0	12	4.4	3.5	2.5
8	7.6	11				25	14	8.6	12	4.4	3.3	2.7
9	8.0	9.4				*35	14	8.0	11	*3.3	3.5	2.5
10	7.6	8.6	(*)			44	16	9.4	9.4	3.8	2.7	2.5
11	7.2	9.9				*44	16	9.4	*8.3	4.4	2.4	3.3
12	7.6	11				26	16	8.0	8.6	3.3	2.5	3.3
13	9.0	11				26	15	9.0	9.9	2.5	3.3	3.5
14	9.0	11				22	*17	8.6	7.6	2.5	4.1	4.1
15	9.0	12				18	16	8.6	6.9	3.3	3.8	4.4
16	9.4	9.0	9.0			16	17	9.4	6.2	3.8	2.7	4.7
17	9.4	9.9				19	24	8.0	*6.6	*2.7	2.7	4.4
18	9.4	11				15	21	*8.6	5.2	2.7	3.0	4.4
19	9.9	11		11		*10	16	21	8.3	5.8	3.3	2.7	4.4
20	9.9	9.9					16	*20	16	5.8	5.2	*2.7	4.1
21	10	11					15	22	14	5.8	4.7	1.7	4.1
22	10	7.6					12	*24	9.9	5.2	3.8	1.0	4.1
23	9.0						13	22	9.9	5.2	3.8	1.5	4.1
24	10						17	*19	18	5.2	3.8	2.0	3.7
25	9.9						*32	16	13	4.7	3.8	2.2	4.1
26	9.9	8.0					54	15	9.4	4.1	3.0	2.0	4.1
27	12					*10	54	14	9.0	3.5	3.5	2.2	4.7
28	11					15	53	12	8.6	3.5	3.5	2.2	4.1
29	11					-	48	12	9.0	3.8	3.5	2.2	*4.1
30	*11					-	*45	11	9.9	3.5	*3.3	2.2	3.8
31	11	-				-	31	-	9.4	-	3.0	2.2	-
Total	280.2	288.9	279.0	331.0	295	817	539	308.0	215.7	114.5	87.8	105.4
Mean	9.04	9.63	9.0	10.7	10.5	26.4	18.0	9.94	7.19	3.69	2.83	3.51
Ac-ft	556	573	553	657	585	1,620	1,070	611	428	227	174	209

Calendar year 1952: Max 302 Min - Mean 29.4 Ac-ft 21,310
Water year 1952-53: Max 54 Min 1.0 Mean 10.0 Ac-ft 7,260

Peak discharge (base, 200 cfs).--No peak above base.
* Discharge measurement made on this day.
Note.--No gage-height record Nov. 23 to Feb. 26; discharge estimated on basis of 3 discharge measurements, weather records, and records for stations on nearby streams. Stage-discharge relation affected by ice Feb. 27 to Mar. 9.

Bear River below Pixley dam, near Cokeville, Wyo.
(Formerly published as Bear River near Cokeville, Wyo.)

Location.--Lat 41°56'20", long. 110°59'05", in SE¼SE¼ sec. 25, T. 23 N., R. 120 W., 800 ft (revised) downstream from Pixley dam, 17.5 miles (revised) 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 1953. Published as "near Cokeville" 1941-43.

Gage.--Water-stage recorder. Altitude of gage is 6,185 ft (from river-profile map). Oct. 1, 1941, to Nov. 30, 1943, at site 200 ft downstream at different datum.

Extremes.--Maximum discharge during year, 1,220 cfs June 21 (gage height, 8.25 ft); minimum, 10 cfs May 15.
1941-43, 1952-53: Maximum discharge, 1,640 cfs Apr. 6 or 7, 1942 (gage height, 8.35 ft from high-water mark in gage well, site and datum then in use); minimum, that of May 15, 1953.

Remarks.--Records good except those for periods of ice effect, which are fair. Natural flow of stream affected by diversions for irrigation and return flow from irrigated areas. No diversions between station and Collett Creek Branch of Smiths Fork.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 30 to July 28)

2.1	11	3.5	169
2.2	16	4.2	293
2.4	29	5.0	454
2.6	48	6.0	681
2.8	70	7.0	935
3.1	108	8.1	1,230

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a80	95					314	94	19	*142	74	30
2	*80	92					322	83	38	131	78	28
3	80	90	100	120			274	59	*47	130	85	31
4	80	87					270	52	85	119	108	32
5	78	90				160	267	50	139	107	85	32
6	78	98					270	49	227	98	82	31
7	80	105					282	46	282	92	92	30
8	80	105	105	*140			274	41	380	87	91	30
9	78	100					254	35	619	*86	90	29
10	80	98				200	247	27	526	86	*92	28
11	78	100	(*)			250	232	22	*477	88	88	28
12	78	105				260	220	21	406	90	85	26
13	78	107	110	150		270	215	20	508	102	81	26
14	80	105				270	208	20	479	183	76	27
15	80	105			160	260	205	16	667	134	76	28
16	81	95				240	201	12	788	*155	76	31
17	85	98				222	205	12	*821	125	74	*30
18	83	100			(*)	215	212	13	893	109	67	29
19	85	105				210	208	14	1,030	98	*59	29
20	80	105				206	*227	*14	1,170	87	61	29
21	78	105				210	238	15	1,210	80	67	29
22	80					206	252	14	1,190	78	67	29
23	81					203	173	14	*1,150	76	68	28
24	90		120	160		200	145	12	1,070	92	62	28
25	91					*210	183	12	870	92	57	28
26	91	100				240	198	12	611	87	56	28
27	98					245	184	12	523	77	57	28
28	105					225	156	13	425	74	61	28
29	105				-	222	124	12	336	*81	44	*28
30	*104				-	232	121	12	295	77	35	28
31	100	-			-	236	-	14	-	75	32	-
Total	2,625	2,990	3,495	4,610	4,480	6,472	6,681	842	17,281	3,138	2,226	866
Mean	84.7	99.7	113	149	160	20	223	27.2	576	101	71.8	28.9
Ac-ft	5,210	5,930	6,930	9,140	8,890	12,840	13,250	1,670	34,280	6,220	4,420	1,720

Calendar year 1952: Max - Min - Mean - Ac-ft -
Water year 1952-53: Max 1,210 Min 12 Mean 153 Ac-ft 110,500

* Discharge measurement made on this day.
a No gage-height record; discharge estimated.
Note.--Stage-discharge relation affected by ice Nov. 10-12, Nov. 18 to Mar. 16.

Bear River above Sublette Creek, near Cokeville, Wyo.

Location.--Lat 42°02'20", long. 110°57'05", in SW¼SE¼ (corrected) sec. 20, T. 24 N., R. 119 W., on left bank 1,500 ft upstream from Sublette Creek and 3¼ miles south of Cokeville.

Drainage area.--2,110 sq mi, approximately.

Records available.--April 1948 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 6,165 ft (from river-profile map).

Average discharge.--5 years, 319 cfs.

Extremes.--Maximum discharge during year, 1,350 cfs June 22 (gage height, 8.37 ft); minimum, 28 cfs Sept. 13.
1948-53: Maximum discharge, 2,620 cfs May 10, 1952 (gage height, 9.90 ft); minimum, that of Sept. 13, 1953.

Remarks.--Records good except those for periods of ice effect, which are fair. Natural flow of stream affected by diversions for irrigation and return flow from irrigated areas. No diversions between station and Collette Creek Branch of Smiths Fork.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 14-30, May 30 to June 18)

2.7	28	4.3	238
2.9	45	5.0	370
3.1	66	6.0	587
3.3	89	7.2	920
3.7	145	8.4	1,350

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	79	96					281	133	73	246	87	39
2	77	92					317	116	98	187	94	36
3	78	89	100	120			274	102	134	180	92	36
4	78	87					265	85	196	168	113	36
5	77	87				160	264	82	*255	151	99	37
6	77	90					264	83	351	138	92	36
7	76	99					270	82	449	126	96	36
8	78	105	105	140			274	77	521	117	96	39
9	76	100					258	73	667	*112	96	39
10	76	98				200	248	65	709	113	*97	37
11	78	100				250	241	51	*615	117	96	34
12	77	105	(*)			260	232	49	521	123	92	34
13	78	105	110	150		270	225	49	617	123	88	29
14	79	105				270	224	49	555	184	85	30
15	79	103				260	217	47	682	175	82	31
					160							
16	81	95				240	214	47	866	*176	83	34
17	82	98				220	216	40	*890	160	81	*35
18	83	100			(*)	215	222	41	956	140	76	34
19	83	105				210	222	41	1,060	126	*69	34
20	82	105				205	230	*45	1,250	113	67	33
21	78	105				210	*241	45	1,330	102	73	34
22	81	96				205	255	47	1,350	97	74	34
23	82	99	120	160		205	232	50	*1,320	92	73	34
24	85					206	156	52	1,240	96	70	35
25	90					*209	181	50	1,060	102	63	34
26	90	100				224	211	50	748	97	62	34
27	93					246	216	50	590	92	60	34
28	102					233	184	55	508	85	67	32
29	103				-	220	166	53	408	*89	62	*33
30	*103				-	230	150	57	*360	89	47	32
31	102	-			-	225	-	66	-	88	42	-
Total	2,583	2,964	3,495	4,610	4,480	6,453	6,950	1,932	20,377	4,004	2,474	1,035
Mean	83.3	98.8	113	149	160	208	232	62.3	679	129	79.8	34.5
Ac-ft	5,120	5,880	6,930	9,140	8,890	12,800	13,790	3,830	40,420	7,940	4,910	2,050

Calendar year 1952: Max 2,610 Min 76 Mean 463 Ac-ft 336,200
Water year 1952-53: Max 1,350 Min 29 Mean 168 Ac-ft 121,700

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 9-13, 16-21, Nov. 24 to Mar. 23 (no gage-height record Jan. 10-22).

Smiths Fork near Border, Wyo.

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

Drainage area.--165 sq mi.

Records available.--May 1942 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 6,650 ft (from topographic map).

Average discharge.--11 years, 201 cfs.

Extremes.--Maximum discharge during year, 988 cfs June 15 (gage height, 3.80 ft); minimum, 49 cfs Mar. 15, but may have been less during periods of ice effect.
1942-53: Maximum discharge, 1,360 cfs May 29, 1951 (gage height, 4.56 ft); minimum, 37 cfs Mar. 11, 1948, but may have been less during periods of ice effect.

Remarks.--Records good except those for periods of ice effect, which are fair. One small diversion for irrigation of about 150 acres above station.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.5	51	2.4	254
1.7	78	2.8	410
1.9	114	3.2	620
2.1	160	3.8	995

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	90	78	b68	b70	68	59	78	223	448	494	207	116
2	88	76	b68	b70	63	59	74	198	484	479	219	116
3	88	75	b68	b70	63	61	74	182	474	453	204	114
4	88	78	b69	b70	64	b60	78	182	*479	439	188	114
5	88	78	b69	b69	64	59	80	207	560	424	182	112
6	88	76	b70	b69	63	61	80	268	543	401	177	110
7	88	75	b71	*69	62	59	78	324	538	389	168	108
8	85	74	b72	68	61	59	74	313	543	371	166	106
9	86	80	b72	68	62	58	75	286	543	355	163	104
10	86	78	*b72	69	62	58	69	254	592	*363	160	104
11	86	78	b72	68	b58	59	69	237	704	351	*158	99
12	86	75	b71	68	b58	58	69	227	*782	332	155	97
13	85	76	70	68	b59	59	68	219	852	320	155	97
14	85	76	70	69	b60	58	66	210	962	309	155	95
15	85	76	b70	69	b61	57	63	220	950	305	160	95
16	85	b74	b70	b68	b62	58	72	234	891	*294	158	97
17	83	b75	70	70	b62	59	81	247	*858	279	152	99
18	83	76	70	69	62	57	78	272	852	272	145	99
19	83	75	69	62	b62	58	78	328	839	261	142	97
20	83	72	69	62	b59	59	88	*363	782	254	*138	95
21	81	75	69	66	b57	58	*114	332	728	247	135	93
22	81	75	69	68	b58	56	160	301	692	237	133	93
23	81	b73	b69	66	b58	*53	219	290	*680	223	133	92
24	81	b72	b67	68	b58	58	240	279	668	219	129	92
25	80	b71	b65	b64	b58	62	251	261	626	214	127	a92
26	80	b68	b65	64	b58	64	290	268	587	210	127	a91
27	78	b68	b66	66	*b59	68	324	317	548	207	127	a90
28	78	b68	b66	b65	59	72	336	410	526	204	122	a89
29	78	b68	b66	64	-	76	298	479	510	*201	120	a88
30	78	b68	b67	64	-	85	261	424	*500	204	120	a87
31	*78	-	b69	64	-	80	-	397	-	207	118	-
Total	2,593	2,227	2,138	2,084	1,700	1,907	3,985	8,752	19,741	9,518	4,743	2,981
Mean	83.6	74.2	69.0	67.2	60.7	61.5	133	282	658	307	153	99.4
Ac-ft	5,140	4,420	4,240	4,130	3,370	3,780	7,900	17,360	39,160	18,880	9,410	5,910

Calendar year 1952: Max 940 Min - Mean 208 Ac-ft 151,000
Water year 1952-53: Max 962 Min 53 Mean 171 Ac-ft 123,700

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of recorded range in stage.
b Stage-discharge relation affected by ice.

Bear River at Border, Wyo.

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

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

Records available.--October 1937 to September 1953.

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

Average discharge.--16 years, 427 cfs.

Extremes.--Maximum discharge during year, 1,860 cfs June 22 (gage height, 6.14 ft); minimum daily, 98 cfs Sept. 16.
1937-53: 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 area.

Rating tables, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to June 22				June 23 to Sept. 30			
1.7	186	3.7	800	1.1	90	3.7	733
2.0	245	4.5	1,130	1.4	130	4.5	1,090
2.5	369	5.4	1,520	1.8	196	5.3	1,440
3.0	535	6.2	1,880	2.4	321	6.2	1,880
				3.0	487		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*197	223					426	500	318	*668	217	110
2	199	215					479	450	335	519	245	108
3	196	211	200	210			445	400	388	475	268	107
4	194	211					413	380	*439	442	253	102
5	197	209			315	285	416	330	560	419	272	100
6	197	213		(*)			416	350	704	393	247	99
7	207	215					416	380	868	368	231	99
8	211	219	210	230			416	400	1,030	353	229	102
9	213	207					400	390	1,040	*340	217	112
10	215	211				350	381	380	1,200	340	215	108
11	215	229	(*)			390	375	350	1,150	368	217	106
12	209	233				394	357	320	*1,190	348	215	106
13	209	233	225	255		394	349	280	1,200	335	206	100
14	211	233				394	343	280	1,280	335	204	100
15	213	229				375	332	240	1,330	*374	198	100
16	213	220				363	326	240	1,540	350	192	98
17	211	210			(*)	363	343	230	1,610	338	187	99
18	213	210	235	265		343	360	250	*1,630	307	171	*104
19	211	235				329	357	270	1,680	296	*163	108
20	213	221			270	329	360	310	1,770	291	153	112
21	213	233				332	*391	*313	1,840	278	151	113
22	213	213				329	439	293	*1,850	272	150	115
23	217	210	250	310		321	507	279	1,840	255	147	115
24	219	205				*318	470	279	1,770	235	148	113
25	221	205				332	500	275	1,680	235	147	108
26	221					363	540	253	1,440	223	144	110
27	221					400	620	209	1,170	223	136	110
28	225	200	210	325		413	610	239	1,030	*225	130	108
29	229				-	403	580	298	878	229	127	106
30	229				-	416	550	343	766	229	123	*107
31	*227	-			-	406	-	332	-	229	115	-
Total	6,579	6,453	6,860	8,300	8,010	10,622	12,917	9,843	35,526	10,292	5,818	3,185
Mean	212	213	221	268	286	343	431	318	1,184	332	188	106
Ac-ft	13,050	12,800	13,610	16,460	15,890	21,070	25,620	19,520	70,460	20,410	11,540	6,320

Calendar year 1952: Max 3,660 Min - Mean 720 Ac-ft 522,600
Water year 1952-53: Max 1,850 Min 98 Mean 341 Ac-ft 246,800

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 16-18, Nov. 23 to Mar. 11. No gage-height record Apr. 24 to May 20; discharge estimated on basis of records for station at Harer, Idaho.

Thomas Fork near Wyoming-Idaho State line

Location.--Lat 42°24', long. 111°01', in NW¼SE¼ 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 1953.

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.

Extremes.--Maximum discharge during year, 171 cfs Apr. 27 (gage height, 3.27 ft); minimum, 4.2 cfs Mar. 15.
1949-53: Maximum discharge, 869 cfs May 18, 1950 (gage height, 5.55 ft, datum then in use); minimum, that of Mar. 15, 1953.

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

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

1.9	9.2	2.5	49
2.0	13	2.8	90
2.2	23	3.3	173

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*17	16	12	13	13	14	41	111	113	56	26	13
2	17	15	13	13	14	13	37	102	*123	55	30	14
3	17	15	14	13	14	12	35	98	123	*54	29	14
4	17	14	14	13	14	13	41	96	110	51	26	13
5	17	15	a14	13	14	12	42	104	128	50	24	13
6	17	15	a14	*13	14	12	37	124	124	49	23	13
7	17	15	a14	14	14	12	36	146	126	48	22	13
8	17	13	a14	13	14	13	31	141	124	45	21	12
9	17	13	a14	14	14	13	31	131	115	44	21	13
10	17	13	a14	15	13	15	28	121	110	47	21	12
11	17	13	*15	14	a12	15	26	115	108	49	21	12
12	17	15	15	14	a11	15	26	110	*107	44	21	12
13	17	15	15	14	a12	15	26	107	107	40	19	12
14	16	15	14	15	a13	15	25	105	100	38	19	12
15	16	15	12	12	a13	14	25	105	100	40	22	11
16	17	14	14	13	a13	14	32	107	98	39	22	12
17	17	15	14	15	*13	15	48	111	96	36	21	13
18	17	15	14	17	12	14	45	116	*93	34	*19	13
19	17	15	14	21	12	14	45	131	88	31	19	12
20	17	15	14	17	12	15	56	148	86	30	18	12
21	16	15	14	16	12	15	*86	*133	84	30	17	12
22	16	14	13	15	13	15	111	121	80	29	16	12
23	16	12	12	14	12	15	123	121	76	27	15	12
24	16	14	12	12	11	*16	119	126	74	26	15	12
25	16	13	12	13	12	19	116	113	71	26	15	12
26	16	12	13	13	12	23	128	110	69	25	14	12
27	16	12	13	12	12	25	146	116	68	*25	14	12
28	16	12	13	14	13	29	162	130	67	25	15	12
29	16	12	13	15	-	35	141	136	62	24	14	12
30	16	12	13	14	-	41	124	128	60	24	14	*12
31	*16	-	13	13	-	40	-	115	-	26	14	-
Total	514	419	419	437	358	548	1,969	3,676	2,890	1,167	607	371
Mean	16.6	14.0	13.5	14.1	12.8	17.7	65.6	119	96.3	37.6	19.6	12.4
Ac-ft	1,020	831	831	867	710	1,090	3,910	7,290	5,730	2,310	1,200	736

Calendar year 1952: Max 768 Min 12 Mean 64.7 Ac-ft 46,940
Water year 1952-53: Max 162 Min 11 Mean 36.6 Ac-ft 26,520

Peak discharge (base, 150 cfs).--Apr. 27 (1:30 a.m.) 171 cfs (3.27 ft); May 7 (2:30 a.m.) 166 cfs (3.24 ft); May 20 (3 to 7 a.m.) 159 cfs (3.20 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.

Bear River at Harer, Idaho

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

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

Records available.--June 1913 to September 1916, January 1919 to September 1953.

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.--37 years, 527 cfs.

Extremes.--Maximum discharge during year, 1,880 cfs June 23 (gage height, 7.65 ft); minimum daily, 127 cfs Sept. 15, 17, 19, 20.
1913-16, 1919-53: 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 or no gage-height record, which are fair. Many diversions above station for irrigation.

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

Rating tables, water year 1952-53, 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			
3.0	179	2.7	123	5.0	926
3.5	328	3.3	273	7.0	1,630
		4.0	539	7.7	1,900

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	246	280	225	225	330	290	530	652	466	826	329	145
2	246	274	220	230	335	290	570	587	470	703	*319	141
3	243	274	225	235	340	290	591	539	482	644	350	141
4	240	264	235	240	335	300	543	499	*548	624	346	141
5	237	261	220	235	330	300	530	470	656	599	353	137
6	240	258	230	245	330	300	526	413	789	548	357	137
7	243	264	225	250	335	305	526	437	989	457	329	133
8	249	267	225	260	340	310	517	504	1,100	441	312	135
9	258	261	230	260	370	330	513	521	1,160	441	305	137
10	261	255	*235	265	355	*360	491	508	1,270	441	295	139
11	264	249	225	270	305	390	474	495	1,300	466	286	139
12	264	286	240	270	250	420	461	441	1,270	466	283	135
13	261	286	265	270	275	450	445	405	1,230	437	267	131
14	258	283	255	275	275	470	437	386	1,310	413	264	129
15	261	286	240	280	290	470	429	383	1,330	461	261	127
16	264	286	245	260	280	460	*413	361	1,450	466	255	129
17	270	252	230	250	280	455	421	357	1,590	441	252	127
18	270	322	250	290	290	450	449	343	1,610	417	243	129
19	270	293	260	310	280	417	461	357	1,670	398	212	127
20	270	293	260	315	290	413	470	405	1,720	386	199	127
21	267	277	255	*325	270	402	474	433	1,800	375	199	131
22	267	210	285	320	275	398	*513	398	1,860	353	197	139
23	264	210	280	315	275	394	587	*394	*1,880	322	190	139
24	267	250	280	310	280	394	620	402	1,850	305	185	*139
25	267	285	275	310	280	402	595	405	*1,750	286	177	*139
26	274	260	250	315	290	433	616	402	1,650	289	172	137
27	277	240	235	320	290	466	672	371	1,400	286	170	139
28	*277	215	230	320	290	513	745	343	1,190	292	165	139
29	280	235	220	325	-	539	733	379	1,070	292	160	137
30	283	230	205	325	-	543	711	441	919	299	155	131
31	283	-	220	320	-	557	-	482	-	325	150	-
Total	8,121	7,906	7,475	8,740	8,465	12,511	16,063	13,513	37,779	13,499	7,737	4,056
Mean	262	264	241	282	302	404	535	436	1,258	435	250	135
Ac-ft	16,110	15,680	14,830	17,340	16,790	24,820	31,860	26,800	74,930	26,770	15,350	8,045

Calendar year 1952: Max 4,430 Min 205 Mean 817 Ac-ft 593,000
Water year 1952-53: Max 1,880 Min 127 Mean 400 Ac-ft 289,300

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 22 to Mar. 18.

Rainbow inlet canal near Dingle, Idaho

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

Records available.--October 1945 to September 1953 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.

Average discharge.--31 years, 308 cfs.

Extremes.--Maximum discharge during year, 1,340 cfs June 24 (gage height, 4.87 ft); minimum daily, 16 cfs May 19.
1945-53: *Maximum discharge*, 4,180 cfs May 7, 1952 (*gage height*, 8.62 ft); *minimum*, 16 cfs Sept. 13, 1948, May 19, 1953.

Remarks.--Records good except those for periods of ice effect, which are fair. Discharge measurements generally made several times a week. Canal diverts from Bear River at Stewart Dam in NE¼ sec. 34, T. 13 S., R. 44 E., for storage in Bear Lake. At times flow in canal is augmented by surplus water from Black Otter Slough about half a mile above 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. Two discharge measurements made by Geological Survey in addition to those made by power company.

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	164	235	172	182	b268	231	481	541	94	364	199	41
2	162	231	174	186	274	b231	484	499	94	269	208	53
3	160	229	182	186	278	b232	523	446	89	146	240	46
4	158	224	180	197	281	233	484	413	100	126	242	38
5	160	216	170	197	b274	b236	460	378	140	113	224	39
6	162	220	176	199	266	240	443	351	231	100	245	41
7	164	220	188	206	281	254	440	283	361	83	235	43
8	166	197	197	206	278	266	435	233	529	134	195	32
9	170	195	201	210	316	b288	440	217	592	165	204	21
10	160	164	b190	213	298	316	418	206	682	195	202	21
11	160	164	199	224	283	346	399	193	751	250	199	21
12	164	214	209	219	199	378	394	177	711	286	184	22
13	172	222	209	222	188	404	383	144	696	257	188	26
14	188	214	214	219	213	440	375	121	725	231	182	27
15	195	216	212	b225	b220	438	375	87	758	228	193	19
16	209	207	207	231	228	426	359	62	827	259	195	18
17	220	188	197	204	231	424	354	51	982	242	177	26
18	218	197	212	224	238	415	380	36	1,070	226	162	22
19	222	240	214	245	b231	396	391	16	1,120	213	136	21
20	220	229	212	247	b224	383	394	48	1,160	222	146	18
21	220	240	209	257	b217	380	396	72	1,220	213	140	26
22	218	209	b225	266	210	378	418	80	1,300	188	122	38
23	214	201	b220	250	210	378	463	89	1,300	173	100	34
24	216	182	b210	b252	231	378	514	98	1,320	156	87	34
25	216	b180	b205	b254	240	383	508	98	1,230	148	72	31
26	220	b175	b200	b256	222	399	523	107	1,210	148	76	29
27	222	b175	b195	b258	222	418	544	89	998	140	56	27
28	222	b175	b185	b260	222	455	595	60	732	140	55	29
29	226	b175	b180	262	-	466	608	44	614	158	51	31
30	231	b175	b175	274	-	475	598	46	499	173	50	53
31	237	-	b180	262	-	492	-	69	-	186	48	-
Total	6,036	6,109	6,099	7,093	6,843	11,186	13,579	5,354	22,135	5,932	4,813	927
Mean	195	204	197	229	244	361	453	173	738	191	155	31
Ac-ft	11,970	12,120	12,100	14,070	13,570	22,220	26,930	10,620	43,900	11,770	9,550	1,840

Calendar year 1952: Max 4,140 Min 135 Mean 691 Ac-ft 501,800
Water year 1952-53: Max 1,320 Min 16 Mean 263 Ac-ft 190,700

b Stage-discharge relation affected by ice.

Bear River below Stewart Dam, near Montpelier, Idaho

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

Records available.--October 1945 to September 1953 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.--31 years, 74.6 cfs.

Extremes.--Maximum daily discharge during year, 32 cfs May 9; minimum daily, 6 cfs June 2-4.
1923-53: Maximum daily discharge, 3,050 cfs June 3, 1923; minimum daily, 1 cfs on several days in 1931, 1934, 1940, 1948.

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

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

Rating tables, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 5, 6)

Oct. 1 to Dec. 31		Jan. 1 to Sept. 30			
1.0	10	0.86	5.7	1.2	21
1.1	14	.9	6.9	1.3	28
1.2	18	1.0	10	1.36	32
1.3	23	1.1	15		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	14	13	16	11	18	17	17	10	14	10	9
2	15	14	13	16	19	18	17	17	6	15	10	9
3	15	14	12	16	20	16	16	16	6	16	9	9
4	15	15	13	16	20	17	16	16	6	19	10	9
5	15	15	13	16	11	15	16	16	7	19	10	9
6	15	14	13	17	18	14	15	15	8	18	9	9
7	15	14	13	17	.14	13	15	20	8	19	10	9
8	15	14	13	18	18	12	15	28	8	16	10	7
9	15	13	13	16	21	11	15	32	8	13	10	9
10	14	13	13	17	14	11	15	29	8	13	11	9
11	14	13	13	18	19	15	14	28	9	13	11	9
12	14	13	13	18	19	14	14	27	9	12	12	9
13	14	14	15	19	19	22	14	27	9	12	13	9
14	14	13	16	19	20	16	14	27	9	11	12	9
15	14	13	16	14	20	18	14	25	9	11	12	9
16	15	13	16	15	20	16	14	25	9	11	12	9
17	14	13	16	18	19	19	14	25	10	11	11	9
18	14	13	17	18	19	15	14	25	10	11	10	10
19	14	13	17	19	18	17	14	25	10	11	10	9
20	15	13	18	20	19	19	15	26	10	11	10	10
21	15	13	18	20	19	19	14	27	12	12	10	10
22	16	13	17	14	19	19	14	20	12	12	9	10
23	17	11	18	19	18	19	15	13	12	11	9	10
24	17	13	20	15	18	19	15	12	12	10	9	10
25	17	13	19	13	18	19	15	12	13	10	9	10
26	17	13	18	15	17	19	15	11	13	9	8	11
27	16	13	17	18	17	19	15	11	13	9	8	11
28	15	13	17	17	18	19	17	11	13	9	8	11
29	15	13	16	19	-	19	17	11	13	9	8	12
30	15	13	16	18	-	19	18	11	13	9	8	12
31	15	-	16	11	-	18	-	12	-	10	8	-
Total	465	399	478	522	502	524	453	617	295	386	306	287
Mean	15.0	13.3	15.4	16.8	17.9	16.9	15.1	19.9	9.8	12.5	9.9	9.6
Ac-ft	922	791	948	1,040	996	1,040	899	1,220	585	766	607	569

Calendar year 1952: Max 35 **Min** 11 **Mean** 18.0 **Ac-ft** 13,100
Water year 1952-53: Max 32 **Min** 6 **Mean** 14.3 **Ac-ft** 10,380

Note.--No gage-height record Oct. 20, 21, Nov. 26-30, Feb. 21-24, Aug. 2, 9-12; discharge estimated on basis of discharge measurements and records for nearby stations.

Montpelier Creek at irrigators weir, near Montpelier, Idaho

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

Drainage area.--50.9 sq mi.

Records available.--December 1942 to September 1953.

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

Average discharge.--10 years (1943-53), 24.2 cfs.

Extremes.--Maximum discharge during year, 64 cfs Apr. 28 (gage height, 1.11 ft); minimum, 2.1 cfs Feb. 24, result of freezeup.
1942-53: 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. One small diversion above station for irrigation.

Rating tables, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Nov. 6 Feb. 28 to 8 a.m. Sept. 30				Nov. 6 to Feb. 28, 8 a.m. to 12 p.m. Sept. 30	
0.2	5.5	.7	32	0.6	5.7
.3	9.0	.9	47	.8	8.3
.5	19	1.1	62	1.1	13

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*12	12	8.9	9.1	8.8	8.6	24	46	34	27	14	8.3
2	12	12	9.6	9.1	8.8	8.6	22	43	*41	26	17	8.6
3	12	11	10	9.1	8.9	8.3	22	40	43	*25	17	8.6
4	12	11	9.9	8.9	8.9	8.3	24	38	42	24	15	8.6
5	12	11	9.7	*8.9	8.8	8.0	24	38	43	23	14	8.6
6	12	11	9.6	8.9	8.9	8.0	22	40	40	22	13	9.0
7	12	10	9.7	9.1	8.8	8.0	21	41	45	22	13	8.6
8	12	10	9.7	8.9	8.9	8.3	19	41	44	21	12	8.3
9	12	9.6	9.6	8.8	8.8	8.3	19	40	42	21	12	8.3
10	12	9.6	9.4	9.4	8.3	8.6	18	38	41	24	12	8.0
11	12	9.6	*9.6	9.6	7.6	9.0	16	34	42	23	11	8.3
12	12	10	9.9	9.3	7.1	9.0	16	34	44	21	11	8.0
13	12	10	9.9	9.6	8.2	9.4	16	34	44	21	9.9	7.6
14	12	11	9.6	9.6	8.6	9.0	15	32	44	21	9.9	7.6
15	12	10	9.3	9.1	8.6	9.0	15	32	44	21	11	7.6
16	12	9.6	9.4	8.6	*8.5	9.0	16	32	43	20	11	8.0
17	12	9.7	9.6	9.3	8.5	9.4	20	32	41	19	10	8.0
18	12	9.9	9.6	10	8.5	9.4	21	34	41	18	*10	a8.0
19	12	9.9	9.6	13	7.8	9.4	19	37	*40	18	11	a8.0
20	12	9.7	9.6	10	7.6	9.9	22	45	39	17	11	a8.0
21	12	9.9	9.4	10	7.2	9.9	*30	*40	38	16	10	a8.0
22	12	9.7	9.4	9.4	8.5	9.9	43	37	34	16	10	a8.0
23	12	8.6	8.3	9.4	8.3	9.9	51	36	33	16	9.9	a8.0
24	12	8.6	8.3	9.3	7.4	*11	54	40	33	15	9.0	a8.0
25	12	9.3	6.7	9.1	7.2	13	54	35	33	14	8.6	a8.2
26	12	6.7	7.8	9.3	8.0	15	54	35	31	14	8.3	8.3
27	12	7.6	9.1	8.9	8.3	16	53	36	30	*14	8.3	8.3
28	12	7.6	9.1	8.9	*8.7	18	60	38	30	14	8.3	8.0
29	12	8.0	9.4	8.9	-	21	54	39	28	14	8.3	8.0
30	12	8.5	9.6	9.1	-	22	49	38	28	14	8.3	*7.8
31	*12	-	9.4	8.8	-	22	-	35	-	14	8.3	-
Total	372	291.1	288.7	289.4	232.5	343.2	893	1,160	1,155	595	342.1	244.6
Mean	12.0	9.70	9.31	9.34	8.30	11.1	29.8	37.4	38.5	19.2	11.0	8.15
Ac-ft	738	577	573	574	461	681	1,770	2,300	2,290	1,180	679	485

Calendar year 1952: Max 156 Min 6 Mean 25.9 Ac-ft 18,820
Water year 1952-53: Max 60 Min 6.7 Mean 17.0 Ac-ft 12,310

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

Bear Lake at Lifton, near St. Charles, Idaho

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

Records available.--October 1903 to June 1906 (gage heights only), October 1945 to September 1953. January 1921 to September 1945 (elevations only) in files of Salt Lake City district office, Geological Survey. Published as Bear Lake at Fish Haven 1903-6.

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

Extremes.--Maximum contents during year, 1,115,000 acre-ft Oct. 1 (gage height, 19.29 ft); minimum, 866,200 acre-ft Sept. 30 (gage height, 15.67 ft).
1921-53: Maximum contents, 1,423,000 acre-ft June 10, 1923 (gage height, 23.68 ft); no contents Nov. 9-19, 1935 (gage height, 2.00 ft).

Remarks.--Outflow regulated by gates and pumps at Bear Lake and by gates in dike at north end of Mud Lake. Inflow to lake augmented by water diverted from Bear River through Rainblow inlet canal and Dingle inlet canal, which empty into Mud Lake (see p. 38). Water from Mud Lake reaches Bear Lake by a sluice at pumping plant or by gates in causeway at south end of Mud Lake. Capacity, 1,421,000 acre-ft between gage height 2.00 ft (lower limit of pumps) and 23.65 ft (present feasible upper limit of storage with existing facilities). Storage water used for irrigation and power development.

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

Contents at 10 a.m., in thousands of acre-feet, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,115	1,062	1,033	1,009	1,006	1,003	1,015	1,031	1,028	1,052	986.5	912.5
2	1,114	1,062	1,033	1,007	1,006	1,002	1,016	1,031	1,028	1,050	984.4	910.5
3	1,113	1,061	1,032	1,006	1,006	1,001	1,016	1,031	1,028	1,048	981.0	908.4
4	1,110	1,060	1,031	1,004	1,006	1,000	1,016	1,032	1,028	1,046	979.6	906.4
5	1,108	1,059	1,030	1,002	1,007	999.6	1,016	1,032	1,028	1,044	977.5	904.3
6	1,106	1,058	1,029	1,001	1,008	998.9	1,016	1,033	1,029	1,043	974.0	901.6
7	1,104	1,056	1,029	999.6	1,008	998.2	1,017	1,033	1,030	1,040	971.3	899.5
8	1,103	1,055	1,028	999.6	1,008	998.2	1,017	1,033	1,031	1,038	968.6	897.5
9	1,102	1,054	1,027	999.6	1,011	997.5	1,019	1,033	1,033	1,035	966.5	895.4
10	1,100	1,053	1,026	999.6	1,011	997.5	1,019	1,033	1,033	1,033	963.1	893.4
11	1,099	1,052	1,025	998.9	1,011	997.5	1,020	1,033	1,035	1,030	959.7	891.3
12	1,098	1,051	1,024	998.2	1,011	997.5	1,022	1,033	1,036	1,028	956.9	889.3
13	1,097	1,051	1,024	999.6	1,011	997.5	1,023	1,032	1,038	1,026	954.9	887.2
14	1,094	1,050	1,023	1,002	1,010	997.5	1,023	1,032	1,040	1,024	951.5	885.2
15	1,091	1,049	1,022	1,002	1,010	997.5	1,023	1,032	1,041	1,022	948.0	883.8
16	1,088	1,049	1,022	1,002	1,010	997.5	1,023	1,032	1,042	1,020	945.3	882.5
17	1,085	1,048	1,021	1,002	1,009	998.2	1,023	1,032	1,043	1,019	942.5	881.1
18	1,082	1,047	1,020	1,004	1,009	998.2	1,026	1,032	1,044	1,017	939.1	879.8
19	1,080	1,047	1,020	1,004	1,009	998.9	1,027	1,031	1,045	1,015	935.7	878.4
20	1,078	1,046	1,019	1,004	1,009	999.6	1,028	1,031	1,047	1,014	932.3	877.0
21	1,076	1,045	1,019	1,005	1,008	999.6	1,028	1,030	1,047	1,013	931.0	875.7
22	1,074	1,044	1,018	1,005	1,007	1,000	1,028	1,029	1,049	1,012	929.6	875.0
23	1,072	1,044	1,018	1,005	1,007	1,001	1,028	1,029	1,049	1,010	928.2	875.0
24	1,071	1,043	1,018	1,005	1,007	1,002	1,028	1,029	1,051	1,009	926.8	873.6
25	1,069	1,042	1,017	1,005	1,006	1,002	1,029	1,029	1,052	1,007	925.5	871.6
26	1,068	1,041	1,015	1,005	1,006	1,004	1,029	1,029	1,053	1,004	923.4	870.9
27	1,067	1,040	1,014	1,005	1,005	1,006	1,029	1,028	1,054	1,002	921.3	870.2
28	1,066	1,038	1,013	1,005	1,004	1,008	1,029	1,028	1,054	999.6	919.3	868.9
29	1,065	1,036	1,012	1,005	-	1,011	1,029	1,028	1,054	998.8	917.9	867.5
30	1,064	1,035	1,011	1,007	-	1,013	1,030	1,028	1,054	993.4	915.9	866.2
31	1,063	-	1,010	1,007	-	1,015	-	1,028	-	989.9	913.9	-

Monthly gage height and contents, water year October 1952 to September 1953

Date	Gage height (feet)†	Contents (thousands of acre-feet)	Change in contents during month (thousands of acre-feet)
Sept. 30	19.31	1,117	-
Oct. 31	18.54	1,063	-54
Nov. 30	18.13	1,035	-28
Dec. 31	17.77	1,010	-25
Calendar year 1952	-	-	-16
Jan. 31	17.73	1,007	-3
Feb. 28	17.68	1,004	-3
Mar. 31	17.84	1,015	+11
Apr. 30	18.06	1,030	+15
May 31	18.03	1,028	-2
June 30	18.40	1,054	+26
July 31	17.48	989.9	-64.1
Aug. 31	16.37	913.9	-76.0
Sept. 30	15.67	866.2	-47.7
Water year 1952-53	-	-	-250.8

† Gage height at 10 a.m.

Bear Lake outlet canal near Paris, Idaho

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

Records available.--October 1945 to September 1953 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.--31 years, 354 cfs.

Extremes.--Maximum daily discharge during year, 1,280 cfs July 20; maximum gage height, 18.39 ft July 7; minimum daily, 16 cfs May 30, 31.
1922-53: Maximum daily discharge, 1,870 cfs Aug. 8, 1924; minimum daily, 1 cfs May 1 to June 6, 1937.

Remarks.--Records good except those for periods of ice effect or doubtful 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. Two discharge measurements made by Geological Survey in addition to those made by the power company.

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	797	472	501	915	415	685	206	426	190	1,000	1,040	800
2	683	474	528	877	412	685	201	435	348	1,110	907	800
3	712	476	b510	794	412	688	223	426	196	1,060	623	794
4	788	481	469	767	419	691	216	422	202	1,040	590	788
5	818	479	508	736	419	706	209	406	211	1,040	890	797
6	800	472	552	646	431	561	209	444	218	1,120	953	800
7	803	462	524	578	433	368	197	537	156	1,250	868	803
8	755	452	504	485	426	375	188	526	d39	1,250	859	803
9	689	460	516	492	412	386	192	499	d39	1,210	852	733
10	678	450	570	492	410	386	201	480	d39	1,210	824	641
11	661	450	546	494	386	388	214	461	d39	1,250	785	643
12	655	450	562	499	401	392	211	546	d39	1,250	782	638
13	664	460	539	393	419	362	211	703	d39	1,250	785	635
14	683	460	526	235	558	235	204	720	d39	1,210	791	576
15	630	431	557	230	b570	211	211	720	d39	1,110	791	492
16	622	413	666	230	b600	213	250	714	249	1,150	794	431
17	500	408	706	225	630	213	330	755	504	1,110	800	343
18	465	417	697	239	b610	202	366	801	552	1,080	800	322
19	586	424	694	263	b620	199	379	979	719	1,160	821	300
20	592	438	706	267	a625	196	386	995	834	1,280	809	302
21	541	467	709	278	a680	194	392	846	840	1,180	806	300
22	526	488	758	346	a735	184	397	616	846	1,180	800	343
23	491	a480	827	461	a735	181	386	430	846	1,220	797	370
24	476	a475	b820	449	a735	181	388	360	843	1,220	794	322
25	511	a470	b813	442	a725	232	395	322	843	1,200	752	218
26	521	464	800	440	717	269	410	363	886	1,200	800	163
27	514	460	812	431	697	216	426	468	969	1,200	776	209
28	488	462	864	428	683	220	435	461	963	1,160	788	204
29	494	462	864	424	-	225	440	290	947	1,170	806	206
30	498	469	b870	426	-	232	442	16	944	1,150	800	106
31	476	-	b880	426	-	202	-	16	-	1,120	797	-
Total	19,117	13,726	20,398	14,408	15,315	10,478	8,915	16,183	13,618	36,140	25,080	14,882
Mean	617	458	658	465	547	338	297	522	454	1,166	809	496
Ac-ft	37,920	27,230	40,460	28,580	30,380	20,780	17,680	32,100	27,010	71,680	49,750	29,520

Calendar year 1952: Max 1,440 Min 16 Mean 752 Ac-ft 546,000
Water year 1952-53: Max 1,280 Min 16 Mean 571 Ac-ft 413,100

a No gage-height record; discharge estimated on basis of discharge measurements, records of headgate changes, and field notes.
b Stage-discharge relation affected by ice.
d Doubtful gage-height record; discharge estimated on basis of discharge measurements and records of headgate changes.

Bear River at Pescadero, Idaho

Location.--Lat 42°24'30", long. 111°21'30", in SE¼ sec. 6, T. 12 S., R. 44 E., on left bank at Pescadero, 400 ft downstream from road bridge, 2 miles downstream from Bennington Creek, and 6½ miles northwest of Montpelier.

Records available.--October 1945 to September 1953 in reports of Geological Survey. January 1922 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.--31 years, 548 cfs.

Extremes.--Maximum discharge during year, 1,550 cfs July 9 (gage height, 5.04 ft); minimum daily, 195 cfs Sept. 26.
1922-53: Maximum daily discharge, 3,840 cfs June 10, 1923; minimum daily, 23 cfs Mar. 14-17, 1936.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Many diversions above station for irrigation. Flow regulated by Bear Lake.

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

Rating tables, water year 1952-53, 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			
3.3	511	2.3	193	4.0	844
4.0	826	2.6	268	5.1	1,600
4.6	1,170	3.0	396		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	739	569	620	1,010	552	838	407	664	309	1,220	1,100	806
2	743	560	645	1,020	552	838	364	654	604	1,310	1,040	800
3	743	560	640	1,000	556	838	378	631	552	1,320	844	806
4	772	565	595	930	578	838	392	613	548	1,300	595	811
5	831	581	635	880	578	*833	372	595	608	1,300	828	811
6	841	577	675	850	574	811	386	532	659	1,310	976	811
7	841	565	650	800	574	569	361	600	659	1,480	920	816
8	836	556	630	720	574	523	364	622	527	1,540	902	822
9	763	556	*621	650	565	548	378	600	479	1,540	890	811
10	734	565	690	660	540	578	389	574	441	1,530	879	697
11	724	560	640	660	530	613	400	561	403	1,520	828	664
12	715	565	640	660	510	654	392	565	338	1,520	816	664
13	711	577	635	650	560	682	396	747	335	1,510	816	664
14	729	581	665	560	590	561	386	789	331	1,470	816	654
15	729	577	600	340	600	448	*382	816	319	1,320	822	561
16	683	556	755	345	700	422	382	794	322	1,310	822	515
17	665	560	795	360	770	426	491	833	640	1,270	822	422
18	519	560	785	370	780	396	578	828	779	1,220	822	378
19	603	560	836	390	700	392	595	1,020	885	1,200	828	348
20	674	560	841	*415	680	392	608	1,130	1,030	1,350	828	335
21	642	586	846	450	720	386	608	1,110	1,050	1,320	828	331
22	598	594	867	500	830	358	*582	890	1,050	1,290	822	*335
23	590	598	1,020	574	880	335	582	687	*1,050	1,290	811	392
24	560	612	945	608	880	354	574	586	1,050	1,290	800	400
25	581	581	940	595	870	403	591	*556	1,050	1,280	779	*344
26	603	545	935	591	860	515	600	507	1,070	1,260	784	195
27	612	565	940	574	850	503	604	626	1,170	1,260	784	241
28	586	550	990	595	844	456	626	659	1,180	*1,220	784	252
29	*577	560	990	569	-	463	649	649	1,130	1,210	794	246
30	581	575	995	565	-	437	664	382	1,120	1,180	800	238
31	586	-	1,000	561	-	414	-	294	-	1,160	806	-
Total	21,111	17,076	24,061	19,452	18,797	16,824	14,481	21,114	21,688	41,300	25,986	16,170
Mean	681	569	776	627	671	543	483	681	723	1,332	838	539
Ac-ft	41,870	33,870	47,720	38,580	37,280	33,370	28,720	41,880	43,020	81,920	51,540	32,070

Calendar year 1952: Max 1,570 Min 372 Mean 922 Ac-ft 669,600
Water year 1952-53: Max 1,540 Min 195 Mean 707 Ac-ft 511,800

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 26 to Dec. 3, Dec. 10-18, Feb. 10-27. No gage-height record Dec. 4-9 and Dec. 24 to Jan. 22; discharge estimated on basis of discharge measurements and records for other Bear River stations.

Georgetown Creek near Georgetown, Idaho

Location.--Lat 42°30', long. 111°19', in NE¼ 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 1953.

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.--13 years (1940-53), 31.6 cfs.

Extremes.--Maximum discharge during year, 42 cfs June 15 (gage height, 2.02 ft); minimum daily, 26 cfs Mar. 19-27, Mar. 31 to Apr. 22.
1911-14, 1939-53: Maximum discharge observed, 162 cfs June 8, 1912; minimum daily, 18 cfs on many days February to May 1941.

Remarks.--Records good. No diversion above station. At one time a small storage reservoir was operated about 1½ miles above station but dam is now breached and no longer operative.

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

1.8	25
1.9	32
2.0	41

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*35	34	31	29	28	28	26	27	35	37	35	32
2	35	34	31	29	28	28	28	27	*37	37	35	32
3	35	34	31	29	a28	28	26	27	37	*37	35	31
4	35	34	31	29	a28	28	26	27	37	37	35	31
5	35	33	31	*29	a28	28	26	27	38	37	35	31
6	35	*33	31	29	a28	28	26	28	38	36	35	31
7	35	33	31	29	a28	28	26	28	39	36	34	31
8	35	32	31	29	a28	28	26	28	39	36	33	31
9	35	32	31	29	a28	28	26	28	38	36	33	31
10	35	31	31	29	a28	28	26	28	39	36	33	31
11	35	31	31	29	a28	28	26	28	40	36	33	31
12	35	31	*31	29	a28	28	26	28	40	35	33	31
13	35	31	30	29	a28	28	26	28	40	35	33	31
14	35	31	30	29	a28	27	26	28	41	35	33	31
15	35	31	30	28	a28	27	26	28	41	35	33	31
16	35	31	30	28	*28	27	26	28	41	35	33	31
17	35	31	30	28	28	27	26	29	40	35	33	31
18	35	31	29	28	28	27	26	30	39	35	*33	31
19	35	31	29	28	28	26	26	31	*39	35	33	31
20	35	31	29	28	28	26	26	31	39	35	33	31
21	35	31	29	28	28	26	26	31	39	35	33	31
22	35	31	29	28	28	26	*26	*32	38	35	32	31
23	35	31	29	28	28	26	27	32	38	35	32	31
24	35	31	29	28	28	*26	27	33	38	35	32	31
25	35	31	30	28	28	26	27	33	38	35	32	*31
26	35	31	30	28	28	26	27	31	38	35	33	31
27	35	31	30	28	28	26	27	32	38	*35	33	31
28	35	31	30	28	28	27	27	34	38	35	33	31
29	35	31	30	28	-	27	27	36	37	35	32	31
30	35	31	30	28	-	27	27	35	37	35	32	31
31	34	-	30	28	-	26	-	35	-	35	32	-
Total	1,084	950	935	882	784	840	788	928	1,156	1,101	1,029	932
Mean	35.0	31.7	30.2	28.5	28.0	27.1	26.3	29.9	38.5	35.5	33.2	31.1
Ac-ft	2,150	1,880	1,850	1,750	1,560	1,670	1,560	1,840	2,290	2,180	2,040	1,850

Calendar year 1952: Max 59 Min 26 Mean 36.1 Ac-ft 26,220
Water year 1952-53: Max 41 Min 26 Mean 31.3 Ac-ft 22,620

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of recorded range in stage.

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 600 ft downstream from Soda hydroelectric plant of Utah Power & Light Co., half a mile southeast of Alexander, and 5 miles downstream from Soda Creek.

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

Records available.--March 1911 to September 1916, April 1919 to September 1953.

Gage.--Water-stage recorder.

Average discharge.--38 years (1911-16, 1919-20, 1921-53), 772 cfs.

Extremes.--Maximum daily discharge during year, 1,380 cfs July 7; minimum daily, 281 cfs Apr. 5.
1911-16, 1919-53: 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 above station for irrigation. 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 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Nov. 10, July 2 to Sept. 30)

0.9	267
1.0	310
1.5	579
2.0	945
2.5	1,400

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	962	598	631	1,140	585	921	737	1,010	526	1,290	1,150	875
2	970	645	679	1,160	809	1,030	712	992	612	1,300	942	911
3	937	755	898	1,150	699	1,140	727	996	692	1,300	1,060	909
4	962	729	856	1,150	806	928	654	1,030	677	1,350	1,080	864
5	970	798	934	1,150	872	933	281	1,010	858	1,350	1,060	651
6	979	770	800	1,160	802	938	760	1,010	774	1,340	1,030	717
7	1,020	767	818	776	706	*949	699	995	760	1,380	946	821
8	979	840	931	894	670	738	577	876	900	1,380	810	794
9	928	508	898	969	804	997	669	576	694	1,290	774	1,020
10	877	783	914	940	836	784	594	306	774	1,280	878	935
11	897	620	912	875	810	705	554	834	636	1,240	830	661
12	937	566	826	846	838	786	341	778	633	1,250	753	671
13	937	710	*854	635	917	964	655	862	571	1,260	*831	716
14	945	847	837	867	1,020	1,040	710	907	513	1,300	838	783
15	792	942	937	625	864	848	713	912	612	1,220	878	617
16	742	544	1,060	513	998	744	720	881	605	1,230	727	539
17	771	888	1,140	530	966	736	691	757	644	1,290	1,060	532
18	477	686	1,160	565	974	778	714	1,100	760	1,330	1,010	494
19	527	705	1,120	805	1,050	603	*764	*995	916	1,300	973	406
20	716	751	1,120	862	1,050	604	1,030	1,050	1,110	1,330	999	517
21	898	720	1,050	791	876	616	964	1,110	1,110	1,320	990	545
22	811	684	1,120	903	609	297	960	809	1,110	1,340	946	428
23	788	522	1,150	954	624	712	931	535	1,180	1,340	725	420
24	757	715	1,050	*856	859	738	947	508	*1,180	1,310	887	427
25	723	768	710	524	932	767	998	726	1,190	1,250	781	404
26	505	665	896	868	933	759	968	545	1,150	1,170	932	320
27	754	570	879	871	880	732	992	543	*1,190	1,290	934	*475
28	823	651	864	975	902	787	999	937	1,200	1,270	822	491
29	826	612	918	709	-	720	1,040	979	1,300	1,190	784	440
30	812	488	1,120	816	-	757	1,050	958	1,270	1,200	505	282
31	*740	-	1,160	729	-	757	-	560	-	1,140	908	-
Total	25,762	20,847	29,242	26,608	23,691	24,808	23,151	26,087	26,147	39,830	27,841	18,685
Mean	831	695	943	858	846	800	772	842	872	1,285	898	623
Ac-ft	51,100	41,350	58,000	52,780	46,990	49,210	45,920	51,740	51,860	79,000	55,220	37,060

Calendar year 1952: Max 1,750 Min 366 Mean 1,126 Ac-ft 817,400
Water year 1952-53: Max 1,380 Min 281 Mean 857 Ac-ft 620,200

* Discharge measurement made on this day.

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 1953 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.--31 years, 794 cfs.

Extremes.--Maximum daily discharge during year, 1,810 cfs Oct. 6; minimum daily, 28 cfs Mar. 22.
1922-53: 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 tables, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 31				Jan. 1 to Sept. 30			
1.6	178	4.0	1,220	0.8	16	3.0	676
2.0	290	4.9	1,850	1.0	49	4.0	1,210
3.0	676			1.5	154	4.7	1,710
				2.0	290		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,340	278	1,260	901	1,160	933	958	1,350	608	1,090	1,130	1,000
2	953	653	1,080	1,360	941	1,160	823	1,420	920	900	666	746
3	1,570	1,310	1,450	1,440	1,030	1,270	938	476	*889	726	884	503
4	1,650	1,140	1,140	951	834	1,430	1,020	1,340	663	1,050	1,440	749
5	1,170	1,080	743	1,300	1,380	1,020	589	1,330	918	862	1,180	894
6	1,810	934	1,120	1,440	1,070	1,590	875	897	540	1,110	732	925
7	1,280	761	*1,120	1,360	1,030	946	1,040	1,190	527	981	1,120	1,000
8	1,000	834	954	1,150	778	972	1,130	1,310	966	986	808	704
9	1,120	555	1,250	1,160	994	1,230	943	322	1,150	843	459	925
10	922	1,140	1,330	1,300	1,050	750	1,020	288	935	1,040	658	921
11	1,100	1,030	1,000	887	1,160	1,270	1,040	888	582	1,080	837	873
12	647	967	1,030	1,040	1,160	1,120	560	*963	800	1,080	904	713
13	1,100	1,410	1,430	1,090	1,610	1,210	554	1,140	745	1,120	974	866
14	1,290	860	1,190	*1,160	1,150	755	779	827	471	1,120	301	1,040
15	804	1,160	1,210	1,050	1,100	950	936	1,120	381	1,340	479	313
16	938	1,060	1,320	945	916	1,020	563	1,040	776	926	649	811
17	742	1,260	1,300	981	1,090	1,020	611	178	240	1,050	1,510	642
18	1,080	1,050	1,420	477	1,430	1,150	1,430	352	444	1,210	601	646
19	233	900	1,650	949	1,250	752	698	735	491	1,300	762	591
20	1,150	1,020	919	1,690	1,390	1,200	1,320	595	1,040	1,300	1,390	517
21	946	619	1,530	1,010	831	860	1,460	656	586	1,150	928	943
22	1,170	470	1,620	1,220	881	28	1,700	626	427	1,030	925	823
23	1,150	623	1,290	954	1,240	790	1,180	496	940	1,190	284	327
24	954	1,420	1,310	1,210	1,190	959	1,330	728	1,060	1,330	1,130	299
25	1,060	1,370	1,200	786	*1,180	907	970	554	1,060	1,430	948	499
26	899	1,140	1,240	1,190	950	1,230	747	576	800	383	1,100	747
27	1,260	462	782	1,550	1,150	1,570	1,420	440	1,320	1,010	797	1,020
28	766	1,070	1,220	1,190	1,280	1,480	1,520	670	1,070	776	834	794
29	1,040	728	1,390	292	-	671	1,220	926	910	1,470	490	319
30	1,180	195	1,550	1,040	-	1,010	1,190	1,230	1,170	1,000	658	231
31	1,200	-	1,680	1,100	-	674	-	502	-	864	1,210	-
Total	33,524	27,499	38,728	34,173	31,225	31,927	30,564	25,765	23,429	32,747	26,788	21,381
Mean	1,081	917	1,249	1,102	1,115	1,030	1,019	831	781	1,056	864	713
Ac-ft	66,490	54,540	76,820	67,780	61,930	63,330	60,620	51,100	46,470	64,950	53,130	42,410

Calendar year 1952: Max 2,650 Min 195 Mean 1,319 Ac-ft 957,200
Water year 1952-53: Max 1,810 Min 28 Mean 980 Ac-ft 709,600

* Discharge measurement made on this day.

Cottonwood Creek near Cleveland, Idaho

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

Drainage area.--61.7 sq mi.

Records available.--November 1938 to September 1953.

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.--14 years (1939-53), 32.4 cfs.

Extremes.--Maximum discharge during year, 189 cfs Apr. 28 (gage height, 2.27 ft); minimum, 0.6 cfs Sept. 15.
1938-53: 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 SE¼ sec. 8, T. 12 S., R. 39 E., for irrigation in Battle Creek basin in vicinity of Treasureton.

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.8	7.4	a9.0		11		73	64	50	8.1	3.6	1.3
2	3.5	7.2			12		60	56	64	7.6	4.3	1.5
3	3.4	7.0			12	a 11	59	50	*72	7.4	5.0	2.2
4	3.4	7.0	a10		13		64	47	61	8.3	3.8	2.2
5	3.4	7.6			12		67	49	66	7.2	3.2	2.1
6	3.6	7.6		(*)	13	*12	56	50	60	6.4	2.8	1.8
7	3.5	7.4	(*)		*12	12	50	*56	78	6.1	2.6	1.6
8	3.6	7.2			12	13	43	53	72	6.4	2.4	1.5
9	3.6	7.4			12	15	42	46	61	6.8	2.3	1.5
10	3.8	8.9		a 11	12	18	38	41	50	7.6	2.3	1.2
11	3.6	8.3				20	34	36	42	8.3	2.3	1.0
12	3.5	9.4	a 11			20	33	33	39	7.4	2.9	1.0
13	3.5	9.9				20	32	32	34	*7.2	2.6	1.0
14	a3.8	*9.6				18	30	31	29	7.0	2.2	1.2
15	*4.0	10				17	28	32	25	6.1	2.3	.8
16	4.1	8.3			a 11	17	*31	33	22	5.5	2.6	1.5
17	4.5	9.6				18	40	33	21	5.0	2.4	1.8
18	4.6	9.4		15		16	42	33	19	4.6	2.2	1.6
19	4.8	9.2	*11	21		17	40	42	*18	4.1	1.8	1.9
20	6.4	8.7	11	*20		*17	53	62	16	3.5	1.7	1.5
21	6.8	9.6	11	17		16	80	46	14	3.8	1.3	1.2
22	7.0	8.7	11	15		16	113	*41	14	*4.0	1.9	1.6
23	7.0		b10	15	a10	16	*125	40	12	4.5	1.9	1.8
24	7.0			13		22	118	65	11	3.6	1.8	*1.9
25	7.0			14		36	108	55	10	3.0	*1.8	1.6
26	7.0	a8.0	b9.0	12		48	110	60	10	2.9	1.7	1.5
27	7.2			12	a 11	59	113	55	11	3.2	1.7	1.3
28	7.2			12		92	147	56	10	3.6	2.3	1.6
29	7.2		a10	12	-	94	90	62	9.4	4.1	2.1	1.6
30	7.2		a 11	12	-	*96	75	67	8.5	4.5	1.5	1.5
31	7.4	-	a 11	12	-	85	-	59	-	4.0	1.5	-
Total	156.4	249.4	323.0	389	314	885	1,994	1,485	1,008.9	171.8	74.6	45.8
Mean	5.05	8.31	10.4	12.5	11.2	28.5	66.5	47.9	33.6	5.54	2.41	1.53
Ac-ft	310	495	641	772	623	1,760	3,960	2,950	2,000	341	148	91

Calendar year 1952: Max 611 Min 3.4 Mean 44.4 Ac-ft 32,210
Water year 1952-53: Max 147 Min 0.8 Mean 19.4 Ac-ft 14,090

Peak discharge (base, 150 cfs).--Apr. 28 (7:30 a.m.) 189 cfs (2.27 ft).
* 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.

Bear River near Preston, Idaho

Location.--Lat 42°10', long. 111°51', in NW¼ sec. 36, T. 14 S., R. 39 E., on left bank 600 ft downstream from headgates of West Cache Canal, 5 miles downstream from Mink Creek, 5 miles north of Preston, and 5½ 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 1953.

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.--9 years (1944-53), 1,001 cfs.

Extremes.--Maximum discharge during year, 3,020 cfs Dec. 19 (gage height, 4.72 ft); minimum, 14 cfs May 11 (gage height, 0.50 ft); minimum daily, 79 cfs May 17.
1889-1917, 1944-53: 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 SE¼ sec. 20, T. 16 S., R. 39 E. Natural flow of stream affected by storage reservoirs, power developments, diversions for irrigation, and return flow from irrigated areas.

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,120	224	1,110	1,200	1,060	1,000	937	1,220	565	1,000	956	794
2	807	417	877	1,190	1,130	1,100	837	1,360	939	618	433	560
3	1,380	1,300	1,210	1,410	900	1,250	960	576	*993	513	730	377
4	1,450	816	1,120	984	870	1,400	910	1,040	733	777	1,180	550
5	1,030	1,070	586	1,330	1,380	1,100	613	1,380	1,060	795	822	608
6	1,650	879	*1,060	1,240	1,010	*1,500	962	768	793	878	700	687
7	1,120	766	1,040	1,590	1,000	988	1,030	1,150	567	713	1,000	791
8	841	575	1,110	1,070	800	985	1,060	1,310	1,060	810	667	520
9	948	588	1,250	1,050	1,000	1,030	926	221	1,310	669	411	737
10	780	1,020	1,250	1,580	1,050	972	962	426	948	727	533	673
11	880	961	944	1,010	1,150	1,140	1,060	674	796	857	613	618
12	658	999	1,060	951	1,150	1,160	562	738	467	853	753	596
13	951	926	1,380	1,140	1,500	1,000	668	935	778	*933	613	741
14	1,260	734	1,150	1,190	1,150	902	786	744	539	842	337	864
15	754	1,020	1,230	917	1,100	910	897	988	433	1,170	223	276
16	697	987	1,260	1,050	1,000	1,080	569	1,010	739	702	437	438
17	715	1,220	1,400	905	1,100	964	616	79	269	866	1,310	586
18	887	1,030	1,300	701	1,350	1,100	1,330	536	271	956	460	501
19	411	912	1,830	815	1,300	641	767	690	520	1,000	628	379
20	884	852	824	*1,620	1,300	*1,170	1,200	630	894	1,100	1,020	422
21	1,030	718	1,520	1,100	900	983	1,300	468	710	922	828	826
22	824	310	1,710	1,220	900	174	1,690	336	148	812	681	646
23	1,070	516	1,280	961	1,200	631	1,210	548	820	980	251	188
24	860	1,360	1,430	1,160	1,200	1,050	1,330	695	923	1,060	825	243
25	973	1,350	1,190	1,020	1,150	928	954	513	877	1,240	682	292
26	760	1,040	1,200	1,060	1,000	1,020	762	463	818	355	971	622
27	1,180	551	922	1,580	1,100	1,500	1,450	456	1,140	772	563	845
28	772	901	1,110	1,280	1,200	1,510	1,570	612	810	634	687	739
29	827	717	1,480	311	-	721	1,220	762	734	1,040	326	174
30	1,140	314	1,460	1,010	-	952	1,040	1,380	909	904	429	157
31	1,170	-	1,640	1,180	-	941	-	643	-	750	953	-
Total	29,829	25,073	37,933	34,825	30,950	31,802	30,178	23,351	22,563	26,248	21,022	16,450
Mean	962	836	1,224	1,123	1,105	1,026	1,006	753	752	847	678	548
Ac-ft	59,160	49,730	75,240	69,070	61,390	63,080	59,860	46,320	44,750	52,060	41,700	32,630

Calendar year 1952: Max 2,940 Min 224 Mean 1,270 Ac-ft 921,800
Water year 1952-53: Max 1,830 Min 79 Mean 905 Ac-ft 655,000

* Discharge measurement made on this day.
Note.--No gage-height record Feb. 7 to Mar. 6; discharge estimated on basis of records for station at Oneida.

Little Bear River near Paradise, Utah

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

Drainage area.--203 sq mi.

Records available.--October 1938 to September 1953 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 datum 1.50 ft higher.

Average discharge.--15 years (1938-53), 89.5 cfs.

Extremes.--Maximum discharge during year, 601 cfs May 29 (gage height, 2.76 ft); minimum, 13 cfs Sept. 23.
1938-53: Maximum discharge, 1,390 cfs Apr. 27, 1952; (gage height, 5.81 ft); minimum, 4 cfs Aug. 14, 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 area. No diversion between station and Hyrum Reservoir.

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	32	48	68	57	58	65	145	229	245	*31	*18	*17
2	35	48	68	56	61	65	133	213	248	31	18	18
3	37	48	70	57	64	64	128	184	245	*30	*22	18
4	34	49	68	57	68	64	133	168	235	31	23	*18
5	28	50	67	56	*87	62	131	160	*251	28	22	17
6	34	55	65	57	a66	63	120	155	226	*29	21	16
7	37	*55	65	58	a66	*63	113	*171	364	28	20	*16
8	35	55	65	57	a66	68	107	176	319	26	20	16
9	34	55	65	57	a64	72	105	165	282	26	20	16
10	39	54	65	60	a62	80	98	152	245	28	20	17
11	43	55	65	57	a60	86	*98	122	235	27	20	17
12	44	55	67	56	a60	84	98	92	242	27	20	16
13	44	56	67	60	a60	92	100	75	219	27	20	17
14	44	56	65	68	60	83	107	*67	196	26	19	*18
15	45	60	64	60	61	81	*102	68	177	26	19	18
16	46	56	64	57	60	84	113	72	*142	25	18	18
17	48	63	64	61	60	91	160	a75	128	25	*19	17
18	48	68	63	102	61	80	176	89	111	25	18	18
19	50	67	63	135	58	80	148	122	100	25	19	20
20	50	65	63	88	55	86	179	238	86	25	19	17
21	50	65	63	84	56	89	226	174	64	*25	19	*16
22	48	65	62	74	54	86	262	135	55	*25	19	16
23	47	58	61	71	55	88	286	128	49	25	18	16
24	45	61	53	68	56	105	*275	145	45	24	*18	16
25	48	a58	b50	67	56	142	258	222	42	23	19	16
26	49	a55	b50	63	58	122	265	202	36	23	18	15
27	50	a55	b54	60	60	126	279	174	35	24	19	15
28	50	a58	58	58	62	138	369	182	38	24	19	15
29	49	*61	*58	61	-	168	251	*293	35	24	19	14
30	50	63	58	60	-	182	*238	319	31	23	18	15
31	50	-	60	60	-	*158	-	285	-	22	18	-
Total	1,343	1,717	1,938	2,042	1,694	2,917	5,203	5,132	4,726	808	599	499
Mean	43.3	57.2	62.5	65.9	60.5	94.1	173	166	158	26.1	19.3	16.6
Ac-ft	2,660	3,410	3,840	4,050	3,360	5,790	10,320	10,180	9,370	1,600	1,190	990

Calendar year 1952: Max 1,060 Min 25 Mean 136 Ac-ft 98,580
Water year 1952-53: Max 369 Min 14 Mean 78.4 Ac-ft 56,760

Peak discharge (base, 400 cfs).--Apr. 28 (5:45 a.m.) 435 cfs (2.20 ft); May 29 (8:30 p.m.) 601 cfs (2.76 ft); June 7 (12:30 p.m.) 472 cfs (2.61 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.

Hyrum Reservoir near Hyrum, Utah

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

Drainage area.--220 sq mi.

Records available.--October 1938 to September 1953.

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

Extremes.--Maximum contents observed during year, 16,100 acre-ft June 12, 13 (elevation, 4,673.7 ft); minimum observed, 2,960 acre-ft Sept. 30 (elevation, 4,641.3 ft).
1938-53: Maximum contents observed, that of June 12, 13, 1953; 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 ft (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).

Contents, in acre-feet, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	10,260	10,440				-	15,570	-	14,060	9,120	5,150
2	-	-	-				-	-	15,810	13,870	8,910	4,970
3	-	-	-				-	-	-	13,730	8,750	4,770
4	-	-	-				-	-	-	13,590	8,580	4,630
5	-	-	-				15,760	15,140	15,810	13,400	8,540	4,530
6	-	-	-				15,520	-	-	13,220	8,420	4,390
7	-	-	-				15,520	-	-	13,030	8,340	4,290
8	-	-	-				15,470	-	16,050	12,850	8,220	4,130
9	-	-	-				15,470	-	-	12,620	8,100	4,000
10	-	-	-				15,420	15,710	16,050	12,440	7,980	3,930
11	-	-	-				15,470	15,660	-	12,300	7,860	3,870
12	-	-	-				15,420	15,710	16,100	12,260	7,700	3,770
13	-	-	-				-	15,760	16,100	12,170	7,580	3,700
14	-	-	-				15,380	15,660	-	12,030	7,460	3,640
15	-	-	-				15,380	15,710	15,810	11,670	7,300	3,610
16	-	-	-				-	15,760	-	11,490	7,110	3,540
17	-	-	-				15,420	15,470	15,810	11,360	6,990	3,480
18	-	-	-				-	15,660	-	11,220	6,910	3,450
19	-	-	-				-	15,710	15,760	10,960	6,800	3,390
20	-	-	-				15,520	15,810	15,660	10,790	6,680	3,360
21	-	-	-				-	15,760	-	10,570	6,530	3,330
22	-	-	-				15,570	15,710	15,620	10,480	6,490	3,260
23	-	-	-				15,520	15,710	15,620	10,390	6,460	3,200
24	-	-	-				-	15,760	15,420	10,350	6,380	3,170
25	-	-	-				15,520	15,710	15,330	9,840	6,310	3,140
26	-	-	-				-	15,760	15,040	9,750	6,120	3,080
27	10,180	10,260	-				15,470	15,710	14,720	9,710	6,010	3,050
28	-	-	-		13,540		15,520	15,710	14,530	9,580	5,860	3,020
29	-	-	-		-		-	15,760	14,430	9,500	5,720	2,990
30	-	a10,400	-		-	15,760	15,470	15,810	14,200	9,410	5,570	2,960
31	a10,240	-	12,300	15,040	-		-	15,810	-	9,290	5,360	-

a No gage-height record; contents interpolated.

Monthly elevation and contents, water year October 1952 to September 1953

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30.....	4,654.8	7,700	-
Oct. 31.....	-	a10,240	+2,540
Nov. 30.....	-	a10,400	+160
Dec. 31.....	4,665.6	12,300	+1,900
Calendar year 1952.....	-	-	+1,860
Jan. 31.....	4,671.5	15,040	+2,740
Feb. 28.....	4,668.3	13,540	-1,500
Mar. 31.....	4,673.0	15,760	+2,220
Apr. 30.....	4,672.4	15,470	-290
May 31.....	4,673.1	15,810	+340
June 30.....	4,669.7	14,200	-1,610
July 31.....	4,658.7	9,290	-4,910
Aug. 31.....	4,648.6	5,360	-3,930
Sept.30.....	4,641.3	2,960	-2,400
Water year 1952-53.....	-	-	-4,740

a No gage-height record; contents interpolated.

Little Bear River near Hyrum, Utah

Location.--Lat 41°38'00", long. 111°53'00", in NE¼ sec. 6, T. 10 N., R. 1 E., on left bank 2,000 ft upstream from road bridge, 1½ miles downstream from Hyrum Dam, and 1½ miles west of Hyrum.

Drainage area.--222 sq mi.

Records available.--October 1938 to September 1953.

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.--15 years, 66.3 cfs.

Extremes.--Maximum daily discharge during year, 333 cfs Apr. 24; minimum daily, 1.3 cfs Sept. 30.
1938-53: Maximum discharge, 986 cfs Apr. 30, 1952 (gage height, 4.54 ft); minimum daily, 0.6 cfs Nov. 23-25, 1943.

Remarks.--Records good except those for period of no gage-height record, which are fair. Flow regulated by Hyrum Reservoir (see preceding page).

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 14-26)

0.0	1.0	1.0	48
.1	2.3	1.3	81
.2	4.0	1.6	123
.3	6.1	1.9	176
.4	9.0	2.2	242
.6	18	2.6	341
.8	32		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*9.0	4.6	62	3.8	165	118	148	a145	240	5.0	1.8	1.9
2	9.0	8.7	*65	3.8	47	117	139	a225	221	5.5	1.8	1.9
3	9.0	24	67	3.8	7.3	117	133	a185	217	*5.3	1.8	1.9
4	8.7	a40	66	3.8	7.0	116	129	a170	201	4.4	1.9	1.9
5	8.7	a42	65	6.1	*6.7	114	128	a160	201	4.2	1.8	1.6
6	8.7	a45	65	11	6.7	112	128	a55	204	4.0	2.0	1.5
7	8.1	*47	66	12	7.6	*65	131	a80	252	3.5	3.5	1.5
8	4.2	49	67	12	67	21	131	a85	320	3.2	1.6	1.5
9	3.8	50	68	13	110	21	122	a75	271	2.8	1.5	1.5
10	3.7	50	68	13	107	10	114	a60	264	2.8	1.5	1.4
11	3.5	51	69	16	107	5.3	114	a115	242	2.6	1.5	1.4
12	3.5	52	71	19	65	5.3	112	a35	228	2.5	1.6	1.4
13	3.3	54	71	22	7.6	5.0	114	a15	208	2.5	2.0	1.4
14	3.0	55	71	24	7.3	4.8	114	*50	182	2.8	1.8	*1.5
15	3.0	60	71	26	35	4.6	*114	38	146	2.5	1.6	1.8
16	3.0	58	34	27	62	4.2	76	34	*136	2.2	1.8	2.0
17	3.2	58	5.3	29	100	4.0	25	33	114	2.0	2.2	2.3
18	3.3	59	5.5	32	137	4.0	118	36	57	1.9	3.3	2.6
19	3.0	59	5.3	32	134	4.2	148	60	35	1.9	3.7	3.3
20	3.7	59	4.0	98	133	4.2	163	193	24	1.9	4.2	3.2
21	4.0	59	3.8	176	133	4.2	195	221	14	*2.2	2.2	2.6
22	4.0	59	3.7	52	131	4.2	254	191	7.6	2.6	3.3	2.3
23	4.0	57	*3.7	6.4	129	45	318	161	6.4	2.3	2.6	2.5
24	3.8	56	3.7	6.1	128	114	*333	186	5.3	2.3	*2.5	2.2
25	3.7	57	3.7	231	125	114	a280	247	5.5	2.8	2.5	2.2
26	2.8	55	3.7	79	125	114	a270	230	5.5	2.2	2.5	1.9
27	2.5	54	3.7	6.4	122	114	a285	206	5.9	2.2	2.5	1.6
28	3.0	56	3.7	6.1	120	117	a325	182	6.1	1.9	2.5	1.5
29	3.8	58	3.7	6.1	-	129	a260	*201	5.3	1.9	2.6	1.4
30	4.4	60	3.7	6.1	-	148	a245	276	4.8	1.9	2.5	1.3
31	4.4	-	3.7	86	-	*153	-	271	-	2.0	2.2	-
Total	145.8	1,496.3	1,106.9	1,068.5	2,332.2	1,913.0	5,166	4,221	3,829.4	87.8	70.8	57.0
Mean	4.70	49.9	35.7	34.5	83.3	61.7	172	136	128	2.83	2.28	1.90
Ac-ft	289	2,970	2,200	2,120	4,630	3,790	10,250	8,370	7,600	174	140	113

Calendar year 1952: Max 952 Min 2.5 Mean 109 Ac-ft 79,470
Water year 1952-53: Max 333 Min 1.3 Mean 58.9 Ac-ft 42,650

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of records for station near Paradise, change in contents of Hyrum Reservoir, furnished records of canals diverting from Hyrum Reservoir, and notes of Little Bear River Water Commissioner.

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 1953. 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.--40 years (1913-53), 110 cfs. Average combined discharge of Logan River, Utah Power & Light Co.'s tailrace, and Logan, Hyde Park & Smithfield Canal, 30 years (1923-53), 234 cfs.
Extremes.--Maximum discharge during year, 740 cfs June 14, 15 (gage height, 3.08 ft); minimum daily, 11 cfs many days October to April.

Maximum combined daily discharge during year (Logan River above State dam, Utah Power & Light Co.'s tailrace, and Logan, Hyde Park & Smithfield Canal), 949 cfs June 15; minimum daily, 98 cfs Mar. 4.

1913-53: 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.

1934-53: 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 pipelines 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 tables, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 9		Jan. 10 to Sept. 30			
0.8	6.2	0.8	6.0	1.7	158
.9	14	.9	12	2.0	245
		1.0	22	2.3	356
		1.2	50	2.7	541
		1.4	87	3.1	751

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	11	13	14	12	12	*12	71	308	205	17	23
2	14	11	12	14	13	12	12	48	365	191	16	15
3	14	11	12	15	13	12	11	36	344	*177	16	15
4	14	14	12	14	18	19	12	18	348	163	15	15
5	15	12	14	14	15	12	12	22	*437	150	16	15
6	15	12	16	14	16	12	58	47	391	143	17	15
7	14	12	15	13	15	12	*12	109	441	123	16	15
8	14	12	*15	13	14	12	11	100	479	111	16	15
9	14	12	15	13	17	12	11	83	460	100	16	15
10	*14	12	14	*12	12	12	11	64	507	107	16	15
11	15	12	15	12	12	12	11	35	576	85	16	16
12	15	*12	14	12	12	12	11	22	638	77	16	16
13	15	12	14	12	12	15	11	*19	*670	60	16	16
14	15	12	14	12	*13	12	11	*17	702	53	16	16
15	13	12	14	*12	12	12	72	18	680	*44	17	16
16	13	12	14	11	12	14	*111	31	617	44	17	*16
17	13	12	13	11	12	17	80	50	586	36	17	16
18	14	12	13	16	12	18	12	85	*571	31	31	16
19	13	12	12	14	12	19	13	161	556	27	16	16
20	13	12	12	13	12	18	70	315	517	*26	16	16
21	*13	13	12	12	13	17	18	202	470	20	16	16
22	12	12	12	12	13	18	40	148	432	20	16	13
23	12	12	12	12	12	50	53	143	391	19	16	17
24	12	12	13	12	13	19	67	156	365	19	*15	*20
25	12	12	13	12	13	19	65	133	*336	18	15	19
26	12	14	14	12	*13	27	85	136	300	18	15	19
27	12	13	13	12	12	34	121	146	271	17	15	20
28	11	14	13	12	13	48	146	265	252	17	15	20
29	11	14	14	12	-	52	*119	365	226	17	15	20
30	11	14	14	12	-	*48	98	296	217	17	15	19
31	11	-	14	12	-	15	-	285	-	18	15	-
Total	411	369	417	393	368	623	1,376	3,606	13,453	2,153	507	501
Mean	13.3	12.3	13.5	12.7	13.1	20.1	45.9	116	448	69.5	16.4	16.7
Ac-ft	815	732	827	780	730	1,240	2,730	7,150	26,680	4,270	1,010	994

Calendar year 1952: Max 784 Min 11 Mean 123 Ac-ft 89,510
Water year 1952-53: Max 702 Min 11 Mean 66.1 Ac-ft 47,960

* 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 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	183	160	136	126	125	115	159	276	533	520	259	189
2	185	159	138	126	126	115	166	253	582	509	257	187
3	181	158	137	127	122	109	153	240	544	489	257	187
4	181	148	137	126	125	98	168	224	556	476	249	185
5	182	160	139	126	124	111	166	234	638	459	242	185
6	180	160	142	128	120	111	147	279	577	448	241	181
7	179	161	144	130	119	110	157	350	626	435	236	177
8	177	161	145	128	120	114	148	355	663	421	235	179
9	178	158	144	127	123	114	144	348	650	406	233	177
10	177	157	138	125	116	114	140	318	708	394	232	173
11	176	155	139	125	115	116	134	285	791	384	229	176
12	175	156	140	127	116	119	135	276	857	377	226	174
13	174	157	146	131	113	122	134	265	891	366	221	173
14	174	156	143	136	119	119	132	258	936	360	219	171
15	172	156	138	126	116	115	115	267	949	353	221	168
16	170	154	138	118	116	114	119	285	907	340	219	169
17	171	153	139	125	113	114	148	311	884	330	216	170
18	171	153	136	147	113	115	146	343	872	324	226	170
19	171	153	136	142	114	117	152	437	851	312	212	167
20	169	153	137	131	112	117	165	550	806	311	208	167
21	171	154	134	135	115	116	208	452	764	303	204	168
22	167	151	132	124	108	109	249	400	728	297	204	163
23	167	142	131	122	112	103	278	387	690	291	204	160
24	166	140	115	123	110	116	288	391	669	287	200	161
25	166	140	118	123	107	118	287	368	641	282	197	160
26	163	124	119	123	110	130	307	353	606	277	197	159
27	165	136	128	125	110	136	343	376	574	271	197	159
28	162	138	128	125	113	150	361	492	558	267	193	159
29	160	132	126	126	-	154	329	581	537	264	192	158
30	160	138	126	125	-	171	303	488	528	264	191	156
31	160	-	127	121	-	172	-	466	-	264	188	-
Total	5,333	4,525	4,174	3,949	3,252	3,754	5,881	10,908	21,116	11,081	6,805	5,128
Mean	172	151	135	127	116	121	196	352	704	357	220	171
Ac-ft	10,580	8,980	8,280	7,830	6,450	7,450	11,660	21,640	41,880	21,980	13,500	10,170

Calendar year 1952: Max 1,060 Min 105 Mean 301 Ac-ft 218,200
Water year 1952-53: Max 949 Min 98 Mean 235 Ac-ft 170,400

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

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

Records available.--May 1913 to September 1953.

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

Average discharge.--40 years, 110 cfs.

Extremes.--1913-53: *Maximum* daily discharge, 204 cfs Apr. 14, 1952, Apr. 23, 1953; *no* flow for periods during several years.

Remarks.--Records excellent except those for periods of no gage-height record and those for period of twice-daily staff-gage readings, which are fair. Flow regulated by powerplant above gage. Power canal diverts water from right bank of Logan River in SE¼SW¼ sec. 29, T. 12 N., R. 2 E. Water returned to river 125 ft below gaging station on Logan River above State dam.

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

Rating table, water year 1952-53 (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	2.7	204
1.2	25		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	146	142	111	105	107	97	*141	202	188	190	190	131
2	150	141	113	105	107	97	147	202	186	190	191	138
3	147	140	113	105	104	92	136	201	183	188	191	138
4	147	125	113	105	102	69	150	201	182	188	186	136
5	148	140	113	105	104	92	148	199	182	185	180	136
6	148	141	115	108	99	92	81	202	180	180	178	132
7	148	142	118	110	99	92	*138	202	180	186	172	129
8	146	141	*119	108	101	95	131	199	180	186	170	131
9	147	138	119	108	101	96	127	199	178	185	170	129
10	*146	137	115	*107	99	96	123	198	175	176	169	125
11	147	136	114	107	98	98	118	194	175	191	166	127
12	148	*137	116	109	99	101	119	194	180	194	164	125
13	148	137	122	114	96	101	118	*191	178	194	156	124
14	148	136	120	118	*101	101	116	191	182	196	156	122
15	148	136	115	*109	99	97	36	193	180	*196	159	120
16	146	134	116	102	99	97	0	193	177	196	158	*122
17	147	133	118	109	96	97	60	194	178	198	156	123
18	148	133	115	123	96	97	127	196	*180	199	152	123
19	150	133	116	118	97	98	133	199	180	198	154	120
20	148	133	118	110	95	99	88	196	182	*201	150	120
21	*150	133	115	115	97	99	183	193	185	201	148	129
22	148	131	114	105	90	90	202	193	185	199	148	138
23	148	122	113	104	95	53	204	193	185	199	148	119
24	147	119	96	105	92	97	194	193	185	198	*146	*114
25	147	118	98	105	89	99	196	194	185	198	144	113
26	144	a100	98	105	*92	102	199	177	185	196	144	114
27	146	a114	107	107	93	102	198	194	183	194	144	113
28	144	113	105	107	95	102	194	194	186	193	141	113
29	142	107	104	108	-	102	*202	193	188	191	140	113
30	142	113	104	107	-	122	201	188	188	191	141	113
31	142	-	105	103	-	154	-	188	-	191	138	-
Total	4,551	3,905	3,478	3,356	2,742	3,026	4,210	6,046	5,461	5,968	4,950	3,730
Mean	147	130	112	108	97.9	97.6	140	195	182	193	160	124
Ac-ft	9,030	7,750	6,900	6,660	5,440	6,000	8,350	12,000	10,830	11,840	9,820	7,400

Calendar year 1952: Max 204 Min 0 Mean 144 Ac-ft 104,500
Water year 1952-53: Max 204 Min 0 Mean 140 Ac-ft 102,000

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of output of powerplant.
Note.--Discharge computed from twice-daily staff-gage readings Jan. 18 to Feb. 23.

Logan, Hyde Park & Smithfield Canal near Logan, Utah

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

Records available.--June 1904 to December 1907, January 1909 to September 1953 (fragmentary prior to May 1924).

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

Average discharge.--30 years (1923-53), 29.1 cfs.

Extremes.--1906, 1924-53: 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 NE¼NE¼ sec. 31, T. 12 N., R. 2 E., for irrigation and domestic supply north of Logan.

Rating tables, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to June 15				June 16 to Sept. 30			
-0.4	0	0.5	22	0.3	9.0	0.9	48
0.0	.2	.8	42	.4	14	1.3	68
.1	2.0	1.2	62	.5	22	1.8	96
.2	4.9	1.7	90	.6	28	2.4	131
.3	9.0						

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*22	7.0	12	7.4	5.7	5.7	6.1	3.2	37	125	52	35
2	21	7.0	13	7.0	5.7	5.7	6.5	2.9	31	128	50	34
3	20	7.0	12	7.0	5.3	5.3	5.7	2.6	17	*124	50	34
4	20	9.0	12	7.0	5.3	9.7	6.5	4.3	26	125	48	34
5	19	7.8	12	6.5	5.3	7.0	5.7	13	*19	124	46	34
6	17	7.4	11	6.5	5.3	*6.7	7.8	30	5.7	125	46	34
7	17	*7.4	11	6.5	5.3	6.5	7.4	39	5.3	126	48	33
8	17	7.8	11	6.5	5.3	6.5	6.5	56	3.7	124	49	33
9	17	7.8	9.6	6.1	5.3	6.1	6.1	66	12	121	47	33
10	*17	7.8	9.0	*5.7	4.9	6.1	5.7	56	26	111	47	33
11	14	7.4	9.6	5.7	4.9	6.1	4.9	56	40	108	47	33
12	12	7.4	*10	5.7	4.9	6.1	4.9	60	39	106	46	33
13	11	7.8	10	5.3	4.9	6.5	4.9	55	43	112	49	33
14	11	7.8	8.6	6.1	*5.3	6.1	4.9	*50	52	111	47	*33
15	11	8.2	8.6	5.3	5.3	6.1	7.0	56	89	113	45	32
16	11	8.2	8.2	4.9	5.3	3.2	*8.2	61	113	100	44	31
17	11	8.2	8.2	5.3	4.9	.2	7.8	67	120	96	43	31
18	9.0	7.8	7.8	7.8	4.9	.1	7.0	62	*121	94	43	31
19	7.8	7.8	7.8	10	4.9	.2	6.5	77	115	87	42	31
20	7.8	7.8	7.4	7.8	4.9	.2	7.4	39	107	*84	42	31
21	7.8	7.8	7.0	8.2	5.3	.1	7.4	57	109	82	40	23
22	7.4	7.8	6.5	6.5	5.3	1.3	7.4	59	111	78	40	12
23	7.4	7.8	6.1	6.1	5.3	.4	21	51	114	73	40	24
24	7.4	8.6	6.1	6.1	5.3	.2	27	42	119	70	*39	*27
25	7.4	9.6	6.5	6.1	5.3	.4	26	41	*120	66	38	28
26	7.4	10	7.0	6.1	5.3	.6	23	40	121	63	38	26
27	7.4	11	7.8	6.1	5.3	.4	24	36	120	60	38	26
28	7.4	11	7.8	6.1	5.3	.2	21	33	120	57	37	26
29	7.0	11	7.8	6.1	-	.2	8.2	23	123	56	37	25
30	7.0	11	7.8	6.1	-	*.6	3.7	4.0	123	56	35	24
31	7.0	-	7.8	6.1	-	2.9	-	13	-	55	35	-
Total	373.2	250.0	277.0	199.7	146.0	107.4	296.2	1,255.6	2,201.7	2,960	1,348	897
Mean	12.0	8.33	8.93	6.44	5.21	3.46	9.87	40.5	73.4	95.5	43.5	29.9
Ac-ft	740	496	549	396	290	213	588	2,490	4,370	5,870	2,670	1,780

Calendar year 1952: Max 128 Min 0 Mean 33.3 Ac-ft 24,150
Water year 1952-53: Max 128 Min 0.1 Mean 28.2 Ac-ft 20,450

* Discharge measurement made on this day.

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

Location.--Lat 41°37'20", long. 111°44'25", in NE¼ sec. 8, T. 10 N., R. 2 E., on right bank three-quarters of a mile upstream from diversion dam, 3¼ miles upstream from powerplant of Utah Power & Light Co., and 6 miles east of Hyrum.

Drainage area.--260 sq mi.

Records available.--July 1900 to December 1902, November 1913 to September 1953.

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 3½ 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.--39 years (1914-53), 126 cfs.

Extremes.--Maximum discharge during year, 309 cfs May 20 (gage height, 3.16 ft); minimum daily, 90 cfs Sept. 24-28.
1913-53: Maximum discharge, 1,620 cfs May 15, 1917 (gage height, 6.5 ft, site and datum then in use), from rating curve extended above 600 cfs; minimum daily, 29 cfs Jan. 3, 1935.

Remarks.--Records good except those for period of 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 table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

2.1	89
2.3	121
2.6	181
3.1	301

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*136	127	112	104	101	98	129	181	210	130	112	100
2	134	125	*114	104	101	98	123	164	221	129	114	100
3	134	125	114	102	102	96	123	148	217	*127	114	101
4	136	125	112	102	104	96	125	142	212	127	111	101
5	136	125	112	102	*102	95	125	148	219	127	111	100
6	136	123	112	102	102	95	121	166	214	127	111	96
7	136	*123	111	104	101	*95	119	188	228	127	109	96
8	136	123	114	102	102	96	114	188	*231	127	109	95
9	136	123	112	102	102	98	112	183	a240	125	106	94
10	136	123	111	102	100	100	111	170	a250	127	106	95
11	136	123	111	102	100	100	111	156	a260	129	104	*95
12	136	123	112	102	101	100	109	148	a250	125	101	95
13	134	123	112	104	98	101	107	142	a230	123	101	94
14	134	123	111	111	100	100	109	*140	a200	123	101	95
15	134	125	111	104	101	98	*107	138	a185	121	101	95
16	134	123	111	102	98	98	104	142	*173	121	101	95
17	132	123	109	106	98	98	109	152	166	119	102	96
18	132	121	107	121	98	98	114	160	160	119	104	95
19	132	119	107	132	98	96	116	177	156	119	102	95
20	132	119	106	116	95	101	123	285	152	118	101	95
21	132	118	107	112	95	101	144	245	150	*118	100	92
22	132	118	106	107	96	100	170	217	146	118	100	92
23	130	114	106	106	98	100	196	196	142	116	101	92
24	130	114	100	106	98	102	217	212	140	116	*102	90
25	130	116	100	104	96	107	217	214	138	116	101	90
26	129	109	100	104	98	118	228	194	138	116	101	90
27	127	112	102	104	96	119	248	188	136	114	101	90
28	127	114	104	102	98	129	260	210	136	116	101	90
29	127	114	*106	104	-	136	217	233	134	116	101	92
30	127	114	106	104	-	138	*199	238	132	116	100	92
31	127	-	104	101	-	*134	-	214	-	114	100	-
Total	4,110	3,607	3,382	3,280	2,779	3,241	4,407	5,679	5,566	3,766	3,229	2,838
Mean	133	120	108	106	99.2	105	147	183	186	121	104	94.6
Ac-ft	8,150	7,150	6,670	6,510	5,510	6,430	8,740	11,260	11,040	7,470	6,400	5,630

Calendar year 1952: Max 1,180 Min 79 Mean 204 Ac-ft 148,200
Water year 1952-53: Max 285 Min 90 Mean 126 Ac-ft 90,960

Peak discharge (base, 140 cfs).--Apr. 27 (1:30 a.m.) 291 cfs (3.09 ft); May 20 (11 a.m.) 309 cfs (3.16 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.

Hammond (East Side) Canal near Collinston, Utah

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

Records available.--June 1912 to September 1953.

Gage.--Water-stage recorder.

Average discharge.--36 years (1917-53), 51.3 cfs.

Extremes.--1912-53: Maximum daily discharge, 182 cfs June 28, July 1, 1932, June 27, 28, 1933; no flow for periods during each year.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Canal diverts from east side of Bear River in NW¼SW¼ sec. 26, T. 13 N., R. 2 W., at dam at which West Side Canal and intake of Cutler powerplant also divert. Water used for irrigation in eastern Box Elder County.

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

Rating tables, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to May 3				May 4 to Sept. 30			
1.3	0	2.1	16	1.7	5.8	3.0	54
1.4	1.0	2.4	26	1.9	10	3.6	89
1.5	2.3	2.9	49	2.2	19	4.2	128
1.7	5.8	3.6	87	2.5	30	4.9	175
1.9	10						

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	83	5.8						0	44	164	147	156
2	84	5.6						0	44	168	138	152
3	84							0	41	169	136	152
4	84							59	50	169	133	152
5	84							62	62	169	132	152
6	*74							61	66	*169	139	152
7	60	a3.0						61	31	169	146	152
8	49							77	9.3	169	148	144
9	46							a85	7.9	168	147	135
10	42							a95	16	166	147	130
11	42							*110	52	162	149	*130
12	42	(*)						*101	72	162	*150	130
13	42	1.1						95	80	*157	150	130
14	42	1.1						105	99	162	152	*126
15	42	1.3						*118	122	163	152	118
16	42	1.0						130	127	163	151	118
17	42	0						137	133	162	150	118
18	42	0						138	148	161	150	113
19	42	0						123	156	158	155	109
20	42	0						60	158	*158	160	109
21	42	0						57	160	156	163	104
22	42	0						72	*160	157	162	102
23	*42	0						67	*162	156	161	102
24	42	0						6.4	162	156	161	102
25	42	0						18	164	156	161	102
26	42	0						44	163	155	160	102
27	38	0						61	163	155	159	102
28	28	0						*72	163	156	162	99
29	19	0						50	164	155	162	93
30	19	0						40	164	153	161	93
31	14	-						41	-	147	161	-
Total	1,480	45.9	0	0	0	0	0	2,145.4	3,143.2	4,990	4,707	3,679
Mean	47.7	1.53	0	0	0	0	0	69.2	105	161	152	123
Ac-ft	2,940	91	0	0	0	0	0	4,260	6,230	9,900	9,340	7,300

Calendar year 1952: Max 163 Min 0 Mean 58.4 Ac-ft 42,400
Water year 1952-53: Max 169 Min 0 Mean 55.3 Ac-ft 40,060

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of 1 discharge measurement and notes of gate changes by employee of Utah Power & Light Co.

West Side Canal near Collinston, Utah

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

Records available.--June 1912 to September 1953.

Gage.--Water-stage recorder.

Average discharge.--41 years, 228 cfs.

Extremes.--1912-53: Maximum daily discharge, that of June 22, 1953; no flow during periods in every year except 1914.

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

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

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	475	122		15		11		0	250	720	559	646
2	465	123				11		0	298	720	535	635
3	449	124	30			11		0	302	716	538	621
4	436	124			30	11		156	326	720	521	616
5	409	123	25	*38		11		194	365	718	510	616
6	*382	122	*21		*29	10		264	365	*718	510	612
7	369	122			30	9.4		297	298	713	529	603
8	350	122			30	8.5		304	302	713	557	596
9	347	119			31	8.5		373	303	716	555	585
10	335	118			30	8.2		405	309	694	*570	572
11	324	117		36	30	2.4		*407	365	681	577	*572
12	323	*117			30	0		*412	404	683	*590	568
13	316	100		(*)	30	0		482	437	*681	621	570
14	302	76		32	29	0		*486	555	678	644	*550
15	289	76			28	0		*504	658	660	660	527
16	271	76			28	0		529	692	632	660	514
17	258	52			27	0		574	706	651	660	492
18	261	35			21	0		637	725	660	662	500
19	263	34	15		16	0		547	728	660	667	486
20	264	33			15	0		341	728	*653	665	486
21	260	31			15	0		426	744	635	665	476
22	258				15	0		494	*747	632	660	467
23	*235			30	14	0		482	*740	610	658	467
24	222				*13	0		159	716	603	653	467
25	222				12	0		132	701	607	651	467
26	222	30			12	0		179	701	610	655	467
27	195				12	0		303	697	607	658	467
28	174				11	0		*357	699	605	655	443
29	156				-	0		272	704	577	655	417
30	127				-	0		203	712	583	658	412
31	124	-			-	0		205	-	568	655	-
Total	9,083	2,236	541	1,003	658	102.0	0	10,124	16,277	20,424	19,013	15,917
Mean	293	74.5	17.5	32.4	23.5	3.29	0	327	543	659	613	531
Ac-ft	18,020	4,440	1,070	1,990	1,310	202	0	20,080	32,280	40,510	37,710	31,570

Calendar year 1952: Max 723 **Min** 0 **Mean** 265 **Ac-ft** 192,600
Water year 1952-53: Max 747 **Min** 0 **Mean** 261 **Ac-ft** 189,200

* Discharge measurement made on this day.

Note.--No gage-height record Nov. 22 to Feb. 5; discharge estimated on basis of 3 discharge measurements and notes of gate changes by employee of Utah Power & Light Co.

Bear River near Collinston, Utah

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

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

Records available.--July 1889 to September 1953.

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, 3,510 cfs June 10; minimum daily, 22 cfs July 5.
1889-1953: 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 period 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 area.

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

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	764	1,220	1,700	1,600	1,990	1,680	2,140	2,950	a2,140	178	856	38
2	1,380	1,270	1,080	2,110	1,750	2,170	1,590	2,690	3,040	26	316	39
3	1,340	1,260	1,160	2,040	2,320	2,440	2,160	1,590	2,290	719	803	39
4	942	886	1,310	1,460	1,920	1,950	2,070	2,850	2,340	88	57	41
5	1,070	1,460	1,550	1,830	2,210	1,830	1,660	2,060	2,600	22	156	42
6	1,500	1,430	1,680	1,920	*1,870	1,830	2,220	1,720	2,210	24	629	42
7	1,690	1,030	1,860	1,980	1,920	1,880	a1,430	1,320	2,590	24	802	42
8	1,830	1,450	1,600	1,880	1,700	1,650	*a1,640	1,380	2,840	109	150	41
9	1,480	1,830	1,940	2,020	1,840	2,020	a1,320	1,400	2,650	25	603	34
10	1,360	1,730	1,930	1,910	a1,420	2,040	a1,360	1,200	3,510	26	54	32
11	1,490	802	1,770	1,950	a1,880	1,860	2,080	1,720	2,940	26	42	*32
12	1,330	*1,390	2,200	1,810	a2,150	1,640	3,210	1,270	2,860	27	*30	34
13	1,230	1,860	2,050	*2,160	2,160	1,710	1,690	1,320	2,860	26	34	34
14	1,380	1,790	1,850	1,950	2,380	1,760	1,610	458	2,260	26	31	*34
15	1,580	1,550	2,100	1,640	1,280	1,960	2,130	109	a1,880	28	31	39
16	1,140	1,870	2,390	1,730	2,210	1,790	1,340	449	1,620	30	32	31
17	459	2,060	2,390	1,620	2,400	1,840	1,650	33	1,790	28	32	31
18	1,090	1,550	2,040	a1,860	1,900	2,120	2,020	217	1,520	30	32	444
19	468	a2,150	1,810	a2,400	1,800	a1,710	1,370	425	1,750	31	33	563
20	1,130	2,120	1,490	a2,960	1,920	a1,790	1,820	1,680	461	31	33	62
21	1,580	1,730	1,760	1,930	1,700	a1,500	1,900	945	802	32	34	46
22	1,160	1,770	2,080	2,590	1,530	1,570	1,790	1,790	1,060	31	34	372
23	1,370	1,400	2,350	2,960	1,740	1,450	2,570	1,530	392	30	36	a850
24	1,360	2,250	2,260	2,420	*2,010	1,900	2,790	1,700	436	30	36	a275
25	1,730	1,550	2,130	1,290	1,820	1,720	2,770	2,220	160	30	36	32
26	1,060	1,730	1,790	1,850	1,850	1,330	2,060	2,110	1,000	30	38	32
27	1,560	1,420	1,830	2,370	1,860	1,720	3,000	1,620	1,260	31	39	82
28	1,900	1,780	1,720	2,040	2,260	1,850	2,800	*1,690	824	30	39	a575
29	2,020	1,270	1,020	1,460	-	1,380	*2,610	2,590	603	70	39	a770
30	1,530	800	1,830	1,240	-	1,690	2,860	2,890	699	244	38	a570
31	1,950	-	2,550	2,090	-	1,790	-	1,880	-	126	38	-
Total	41,873	46,408	57,220	61,070	53,790	55,770	61,660	47,806	53,387	2,208	5,165	5,298
Mean	1,351	1,547	1,846	1,970	1,921	1,799	2,055	1,542	1,780	71.2	167	177
Ac-ft	83,050	92,050	113,500	121,100	106,700	110,600	122,300	94,820	105,900	4,380	10,240	10,510

Calendar year 1952: Max 6,670 Min 31 Mean 2,142 Ac-ft 1,555,000
Water year 1952-53: Max 3,510 Min 22 Mean 1,347 Ac-ft 975,200

* 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 1953.

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

Average discharge.--14 years (1911-12, 1931-32, 1941-53), 18.1 cfs.

Extremes.--Maximum discharge during year, 32 cfs Jan. 18 (gage height, 0.90 ft); minimum, 12 cfs Sept. 12; minimum gage height, 0.52 ft Nov. 22, 26.
1911-13, 1931-32, 1940-53: Maximum discharge, 270 cfs Feb. 22, 1948 (gage height, 3.26 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 above station for irrigation of about 400 acres.

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

0.4	9.8
.5	14
.6	18
.7	23
.8	28

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18	18	17	19	20	22	20	21	20	17	17	14
2	18	18	18	18	20	20	19	21	21	18	17	14
3	18	18	18	18	20	20	19	21	22	18	18	14
4	18	18	18	18	21	21	19	21	21	18	17	14
5	18	18	18	18	21	21	20	21	22	18	17	14
6	18	18	18	18	21	21	21	21	22	18	16	14
7	18	18	18	18	21	21	20	21	25	18	15	14
8	18	18	18	18	21	22	20	21	22	18	15	14
9	17	17	18	18	19	*24	20	21	22	18	15	14
10	17	17	18	19	18	24	20	21	21	18	15	14
11	17	17	18	19	18	25	19	20	21	18	15	14
12	17	18	18	19	19	24	*19	20	21	18	15	13
13	17	18	*18	20	19	24	20	20	21	18	15	13
14	17	18	18	20	19	22	19	20	21	18	14	13
15	17	19	18	19	19	22	19	20	21	18	15	14
16	18	18	18	19	19	22	20	20	*20	18	15	14
17	18	18	18	19	20	22	21	19	20	18	14	14
18	18	18	18	25	20	21	21	20	20	17	14	14
19	18	18	18	25	18	22	20	21	20	17	14	14
20	18	18	19	23	18	22	20	22	19	*17	14	14
21	18	18	19	23	19	22	20	21	19	17	14	14
22	18	17	18	20	20	20	20	20	18	17	14	14
23	*18	17	18	21	20	22	20	21	18	17	14	14
24	18	18	17	20	20	23	20	24	18	17	*14	14
25	18	17	18	21	19	24	21	23	18	17	14	14
26	18	16	18	21	21	23	21	21	18	16	14	14
27	18	17	18	*19	22	22	21	20	18	16	14	14
28	18	17	19	19	22	22	24	21	18	16	14	*14
29	18	17	19	20	-	22	*22	23	17	16	14	14
30	18	17	19	20	-	22	22	22	17	16	14	14
31	18	-	19	20	-	21	-	*21	-	17	13	-
Total	551	529	562	615	554	685	607	649	601	538	460	417
Mean	17.8	17.6	18.1	19.8	19.8	22.1	20.2	20.9	20.0	17.4	14.8	13.9
Ac-ft	1,090	1,050	1,110	1,220	1,100	1,360	1,200	1,290	1,190	1,070	912	827

Calendar year 1952: Max 44 Min 16 Mean 21.0 Ac-ft 15,270
Water year 1952-53: Max 26 Min 13 Mean 18.5 Ac-ft 13,420

* Discharge measurement made on this day.

Elkhorn Reservoir near Malad City, Idaho

Location.--Lat 42°18', long. 112°25', in sec. 7, T. 13 S., R. 35 E., at partly completed dam on Little Malad River, 4½ miles downstream from Wright Creek and 11½ miles northwest of Malad City.
Drainage area.--153 sq mi, approximately.
Records available.--December 1940 to January 1953 (discontinued).
Gage.--Staff gages read about once weekly.
Extremes.--Maximum gage height observed during period October to January, 11.5 ft Jan. 27; minimum observed, 3.14 ft Nov. 9.
1940-53: Maximum gage height observed, 17.0 ft Feb. 22 or 23, 1948; minimum gage height, below -3.3 ft in July 1944, for long periods in 1947, in June 1948, and for long periods in 1949 and 1950.
Remarks.--Reservoir is formed by partly completed multiple-arch concrete dam (capacity, about 7,600 acre-ft). Large seepage losses from reservoir limit storage to a small range.

Gage height, in feet, October 1952 to January 1953

Oct. 7	6.8	Dec. 8	4.44
12	4.32	13	5.76
21	4.34	14	5.78
27	4.46	21	5.94
Nov. 2	4.48	29	5.96
9	3.14	Jan. 5	6.20
18	3.50	20	11.1
23	3.42	26	11.3
30	4.46	27	11.5

Little Malad River below Elkhorn Reservoir, near Malad City, Idaho

Location.--Lat 42°18', long. 112°25', in sec. 7, T. 13 S., R. 35 E., on left bank just downstream from Elkhorn Dam, 4½ miles downstream from Wright Creek and 11½ miles northwest of Malad City.
Drainage area.--153 sq mi.
Records available.--December 1940 to January 1953 (discontinued).
Gage.--Water-stage recorder. Prior to Sept. 6, 1941, at site 50 ft upstream at datum 4.36 ft higher.
Average discharge.--11 years (1941-53), 13.2 cfs.
Extremes.--Maximum discharge during period October to January, 26 cfs Oct. 8 (gage height, 2.74 ft); minimum, 1.9 cfs Jan. 10, 11 (gage height, 1.10 ft).
1940-53: Maximum discharge, 113 cfs Aug. 23, 1946, from computation of flow over weir 50 ft upstream; maximum gage height, 4.72 ft Apr. 22, 1952; no flow at times during most years.
Remarks.--Records good. Flow regulated by Elkhorn Reservoir (see above). Diversions above station for irrigation of about 400 acres.

Discharge, in cubic feet per second, October 1952 to January 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	17	17	18								
2	17	17	17	18								
3	17	17	17	18								
4	17	17	17	18								
5	17	17	17	18								
6	17	17	18	18								
7	17	17	19	19								
8	18	17	18	18								
9	17	16	18	19								
10	17	17	18	11								
11	17	17	18	2.0								
12	17	17	18	2.0								
13	17	17	*18	2.0								
14	17	18	18	2.0								
15	18	19	18	2.0								
16	18	17	18	2.0								
17	18	18	18	2.0								
18	18	18	18	2.0								
19	18	18	18	2.0								
20	18	18	19	2.0								
21	18	18	19	2.1								
22	18	17	18	2.0								
23	*18	17	18	2.0								
24	18	18	16	2.0								
25	18	17	17	2.0								
26	17	16	18	2.0								
27	17	17	18	*2.0								
28	18	17	18	-								
29	18	17	18	-								
30	18	17	18	-								
31	17	-	19	-								
Total	542	517	554	-								
Mean	17.5	17.2	17.9	-								
Ac-ft	1,080	1,030	1,100	-								

Calendar year 1952: Max 34 Min 4.1 Mean 16.2 Ac-ft 11,750
Water year 1952-53: Max - Min - Mean - Ac-ft -

* Discharge measurement made on this day.

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 1953.

Gage.--Water-stage recorder. Prior to Dec. 16, 1943, staff gage at same site and datum.

Average discharge.--14 years (1939-53), 10.8 cfs.

Extremes.--Maximum discharge during year, 25 cfs Apr. 28 (gage height, 1.14 ft); minimum, 3.0 cfs Oct. 26; minimum gage height, 0.68 ft Sept. 4, 11; minimum daily discharge, 6.0 cfs Dec. 27-30.

1938-53: Maximum discharge observed, 202 cfs Apr. 2, 1943, from rating curve extended above 47 cfs; maximum gage height, 2.38 ft Apr. 19, 1952; minimum discharge recorded, 16 cfs Jan. 13, 1950 (gage height, 0.43 ft); minimum daily, 1.8 cfs Nov. 3-5, 1949.

Remarks.--Records fair except those for period of shifting control, which are poor. Diversions above station for irrigation of 20 to 30 acres. Stream receives part of flow of Birch Creek above station. Malad powerplant and its small reservoir on Birch Creek cause slight diurnal fluctuations.

Rating tables, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 12		Dec. 13 to Sept. 30			
0.7	3.6	0.7	4.8	1.0	16
.8	7.5	.8	7.4	1.1	22
.9	14	.9	11		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.5	9.3	7.5	a6.2	8.5	13	12	11	*13	9.3	7.8	6.6
2	7.5	9.3	7.9	a6.4	8.9	13	12	11	15	9.3	7.8	6.6
3	7.5	9.3	7.5	a6.4	9.7	12	12	11	14	9.3	7.4	6.6
4	7.5	9.3	7.1	a6.4	9.7	12	12	11	14	9.7	7.4	7.1
5	7.5	9.3	7.1	a6.4	10	13	13	11	14	9.3	7.4	7.1
6	7.1	9.3	7.5	a6.5	10	13	13	11	14	9.3	7.4	7.1
7	7.1	9.3	7.5	6.6	10	*12	12	11	19	9.3	6.9	6.9
8	7.1	9.3	8.1	6.6	10	12	12	11	15	8.9	6.9	6.9
9	7.1	8.1	8.7	6.6	11	14	11	11	14	8.9	7.1	7.1
10	7.1	8.1	8.7	6.6	9.7	15	11	11	13	8.9	7.1	7.1
11	7.1	8.1	9.3	6.6	10	15	11	11	13	8.9	7.1	7.1
12	6.7	8.1	9.3	6.6	10	15	11	11	13	8.5	6.9	7.1
13	6.7	8.1	*9.3	6.9	10	14	*10	11	13	8.9	6.9	7.1
14	9.3	9.9	9.3	6.9	10	11	10	11	12	8.5	6.9	7.4
15	9.9	11	9.3	6.6	10	11	10	11	12	8.9	6.9	7.4
16	9.9	8.7	9.3	7.1	10	12	10	11	12	8.5	6.9	7.4
17	9.9	8.7	9.3	8.9	10	12	10	11	*11	8.5	6.8	7.4
18	9.9	8.1	9.3	10	10	11	10	11	11	8.5	6.9	7.4
19	9.9	7.5	8.2	10	b10	11	10	11	11	8.2	6.6	7.8
20	9.9	8.7	7.8	9.3	b10	11	10	11	10	*8.5	6.6	7.8
21	9.9	9.3	7.1	10	10	11	11	11	10	8.5	6.6	7.4
22	9.9	8.7	7.4	9.7	10	11	12	11	10	8.5	6.6	7.4
23	9.3	9.3	7.4	9.7	11	11	13	11	10	8.5	6.6	7.4
24	*8.7	9.9	7.1	9.7	11	12	13	13	10	8.5	6.6	7.8
25	9.9	9.3	b6.4	9.7	11	12	13	12	9.7	8.2	6.6	7.8
26	8.7	b8.5	6.4	9.7	11	13	13	11	9.7	8.2	6.6	7.8
27	9.9	8.7	a6.0	9.7	12	15	12	11	9.7	8.2	6.6	7.8
28	9.9	8.7	a6.0	*9.3	13	15	*18	12	9.7	8.2	6.6	*7.8
29	9.9	7.5	a6.0	8.9	-	14	15	13	9.3	7.8	6.6	7.8
30	9.3	8.1	a6.0	8.9	-	13	14	13	9.3	7.8	6.9	7.8
31	9.3	-	a6.1	8.9	-	12	-	13	-	7.8	6.6	-
Total	266.9	265.5	239.9	247.8	286.5	391	356	351	360.4	268.3	214.4	219.8
Mean	8.61	8.85	7.74	7.99	10.2	12.6	11.9	11.3	12.0	8.65	6.92	7.33
Ac-ft	529	527	476	492	568	776	706	696	715	532	425	436

Calendar year 1952: Max 113 **Min** 6.0 **Mean** 13.9 **Ac-ft** 10,080
Water year 1952-53: Max 19 **Min** 6.0 **Mean** 9.50 **Ac-ft** 6,880

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for station above Evans dividers.
b Stage-discharge relation affected by ice.
Note.--Shifting-control method used Oct. 6 to Feb. 28.

Devil Creek above Evans dividers, near Malad City, Idaho

Location.--Lat 42°15', long. 112°13', in sec. 35, T. 13 S., R. 36 E., on right bank at Evans Ranch, 900 ft upstream from Evans dividers, 3.1 miles downstream from Campbell Creek, and 3.6 miles northeast of Malad City.

Drainage area.--36 sq mi, approximately.

Records available.--December 1940 to December 1943, April 1946 to January 1953 (discontinued).

Gage.--Water-stage recorder. Prior to June 11, 1942, at site 400 ft downstream at different datum. June 11, 1942, to December 1943 at present site at different datum. Apr. 23 to Dec. 12, 1946, at site 200 ft downstream at present datum.

Average discharge.--8 years (1941-43, 1946-52), 14.9 cfs.

Extremes.--Maximum discharge during period October to January, 27 cfs Jan. 19 (gage height, 2.15 ft); maximum gage height, 3.00 ft sometime during period Nov. 17 to Dec. 12 (ice jam); minimum, 5.1 cfs Oct. 11 (gage height, 1.13 ft).
1940-43, 1946-53: Maximum discharge, 261 cfs Apr. 19, 1952 (gage height, 5.79 ft); minimum, 0.9 cfs Nov. 7, 1949 (gage height, 1.18 ft).

Remarks.--Records fair except those for periods of ice effect or no gage-height record, which are poor. Diversions for irrigation of 600 to 800 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.

Rating table, Oct. 1, 1952, to Jan. 31, 1953, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.2	5.8
1.4	8.2
1.7	14
2.0	22

Discharge, in cubic feet per second, October 1952 to January 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.0	11	9.5	8.0								
2	7.0	11	9.5	8.0								
3	7.0	11	9.5	8.0								
4	7.4	11	9.5	8.0								
5	7.9	11	9.5	8.5								
6	7.9	11	9.5	9.0								
7	8.1	11	9.5	9.5								
8	8.1	11	10	9.6								
9	7.9	9.8	10	9.6								
10	7.7	9.8	10	10								
11	6.5	9.8	11	9.8								
12	6.0	10	11	10								
13	8.2	10	*12	11								
14	9.6	11	12	10								
15	10	12	12	9.0								
16	11	10	12	9.6								
17	11	10	12	12								
18	11	10	12	17								
19	11	10	12	18								
20	11	11	10	14								
21	11	11	9.6	15								
22	11	11	9.6	13								
23	11	11	9.5	12								
24	*11	11	9.0	12								
25	11	11	8.5	12								
26	10	11	8.0	12								
27	11	11	7.5	12								
28	11	10	7.5	*12								
29	11	10	7.8	12								
30	11	10	8.0	12								
31	11	-	8.0	12								
Total	291.3	318.4	305.6	344.6								
Mean	9.40	10.6	9.86	11.1								
Ac-ft	578	632	606	684								

Calendar year 1952: Max 173 Min 5.6 Mean 18.7 Ac-ft 13,590
Water year 1952-53: Max - Min - Mean - Ac-ft -

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice about Nov. 20 to Dec. 5, Dec. 23 to Jan. 6. No gage-height record Nov. 17 to Dec. 12, Jan. 29-31; discharge estimated on basis of weather records, recorded range in stage, and records for station above Campbell Creek and nearby streams.

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 1953.

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

Extremes.--Maximum discharge observed during year, 312 cfs Jan. 20 (gage height, 6.24 ft); minimum observed, 20 cfs Aug. 22-24; minimum gage height observed, 2.01 ft Aug. 22.
1938-53: 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, 1.92 ft Aug. 7, 1947.

Remarks.--Records good except those for periods of shifting control, which are fair. Flow regulated by several small reservoirs above station. Diversions above station for irrigation of 25,000 to 30,000 acres.

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

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24	63	60	89	133	106	75	51	76	30	26	21
2	24	60	66	92	133	105	75	50	52	30	25	21
3	23	60	66	95	135	109	75	49	55	30	24	21
4	23	59	68	97	138	112	78	49	54	30	24	21
5	24	65	69	101	139	123	80	48	58	27	24	21
6	26	63	69	101	143	128	87	48	58	27	23	21
7	26	65	81	101	150	130	95	46	57	27	23	21
8	26	66	91	107	150	116	102	46	74	25	23	21
9	28	66	95	110	143	*108	102	46	62	25	22	21
10	29	67	95	113	125	101	97	44	50	25	22	21
11	30	72	91	109	121	99	91	44	45	25	22	21
12	30	74	*97	123	118	97	91	44	43	25	22	21
13	30	78	112	134	115	100	*96	44	38	25	22	21
14	30	84	121	171	110	104	93	44	35	25	21	21
15	30	105	117	190	110	106	89	44	32	25	21	21
16	33	107	117	173	170	102	86	44	*29	25	21	21
17	32	128	118	174	144	96	85	44	34	25	21	21
18	40	117	115	193	126	90	110	43	29	25	21	21
19	42	110	114	279	119	95	106	42	24	25	21	21
20	42	112	119	312	75	101	92	46	24	*25	21	22
21	43	112	154	261	67	106	86	46	29	25	21	22
22	43	105	156	194	89	114	82	47	29	25	*20	22
23	44	88	134	189	105	114	78	39	29	25	20	22
24	*48	88	119	165	106	111	72	41	29	25	20	21
25	54	69	117	157	107	109	69	52	29	25	21	21
26	54	65	80	150	107	104	64	50	29	27	21	21
27	54	66	78	*143	107	96	63	46	30	26	21	21
28	55	65	77	129	106	86	*63	40	30	28	21	*21
29	57	60	77	125	-	84	58	40	30	28	21	22
30	60	60	80	133	-	80	56	86	30	28	21	23
31	63	-	86	133	-	77	-	*81	-	26	21	-
Total	1,167	2,399	3,039	4,643	3,391	3,209	2,496	1,484	1,223	814	677	637
Mean	37.6	80.0	98.0	150	121	104	83.2	47.9	40.8	26.3	21.8	21.2
Ac-ft	2,310	4,760	6,030	9,210	6,730	6,360	4,950	2,940	2,430	1,610	1,340	1,260

Calendar year 1952: Max 389 Min 21 Mean 86.6 Ac-ft 62,870
Water year 1952-53: Max 312 Min 20 Mean 69.0 Ac-ft 49,930

* Discharge measurement made on this day.
Note.--Shifting-control method used Mar. 10 to Apr. 10.

Bear River near Corinne, Utah

Location.--Lat 41°34'30", long. 112°06'00", in SW¼NW¼ sec. 29, T. 10 N., R. 2 W., on right bank 1.1 miles downstream from Salt Creek, 2.0 miles northeast of Corinne, and 2.6 miles downstream from Malad River.
Records available.--October 1949 to September 1953.
Gage.--Water-stage recorder. Altitude of gage is 4,220 ft (from benchmark at Corinne). Since July 27, 1950, auxiliary staff gage 7,800 ft downstream.
Extremes.--Maximum discharge during year, 3,510 cfs June 11 (gage height, 9.97 ft); minimum, 86 cfs Aug. 18; minimum daily, 90 cfs Aug. 18.
1949-53: Maximum discharge, 7,200 cfs May 3, 1952 (gage height, 14.69 ft); maximum gage height, 14.83 ft Feb. 11, 1951; minimum discharge, that of Aug. 18, 1953; minimum daily, that of 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.--Revised figures of discharge for the water year 1951, superseding those published in WSP 1214, are given herein.

Date	Discharge	Date	Discharge	Date	Discharge
1951		1951-Con.		1951-Con.	
June 5	2,640	June 19	1,410	July 3	1,220
6	1,990	20	1,410	4	1,080
7	1,470	21	1,220	5	301
8	1,100	22	957	6	302
9	797	23	1,450	7	458
10	1,090	24	1,110	8	253
11	908	25	1,260	9	203
12	1,180	26	1,660	10	691
13	1,340	27	1,510	11	591
14	576	28	993	12	688
15	1,790	29	1,790	13	1,100
16	2,040	30	2,220	14	1,130
17	1,790	July 1	2,030	15	1,150
18	1,130	2	652		

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
June 1951	50,201	-	576	1,673	99,570
July	28,354	2,030	203	915	56,240
Water year 1950-51	-	-	203	2,502	1,811,000

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,270	1,870	1,130	2,840	2,050	2,260	1,800	2,920	2,020	803	302	130
2	1,100	1,600	1,880	1,860	2,280	2,070	2,090	3,050	2,730	450	767	126
3	1,300	1,320	1,340	2,220	1,890	2,250	1,740	2,610	3,010	192	572	126
4	1,420	1,320	1,440	2,140	2,400	2,460	2,170	2,130	2,270	515	791	*126
5	1,120	1,080	1,560	*1,720	2,120	2,060	2,060	2,540	2,390	377	328	122
6	*1,240	1,600	1,700	1,960	2,170	1,920	2,040	2,220	2,890	*152	*256	136
7	1,560	1,550	1,840	2,170	2,090	*1,840	2,140	1,660	2,600	116	680	142
8	1,920	1,210	1,960	2,170	2,200	1,910	1,370	1,390	*2,430	104	843	148
9	1,760	1,590	1,820	2,130	2,080	1,880	1,760	1,710	3,000	136	431	*158
10	1,600	*1,970	2,040	2,000	1,820	2,120	1,590	1,590	2,980	*142	*609	156
11	1,460	1,870	2,020	2,220	1,740	2,100	1,580	1,540	3,350	124	351	142
12	1,660	*1,130	1,960	2,140	2,130	1,880	2,300	*1,740	3,230	112	148	138
13	1,470	1,550	*2,450	1,850	2,270	1,720	*3,100	1,440	3,050	108	116	134
14	1,380	2,080	2,340	2,470	2,190	1,770	1,900	1,470	2,720	110	104	142
15	1,630	2,020	2,260	2,260	2,250	1,910	1,810	670	2,440	106	96	142
16	1,800	1,780	2,050	1,690	1,720	2,100	2,100	252	2,120	104	92	154
17	1,240	2,130	2,580	1,900	2,280	1,980	1,650	453	1,820	106	*100	140
18	745	2,170	2,400	2,140	2,300	1,890	1,770	287	1,900	104	90	*132
19	1,060	2,060	*2,220	2,580	2,040	2,070	1,950	323	1,790	104	92	312
20	712	2,500	1,880	*3,150	2,150	1,770	1,740	688	1,720	*102	94	568
21	*1,300	2,330	1,750	2,820	1,910	1,730	1,990	1,730	797	106	92	394
22	1,710	1,980	1,860	*2,310	1,820	1,710	1,940	1,250	*1,030	110	92	194
23	1,570	1,980	2,200	3,020	1,520	1,690	2,010	1,810	1,310	116	98	380
24	1,290	1,810	2,500	*3,190	1,890	1,750	2,560	1,810	701	122	106	928
25	1,370	2,010	2,380	2,440	1,880	1,820	2,930	*1,860	639	114	98	546
26	1,890	1,760	2,260	1,680	2,010	1,840	2,790	2,200	322	116	108	208
27	1,370	1,800	1,960	2,430	1,820	1,260	*2,350	2,220	1,120	128	*104	155
28	1,820	1,580	1,940	2,660	1,950	1,760	2,920	1,820	1,550	*126	102	155
29	2,120	1,900	1,850	2,060	-	1,730	2,890	1,920	1,080	126	108	505
30	1,980	1,520	1,500	1,460	-	1,760	2,710	2,930	705	126	106	782
31	1,940	-	2,170	1,830	-	1,840	-	2,660	-	251	120	-
Total	45,807	53,050	61,240	69,510	56,970	58,850	63,750	52,893	59,714	5,508	7,996	7,621
Mean	1,478	1,768	1,975	2,242	2,035	1,898	2,125	1,706	1,990	178	258	254
Ac-ft	90,860	105,200	121,500	137,900	113,000	116,700	126,400	104,900	118,400	10,920	15,860	15,120

Calendar year 1952: Max 7,180 Min 183 Mean 2,364 Ac-ft 1,716,000
Water year 1952-53: Max 3,350 Min 90 Mean 1,487 Ac-ft 1,077,000

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 26 to Dec. 12 (no gage-height record Dec. 23 to Jan. 5; discharge estimated on basis of records for station near Collinston.

Weber River near Oakley, Utah

Location.--Lat 40°44'10", long. 111°14'45", in SE¼NE¼ sec. 15, T. 1 S., R. 6 E., on right bank 1.4 miles downstream from South Fork, 2.6 miles upstream from Weber-Provo diversion canal, and 3¼ miles northeast of Oakley.

Drainage area.--163 sq mi.

Records available.--October 1904 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 6,600 ft (from topographic map). Prior to Oct. 25, 1934, staff gage at site a quarter of a mile downstream at different datum.

Average discharge.--47 years (1906-53), 230 cfs.

Extremes.--Maximum discharge during year, 2,540 cfs June 14 (gage height, 4.12 ft); minimum not determined, occurred during period of ice effect.
1904-53: Maximum discharge observed, 4,010 cfs July 6, 1907, June 5-7, 1909; 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 above station for irrigation. 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.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.6	46	2.5	810
1.0	123	3.0	1,220
1.5	269	3.5	1,730
2.0	490	3.9	2,230

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	109	73	(*)		a50	54	76	220	*625	438	175	96
2	109	73			*a52	56	73	201	697	414	226	90
3	107	69		a50	54		75	175	818	377	190	84
4	107	69			54		82	*172	902	342	167	82
5	105	73		(*)	52		80	184	958	302	153	80
						b55						
6	105	71		54	54		76	213	796	284	146	75
7	102	69		54	52		73	259	871	259	143	71
8	100	69		54	52		69	269	848	235	143	67
9	98	71		52	52	*56	73	269	942	226	136	67
10	92	76		52		54	71	249	*1,230	269	128	66
11	86	73		49		56	69	235	1,530	255	123	64
12	86	67		49		56	67	226	*1,630	226	116	60
13	86	66		49		56	*66	210	1,920	204	109	59
14	84	67		52	b50	52	67	198	2,110	195	107	59
15	82	69		46		52	62	198	*1,830	192	105	59
			a50									
16	82	71		b40		52	69	204	1,650	181	102	59
17	80	69		b50		54	76	223	1,630	175	112	60
18	78	66		59		54	71	266	1,520	190	123	59
19	76	66		59	48	54	71	291	1,430	164	*130	60
20	76	67		56	b50	57	88	419	1,250	*162	121	60
21	76	66		56		56	116	368	1,110	153	123	*60
22	75	b50		b50		51	156	338	1,060	148	118	60
23	78			56		56	204	330	1,060	143	112	60
24	82			54	a50	60	229	334	958	138	102	60
25	80			54		67	238	310	*788	130	96	60
26	78	a50		54	(*)	73	273	342	664	140	90	59
27	76			52	59	78	314	386	570	151	82	59
28	75				56	86	326	540	540	146	109	60
29	75				-	92	280	644	*512	170	107	62
30	75			a50	-	92	252	588	464	175	100	60
31	*75	-			-	82	-	570	-	170	100	-
Total	2,695	1,910	1,550	1,601	1,435	1,886	3,842	9,431	32,913	6,754	3,894	1,977
Mean	86.9	63.7	50.0	51.6	51.2	60.8	128	304	1,097	218	126	65.9
Ac-ft	5,350	3,790	3,070	3,180	2,850	3,740	7,620	18,710	65,280	13,400	7,720	3,920

Calendar year 1952: Max 2,040 Min - Mean 295 Ac-ft 214,400
Water year 1952-53: Max 2,110 Min - Mean 191 Ac-ft 138,600

Peak discharge (base, 1,200 cfs).--June 14 (2:30 a.m.) 2,540 cfs (4.12 ft).
* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of discharge measurements, weather records and records for stations near Wanship and Coalville.
b Stage-discharge relation affected by ice.

Weber River near Wanship, Utah

Location.--Lat 40°47'30", long. 111°24'15", in center sec. 29, T. 1 N., R. 5 E., on left bank 1.2 miles south of Wanship and 1¼ miles upstream from Silver Creek.

Records available.--October 1950 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 5,900 ft (from topographic map).

Extremes.--Maximum discharge during year, 1,830 cfs June 14 (gage height, 4.20 ft); minimum, 47 cfs Sept. 23.
1950-53: Maximum discharge, 2,340 cfs May 30, 1951 (gage height, 4.73 ft); minimum, that of Sept. 23, 1953.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Many diversions above station for irrigation. Records do not include water diverted from Weber River basin through Weber-Provo diversion canal (see pp.101, 102). Flow slightly regulated by several small lakes and reservoirs.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.0	44	2.5	497
1.2	78	3.0	770
1.5	144	4.0	1,620
2.0	294		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	94	102	(*)		107		149	247	*244	98	184	88
2	92	102	110		*113		137	244	254	94	263	90
3	92	102			109		127	225	341	94	219	84
4	92	109			111		134	*210	360	100	178	78
5	96	109		(*)	111	100	130	207	408	96	157	71
6	96	107			111		132	231	319	92	144	73
7	102	107		110	109		132	241	388	94	130	76
8	102	107			111		122	139	376	94	125	73
9	105	102			105	*142	127	142	326	96	116	74
10	102	105			82	228	125	137	859	196	109	78
11	100	111			96	241	127	134	870	250	107	78
12	98	120			100	213	122	130	*942	198	102	74
13	102	118		130	92	181	*109	122	1,330	176	98	71
14	102	125		142	111	130	116	109	1,540	154	94	64
15	102	137		116	102	125	105	100	1,320	154	92	60
16	105	125		94	102	149	109	107	*1,030	152	88	57
17	105	134	110	132		181	118	120	935	132	82	58
18	105	132		137		139	120	173	870	130	78	58
19	102	132		178		149	111	184	770	116	*80	58
20	100	122		149	90	170	118	360	699	*102	80	57
21	102	130		142		132	144	238	*818	96	92	*58
22	105	111		109		113	184	192	609	90	100	57
23	107			122		125	238	198	567	88	102	52
24	105			109		184	280	192	474	82	100	58
25	107			111		257	287	176	316	67	86	60
26	105	110		113	100	222	298	167	207	73	80	64
27	105			107		195	338	176	160	88	73	64
28	107			92		184	345	195	144	96	69	67
29	107			118	-	176	294	254	*124	92	71	64
30	105			111	-	210	267	312	105	105	76	60
31	*102	-		102	-	167	-	254	-	144	82	-
Total	3,151	3,429	3,410	3,634	2,812	4,813	5,145	5,916	17,703	3,639	3,457	2,024
Mean	102	114	110	117	100	155	172	191	590	117	112	67.5
Ac-ft	6,250	6,800	6,760	7,210	5,580	9,550	10,200	11,730	35,110	7,220	6,860	4,010

Calendar year 1952: Max 2,120 Min 92 Mean 379 Ac-ft 275,100
Water year 1952-53: Max 1,540 Min 52 Mean 162 Ac-ft 117,300

Peak discharge (base, 1,200 cfs).--June 14 (9:30 a.m.) 1,830 cfs (4.20 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 23 to Jan. 12, Feb. 17 to Mar. 8 (no gage-height record Dec. 5 to Jan. 12, Feb. 17 to Mar. 8).

Weber River near Coalville, Utah

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

Drainage area.--438 sq mi.

Records available.--April 1927 to September 1953.

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.--26 years, 215 cfs.

Extremes.--Maximum discharge during year, 1,510 cfs June 14 (gage height, 4.36 ft); minimum, 42 cfs July 26 (gage height, 0.78 ft).
1927-53: Maximum discharge, 2,190 cfs May 6, 1952; maximum gage height, 5.08 ft (present datum) May 29, 1951; minimum, 6 cfs Sept. 20, 1934.

Remarks.--Records good except those* for periods of ice effect or no gage-height record, which are fair. Many diversions above station for irrigation. No diversion between station and Echo Reservoir. Records do not include water diverted from Weber River basin through Weber-Provo diversion canal. Flow slightly regulated by several small reservoirs above station.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.7	41	3.0	745
1.0	88	4.0	1,290
1.5	200	4.2	1,410
2.0	345		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	109	122	(*)	156	126	135	180	282	*234	76	156	65
2	109	124		149	*133	113	161	279	246	76	222	69
3	107	124		149	130	109	153	252	300	69	212	74
4	107	130		156	133	120	163	*234	336	78	182	74
5	109	a130		*153	130	111	153	228	366	81	156	69
6	113	a128	b130	144	133	115	158	252	306	80	140	69
7	115	a128		140	128	120	158	285	373	71	133	76
8	118	130		137	133	128	149	170	376	65	133	73
9	115	126		140	122	*155	153	149	309	63	126	73
10	113	a128		135	103	218	142	137	790	132	115	71
11	111	a132		135	109	280	151	135	814	205	107	73
12	107	a140	a130	144	124	241	151	128	870	158	103	69
13	109	a140	a130	156	111	220	*137	118	1,170	144	99	66
14	109	a152		180	124	151	149	98	1,370	126	94	63
15	a109	a163	b130	149	118	149	135	83	1,290	124	94	60
16	a116	153		122	113	158	140	88	*1,010	122	86	58
17	a116	163	137	156	103	205	153	109	*934	122	78	58
18	a116	161	137	178	120	163	158	158	850	111	69	57
19	a112	161	140	218	103	170	149	198	758	92	66	55
20	a108	151	137	190	101	195	161	451	664	*83	*66	52
21	a110	158	135	182	107	158	188	306	*810	*69	73	*52
22	a112	137	130	144	105	133	228	237	599	81	80	54
23	a114		b125	158	133	146	297	228	531	63	85	47
24	a111		b115	142	126	198	330	222	451	60	86	49
25	109		101	144	120	293	333	202	306	48	73	51
26	109	a130	98	146	122	277	342	180	195	45	69	55
27	109		109	135	113	250	380	185	149	55	65	57
28	115		149	113	120	234	394	*198	135	73	58	57
29	120		b160	146	-	212	336	228	*113	68	54	58
30	122		b160	137	-	255	303	315	85	76	55	54
31	*122	-	153	122	-	202	-	264	-	103	58	-
Total	3,481	4,121	4,066	4,656	3,343	5,614	6,185	6,399	16,740	2,799	3,193	1,858
Mean	112	137	131	150	119	181	206	206	558	90.3	103	61.9
Ac-ft	6,900	8,170	8,060	9,240	6,630	11,140	12,270	12,690	33,200	5,550	6,330	3,690

Calendar year 1952: Max 2,140 Min 98 Mean 415 Ac-ft 301,200
Water year 1952-53: Max 1,370 Min 45 Mean 171 Ac-ft 123,900

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for other Weber River stations, Chalk Creek, and Echo Reservoir.
b Stage-discharge relation affected by ice.

Chalk Creek at Coalville, Utah

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

Drainage area.--253 sq mi.

Records available.--October 1904 to December 1905 (gage heights only), April 1927 to September 1953.

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.--26 years (1927-53), 62.0 cfs.

Extremes.--Maximum discharge during year, 390 cfs June 11 (gage height, 1.97 ft); minimum, 5.0 cfs Feb. 10 (gage height, 0.22 ft).
1927-53: 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 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

0.3	9.0	0.9	95
.4	17	1.4	217
.6	41	1.9	369

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	15	20	17	22	21	27	64	77	262	49	19	13
2	15	20	*19	22	27	19	55	70	*274	47	44	14
3	16	19	21	22	*27	20	51	61	280	41	40	16
4	18	19	22	20	27	21	61	*55	260	41	32	18
5	18	21	22	*21	26	20	55	52	280	43	31	18
6	16	22	22	20	26	22	55	54	237	46	26	18
7	16	22	22	21	25	22	46	64	283	43	24	18
8	15	22	22	21	25	26	38	77	333	40	28	18
9	16	19	22	22	16	*29	43	83	336	41	32	17
10	15	16	21	22	12	33	34	75	339	54	29	19
11	15	18	24	24	19	33	32	71	*349	61	24	18
12	15	26	24	25	25	29	34	70	333	49	19	18
13	15	24	24	25	17	28	*32	68	326	46	19	15
14	15	24	21	26	25	24	36	55	289	52	18	14
15	15	26	21	22	24	21	31	52	245	54	20	13
16	17	20	21	16	20	26	34	68	*201	46	18	11
17	17	26	22	25	20	29	47	87	162	41	19	12
18	18	26	22	32	24	20	47	108	152	37	21	13
19	18	26	24	38	18	28	43	135	138	36	21	14
20	20	19	24	33	15	31	51	311	124	*36	*22	13
21	19	26	22	31	18	28	71	237	115	33	22	*12
22	19	15	21	20	20	26	85	177	104	31	22	12
23	18	9.8	19	31	22	29	91	162	91	29	22	13
24	18	14	14	25	19	26	93	182	75	29	21	13
25	18	18	17	27	19	34	83	167	68	26	17	15
26	19	16	18	29	22	37	87	172	68	20	16	15
27	19	15	20	24	22	41	99	214	66	19	17	14
28	20	16	21	18	25	46	110	*295	64	16	18	14
29	*20	16	22	33	-	49	95	314	*59	14	17	15
30	20	17	22	27	-	64	81	254	52	12	15	15
31	20	-	22	21	-	59	-	251	-	12	15	-
Total	535	597.8	655	765	606	947	1,784	4,118	5,965	1,144	708	448
Mean	17.3	19.9	21.1	24.7	21.6	30.5	59.5	133	199	36.9	22.8	14.9
Ac-ft	1,060	1,190	1,300	1,520	1,200	1,880	3,540	8,170	11,830	2,270	1,400	889

Calendar year 1952: Max 1,200 Min 9.8 Mean 128 Ac-ft 93,080
Water year 1952-53: Max 349 Min 9.8 Mean 50.1 Ac-ft 36,250

Peak discharge (base, 400 cfs).--No peak above base.
* Discharge measurement made on this day.

Echo Reservoir at Echo, Utah

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

Drainage area.--732 sq mi.

Records available.--October 1930 to September 1953.

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, 74,390 acre-ft June 24 (elevation, 5,560.3 ft); minimum, 16,020 acre-ft Sept. 30 (elevation, 5,506.6 ft).
1930-53: Maximum contents, 74,460 acre-ft May 31, 1937 (elevation, 5,560.35 ft); no storage Sept. 12 to Dec. 3, 1931, Sept. 24 to Nov. 2, 1934, Oct. 12 to Nov. 21, 1944.

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 ft (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.

Contents, in acre-feet, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39,580	38,820	38,610	38,820	40,230	40,120	46,840	63,270	73,210	71,750	51,410	31,990
2	39,580	38,820	38,720	38,820	40,230	40,120	47,200	63,950	72,770	71,160	50,980	31,180
3	39,580	38,820	38,820	38,880	40,330	40,120	47,680	64,510	72,920	70,300	50,850	30,420
4	39,580	38,930	38,820	38,880	40,330	40,120	48,160	65,200	73,210	69,510	50,610	29,770
5	39,520	38,930	38,930	38,880	40,330	40,120	48,520	65,760	73,130	68,720	50,240	29,130
6	39,520	38,930	39,040	38,880	40,440	40,120	48,890	66,180	73,280	68,010	49,740	28,400
7	39,580	39,040	39,040	38,880	40,440	40,120	49,380	66,880	73,210	67,230	49,130	27,860
8	39,580	39,040	39,040	38,880	40,440	40,230	49,870	67,590	73,430	66,460	48,580	27,330
9	39,520	39,040	39,040	38,880	40,440	40,230	50,110	68,010	73,360	65,760	48,160	26,710
10	39,250	39,040	39,040	38,880	40,440	40,230	50,730	68,440	73,210	65,060	47,560	26,100
11	39,140	38,930	39,040	38,930	40,440	40,560	51,100	68,880	73,210	64,650	46,900	25,660
12	39,090	38,930	39,040	38,930	40,440	40,880	51,350	69,290	73,060	64,440	46,250	25,230
13	39,040	38,930	39,040	38,930	40,330	41,220	51,720	69,720	73,130	64,370	45,540	24,760
14	38,930	38,930	39,040	38,930	40,330	41,330	52,100	70,150	73,580	63,540	44,840	24,130
15	38,880	39,040	38,930	39,140	40,330	41,330	52,480	70,440	73,650	63,130	44,270	23,500
16	38,880	39,040	38,930	39,040	40,330	41,330	52,730	70,730	73,210	62,580	43,580	22,880
17	38,880	39,040	38,820	39,040	40,330	41,440	53,110	71,020	73,360	62,170	42,900	22,230
18	38,820	39,040	38,820	39,040	40,330	41,550	53,620	71,460	73,800	61,700	42,110	21,580
19	38,820	39,040	38,930	39,250	40,330	41,660	54,000	72,040	74,090	61,220	41,440	21,110
20	38,820	39,040	38,930	39,470	40,230	41,880	54,510	73,060	74,090	60,550	40,780	20,640
21	38,820	39,040	38,930	39,580	40,230	42,110	55,020	73,060	73,800	59,880	40,060	20,170
22	38,720	39,040	38,930	39,680	40,120	42,110	55,410	73,060	74,240	59,080	39,360	19,700
23	38,720	38,930	38,930	39,790	40,120	42,220	56,060	73,060	74,310	58,220	38,720	19,090
24	38,720	38,820	38,820	39,790	40,120	42,330	56,970	73,060	74,390	57,430	38,030	18,670
25	38,720	38,820	38,720	39,900	40,120	42,670	57,760	73,060	74,310	56,580	37,400	18,260
26	38,720	38,720	38,610	40,010	40,120	43,350	58,550	73,060	74,240	55,730	36,620	17,810
27	38,720	38,610	38,610	40,120	40,120	43,920	59,480	73,060	73,720	54,890	36,000	17,450
28	38,720	38,610	38,610	40,120	40,120	44,500	60,550	73,060	73,210	54,120	35,190	16,940
29	38,720	38,610	38,610	40,120	-	44,960	61,630	73,360	72,840	53,360	34,380	16,440
30	38,720	38,610	38,720	40,230	-	45,660	62,440	73,650	72,400	52,600	33,540	16,020
31	38,720	-	38,820	40,230	-	46,250	-	73,360	-	51,970	32,710	-

Monthly elevation and contents, water year October 1952 to September 1953

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	5,533.4	39,680	-
Oct. 31	5,532.5	38,720	-960
Nov. 30	5,532.4	38,610	-110
Dec. 31	5,532.6	38,820	+210
Calendar year 1952	-	-	+100
Jan. 31	5,533.9	40,230	+1,410
Feb. 28	5,533.8	40,120	-110
Mar. 31	5,539.2	46,250	+6,130
Apr. 30	5,551.9	62,440	+16,190
May 31	5,559.6	73,360	+10,920
June 30	5,558.95	72,400	-960
July 31	5,543.9	51,970	-20,430
Aug. 31	5,526.6	32,710	-19,260
Sept.30	5,506.6	16,020	-16,690
Water year 1952-53	-	-	-23,660

Weber River at Echo, Utah

Location.--Lat 40°57'55", long. 111°26'10", in SE¼NE¼ 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 1953.

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 at site 0.3 mile downstream at different datum.

Average discharge.--26 years, 286 cfs.

Extremes.--Maximum discharge during year, 1,870 cfs June 15 (gage height, 6.01 ft); minimum daily, 0.9 cfs Mar. 27, 28.
1927-53: Maximum discharge, 3,060 cfs May 13, 1952 (gage height, 7.34 ft); minimum daily, that of Mar. 27, 28, 1953.

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

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 19 to June 12)

1.1	0.4	2.5	140
1.2	1.4	3.0	261
1.3	3.2	3.5	421
1.4	5.8	4.0	632
1.6	14	5.0	1,210
1.8	29	6.0	1,910
2.0	52		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	140	149	128	164	151	147	1.1	2.6	748	467	417	451
2	136	149	*128	162	151	147	1.1	2.6	*604	537	414	440
3	136	149	128	162	*151	142	1.1	2.8	516	528	389	436
4	136	149	128	162	151	142	1.1	*3.2	632	520	375	432
5	122	151	142	*162	151	142	1.3	3.2	676	512	407	407
6	108	158	164	162	151	142	1.3	3.2	676	507	444	378
7	108	160	176	162	153	142	1.3	3.4	676	475	444	361
8	152	160	176	162	153	142	1.3	3.6	770	455	444	351
9	187	174	176	162	153	142	1.4	3.9	825	459	444	348
10	187	187	176	162	153	*142	1.4	4.1	*1,220	448	440	345
11	174	187	176	162	153	142	1.4	4.1	1,350	425	459	316
12	164	187	190	162	151	142	1.4	4.1	1,350	414	467	316
13	153	187	204	164	149	142	*1.4	4.4	1,420	421	467	361
14	147	185	204	164	147	142	1.4	4.7	1,620	425	459	396
15	147	190	202	190	147	142	1.4	4.7	*1,840	425	459	385
16	147	199	202	207	147	142	1.5	4.7	1,420	417	459	378
17	145	199	176	190	147	142	1.7	4.9	860	410	455	365
18	145	199	155	190	147	142	1.7	4.9	990	410	451	329
19	147	199	155	190	147	142	1.7	43	877	425	444	298
20	147	199	155	176	147	142	1.7	493	942	451	*444	289
21	147	199	167	149	147	142	1.7	842	*831	*491	455	*301
22	147	199	180	151	147	142	1.8	*451	759	503	455	310
23	147	199	180	151	145	142	1.8	392	572	495	451	301
24	147	188	178	151	147	134	2.0	392	576	487	440	281
25	147	176	162	153	147	78	2.2	392	440	487	429	258
26	147	176	136	153	147	6.8	2.0	371	429	487	432	248
27	147	160	124	153	147	.9	2.2	316	451	487	440	292
28	147	134	124	153	147	.9	2.2	403	425	471	448	313
29	147	126	124	155	-	1.0	2.2	537	403	455	463	304
30	*147	126	124	153	-	1.0	2.4	696	*414	448	459	278
31	149	-	142	153	-	1.1	-	754	-	425	451	-
Total	4,547	5,204	4,982	5,092	4,174	3,499.7	48.2	6,151.1	25,312	14,367	13,705	10,268
Mean	147	173	161	164	149	113	1.61	198	844	463	442	342
Ac-ft	9,020	10,320	9,880	10,100	8,280	6,940	96	12,200	50,210	28,500	27,180	20,370

Calendar year 1952: Max 3,010 Min 108 Mean 560 Ac-ft 406,800
Water year 1952-53: Max 1,840 Min 0.9 Mean 267 Ac-ft 193,100

* Discharge measurement made on this day.

Lost Creek near Croydon, Utah

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

Drainage area.--133 sq mi.

Records available.--February 1921 to December 1923, April 1941 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 5,820 ft (by barometer). Prior to Apr. 8, 1941, at site 40 ft downstream at different datum. Apr. 8, 1941, to July 27, 1949, at site 40 ft downstream at present datum.

Average discharge.--14 years, 40.2 cfs.

Extremes.--Maximum discharge during year not determined, occurred during period of no gage-height record; minimum, 8.7 cfs Sept. 13.
1921-23, 1941-53: 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 and those above 50 cfs, which are fair.

Rating tables, water year 1952-53, 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 Apr. 26		Apr. 27 to Sept. 30			
3.4	10	3.5	8.4	4.5	67
3.6	21	3.7	16	5.0	117
4.0	55	4.0	31	5.1	128

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	15			b16		42	62		24	12	9.4
2	16	15	(*)		b16		38	52	(*)	22	13	9.4
3	17	14			*18		37	43	a100	22	16	9.8
4	17	14		b15	18	a18	41	42		21	13	9.8
5	17	15			18		44	*62		20	12	9.4
6	17	16	b16		18		40	79		20	12	9.4
7	17	16		16	18		36	102		19	11	9.1
8	17	16		16	19	a21	33	105	a90	18	12	9.1
9	17	15		15	18	a24	31	78		18	12	9.1
10	17	b15		16	b16	a27	28	76		20	11	9.1
11	17	b16		*16	b16	*a27	28	64	(*)	20	11	9.1
12	17	17	17	17		24	27	58		18	11	9.1
13	17	17	15	17		24	26	52	a70	17	10	9.1
14	17	17	b15	18		22	*27	52		16	11	9.1
15	18	19	b15	16		b20	25	60		16	11	9.1
16	18	16	b15	b15		b20	27	72	*a57	15	10	9.4
17	17	18	15	18		21	31	69	53	15	11	9.4
18	17	18	15	21		b20	31	91	49	15	11	9.8
19	17	18	15	26	a16	20	32	*98	47	15	11	9.8
20	17	17	15	20		21	41	100	43	14	10	9.8
21	17		15	19		21	54		40	13	9.4	9.8
22	17		15	b18		20	76		37	13	10	9.8
23	17			18		21	86		36	13	10	9.4
24	17			18		23	a90		35	13	9.8	9.8
25	17			18		28	a84	a110	34	13	9.4	9.8
26	17	b16	b15	18		34	a94		32	12	9.4	10
27	17			b17	a18	38	99		31	13	9.4	10
28	16			b16		44	118		29	13	9.4	10
29	16			18	-	48	95	*109	28	13	9.4	10
30	*15			18	-	49	83	92	26	12	9.4	10
31	15	-	15	b16	-	42	-	84	-	12	9.4	-
Total	522	484	478	531	469	785	1,544	2,582	1,877	505	336.0	285.9
Mean	16.8	16.1	15.4	17.1	16.8	25.3	51.5	83.3	62.6	16.3	10.8	9.53
Ac-ft	1,040	960	948	1,050	930	1,560	3,060	5,120	3,720	1,000	666	567

Calendar year 1952: Max 663 Min - Mean 70.5 Ac-ft 51,210
Water year 1952-53: Max - Min 9.1 Mean 28.5 Ac-ft 20,620

Peak discharge (base, 130 cfs).--Time and discharge unknown.
* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of discharge measurements, weather records, and records for nearby streams.
b Stage-discharge relation affected by ice.

Weber River at Devils Slide, Utah

Location.--Lat 41°03'40", long. 111°34'25", in SE¼SE¼ sec. 23, T. 4 N., R. 3 E., on right bank 350 ft downstream from highway underpass on U. S. Highway 30S., 1½ miles west of Devils Slide, and 1½ miles downstream from Lost Creek.

Drainage area.--1,100 sq mi, approximately.

Records available.--February 1905 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 5,300 ft. Prior to Oct. 1, 1934, staff gage at site 1½ miles upstream at different datum.

Average discharge.--48 years, 448 cfs.

Extremes.--Maximum discharge during year, 1,840 cfs June 15 (gage height, 4.90 ft); minimum daily, 92 cfs Apr. 15, 16.
1905-53: Maximum discharge observed, 6,000 cfs May 22, 1920 (gage height, 8.0 ft, site and datum then in use); minimum, 18 cfs Sept. 23, 1934, Mar. 6, 1948.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Many diversions above station for irrigation. Flow regulated by Echo Reservoir (see p. 70).

Rating tables, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 8 to Dec. 6)

Oct. 1 to Dec. 6		Dec. 7 to Sept. 30	
1.7	129	1.0	82
1.8	147	1.5	173
2.0	191	2.0	296
2.3	272	3.0	656
		4.0	1,190
		4.9	1,800

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	166	196	a150	b210	220	216	119	242	1,020	463	453	453
2	161	196	a150	b210	220	211	112	216	*944	550	456	446
3	161	198	a150	218	*223	206	108	195	820	538	439	442
4	164	198	*153	218	225	211	112	180	894	534	415	442
5	159	198	a170	218	225	209	117	*188	932	530	429	425
6	140	214	a200	*220	228	213	115	232	916	534	467	396
7	136	216	230	223	225	216	113	305	966	511	463	379
8	155	214	230	223	225	220	106	317	1,000	500	463	370
9	216	221	230	223	223	225	106	290	1,030	500	467	370
10	216	246	232	220	211	*235	98	245	1,270	519	467	363
11	211	249	232	220	216	245	a96	213	1,420	492	478	332
12	201	252	242	223	216	230	a95	191	1,390	467	496	317
13	196	249	260	230	209	240	a95	173	1,400	463	492	360
14	194	246	260	237	211	225	*a94	165	1,530	463	485	406
15	184	255	258	247	216	223	92	182	1,800	453	488	406
16	189	263	258	274	209	225	92	223	*1,550	442	481	399
17	186	263	242	255	209	230	98	263	*897	432	485	386
18	191	263	211	297	216	225	100	329	976	429	478	351
19	194	263	211	342	211	228	103	381	888	436	467	302
20	196	263	211	276	206	237	110	711	922	460	467	296
21	196	266	216	235	211	237	137	1,110	892	*485	*474	311
22	196	263	237	225	204	232	180	534	790	507	485	*329
23	198	260	235	225	211	235	230	697	621	507	485	323
24	198	249	b233	223	206	230	258	712	625	500	467	302
25	198	232	b218	223	209	205	258	693	496	492	453	274
26	198	a220	b190	225	209	126	285	670	456	492	449	260
27	198	a200	b170	220	209	106	342	630	474	500	449	288
28	198	a180	b170	216	211	112	360	726	467	488	460	329
29	*198	a165	b170	228	-	115	314	850	432	481	463	320
30	198	a150	b170	228	-	124	288	966	*436	481	460	299
31	198	-	b195	218	-	124	-	1,020	-	460	456	-
Total	5,790	6,850	6,484	7,250	6,014	6,316	4,733	13,849	28,254	15,109	14,437	10,676
Mean	187	228	209	234	215	204	158	447	942	487	466	356
Ac-ft	11,480	13,590	12,860	14,380	11,930	12,530	9,390	27,470	56,040	29,970	28,640	21,180

Calendar year 1952: Max 4,700 Min 136 Mean 758 Ac-ft 550,400
Water year 1952-53: Max 1,800 Min 92 Mean 345 Ac-ft 249,500

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

East Canyon Reservoir near Morgan, Utah

Location.--Lat 40°55'20", long. 111°35'50", in NE¼ sec. 10, T. 2 N., R. 3 E., 500 ft east of East Canyon Dam and 9 miles southeast of Morgan.

Drainage area.--144 sq mi.

Records available.--October 1937 to September 1953 in reports of Geological Survey. November 1931 to September 1953 in reports of Weber River water commissioner.

Gage.--Staff gage. Altitude of gage is 5,550 ft (from river-profile map).

Extremes.--Maximum contents observed during year, 28,950 acre-ft May 21, 22 (gage height, 141.2 ft); minimum contents, 8,580 acre-ft Sept. 30.
1931-53: 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.

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 gage heights 0.0 ft (bottom of outlet tunnel) and 140.8 ft (top of flashboards in spillway). Gage height of spillway crest is 135 ft. No dead storage. Water is used for irrigation in Davis and Weber Counties.

Contents, in acre-feet, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	-	14,640	15,940	-	-	28,790	-	-	-
2	-	10,440	-	-	-	-	-	-	28,730	-	20,660	-
3	-	-	-	-	-	-	-	25,320	28,730	-	-	-
4	-	-	-	13,060	-	-	-	-	28,730	-	-	-
5	10,550	-	-	-	-	-	19,650	-	28,730	27,050	-	-
6	-	-	-	-	-	-	-	-	28,790	-	-	-
7	-	-	-	-	-	-	-	-	28,840	-	-	-
8	-	-	-	-	15,040	16,360	-	-	28,790	-	-	-
9	-	10,770	-	-	-	-	-	-	28,730	-	19,280	-
10	-	-	-	-	-	-	-	26,740	28,680	-	-	-
11	-	-	-	13,360	-	-	-	-	28,620	-	-	-
12	10,220	-	-	-	-	-	20,480	-	28,620	25,600	-	-
13	-	-	-	-	-	-	-	-	28,680	-	-	11,980
14	-	-	-	-	-	-	-	-	28,730	-	-	-
15	-	-	-	-	15,340	16,750	-	-	28,790	-	-	-
16	-	11,050	-	-	-	-	-	-	28,840	-	17,890	-
17	-	-	-	-	-	-	-	27,830	28,730	-	-	-
18	-	-	-	13,770	-	-	-	-	28,620	-	-	-
19	-	-	-	-	-	-	21,410	-	28,620	24,020	-	-
20	10,300	-	-	-	-	-	-	28,840	28,680	-	-	10,280
21	-	-	12,560	-	-	-	-	28,950	28,680	-	-	-
22	-	-	-	-	15,640	17,240	-	28,950	28,680	-	-	-
23	-	11,400	-	-	-	-	-	28,890	28,730	-	16,430	-
24	-	-	-	-	-	-	-	28,840	28,680	-	-	-
25	-	-	-	14,320	-	-	-	28,840	28,680	-	-	-
26	10,390	-	-	-	-	-	23,490	28,620	28,680	22,240	-	-
27	-	-	-	-	-	-	-	28,730	28,680	-	-	8,690
28	-	-	12,700	-	a15,900	-	-	28,730	-	-	-	-
29	-	-	-	-	-	18,080	-	28,730	-	-	-	-
30	-	11,620	-	-	-	-	a24,530	28,840	a28,070	-	15,000	a8,580
31	a10,420	-	a12,850	a14,590	-	a18,530	-	28,840	-	a21,110	a14,780	-

a No gage-height record; contents interpolated.

Monthly gage height and contents, water year October 1952 to September 1953

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	-	a11,890	-
Oct. 31	-	a10,420	-1,470
Nov. 30	95.0	11,620	+1,200
Dec. 31	-	a12,850	+1,230
Calendar year 1952	-	-	-1,280
Jan. 31	-	a14,590	+1,740
Feb. 28	-	a15,900	+1,310
Mar. 31	-	a18,530	+2,630
Apr. 30	-	a24,530	+6,000
May 31	141.0	28,840	+4,310
June 30	-	a28,070	-770
July 31	-	a21,110	-6,960
Aug. 31	-	a14,780	-6,330
Sept.30	-	a8,580	-6,200
Water year 1952-53	-	-	-3,310

a No gage-height record; contents interpolated.

East Canyon Creek near Morgan, Utah

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

Drainage area.--145 sq mi.

Records available.--October 1937 to September 1953 in reports of Geological Survey. October 1931 to September 1953 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.--22 years (1931-53), 54.8 cfs.

Extremes.--Maximum discharge during year, 280 cfs May 21 (gage height, 1.77 ft); minimum daily, 3.2 cfs Dec. 31, Jan. 1-4, 24-27.
1931-53: Maximum discharge, 872 cfs May 4, 1952 (gage height, 3.49 ft); minimum daily, 3.2 cfs Nov. 20, 22, 23, 1948, Dec. 31, Jan. 1-4, 24-27, 1953.

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

Rating table, water year 1952-53 (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	2.0	343
.3	18		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	128	22		3.2	3.6	4.2	6.5	9.0	146	*119	125	125
2	128	15	a8	3.2	3.6	4.2	6.5	9.0	136	119	126	121
3	126	9.7		3.2	3.6	4.2	6.5	9.0	*106	119	128	117
4	126	9.7	*8.4	3.2	*3.6	4.7	5.9	9.0	99	119	126	125
5	123	9.0	8.4	3.6	3.6	4.7	5.9	*9.0	104	123	126	136
6	126	9.0	8.4	*3.6	3.6	4.7	5.9	8.4	110	123	125	134
7	125	9.0	9.0	3.6	3.6	4.7	5.9	8.4	138	123	123	134
8	60	9.0	9.0	3.6	3.6	4.7	5.9	8.4	150	121	123	132
9	27	9.0	9.0	3.6	3.6	4.7	6.5	9.7	140	121	126	132
10	27	9.0	9.0	3.6	3.6	4.7	6.5	12	132	121	128	126
11	26	9.0	9.0	3.6	3.6	*4.7	6.5	12	128	119	128	125
12	25	9.0	9.7	3.6	3.6	4.7	5.9	13	106	126	126	121
13	24	9.0	9.7	4.2	3.6	4.7	6.5	13	104	130	125	121
14	24	9.0	9.7	4.2	3.6	4.7	*6.5	13	117	130	125	128
15	24	9.0	9.7	4.2	3.6	4.7	5.9	13	126	130	123	126
16	24	9.0	9.7	4.2	3.6	4.7	5.9	13	154	130	128	126
17	23	8.4	10	4.2	3.6	4.7	6.5	14	*146	128	130	125
18	23	7.5	10	3.6	3.6	4.7	6.5	13	106	128	128	125
19	23	4.7	10	3.6	3.6	4.7	6.5	13	77	128	126	125
20	24	4.7	10	3.6	3.6	4.7	6.5	75	76	132	126	121
21	a24	4.7	11	3.6	3.6	5.3	7.1	*175	79	130	126	125
22	a24	4.7	11	3.6	4.2	5.3	7.1	173	79	*130	125	*123
23	a23	5.3	11	3.6	4.2	5.3	7.1	152	76	128	128	125
24	a23	5.3	11	3.2	4.2	5.3	7.1	144	64	128	*130	123
25	a22	5.3	11	3.2	4.2	5.3	7.8	134	59	126	128	121
26	23	5.3	11	3.2	4.2	5.3	8.4	125	59	128	126	121
27	a23	5.3	11	3.2	4.2	5.3	8.4	117	103	130	125	72
28	a22	5.3	7.3	3.6	4.2	5.3	8.4	115	123	128	123	52
29	a22	4.7	4.7	3.6	-	5.3	8.4	117	121	126	121	45
30	*22	6.7	3.6	3.6	-	5.9	9.0	136	119	125	125	34
31	22	-	3.2	3.6	-	6.5	-	154	-	125	126	-
Total	1,486	242.3	278.5	111.4	105.0	152.6	204.0	1,825.9	3,283	3,893	3,904	3,466
Mean	47.9	8.08	8.98	3.59	3.75	4.92	6.80	58.9	109	126	126	116
Ac-ft	2,950	481	552	221	208	303	405	3,620	6,510	7,720	7,740	6,870

Calendar year 1952: Max 768 Min 3.2 Mean 107 Ac-ft 77,790
Water year 1952-53: Max 175 Min 3.2 Mean 51.9 Ac-ft 37,580

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of observer's notes and record or reservoir gate changes.

Hardscrabble Creek near Porterville, Utah

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

Drainage area.--24.9 sq mi.

Records available.--October 1941 to September 1953 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.--12 years (1941-53), 35.3 cfs.

Extremes.--Maximum discharge during year, 406 cfs May 20 (gage height, 3.45 ft); minimum, 4.7 cfs Nov. 9, but may have been less during periods of ice effect.
1941-53: 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 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Aug. 10 to Sept. 30)

1.0	6.6	2.2	100
1.1	8.7	2.5	155
1.3	15	3.0	278
1.6	31	3.5	432
1.9	59		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.7	7.4	a8		8.7		36	92	191	*56	17	10
2	8.5	7.6			8.7		33	78	198	53	18	10
3	8.7	7.4		a7.5	9.0		35	69	*188	50	17	10
4	8.7	7.4	8.3		9.1		41	65	195	46	15	9.9
5	8.5	7.4	8.0		9.1	a10	42	*77	212	44	14	9.9
6	8.5	7.4	8.0	*b7.5	9.6		36	105	207	43	14	9.6
7	8.5	7.6	8.3		9.1		31	133	245	41	13	9.6
8	8.5	7.6	8.5	a7.5	9.4		27	133	258	a39	16	9.4
9	8.5	7.0	8.3		8.3	10	22	112	250	a37	14	9.4
10	8.0	7.6	8			12	26	92	264	a35	14	9.4
11	8.3	7.8	9.0	7.2		*13	22	81	*247	a33	13	9.1
12	8.3	7.6	8.7	9.0		13	21	73	247	a31	13	9.1
13	8.3	7.8	8.5	9.1		13	21	71	256	a29	13	9.1
14	8.0	8.0	8.0	9.6	b8	11	*22	84	232	a28	12	9.0
15	8.0	7.8	9.4	8.5		11	24	97	207	a27	12	8.7
16	8.0	9.0	8.7	10		11	33	105	184	a26	12	8.7
17	8.0	8.7	8.3	9.6		12	45	126	*166	a25	12	9.0
18	8.0	8.3	8.3	29		11	45	173	162	a24	15	8.7
19	7.8	8.3	8.3	39		11	51	221	153	a23	12	8.7
20	7.8	8.3	8.5	17		12	66	323	133	a22	12	8.5
21	7.8	8.5	8.5	14	a8	11	92	237	122	a21	12	8.5
22	7.8	8.7	8.3	12		11	115	195	114	*21	12	*8.3
23	7.8		8.0	11		12	141	188	103	19	12	8.3
24	7.6			10		12	137	186	94	18	*11	8.5
25	7.6			9.9		18	130	184	84	17	11	8.0
26	7.6	a8		9.9		26	141	182	77	18	11	8.0
27	7.6		a7	9.4	a10	32	155	182	71	18	10	8.0
28	7.4			9.1		40	193	*186	68	17	10	8.3
29	7.2			9.6	-	45	137	191	62	17	10	8.3
30	*7.4			9.4	-	50	115	182	59	16	10	8.0
31	7.6	-		8.5	-	42	-	186	-	16	10	-
Total	249.0	237.2	247.9	335.8	239.0	519	2,035	4,409	5,049	910	397	268.0
Mean	8.03	7.91	8.00	10.8	8.54	16.7	67.8	142	168	29.4	12.8	8.93
Ac-ft	494	470	492	666	474	1,030	4,040	8,750	10,010	1,800	787	532

Calendar year 1952: Max 366 Min - Mean 48.7 Ac-ft 35,340
Water year 1952-53: Max 323 Min - Mean 40.8 Ac-ft 29,540

Peak discharge (base, 220 cfs).--Apr. 28 (3 a.m.) 224 cfs (2.79 ft); May 20 (1 a.m.) 406 cfs (3.45 ft); June 10 (6:30 p.m.) 290 cfs (3.02 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 streams, or interpolated.

b Stage-discharge relation affected by ice.

East Canyon Creek below diversions, near Morgan, Utah

Location.--Lat 41°02'10", long. 111°41'30", in SW¼ sec. 35, T. 4 N., R. 2 E., on left bank 1 mile southwest of Morgan and 3 miles upstream from mouth.

Records available.--November 1950 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 5,050 ft (from river-profile map).

Extremes.--Maximum discharge during year, 724 cfs May 20 (gage height, 8.08 ft); minimum daily, 0.8 cfs Oct. 25.
1950-53: Maximum discharge, 926 cfs May 8, 1952 (gage height, 9.19 ft); minimum daily, that of Oct. 25, 1952.

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

Rating table, water year 1952-53, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Nov. 16, May 23 to June 23, Aug. 19 to Sept. 30)

0.3	0	2.0	82
.4	1.0	3.0	170
.5	3.0	4.0	270
.7	8.5	5.0	370
1.0	20	6.0	470
1.5	48	7.0	578

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	98	8.8			14	11	45	107	381	*106	91	87
2	97	10			12	11	41	93	372	96	93	83
3	97	1.8	(*)		*12	11	40	82	353	94	108	81
4	96	1.0			12	12	44	78	349	99	110	88
5	92	1.2			12	12	46	86	383	96	107	98
6	96	1.6			14	11	43	*108	367	98	108	96
7	89	1.6		(*)	13	11	40	138	440	97	108	98
8	70	2.0			13	12	36	144	470	95	106	98
9	22	2.0		2	13	13	32	128	438	89	100	100
10	18	2.2			14	*14	39	112	426	93	101	99
11	18	2.8			16	16	33	101	423	96	100	96
12	17	2.8			14	16	30	92	404	94	97	93
13	9.7	2.8			14	17	30	81	376	100	97	93
14	6.1	3.0	6		16	14	*36	86	353	102	94	104
15	8.2	4.5			12	14	42	92	322	106	89	100
16	5.8	5.5			12	14	51	90	295	111	89	98
17	3.8				13	14	64	104	*256	105	92	101
18	2.8			36	11	14	62	151	193	100	92	100
19	2.8			61	12	14	62	200	141	99	90	101
20	2.4			24	12	14	75	543	111	102	88	98
21	2.2			19	8.8	15	98	491	100	96	*85	102
22	1.8			16	11	14	123	393	96	*94	80	*100
23	2.2	6		13	16	16	149	354	92	95	84	100
24	1.6			13	15	16	158	336	89	92	88	101
25	.8			13	13	29	144	302	85	91	91	100
26	1.4			12	13	38	150	281	80	86	88	94
27	1.0			12	11	41	171	287	101	88	85	64
28	3.2		4.3	16	11	47	213	318	125	89	84	35
29	5.2		3.2	14	-	52	154	336	123	92	86	30
30	*4.0		2.0	14	-	63	132	365	116	91	85	24
31	8.8	-	2.0	14	-	49	-	371	-	90	86	-
Total	893.8	137.6	173.5	311	359.8	645	2,383	6,450	7,860	2,982	2,902	2,662
Mean	28.8	4.59	5.60	10.0	12.8	20.8	79.4	208	262	96.2	93.6	88.7
Ac-ft	1,770	273	344	617	714	1,280	4,730	12,790	15,590	5,910	5,760	5,280

Calendar year 1952: Max 886 Min 0.8 Mean 146 Ac-ft 105,900
Water year 1952-53: Max 543 Min 0.8 Mean 76.1 Ac-ft 55,060

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 17 to Jan. 17.

Weber River near Morgan, Utah

Location.--Lat 41°03'50", long. 111°43'40", in NE¼ sec. 21, T. 4 N., R. 2 E., on right bank 300 ft downstream from Line Creek and 2½ miles northwest of Morgan. Prior to Dec. 3, 1952, at site a quarter of a mile upstream.

Records available.--October 1950 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 4,970 ft (by barometer). Prior to Dec. 3, 1952, at site a quarter of a mile upstream at different datum.

Extremes.--Maximum discharge during year, 2,360 cfs June 16 (gage height, 4.72 ft); minimum daily, 185 cfs Apr. 12.
1950-53: Maximum daily discharge, 6,000 cfs May 5, 6, 1952; minimum daily, that of Apr. 12, 1953.

Remarks.--Records good except those for periods of doubtful or no gage-height record, which are fair. Many diversions above and below station for irrigation. Flow regulated by Echo and East Canyon Reservoirs (see pp. 70, 74).

Rating table, Nov. 24, 1952, to Sept. 30, 1953 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 28, 29, June 13-21, Sept. 8-30)

1.8	167	3.0	860
2.0	244	4.0	1,780
2.5	508	4.6	2,390

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				236	244	240	228	449	1,480	565	552	546
2			200	236	249	236	211	399	*1,410	604	558	533
3	270	215	(*)	236	253	232	211	361	1,240	604	558	527
4			199	240	*253	240	219	335	1,280	611	533	527
5			207	240	256	240	228	340	1,360	604	540	533
6			228	244	262	240	224	*404	1,340	604	571	508
7		230	244	*244	258	240	215	502	1,480	584	578	502
8	250		249	240	253	249	203	521	1,530	578	584	484
9		250	244	240	249	258	196	484	1,550	558	591	484
10		250	236	240	232	*272	199	427	1,720	578	591	484
11			253	240	232	281	189	382	*2,000	591	578	467
12		260	253	244	240	272	185	340	1,990	552	584	443
13	230		267	249	232	281	192	320	1,970	558	584	467
14			267	267	232	272	204	305	2,010	550	578	521
15			267	258	236	267	*219	315	2,290	550	571	521
16			267	276	228	267	228	340	2,130	540	578	508
17			267	272	228	276	253	377	*1,190	540	584	502
18	210		240	330	236	272	244	467	1,160	530	578	484
19		280	240	462	228	276	244	*578	1,070	520	571	443
20			240	325	215	285	272	1,180	1,050	530	565	421
21			244	281	215	290	330	*1,700	1,060	550	565	421
22			258	258	215	285	415	1,280	876	*598	565	432
23			258	258	228	290	502	1,150	695	604	565	*438
24		270	240	249	224	300	533	1,180	674	591	*571	421
25		260	236	249	224	335	514	1,090	584	578	558	399
26	215	245	207	249	228	267	540	1,050	508	558	552	382
27		*230	196	249	232	236	598	1,020	558	571	546	366
28		215	207	240	232	244	702	1,130	625	571	546	361
29		200	207	253	-	262	571	*1,390	604	565	546	366
30		200	203	253	-	276	521	1,510	*565	571	552	345
31		-	207	244	-	249	-	1,480	-	571	546	-
Total	7,165	7,445	7,231	8,102	6,614	8,230	9,590	22,806	37,999	17,679	17,539	13,836
Mean	231	248	233	261	236	265	320	736	1,267	570	566	461
Ac-ft	14,210	14,770	14,340	16,070	13,120	16,320	19,020	45,240	75,370	35,070	34,790	27,440

Calendar year 1952: Max 6,000 Min 196 Mean 935 Ac-ft 678,600
Water year 1952-53: Max 2,290 Min 185 Mean 450 Ac-ft 325,800

* Discharge measurement made on this day.

Note.--No gage-height record Oct. 1 to Dec. 3, Apr. 14, 15, doubtful gage-height record July 14-21; discharge estimated on basis of discharge measurements, weather records, and records for other Weber River stations.

Weber River at Gateway, Utah

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

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

Records available.--October 1889 to July 1903 (gage heights only), June 1919 to September 1953. Published as "near Uinta" 1889-1903.

Gage.--Water-stage recorder. Altitude of gage is 4,790 ft (by barometer). October 1889 to July 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.--33 years (1920-53), 608 cfs.

Extremes.--Maximum discharge during year, 2,520 cfs June 15 (gage height, 4.56 ft); minimum daily, 240 cfs Dec. 27-29.
1889-1903, 1919-53: 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 pp. 70, 74).

Rating tables, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 8 to Sept. 8)

0.7	241	3.0	1,440
1.0	349	4.0	2,230
2.0	812	4.3	2,470

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	361	286	251	279	322	297	381	695	1,940	*647	618	604
2	349	289	251	286	322	289	334	608	1,910	690	623	599
3	338	279	*248	293	334	286	334	538	*1,690	690	632	594
4	338	275	248	289	*349	286	365	488	1,720	705	590	594
5	345	275	258	289	341	286	361	502	1,840	686	594	604
6	338	286	282	293	357	297	338	*608	1,770	695	632	565
7	334	289	311	*297	353	300	322	776	2,120	676	637	548
8	319	293	319	297	345	319	293	807	2,110	666	637	534
9	282	293	315	297	334	330	282	745	2,030	642	647	538
10	286	307	311	297	300	357	272	651	2,130	686	642	529
11	286	315	322	297	300	*381	265	575	2,370	686	637	511
12	286	326	322	297	304	377	261	506	2,340	651	647	484
13	279	326	341	307	293	381	293	466	2,260	651	651	493
14	272	326	345	341	293	338	338	449	2,280	647	647	552
15	255	341	341	319	300	326	*357	506	2,470	656	642	561
16	261	345	341	341	289	334	402	571	*2,310	647	637	557
17	265	349	349	338	286	334	435	623	1,450	632	642	557
18	265	345	307	457	300	319	414	770	*1,360	613	637	538
19	265	345	307	791	286	319	406	968	1,250	604	623	493
20	*268	345	307	498	275	341	444	1,790	1,170	613	623	471
21	268	345	307	427	275	338	534	*2,230	1,170	623	618	471
22	279	341	326	373	279	326	656	1,740	1,020	*651	627	488
23	282	326	326	353	282	341	786	1,560	888	656	627	*493
24	282	322	311	341	275	402	850	1,690	834	651	623	484
25	275	307	b280	338	272	520	812	1,490	770	642	*604	466
26	279	300	b260	334	275	466	850	1,390	666	632	604	449
27	*275	b290	b240	326	279	418	951	1,390	676	651	604	423
28	275	275	b240	315	282	462	1,140	1,570	715	651	604	427
29	279	258	b240	334	-	511	928	1,870	686	642	613	431
30	286	255	241	345	-	511	807	1,950	661	637	613	410
31	289	-	241	330	-	431	-	1,920	-	632	613	-
Total	9,061	9,254	9,088	10,719	8,502	11,223	15,211	32,442	46,606	20,251	19,388	15,469
Mean	292	308	293	346	304	362	507	1,047	1,554	653	625	516
Ac-ft	17,970	18,360	18,030	21,260	16,860	22,260	30,170	64,350	92,440	40,170	38,460	30,680

Calendar year 1952: Max 7,390 Min 240 Mean 1,131 Ac-ft 821,100
Water year 1952-53: Max 2,470 Min 240 Mean 568 Ac-ft 411,000

* 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 1953.

Gage.--Water-stage recorder. Altitude of gage is 5,270 ft (by barometer).

Extremes.--Maximum discharge during year, 2,040 cfs May 30 (gage height, 6.13 ft); minimum daily, 7.0 cfs Oct. 4.
1950-53: Maximum discharge, 7,070 cfs May 6, 1952 (gage height, 10.89 ft); minimum daily, that of Oct. 4, 1952.

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 pp. 70, 74).

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Jan. 19, Mar. 12 to June 16)

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 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	114	a250	236	320	258	422	655	1,610	40	63	52
2	22	217	245	278	302	255	346	521	1,580	53	53	34
3	14	292	245	285	292	242	331	445	1,310	61	93	30
4	7.0	261	a240	285	320	239	364	368	*1,240	70	39	32
5	11	236	*a240	285	*320	239	375	342	1,370	62	28	52
6	33	226	265	296	*338	248	348	*360	1,350	65	36	49
7	53	245	310	*310	338	252	338	525	1,620	58	33	34
8	53	242	331	302	316	268	302	592	1,660	52	23	48
9	254	255	327	299	324	289	310	512	1,590	41	29	57
10	86	275	320	299	299	302	282	394	1,590	65	33	49
11	24	324	342	296	296	342	282	320	1,800	92	33	46
12	20	360	349	292	299	*338	272	236	1,800	60	38	40
13	14	353	353	285	292	372	265	152	1,710	53	40	18
14	12	349	353	346	289	324	349	93	1,660	53		16
15	10	406	346	313	292	299	368	77	1,820	56		28
16	28	387	342	324	272	296	*413	95	*1,780	55		31
17	47	387	338	346	248	316	525	131	1,020	50		31
18	56	383	310	425	261	292	470	268	849	40		27
19	57	375	292	765	252	296	437	482	*688	26	a30	24
20	73	372	285	547	239	320	453	1,470	605	25		12
21	70	368	292	457	236	327	560	1,940	596	28		7.4
22	81	368	310	391	229	320	707	*1,560	422	42		14
23	81	342	313	360	236	310	874	1,300	342	*56		16
24	85	338	268	342	229	353	969	1,430	316	53		*26
25	85	324	229	334	223	486	929	1,260	195	47		28
26	81	316	214	331	232	543	944	1,100	66	40	*25	27
27	*108	a300	192	327	239	444	1,060	1,070	52	80	18	18
28	150	a280	217	313	239	474	1,250	1,240	88	63	25	14
29	77	a260	220	338	-	544	990	1,440	92	52	29	19
30	77	a250	198	342	-	578	834	1,730	48	58	36	35
31	78	-	207	327	-	462	-	1,590	-	70	38	-
Total	1,877.0	9,205	8,743	10,676	7,772	10,628	16,367	23,698	30,869	1,666	1,072	914.4
Mean	60.5	307	282	344	278	343	546	764	1,029	53.7	34.6	30.5
Ac-ft	3,720	18,260	17,340	21,180	15,420	21,080	32,460	47,000	61,230	3,300	2,130	1,810

Calendar year 1952: Max 6,910 Min 7.0 Mean 885 Ac-ft 642,400
Water year 1952-53: Max 1,940 Min 7.0 Mean 338 Ac-ft 244,900

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

South Fork Ogden River near Huntsville, Utah

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

Drainage area.--148 sq mi.

Records available.--March 1921 to September 1953.

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.--32 years, 112 cfs.

Extremes.--Maximum discharge during year, 611 cfs May 29 (gage height, 3.37 ft); minimum, 39 cfs Nov. 23.
1921-53: 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 or no gage-height record, which are fair.

Rating tables, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.9	37	2.0	210
1.0	45	3.0	502
1.2	65	3.2	571
1.5	108		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	50	50	49	44		51	142	262	468	98	58	44
2	50	50	49	43	a53	50	125	222	485	*95	60	44
3	50	50	48	43		50	120	198	475	92	61	44
4	51	50	47	44		49	127	194	*465	89	60	44
5	51	51	*46	44	*53	49	131	224	458	86	58	45
6	50	50	46	46	54	50	122	310	425	82	56	44
7	51	50	47	47	53	51	115	*397	452	79	55	44
8	51	50	48	*46	54	56	103	400	448	78	54	43
9	51	50	47	47	53	63	100	360	419	77	55	44
10	50	50	48	47	50	72	94	299	*400	79	54	43
11	49	50	48	47	50	77	92	254	378	78	53	43
12	49	50	48	48	50	*78	92	229	357	75	50	43
13	50	50	48	50	49	79	92	210	330	74	48	43
14	50	50	47	52	49	72	98	212	305	72	47	43
15	50	52	47	50	49	68	*98	252	275	70	47	43
16	50	50	47	49	47	70	106	302	252	69	46	43
17	50	49	47	51	47	72	123	325	232	68	46	44
18	50	49	47	72	47	68	123	384	*212	68	46	44
19	50	49	47	88	46	66	125	*445	203	65	47	44
20	50	49	47	a80		70	152	568	187	64	46	43
21	50	49	47	a70	b45	69	217	478	169	62	46	43
22	50	48	46	a60		65	291	406	154	61	45	43
23	49	44	44	a56	46	65	372	394	146	*61	45	*43
24	49	48	b42	a54	45	73	378	394	136	61	44	43
25	49	49	b40	53	45	105	394	375	129	61	*43	*42
26	50	b46	b40	53	44	131	452	375	122	60	44	43
27	50	b46	a41		45	142	502	384	116	60	44	42
28	50	b47	a43		49	163	495	468	111	60	43	43
29	*50	b49	45	a53	-	180	369	516	108	60	43	43
30	50	50	44		-	180	322	475	102	60	43	43
31	50	-	44		-	154	-	448	-	58	44	-
Total	1,550	1,475	1,424	1,649	1,372	2,588	6,072	10,760	8,519	2,222	1,531	1,300
Mean	50.0	49.2	45.9	53.2	49.0	83.5	202	347	284	71.7	49.4	43.3
Ac-ft	3,070	2,930	2,820	3,270	2,720	5,130	12,040	21,340	16,900	4,410	3,040	2,580

Calendar year 1952: Max 1,620 Min 40 Mean 181 Ac-ft 131,100
Water year 1952-53: Max 568 Min 40 Mean 111 Ac-ft 80,250

Peak discharge (base, 400 cfs).--Apr. 28 (1:30 a.m.) 571 cfs (3.24 ft); May 7 (11:15 a.m.) 435 cfs (2.84 ft); May 29 (7 p.m.) 611 cfs (3.37 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for Chalk Creek and Lost Creek.

b Stage-discharge relation affected by ice.

Pine View Reservoir near Ogden, Utah

Location.--Lat 41°15'20", long. 111°50'25", in NW¼SE¼ sec. 16, T. 6 N., R. 1 E., at 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 1953.

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 18 to June 22 (elevation, 4,872.00 ft); minimum, 6,660 acre-ft Sept. 30 (elevation, 4,840.80 ft).
1936-53: 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.

Contents at 8 a.m., in acre-feet, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13,290	10,240	10,000	10,160	11,930	13,860	19,560	36,690	44,180	41,370	29,210	17,340
2	13,010	10,240	9,920	10,160	12,020	13,960	20,130	37,180	44,180	41,020	29,070	16,800
3	12,830	10,240	9,920	10,160	12,020	13,960	20,480	37,340	44,180	40,510	28,790	16,280
4	12,740	10,240	9,920	10,160	12,100	13,960	20,720	37,500	44,180	40,170	28,500	15,760
5	12,560	10,240	9,920	10,160	12,190	13,960	21,070	37,670	44,180	39,830	28,220	15,250
6	12,470	10,240	9,920	10,160	12,280	13,960	21,550	38,330	44,180	39,500	27,660	14,840
7	12,370	10,240	9,920	10,160	12,470	14,060	21,920	39,330	44,180	39,160	27,380	14,350
8	12,280	10,240	9,920	10,160	12,650	14,060	22,280	40,340	44,180	38,660	26,830	13,860
9	12,100	10,240	9,840	10,160	12,740	14,060	22,530	41,370	44,180	38,330	26,690	13,480
10	12,020	10,240	9,840	10,240	12,920	14,150	22,900	41,540	44,180	38,000	26,420	13,100
11	11,930	10,160	9,840	10,240	13,100	14,060	23,150	41,540	44,180	37,670	26,020	12,740
12	11,840	10,160	9,840	10,240	13,290	14,060	23,280	41,540	44,180	37,340	25,610	12,370
13	11,670	10,160	9,840	10,320	13,390	14,060	23,410	41,540	44,180	37,020	25,220	12,020
14	11,580	10,080	9,840	10,320	13,480	14,060	23,790	41,540	44,180	36,690	24,820	11,670
15	11,490	10,080	9,920	10,400	13,480	14,060	24,040	42,060	44,180	36,370	24,300	11,320
16	11,320	10,080	9,920	10,320	13,480	14,060	24,300	42,410	44,180	35,730	23,920	10,900
17	11,230	10,080	9,920	10,320	13,580	14,150	24,560	43,290	44,180	35,410	23,530	10,480
18	11,070	10,080	9,920	10,400	13,580	14,150	24,960	44,180	44,180	35,100	23,150	10,080
19	10,980	10,080	9,920	10,570	13,580	14,150	25,350	44,180	44,180	34,620	22,900	9,680
20	10,820	10,080	10,000	10,750	13,680	14,150	25,750	44,180	44,180	34,310	22,530	9,300
21	10,730	10,080	10,000	10,820	13,680	14,250	26,150	44,180	44,180	33,840	22,160	8,990
22	10,650	10,080	10,000	10,820	13,680	14,250	26,830	44,180	44,180	33,380	21,670	8,620
23	10,570	10,080	10,080	10,980	13,680	14,250	27,940	44,180	44,000	32,920	21,310	8,330
24	10,570	10,160	10,080	11,070	13,770	14,350	29,210	44,180	43,820	32,610	20,950	8,040
25	10,480	10,160	10,080	11,250	13,770	14,450	30,670	44,180	43,640	32,160	20,480	7,750
26	10,480	10,080	10,080	11,320	13,860	14,750	32,010	44,180	43,290	31,710	20,020	7,470
27	10,400	10,080	10,080	11,400	13,860	14,940	33,230	44,180	42,940	31,260	19,560	7,270
28	10,400	10,080	10,080	11,580	13,860	15,450	34,940	44,180	42,410	30,810	19,100	7,060
29	10,400	10,000	10,080	11,760	-	16,280	36,370	44,180	41,890	30,370	18,660	6,860
30	10,320	10,000	10,080	11,840	-	17,450	36,690	44,180	41,540	29,940	18,210	6,660
31	10,320	-	10,080	11,930	-	18,540	-	44,180	-	29,500	17,770	-

Monthly elevation and contents, water year October 1952 to September 1953

Date	Elevation (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	4,849.41	13,480	-
Oct. 31	4,845.76	10,320	-3,160
Nov. 30	4,845.40	10,000	-320
Dec. 31	4,845.54	10,080	+80
Calendar year 1952	-	-	+1,680
Jan. 31	4,847.70	11,930	+1,850
Feb. 28	4,849.80	13,860	+1,930
Mar. 31	4,854.30	18,540	+4,680
Apr. 30	4,867.60	36,690	+18,150
May 31	4,872.00	44,180	-7,490
June 30	4,870.50	41,540	-2,640
July 31	4,862.90	29,500	-12,040
Aug. 31	4,853.60	17,770	-11,730
Sept.30	4,840.80	6,660	-11,110
Water year 1952-53	-	-	-6,820

† Elevation at 8 a.m.

Ogden River below Pine View Dam, near Ogden, Utah

Location.--Lat 41°15'17", long. 111°50'47", in NE¼SW¼ sec. 16, T. 6 N., R. 1 E., on left bank 1,500 ft downstream from Wheeler Creek, 2,000 ft downstream from Pine View Dam, and 6½ miles northeast of Ogden.

Drainage area.--321 sq mi.

Records available.--October 1937 to September 1953, not including flow of Pine View pipeline. January 1904 to October 1912, October 1931 to September 1937 at same site, including flow of pipeline, published as Ogden River near Ogden; records not equivalent.

Gage.--Water-stage recorder. Datum of gage is 4,798.30 ft above mean sea level (levels by Bureau of Reclamation).

Average discharge.--16 years (1937-53), 97.8 cfs.

Extremes.--Maximum discharge during year, 1,140 cfs June 8 (gage height, 5.49 ft); minimum daily, 0.2 cfs Dec. 10, 12-14, 16.
1937-53: Maximum discharge, 3,190 cfs May 3, 1952 (gage height, 7.76 ft); minimum, that of Dec. 10, 12-14, 16, 1952, when reservoir gates were closed.

Remarks.--Records good except those computed from once-daily staff-gage readings, which are fair. Flow regulated by Pine View Reservoir (see preceding page). Pine View pipeline diverts water above station for use in irrigation and power development. Diversions for irrigation and municipal supply above Pine View Reservoir.

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

0.8	0	1.3	9.5	2.5	126
.9	.4	1.4	13	3.0	240
1.0	1.4	1.5	18	4.0	535
1.1	3.2	1.7	30	5.0	920
1.2	6.0	2.0	55	6.0	1,430

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.7	2.8	0.3	0.5	0.9	1.0	19	g225	844	40	32	40
2	8.7	3.0	.6	.4	.9	1.0	15	g213	840	*41	28	39
3	6.2	3.0	.5	.4	1.0	1.0	17	g213	800	48	19	31
4	1.7	3.0	.5	.5	1.7	.9	20	g213	*780	46	16	32
5	1.6	3.0	*.5	.5	*1.4	.8	16	107	796	44	22	32
6	1.6	3.0	.5	.5	1.7	.9	14	25	788	36	28	30
7	1.7	3.0	.3	.5	1.6	1.1	10	*38	900	30	29	31
8	1.7	3.2	.3	*.5	1.6	1.7	8.7	73	1,060	23	30	29
9	1.6	3.0	.3	.5	1.2	2.4	7.7	327	1,060	39	30	27
10	1.6	3.2	.2	.5	1.0	3.7	7.0	464	*842	40	30	27
11	1.6	3.0	.3	.5	1.0	4.2	6.6	337	776	40	30	26
12	1.4	3.0	.2	.5	.9	*3.7	6.3	266	760	39	30	26
13	1.2	3.0	.2	.6	.9	4.2	7.3	107	660	38	31	26
14	1.2	3.4	.2	1.1	.8	3.0	9.1	25	504	36	39	26
15	1.4	3.9	.3	1.0	.8	2.6	*13	25	319	38	38	26
16	1.6	3.4	.2	.7	.8	2.6	18	g23	253	40	38	27
17	1.9	3.4	.3	.7	.8	3.2	22	g217	248	40	41	27
18	2.0	3.4	.3	3.4	.8	2.4	20	g458	*220	37	44	26
19	2.2	3.4	.3	11	.8	2.0	23	*g587	50	32	44	26
20	2.4	3.4	.3	4.7	.7	2.6	31	1,040	46	30	44	26
21	2.8	3.7	.3	2.6	.6	2.4	39	992	43	31	39	26
22	2.8	3.2	.3	1.6	.7	2.2	46	812	40	36	50	26
23	3.0	2.8	.3	1.4	.7	2.4	47	720	38	*40	50	*25
24	2.8	2.8		1.2	.7	5.5	38	676	39	39	50	19
25	3.0	2.0		1.1	.7	14	36	672	41	40	41	19
			.3									
26	3.2	.6		1.1	.7	15	79	622	32	44	*40	19
27	3.4	.5		.9	.7	17	g224	514	42	41	40	18
28	3.4	.4	.6	.9	.8	22	g612	594	46	36	39	18
29	3.7	.4	.6	.9	-	30	g482	916	45	36	39	18
30	3.7	.5	.5	.9	-	28	g225	984	42	36	39	8.6
31	3.2	-	.5	.9	-	23	-	896	-	30	38	
Total	87.0	80.4	10.9	42.5	26.9	206.5	2,118.7	13,381	12,954	1,166	1,108	776.6
Mean	2.81	2.68	0.35	1.37	0.96	6.66	70.6	432	432	37.6	35.7	25.9
Ac-ft	173	159	22	84	53	410	4,200	26,540	25,690	2,310	2,200	1,540

Calendar year 1952: Max 2,760 Min - Mean 213 Ac-ft 154,500
Water year 1952-53: Max 1,060 Min 0.2 Mean 87.6 Ac-ft 63,380

* Discharge measurement made on this day.
g Discharge computed from once-daily staff-gage readings.

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 above mouth.

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

Records available.--May 1905 to September 1953 in reports of Geological Survey. January 1904 to May 1905 in reports of State engineer. Prior to 1909, gage heights only.

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, 3,340 cfs May 21 (gage height, 12.13 ft); minimum daily, 38 cfs Aug. 17.
1904-53: 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 period 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 pp. 70, 74, 82).

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	74	165	362	376	476	434	698	1,500	2,760	65	74	42
2	70	195	369	402	468	445	636	1,180	2,760	*64	110	69
3	86	263	367	414	453	442	617	1,100	2,480	64	116	71
4	92	253	360	412	484	437	636	1,020	*2,200	64	96	67
5	63	234	360	414	*492	440	652	881	2,280	65	69	57
6	67	267	376	427	518	440	628	690	2,390	67	56	95
7	76	284	402	440	515	445	628	771	2,740	67	48	81
8	101	280	*429	*440	492	455	598	*896	3,140	67	45	81
9	172	282	424	432	486	484	606	980	3,190	66	43	110
10	171	284	416	432	473	567	583	1,090	2,920	64	41	95
11	107	303	432	429	463	596	580	971	2,960	65	40	95
12	77	341	434	429	458	*606	562	768	2,970	79	39	82
13	87	343	450	432	455	636	549	593	2,810	71	39	61
14	84	334	460	510	468	609	614	379	2,520	71	40	42
15	81	384	455	515	479	580	625	301	2,370	68	40	41
16	85	409	455	476	466	572	*671	288	2,240	67	40	58
17	101	416	458	489	437	585	783	312	1,580	66	38	82
18	117	432	442	740	450	572	827	495	*1,190	65	39	78
19	114	422	429	1,130	447	575	740	983	941	69	41	71
20	130	424	432	938	434	598	732	2,360	830	a63	41	55
21	141	437	434	743	434	609	812	3,180	721	a58	40	61
22	147	434	440	622	422	601	935	*2,880	564	a54	70	54
23	145	414	450	570	429	593	1,080	2,200	466	*a48	61	64
24	147	416	414	549	422	609	1,200	2,190	357	a48	50	*55
25	147	409	376	525	416	676	1,160	2,200	280	a46	48	58
26	147	396	369	510	414	809	1,170	1,990	155	a43	*43	71
27	147	379	355	505	416	704	1,300	1,820	80	a40	46	65
28	*186	399	367	494	416	709	1,670	1,840	79	a44	43	64
29	150	352	369	502	-	771	1,750	2,320	91	82	40	61
30	149	355	360	486	-	842	1,800	3,020	84	69	42	65
31	147	-	360	484	-	740	-	2,860	-	66	43	-
Total	3,608	10,306	12,606	16,267	12,783	18,181	25,842	44,058	50,148	1,935	1,621	2,051
Mean	116	344	407	525	457	586	861	1,421	1,672	62.4	52.3	68.4
Ac-ft	7,160	20,440	25,000	32,270	25,350	36,060	51,260	87,390	99,470	3,840	3,220	4,070

Calendar year 1952: Max 9,970 Min 48 Mean 1,248 Ac-ft 905,800
Water year 1952-53: Max 3,190 Min 38 Mean 546 Ac-ft 395,500

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of 1 discharge measurement and records for nearby stations.

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 1953.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 5,130 ft (by barometer).

Extremes.--Maximum discharge during year, 27 cfs June 10 (gage height, 0.98 ft); minimum, 1.3 cfs Dec. 2.
1950-53: Maximum discharge, 36 cfs May 3, 1952 (gage height, 1.13 ft); no flow part of several days during 1951.

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

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.5	1.8	0.8	12
.6	3.4	.9	19
.7	6.6	1.0	27

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.1	2.1	2.1	2.3	2.3	2.4	4.5	9.5	11	6.6	3.9	2.8
2	2.1	2.1	2.3	2.3	*2.3	*2.2	3.9	9.0	*13	6.2	3.9	2.8
3	2.1	2.1	2.3	2.3	2.4	2.1	3.9	8.0	13	5.8	3.6	*2.6
4	2.1	2.1	*2.1	2.3	2.6	2.1	4.5	8.0	15	5.5	3.2	2.6
5	2.1	2.3	2.0	2.3	2.6	2.1	4.5	*8.0	14	5.1	3.2	2.4
6	2.1	2.3	2.0	*2.3	2.6	2.0	*4.2	9.5	15	5.1	3.2	2.4
7	2.1	2.3	2.0	2.3	2.6	2.1	3.9	10	20	4.8	3.2	2.4
8	2.1	2.3	2.0	2.3	2.6	2.3	3.9	10	21	4.5	3.2	2.4
9	2.1	2.3	2.0	2.4	2.3	2.6	3.4	9.5	23	4.5	3.0	2.4
10	2.1	2.3	2.0	2.6	b2.2	2.6	3.4	8.0	24	4.8	3.0	2.4
11	2.1	2.3	2.0	2.6	b2.2	2.8	3.2	6.6	*23	4.5	2.8	2.1
12	2.1	2.3	2.0	3.0	2.3	2.8	3.0	6.2	24	4.5	*2.8	2.1
13	2.1	2.4	2.0	3.0	2.3	3.0	3.0	6.2	21	4.2	2.8	2.1
14	*2.4	2.4	2.0	3.2	2.3	2.6	3.2	6.2	19	3.9	2.8	2.1
15	2.6	2.3	2.0	2.6	2.3	2.3	3.4	6.6	16	3.9	2.6	2.1
16	2.6	2.0	*2.0	2.4	2.1	2.3	4.2	7.1	15	3.9	2.6	*2.1
17	2.6	2.0	2.0	2.4	*2.1	2.3	5.1	7.5	*13	*3.4	2.4	2.1
18	2.6	2.0	2.0	4.2	2.0	*2.3	4.8	8.5	12	3.4	2.6	2.1
19	2.6	*2.0	2.0	5.8	1.9	2.3	4.8	9.5	11	3.6	2.4	2.1
20	2.6	2.1	2.0	*3.6	b1.8	2.3	6.2	11	11	3.4	2.4	2.0
21	2.6	2.1	2.0	3.6	b1.8	2.4	7.1	*12	10	3.4	2.4	2.0
22	2.6	1.9	1.9	3.2	b1.8	2.4	*9.0	11	9.5	3.4	2.4	2.0
23	2.4	b1.8		3.2	1.9	2.4	7.5	10	*9.5	3.4	2.4	2.0
24	2.4			2.8	1.9	2.8	9.0	10	10	3.4	2.4	1.9
25	2.4		b1.8	2.8	1.9	3.4	7.5	9.5	9.5	3.4	2.4	1.9
26	2.3	2.1		2.8	2.0	3.9	8.0	9.0	9.0	3.6	2.4	1.9
27	2.3	2.1		2.8	2.1	4.5	8.5	9.0	8.0	3.6	2.4	1.9
28	2.3	2.0	2.1	2.8	2.3	4.8	16	10	7.5	3.9	2.4	1.9
29	2.3	2.0	2.1	2.8	-	5.1	11	11	7.1	*3.6	2.6	1.9
30	2.3	2.1	2.3	2.4	-	5.5	11	11	7.1	3.6	2.6	1.9
31	*2.3	-	2.3	2.4	-	4.8	-	11	-	3.6	2.6	-
Total	71.5	63.6	62.5	87.8	61.5	89.5	175.6	278.4	421.2	130.5	86.6	65.4
Mean	2.31	2.12	2.02	2.83	2.20	2.89	5.85	8.98	14.0	4.21	2.79	2.18
Ac-ft	142	126	124	174	122	178	348	552	835	259	172	130

Calendar year 1952: Max 30 Min 1.6 Mean 5.45 Ac-ft 3,950
Water year 1952-53: Max 24 Min 1.8 Mean 4.37 Ac-ft 3,160

Peak discharge (base, 10 cfs).--Apr. 28 (3 a.m.) 19 cfs (0.88 ft); June 10 (5 a.m.) 27 cfs (0.98 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 NE¼ 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 1953.

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.

Extremes.--Maximum discharge during year, 157 cfs May 19 (gage height, 1.90 ft); minimum, 1.2 cfs Sept. 27.
1949-53: Maximum discharge, 254 cfs May 22, 1950 (gage height, 1.74 ft), site and datum then in use; minimum, 1.1 cfs Nov. 2, 1951.

Remarks.--Records good except those for period of no gage-height record, which are fair. Record includes some water diverted from Hardscrabble Creek.

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 3-16, 21-28, June 6-16)

0.6	0.8	1.1	30
.7	2.2	1.3	56
.8	5.6	1.6	100
.9	12	1.7	115

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.4	3.0		3.3	4.4	4.8	11	19	62	22	7.5	3.3
2	*2.4	3.0	a3.3	3.3	*4.4	*4.4	8.8	16	72	20	8.8	4.0
3	2.2	2.7		3.3	4.8	4.4	8.8	18	*84	19	8.8	*4.0
4	2.4	3.0	*4.0	3.3	5.6	4.0	*10	22	90	18	6.9	4.0
5	2.4	3.3	4.0	3.3	5.2	4.0	11	22	90	18	6.9	3.6
6	2.4	3.3	4.0	*3.3	5.2	4.0	8.8	33	96	18	6.2	3.3
7	2.4	3.3	4.0	3.6	5.2	4.0	7.5	43	100	17	6.2	3.3
8	2.4	3.3	4.0	4.0	4.8	5.2	5.2	43	106	16	6.9	3.3
9	2.7	2.7	4.0	4.0	4.4	6.2	4.4	36	112	15	7.5	3.6
10	2.7	3.0	4.4	4.4	4.8	6.9	5.6	32	115	17	6.2	3.3
11	2.7	3.3	4.4	4.4	4.4	6.9	4.8	28	*110	15	6.2	3.0
12	2.7	3.3	4.0	5.6	4.4	6.2	4.4	28	*94	14	*5.6	2.7
13	3.0	3.0	4.0	5.2	4.0	6.2	4.4	33	84	13	5.2	2.4
14	*3.3	3.0	4.0	4.0	4.0	5.2	4.8	48	85	12	5.6	2.4
15	3.3	2.4	*4.0	4.8	4.0	5.2	4.8	*60	88	13	5.6	2.4
16	3.6	3.6	4.0	4.4	4.0	4.8	7.5	64	76	12	5.2	*2.7
17	3.6	3.3	4.0	4.4	*3.6	*5.6	10	69	*73	*12	4.8	2.7
18	3.3	3.3	4.0	8.8	3.6	5.6	11	72	64	11	5.6	2.4
19	3.3	*3.3	4.0	12	3.6	5.2	10	73	52	10	4.8	2.2
20	3.3	3.3	4.0	*8.1	3.6	5.2	11	84	42	9.4	4.4	2.0
21	3.3	3.3	4.0	6.9	3.3	4.8	24	*66	37	8.8	4.0	1.9
22	3.3	3.0	3.6	5.6	3.6	4.4	*34	53	*41	8.1	3.6	1.7
23	3.3	2.4	2.7	4.8	3.6	4.4	19	43	41	7.5	3.3	1.7
24	3.3		2.7	4.4	3.3	4.4	24	35	39	6.9	3.3	1.9
25	3.3		3.3	4.4	3.3	6.2	16	28	34	5.6	3.0	1.7
26	3.3		3.3	4.4	3.3	8.8	22	33	32	6.9	3.3	1.5
27	3.3	a2.4	3.0	4.8	3.6	9.4	24	49	30	6.2	3.0	1.5
28	3.0		3.0	5.2	4.4	11	41	63	28	4.8	3.0	1.7
29	3.0		3.0	5.2	-	10	28	57	26	*5.6	2.4	1.9
30	3.0		3.0	4.8	-	12	22	50	24	6.9	2.4	1.7
31	*3.0	-	3.3	4.4	-	12	-	56	-	6.2	3.0	-
Total	91.6	87.9	113.6	152.4	116.4	191.4	407.8	1,376	2,027	374.9	159.2	77.8
Mean	2.95	2.93	3.66	4.92	4.16	6.17	13.6	44.4	67.6	12.1	5.14	2.59
Ac-ft	182	174	225	302	231	380	809	2,730	4,020	744	316	154

Calendar year 1952: Max 127 Min 2.2 Mean 19.3 Ac-ft 14,000
Water year 1952-53: Max 115 Min 1.5 Mean 14.2 Ac-ft 10,270

Peak discharge (base, 80 cfs).--May 19 (11 p.m.) 157 cfs (1.90 ft); June 12 (5:30 p.m.) 126 cfs (1.37 ft).
* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for nearby streams.

Ricks Creek above diversions, near Centerville, Utah

Location.--Lat 40°56'24", long. 111°52'10", in NW¼ sec. 5, T. 2 N., R. 1 E., on left bank half a mile east of alternate U. S. Highway 91 and 1.2 miles north of Centerville.

Records available.--April 1950 to September 1953.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 4,900 ft (from Forest Service topographic map).

Extremes.--Maximum discharge during year, 29 cfs June 6 (gage height, 1.20 ft); minimum, 0.1 cfs Apr. 9.
1950-53: Maximum discharge, 31 cfs May 15, 1952; maximum gage height, 1.27 ft May 23, 1950; minimum discharge, that of Apr. 9, 1953.

Remarks.--Records good.

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second) (Shifting-control method used June 7-11)

0.5	0.3	0.9	7.4
.6	.9	1.0	12
.7	2.2	1.3	30
.8	4.2		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0	1.0	0.8	0.8	0.9	1.0	1.9	5.1	16	4.0	1.9	1.0
2	*1.0	1.0	.8	.8	*.9	.9	1.9	4.5	*17	3.8	2.0	.9
3	1.0	1.0	.8	.8	.9	*.9	1.9	4.0	18	3.8	1.9	*1.0
4	1.0	1.0	.8	.8	.9	.9	*2.2	3.8	21	3.6	1.7	1.0
5	1.1	1.0	.8	.8	.9	.9	2.2	4.2	26	3.2	1.6	1.0
6	1.1	1.0	.8	*.8	.9	.9	2.0	4.8	25	3.2	1.6	.9
7	1.1	1.0	.8	.8	.8	1.0	1.9	5.7	23	3.0	1.6	1.0
8	1.0	1.0	.8	.9	.9	1.1	1.7	5.7	22	3.0	1.7	1.0
9	.9	1.0	.8	.9	.8	1.2	1.5	5.4	21	2.8	1.6	1.0
10	.9	1.0	.8	.9	.8	1.1	1.7	5.1	22	3.0	1.4	.9
11	.9	1.0	.8	.9	.8	1.2	1.4	4.8	*23	2.6	1.4	.9
12	.9	1.1	.8	.9	.8	1.1	1.3	4.8	21	2.6	1.4	.9
13	.9	1.1	.8	.9	.8	1.1	1.4	4.8	19	2.4	*1.4	.9
14	.9	1.1	.8	.7	.8	1.1	1.4	*6.1	18	2.4	1.4	1.0
15	*.9	1.1	*.8	1.2	.8	1.0	1.4	6.1	16	2.4	1.4	1.0
16	.9	1.2	.7	.9	.8	1.0	1.9	6.7	*14	*2.2	1.4	*1.0
17	.9	1.1	.7	1.0	*.8	*1.0	2.6	7.1	12	2.0	1.4	1.0
18	.9	1.1	.7	2.2	.7	1.0	2.4	9.0	10	2.0	1.6	1.0
19	.9	*1.1	.7	2.0	.7	.9	2.8	12	8.6	2.0	1.3	1.0
20	.9	1.1	.8	*1.2	.6	.9	3.6	14	7.4	2.0	1.3	1.0
21	.9	1.1	.8	1.2	.8	.9	4.2	*11	7.1	1.9	1.3	1.0
22	.9	.8	.7	1.1	.8	.9	*5.4	10	*6.7	1.9	1.3	.9
23	1.0	.8	.6	1.1	.8	.9	6.7	10	6.7	1.9	1.2	.9
24	1.0	.8	.6	1.1	.8	1.0	6.4	9.9	6.4	1.9	1.1	.9
25	1.0	.8	.6	1.1	.8	1.3	5.7	9.9	6.1	1.9	1.1	.9
26	1.0	.8	.6	1.1	.8	1.4	5.7	9.9	5.7	2.0	1.1	.9
27	1.0	.8	.7	1.0	.8	1.9	6.1	11	5.4	2.0	1.1	.9
28	1.0	.8	.8	1.0	1.0	2.0	6.4	13	4.5	2.0	1.1	.9
29	1.0	.8	.8	1.0	-	2.2	5.4	14	4.2	*1.9	.9	.9
30	1.0	.8	.8	.9	-	2.4	5.1	15	4.0	1.9	.9	.9
31	*1.0	-	.8	.9	-	2.2	-	15	-	1.9	.9	-
Total	29.9	29.3	23.4	31.7	22.9	37.3	96.2	252.4	416.8	77.2	43.0	28.5
Mean	0.96	0.98	0.75	1.02	0.82	1.20	3.21	8.14	13.9	2.49	1.39	0.95
Ac-ft	59	58	46	63	45	74	191	501	827	153	85	57

Calendar year 1952: Max 27 Min 0.6 Mean 3.65 Ac-ft 2,650
Water year 1952-53: Max 26 Min 0.6 Mean 2.98 Ac-ft 2,160

Peak discharge (base, 10 cfs).--May 20 (12:15 a.m.) 16 cfs (1.02 ft); June 6 (9 p.m.) 29 cfs (1.20 ft).
* Discharge measurement made on this day.

Parrish Creek above diversions, near Centerville, Utah

Location.--Lat 40°55'25", long. 111°51'30", in NE¼ sec. 8, T. 2 N., R. 1 E., on left bank 1 mile northeast of Centerville.

Drainage area.--2.0 sq mi, approximately.

Records available.--November 1949 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 5,100 ft (from Forest Service topographic map).

Extremes.--Maximum discharge during year, 26 cfs June 6; minimum, 0.3 cfs for several days during November.
1949-53: Maximum discharge, 30 cfs May 5, 1952; minimum, 0.3 cfs at times in 1950-51, 1953.

Remarks.--Records good except those for period of no gage-height record, which are fair. Record includes flow through pipeline for Centerville city water supply.

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.6	0.5	0.4	0.5	0.5	0.6	1.4	3.8	13	2.1	1.4	0.6
2	.6	.5	.5	.5	.5	.5	1.3	3.5	14	1.9	1.4	.6
3	.6	.5	.5	.5	.6	.5	1.3	3.3	15	1.9	1.4	.5
4	.6	.5	.5	.5	.7	.5	1.4	3.2	17	1.8	1.3	.5
5	.5	.5	.5	.5	.6	.5	1.4	3.3	19	1.8	1.2	.5
6	.5	.5	.5	.5	.6	.5	1.4	3.8	20	1.8	1.2	.5
7	.5	.5	.5	.5	.5	.6	1.3	4.5	21	1.8	1.2	.5
8	.5	.4	.5	.5	.6	.7	1.2	4.7	20	1.8	1.3	.5
9	.5	.4	.5	.6	.5	.8	1.1	4.2	20	1.8	1.3	.5
10	.6	.4	.5	.6	.5	.8	1.2	3.9	20	1.8	1.2	.5
11	.7	.4	.5	.6	.5	.8	1.2	3.6	19	1.8	1.2	.5
12	.7	.4	.5	.6	.5	.8	1.2	3.4	17	1.8	1.2	.5
13	.7	.3	.5	.6	.5	.8	1.2	3.4	15	1.8	1.1	.5
14	.7	.3	.5	.6	.5	.8	1.3	3.9	13	1.8	1.1	.5
15	.5	.4	.5	.7	.5	.8	1.3	4.2	11	1.8	1.1	.5
16	.5	.4	.5	.6	.5	.8	1.5	4.6	9.7	1.6	1.1	.5
17	.5	.4	.5	.7	.5	.8	1.9	5.4	8.1	1.7	1.0	.6
18	.5	.3	.5	1.4	.5	.8	1.9	7.0	6.8	1.7	1.0	.6
19	.5	.4	.5	1.5	.5	.8	2.0	9.3	5.8	1.7	.9	.6
20	.5	.4	.5	1.0	.5	.8	2.5	11	5.0	1.6	.9	.5
21	.5	.4	.5	1.0	.5	.7	3.0	10	4.4	1.6	.8	.5
22	.5	.4	.5	.8	.5	.7	3.7	9.4	3.7	1.6	.8	.5
23	.5	.4	.5	.6	.5	.8	4.5	9.2	3.3	1.4	.8	.5
24	.5	.4	.4	.6	.5	.8	5.0	8.8	3.1	1.4	.7	.5
25	.5	.4	.4	.6	.5	1.1	4.8	7.9	3.0	1.4	.7	.5
26	.5	.3	.4	.6	.5	1.4	5.0	8.0	2.9	1.4	.7	.5
27	.5	.3	.5	.6	.6	1.5	5.3	9.2	2.7	1.4	.6	.5
28	.5	.4	.5	.6	.6	1.6	6.1	12	2.6	1.4	.6	.5
29	.5	.4	.5	.6	-	1.7	4.8	12	2.6	1.4	.6	.5
30	.5	.4	.5	.6	-	1.7	4.3	11	2.1	1.4	.6	.5
31	.5	-	.5	.5	-	1.6	-	12	-	1.4	.6	-
Total	16.8	12.2	15.1	20.6	14.8	27.6	75.5	203.5	319.8	51.6	31.0	15.5
Mean	0.54	0.41	0.49	0.66	0.53	0.89	2.52	6.56	10.7	1.66	1.00	0.52
Ac-ft	33	24	30	41	29	55	150	404	634	102	61	31

Calendar year 1952: Max 25 Min 0.3 Mean 2.64 Ac-ft 1,920
Water year 1952-53: Max 21 Min 0.3 Mean 2.20 Ac-ft 1,590

Note.--No gage-height record July 4-15; discharge estimated on basis of records for nearby streams.

Centerville Creek above diversions, near Centerville, Utah

Location.--Lat 40°55'00", long. 111°51'20", in SE¼ sec. 8, T. 2 N., R. 1 E., on right bank 1.2 miles east of Centerville.

Records available.--November 1949 to September 1953.

Gage.--Water-stage recorder and concrete rating flume. Altitude of gage is 5,000 ft (from U. S. Forest Service topographic map).

Extremes.--Maximum daily discharge during year, 20 cfs June 7, 12; minimum daily, 1.0 cfs Oct. 26, 30, Dec. 28, Jan. 1-8, 16, 17.
1950-53: Maximum daily discharge, 30 cfs May 6, 7, 1952; minimum daily, about 1 cfs for several days each year.

Remarks.--Records good. 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 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	1.1	1.6	1.0	1.1	1.4	3.0	7.8	14	4.5	2.2	1.5
2	1.5	1.1	1.6	1.0	1.1	1.3	2.8	6.7	16	4.0	2.4	1.5
3	1.4	1.1	1.7	1.0	1.1	1.3	2.8	6.0	16	3.8	2.2	1.5
4	1.3	1.1	1.6	1.0	1.2	1.3	2.8	5.8	17	3.6	2.0	1.5
5	1.3	1.2	1.6	1.0	1.2	1.3	2.8	6.1	17	3.6	1.8	1.5
6	1.3	1.2	1.6	1.0	1.2	1.3	2.9	7.1	18	3.4	1.7	1.5
7	1.4	1.3	1.6	1.0	1.2	1.2	2.8	9.1	20	3.2	1.7	1.5
8	1.4	1.3	1.6	1.0	1.2	1.3	2.5	9.5	19	3.1	1.8	1.5
9	1.3	1.3	1.5	1.1	1.1	1.4	4.0	9.1	19	3.1	1.7	1.5
10	1.3	1.3	1.6	1.1	1.2	1.4	2.7	8.2	19	3.4	1.7	1.5
11	1.2	1.3	1.6	1.1	1.2	1.6	2.4	7.2	19	3.2	1.6	1.5
12	1.2	1.3	1.6	1.2	1.1	1.6	2.4	6.4	20	3.1	1.6	1.5
13	1.2	1.4	1.5	1.2	1.2	1.6	2.5	6.3	17	2.8	1.5	1.3
14	1.1	1.4	1.4	1.1	1.2	1.4	2.6	6.7	16	2.7	1.5	1.3
15	1.1	1.6	1.4	1.2	1.2	1.4	2.7	7.4	13	2.7	1.6	1.3
16	1.1	1.6	1.4	1.0	1.3	1.4	3.1	8.1	13	2.8	1.6	1.3
17	1.1	1.6	1.4	1.0	1.2	1.9	3.9	9.0	11	2.7	1.6	1.3
18	1.1	1.6	1.4	2.7	1.3	1.8	3.4	11	10	2.6	1.7	1.3
19	1.1	1.6	1.4	2.7	1.3	1.7	3.6	12	10	2.6	1.6	1.3
20	1.1	1.6	1.4	1.6	1.3	1.8	4.6	16	9.2	2.4	1.5	1.3
21	1.1	1.6	1.4	1.5	1.3	1.8	6.3	15	8.4	2.4	1.5	1.3
22	1.1	1.5	1.3	1.3	1.3	1.8	9.1	14	7.5	2.4	1.5	1.2
23	1.1	1.3	1.2	1.3	1.2	1.9	11	14	6.6	2.4	1.6	1.2
24	1.1	1.5	1.1	1.2	1.2	1.9	11	14	6.4	2.2	1.4	1.3
25	1.1	1.6	1.2	1.2	1.2	2.3	10	12	5.9	2.1	1.4	1.3
26	1.0	1.4	1.1	1.3	1.2	2.6	11	12	5.5	2.3	1.5	1.2
27	1.1	1.4	1.1	1.2	1.3	3.0	11	12	5.2	2.2	1.5	1.2
28	1.1	1.4	1.0	1.2	1.4	3.4	13	14	4.9	2.1	1.5	1.3
29	1.1	1.6	1.1	1.2	-	3.5	11	14	4.6	2.0	1.4	1.3
30	1.1	1.6	1.1	1.1	-	3.8	9.5	14	4.5	2.1	1.4	1.3
31	1.0	-	1.1	1.1	-	3.1	-	14	-	2.1	1.5	-
Total	36.8	41.9	43.2	38.6	34.0	58.5	163.2	314.5	372.7	87.6	51.2	41.0
Mean	1.19	1.40	1.39	1.25	1.21	1.89	5.44	10.1	12.4	2.83	1.65	1.37
Ac-ft	73	83	86	77	67	116	324	624	739	174	102	81

Calendar year 1952: Max 30 Min 1.0 Mean 4.53 Ac-ft 3,290
Water year 1952-53: Max 20 Min 1.0 Mean 3.52 Ac-ft 2,550

Stone Creek above diversions, near Bountiful, Utah

Location.--Lat 40°54'10", long. 111°50'40", in NW¼ sec. 21, T. 2 N., R. 1 E., on right bank 2.2 miles east of Bountiful.

Records available.--April 1950 to September 1953.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 5,500 ft (from U. S. Forest Service topographic map).

Extremes.--Maximum discharge during year, 49 cfs June 5 (gage height, 1.37 ft); minimum not determined, occurred during period of no gage-height record.
1950-53: 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 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 19 to June 2)

0.7	0.5	1.1	12
.8	1.3	1.2	19
.9	3.6	1.3	33
1.0	7.2	1.4	56

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*0.7	1.1	a1.4	1.2	1.8	2.3	4.9	14	a22	5.6		
2	.8	1.1	a1.4	1.1	1.8	2.0	4.2	14	*28	5.2		(*)
3	.8	1.2	*1.6	1.1	*2.0	*1.8	4.2	13	26	4.9		a0.8
4	.8	1.2	1.6	1.1	2.3	1.6	*4.9	12	22	4.6		
5	.9	1.3	1.4	*1.1	2.0	1.6	4.6	12	41	4.2		
6	.9	1.2	1.3	1.0	2.0	1.6	4.6	12	35	4.2	a1.4	
7	.9	1.2	1.4	1.0	1.8	1.8	4.2	13	35	4.2		
8	.9	1.3	1.6	1.0	1.8	2.3	3.9	14	31	3.9		a.6
9	.9	1.3	1.4	1.1	1.8	2.8	3 7	13	*26	3.3		
10	.9	1.3	1.6	1.2	1.4	3.0	4.2	12	24	3.9		
11	1.0	1.3	1.8	1.3	1.4	2.8	3.6	11	28	3.9		
12	1.0	1.3	1.4	1.6	1.4	2.8	3.0	9.6	*27	3.3		
13	1.0	1.4	1.4	1.6	1.4	2.8	3.6	*9.0	24	3.0	(*)	
14	1.0	1.4	1.4	1.1	1.4	2.3	3.6	8.7	21	2.8		
15	*.8	1.6	*1.4	1.6	1.4	2.3	4.0	9.2	18	2.8		(*)
16	.7	1.8	1.4	1.3	1.4	2.3	4.9	9.6	*15	*2.8	a1.2	
17	.9	*1.6	1.4	1.3	*1.4	*2.0	6.0	10	14	2.5		
18	1.0	1.6	1.3	2.8	1.4	2.0	5.6	11	12	2.3		
19	1.0	1.6	1.3	*3.9	1.4	2.0	6.4	12	11	2.3		
20	1.1	1.6	1.3	2.5	1.4	2.0	8.7	18	10	2.3		
21	1.1	1.6	1.3	2.3	1.4	1.8	*11	*30	9.2	2.0		a.5
22	1.2	1.4	1.3	2.3	1.4	1.8	14	19	*9.3	1.8		
23	1.1	1.4	1.2	1.8	1.3	2.0	17	18	9.2			
24	1.0		1.1	1.8	1.3	2.3	16	17	8.3			
25	1.0		1.1	1.8	1.6	3.0	17	17	7.9			
26	1.0	a1.4	1.1	1.8	1.4	3.6	16	16	7.9	a1.6	a1.0	
27	1.0		1.2	1.8	1.6	4.6	14	17	7.5			
28	1.0		1.2	1.6	2.0	4.9	15	22	7.2			
29	1.0		1.2	1.8	-	5.2	15	24	6.0			
30	*1.1		1.2	1.6	-	5.6	14	20	5.6	(*)		
31	1.1	-	1.2	1.6	-	4.9	-	17	-			-
Total	29.6	41.6	41.9	50.1	44.7	83.8	241.8	454.1	548.1	90.2	37.0	17.0
Mean	0.95	1.39	1.35	1.62	1.60	2.70	8.06	14.6	18.3	3.01	1.19	0.57
Ac-ft	59	83	83	99	89	166	480	901	1,090	179	73	34

Calendar year 1952: Max 57 Min 0.6 Mean 5.88 Ac-ft 4,280
Water year 1952-53: Max 41 Min - Mean 4.60 Ac-ft 3,340

Peak discharge (base, 15 cfs).--Apr. 24 (2 a.m.) 18 cfs (1.20 ft); June 5 (9 a.m.) 49 cfs (1.37 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of engineers' notes, weather records and records for nearby streams.

Mill Creek at Mueller Park, near Bountiful, Utah

Location.--Lat 40°51'50", long. 111°50'10", in SE¼ sec. 33, T. 2 N., R. 1 E., on right bank 2 miles southeast of Bountiful.

Records available.--April 1950 to September 1953.

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

Extremes.--Maximum daily discharge during year, 61 cfs June 12; minimum daily, 1.2 cfs Sept. 22.
1950-53: Maximum daily discharge, 140 cfs Apr. 28, 1952; minimum, 1.2 cfs Sept. 3, 1950, Sept. 25, 27, 28, 1951, Sept. 22, 1953.

Remarks.--Records good. Records include flow of pipeline which diverts about a quarter of a mile above station.

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.8	2.0	1.6	1.6	2.0	2.1	7.8	23	34	16	5.3	2.3
2	1.9	2.0	1.6	1.6	2.0	2.0	7.2	21	35	15	5.7	2.2
3	1.8	2.0	1.8	1.6	2.1	2.0	7.2	18	35	14	5.3	2.1
4	1.8	2.0	1.9	1.6	2.2	2.1	7.5	18	37	14	4.9	2.1
5	1.8	1.9	1.9	1.6	2.1	2.2	7.4	20	42	13	4.6	2.0
6	1.9	1.9	1.9	1.7	2.2	2.2	7.1	20	39	12	4.5	1.9
7	1.9	1.9	1.9	1.7	2.1	2.2	6.4	26	46	11	4.4	1.8
8	1.9	2.0	1.9	1.7	2.2	2.6	6.0	28	50	11	4.3	1.7
9	1.9	1.9	1.8	1.7	2.1	3.2	4.9	26	50	10	4.2	1.8
10	1.9	2.0	1.8	1.9	2.0	3.8	5.2	22	53	11	4.2	1.8
11	2.0	1.9	1.9	2.0	2.0	4.1	4.6	21	58	10	4.0	1.8
12	2.0	1.9	1.9	2.3	1.9	4.1	4.3	19	61	9.9	3.7	1.7
13	2.0	1.9	1.9	2.2	1.8	3.9	4.2	18	55	9.2	3.5	1.6
14	2.1	1.9	1.8	2.2	1.8	3.4	4.2	18	50	9.0	3.5	1.6
15	2.1	2.1	1.8	2.4	1.9	3.4	4.2	18	42	8.8	3.5	1.8
16	2.0	2.1	1.8	2.1	1.8	3.3	5.3	19	40	8.8	3.3	1.8
17	2.0	2.0	1.8	2.1	1.8	3.5	7.5	21	39	8.6	3.0	1.8
18	2.1	2.0	1.8	4.7	1.8	3.5	7.8	26	38	8.5	3.4	1.8
19	2.0	2.0	1.8	5.1	1.8	3.3	8.4	30	35	8.3	2.9	1.6
20	2.1	1.8	1.9	3.1	1.6	3.5	12	50	32	7.6	2.6	1.6
21	2.1	1.7	1.9	2.7	1.6	3.2	19	42	30	6.6	2.6	1.3
22	2.0	1.7	1.9	2.4	1.5	3.2	25	36	29	6.4	2.6	1.2
23	2.0	1.6	1.7	2.2	1.6	3.3	31	34	27	6.5	2.4	1.3
24	2.0	1.8	1.5	2.2	1.5	3.7	30	34	25	6.2	2.4	1.3
25	1.8	1.8	1.6	2.2	1.5	4.8	28	31	22	6.3	2.3	1.3
26	1.8	1.6	1.6	2.3	1.5	6.0	28	30	20	6.2	2.3	1.3
27	2.0	1.6	1.6	2.1	1.6	7.1	31	32	19	6.1	2.3	1.2
28	2.0	1.6	1.6	2.1	2.0	8.3	40	39	19	5.8	2.2	1.4
29	2.0	1.5	1.6	2.1	-	8.9	52	42	18	5.7	2.2	1.4
30	1.9	1.6	1.6	2.1	-	10	27	36	17	5.5	2.2	1.3
31	2.0	-	1.6	2.0	-	8.6	-	34	-	5.6	2.2	-
Total	60.6	55.7	54.7	69.3	52.0	127.5	420.2	852	1,097	282.6	108.5	49.8
Mean	1.95	1.86	1.76	2.24	1.86	4.11	14.0	27.5	36.6	9.12	3.44	1.66
Ac-ft	120	110	108	137	103	253	833	1,690	2,180	561	211	99

Calendar year 1952: Max 140 Min 1.5 Mean 14.1 Ac-ft 10,210
Water year 1952-53: Max 61 Min 1.2 Mean 8.84 Ac-ft 6,400

Salt Creek at Nephi, Utah

Location (revised).--Lat 39°42'45", long. 111°48'25", in NE¼ sec. 3, T. 13 S., R. 1 E., on right bank 1 mile east of Nephi. Prior to Nov. 6, 1952, at site 75 ft upstream.

Records available.--December 1950 to September 1953.

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.

Extremes.--Maximum discharge during year, 125 cfs June 13; minimum daily, 9.5 cfs Sept. 26, 27.
1950-53: Maximum discharge, 724 cfs May 2, 1952; minimum, 1.1 cfs Dec. 13, 1951.

Remarks.--Records good except those for periods of doubtful or 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 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	a25	18	14	15	16	24	51	65	48		16
2	27	a24	19	15	15	16	23	47	67	44		15
3	27	a24	19	15	16	15	22	44	69	42		14
4	26	a23	18	16	15	15	23	41	74	40		13
5	26	a23	19	15	16	16	24	40	77	40	a26	13
6	27	a22	18	16	16	16	24	44	71	38		13
7	27	22	18	16	16	15	22	52	71	35		12
8	26	22	18	16	17	16	23	55	73	36		11
9	26	22	17	16	16	16	22	60	81	36		11
10	26	22	17	16	15	17	23	54	88	36	24	12
11	26	21	16	17	15	18	24	50	99	36	24	11
12	26	21	16	17	16	18	22	45	101	34	23	11
13	26	20	17	17	16	17	20	42	113	33	23	11
14	26	20	17	18	16	17	20	40	106	33	22	11
15	26	20	a16	17	16	18	21	43	94	32	22	11
16	26	16	a16	17	16	18	21	44	86	33	20	11
17	26	16	a16	18	14	18	22	50	85	31	20	11
18	26	16	a16	19	16	19	22	55	84	31	20	11
19	26	16	16	20	16	19	21	57	77	29	20	12
20	27	16	17	18	16	19	24	91	76	28	19	12
21	27	17	17	18	17	19	33	79	72		18	11
22	26	18	15	17	17	20	51	72	70		19	11
23	26	18	15	15	16	21	68	67	65		19	9.8
24	25	18	a15	15	16	22	71	65	62		18	9.8
25	25	18	a15	16	15	23	57	63	56		18	9.8
26	25	18	15	15	14	24	66	68	51	a26	17	9.5
27	25	18	14	15	14	24	71	74	49		17	9.5
28	25	18	15	15	15	24	79	78	47		16	11
29	25	18	14	15	-	25	63	72	47		16	9.8
30	25	18	14	15	-	26	57	63	47		16	10
31	25	-	14	15	-	25	-	63	-		16	-
Total	805	590	507	504	438	592	1,083	1,769	2,223	1,001	661	343.2
Mean	26.0	19.7	16.4	16.3	15.6	19.1	35.4	57.1	74.1	32.3	21.3	11.4
Ac-ft	1,600	1,170	1,010	1,000	869	1,170	2,110	3,510	4,410	1,990	1,310	681

Calendar year 1952: Max 580 Min 6.4 Mean 69.2 Ac-ft 50,210
Water year 1952-53: Max 113 Min 9.5 Mean 28.8 Ac-ft 20,830

a Doubtful or no gage-height record; discharge estimated on basis of recorder graph, weather records, and records for nearby streams.

Payson Creek above diversions, near Payson, Utah

Location.--Lat 39°58'10", long. 111°41'30", in SE¼SE¼ sec. 3, T. 10 S., R. 2 E., on left bank a quarter of a mile above diversion dam for Strawberry Water Users Association powerplant, 5 miles southeast of Payson and 12 miles upstream from Utah Lake.

Drainage area.--19.6 sq mi.

Records available.--July 1947 to September 1953.

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

Average discharge.--6 years, 14.9 cfs.

Extremes.--Maximum discharge during year, 281 cfs May 20 (gage height, 2.22 ft); minimum, 2.8 cfs Feb. 8.
1947-53: 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. Flow affected by several small reservoirs.

Rating tables, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 8 to May 20, June 23)

Oct. 1 to May 19		May 20 to June 23		June 24 to Sept. 30	
0.7	3.3	0.2	14	0.1	4.9
.8	5.4	.5	32	.2	7.3
1.0	12	1.0	78	.3	11
1.3	27	1.5	143	.5	20
1.6	51				
1.8	72				

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	7.6	5.4	5.2	4.8	5.2	7.1	18	40	14	13	6.4
2	12	6.8	5.7	5.2	4.8	5.2	7.4	16	37	14	12	6.4
3	11	6.5	5.7	5.2	4.8	5.2	7.9	15	35	16	9.9	6.4
4	10	6.5	5.7	5.0	4.8	5.0	8.2	16	35	18	9.3	6.2
5	9.6	6.2	5.7	5.0	4.6	5.0	7.9	20	*35	17	9.3	6.2
6	10	6.2	5.7	*5.0	4.6	5.0	7.6	28	35	17	9.3	5.9
7	11	6.2	5.7	5.2	4.6	5.0	7.6	38	38	16	8.3	5.7
8	11	6.2	6.0	5.2	4.4	5.2	7.6	41	35	15	8.3	5.7
9	*11	6.0	5.7	5.2	4.6	5.2	7.4	34	32	15	8.3	5.9
10	11	6.2	5.7	5.2	*4.8	5.4	7.4	26	*29	*15	8.3	5.7
11	10	6.0	*5.7	5.2	5.0	5.4	7.1	24	29	14	8.0	5.5
12	10	6.0	6.0	5.2	5.0	5.4	7.1	24	28	13	7.6	5.7
13	9.6	6.0	6.0	5.0	4.8	5.4	7.1	24	*23	13	7.3	7.2
14	9.6	*6.0	6.0	5.0	4.8	5.4	7.4	*27	19	12	7.3	9.6
15	8.2	6.5	6.0	4.8	4.8	5.4	7.4	33	19	12	8.0	9.9
16	7.1	6.2	6.0	5.2	5.2	5.4	7.9	37	17	12	7.6	9.9
17	7.1	6.2	6.0	5.4	5.0	*5.4	8.9	52	*16	12	7.6	9.9
18	6.8	6.2	6.0	6.8	5.0	5.4	8.2	50	18	12	7.0	9.9
19	6.8	6.0	6.0	6.8	5.0	5.4	8.6	64	18	13	6.7	9.9
20	7.1	6.0	6.0	5.4	5.0	5.7	11	131	17	12	6.7	9.6
21	7.1	6.0	5.7	5.2	5.0	5.7	17	86	16	12	6.7	9.6
22	7.1	6.0	6.0	5.2	5.0	5.7	25	76	15	11	6.7	9.3
23	7.1	5.2	5.7	5.2	4.8	5.7	*36	73	16	11	6.7	9.6
24	6.8	5.8	5.7	5.0	4.8	6.0	33	72	18	11	6.4	9.3
25	6.8	6.0	5.4	5.0	4.8	6.5	30	69	18	10	6.4	9.0
26	6.8	5.7	5.2	5.0	4.8	6.8	33	68	17	9.9	*6.7	8.3
27	6.8	5.5	5.2	5.0	4.8	7.6	36	66	17	10	6.7	8.0
28	7.4	5.4	5.2	5.0	5.2	7.6	40	*64	16	12	6.7	9.9
29	7.9	5.4	5.2	5.0	-	7.6	25	53	16	11	6.4	9.6
30	7.6	5.4	5.2	5.0	-	7.4	21	45	15	*12	6.4	7.3
31	7.6	-	5.2	4.8	-	7.1	-	42	-	11	6.4	-
Total	270.9	181.9	176.4	161.6	135.6	179.4	452.8	1,432	719	402.9	242.0	237.5
Mean	8.74	6.06	5.69	5.21	4.84	5.79	15.1	46.2	24.0	13.0	7.81	7.92
Ac-ft	537	361	350	321	269	356	898	2,840	1,430	799	480	471

Calendar year 1952: Max 370 Min 4.0 Mean 25.6 Ac-ft 18,550
Water year 1952-53: Max 131 Min 4.4 Mean 12.6 Ac-ft 9,110

Peak discharge, (base, 80 cfs).--May 20 (3 p.m.) 281 cfs (2.22 ft).
* Discharge measurement made on this day.

Spanish Fork at Thistle, Utah

Location.--Lat 40°00', long. 111°30', in SW¼ 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 2½ miles upstream from Diamond Fork.

Drainage area.--490 sq mi, approximately.

Records available.--January 1908 to September 1925 and October 1936 to September 1953 in reports of Geological Survey. January 1933 to September 1953 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.--37 years (1908-25, 1933-53), 96.0 cfs.

Extremes.--Maximum discharge during year, 371 cfs July 28 (gage height, 4.53 ft); minimum, 32 cfs Sept. 14.
1908-25, 1933-53: 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 period of no gage-height record, which are fair. Small diversions above station for irrigation.

Rating tables, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to May 19		May 20 to Sept. 30	
2.80	51	2.70	33
3.00	73	3.00	60
3.60	170	3.50	134
		4.00	238

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	71	78	59	67	67	71	80	116	203	61	a79	36
2	72	77	62	68	68	67	*77	113	192	59	a94	38
3	68	77	62	67	69	63	76	106	186	54	a66	37
4	68	76	58	62	71	61	78	103	186	52	a44	36
5	69	76	61	63	73	61	78	105	*177	54	*40	36
6	71	74	63	63	74	63	81	106	171	51	39	34
7	67	76	67	*68	74	67	80	116	165	51	42	34
8	67	74	68	68	77	73	80	121	151	46	46	36
9	66	76	66	67	76	81	78	124	142	49	49	36
10	*68	74	60	67	*60	83	80	118	130	*54	49	35
11	72	74	*72	67	60	87	81	113	*129	57	*48	33
12	73	77	71	68	66	83	80	110	122	50	49	33
13	74	*76	68	68	60	82	77	*106	118	54	48	33
14	76	76	68	73	61	73	78	103	115	51	49	33
15	77	80	66	71	65	73	76	102	106	50	52	35
16	74	80	*68	60	62	74	76	105	103	50	51	40
17	71	80	67	74	60	*78	82	116	*94	54	45	41
18	73	78	68	80	66	74	80	124	84	56	45	41
19	72	78	68	89	62	74	78	131	82	51	47	43
20	74	76	66	83	55	81	82	196	85	47	44	42
21	77	76	66	83	55	77	*96	184	82	45	44	40
22	74	76	65	77	59	72	116	169	78	41	47	40
23	77	61	58	73	59	78	135	171	76	40	46	41
24	80	58	56	71	61	80	135	173	74	40	43	*41
25	80	63	56	72	59	83	126	173	*77	38	46	40
26	78	55	57	*72	61	85	131	177	72	38	48	37
27	78	57	60	71	65	86	131	184	68	41	*48	36
28	78	56	58	66	67	86	157	223	69	63	47	40
29	78	58	60	71	-	86	137	*229	67	a57	45	40
30	78	57	61	71	-	87	124	209	65	a67	45	39
31	78	-	65	67	-	81	-	205	-	a57	42	-
Total	2,279	2,150	1,970	2,187	1,812	2,370	2,866	4,431	3,469	1,578	1,527	1,126
Mean	73.5	71.7	63.5	70.5	64.7	76.5	95.5	143	116	50.9	49.3	37.5
Ac-ft	4,520	4,260	3,910	4,340	3,590	4,700	5,680	8,790	6,880	3,130	3,030	2,230

Calendar year 1952: Max 1,690 Min - Mean 231 Ac-ft 167,800
Water year 1952-53: Max 229 Min 33 Mean 76.1 Ac-ft 55,060

Peak discharge (base, 330 cfs).--July 28 (3 p.m.) 371 cfs (gage height, 4.53 ft).
* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for station at Castilla and Diamond Fork near Thistle.

Strawberry tunnel at West Portal, near Thistle, Utah

Location.--Lat 40°09'40", long. 111°14'40", in SW¼ sec. 34, T. 7 S., R. 6 E., on left bank 40 ft downstream from west portal of tunnel and 18 miles northeast of Thistle.

Records available.--October 1945 to September 1953 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, 1932-53: 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 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	175	100							242	468	126	326
2	200	100							298	469	15	330
3	199	99							351	433	5.5	300
4	188	89							379	378	5.5	308
5	168	80							359	330	5.5	262
6	150	80						6	327	350	7.7	218
7	150	80					6		257	441	35	189
8	152	72							240	464	77	188
9	180	50							202	431	97	188
10	180	50							235	446	118	210
11	179	50							237	378	182	216
12	168	50							274	318	228	186
13	151	50						69	244	317	239	201
14	155	45					12	102	229	361	314	190
15	155	32	5	5	5	5	40	161	216	376	313	188
16	155	6					40	221	220	362	294	144
17	136	6					40	179	275	404	319	133
18	10	6					40	182	337	376	326	132
19	40	6					43	191	382	282	340	97
20	40	6					60	150	410	280	368	78
21	43	6					60	61	372	290	394	89
22	81	6					60	20	394	286	338	79
23	90	6					60	19	435	248	317	93
24	90	6					60	6	435	233	298	122
25	80	6					60	6	422	244	324	105
26	65	6					60	16	411	213	372	102
27	100	6					60	93	374	221	374	87
28	100	6					28	118	387	204	382	87
29	100	6			-		6	140	400	224	406	87
30	100	6			-		6	142	438	189	350	91
31	100	-			-		-	167	-	154	349	-
Total	3,880	1,117	155	155	140	155	813	2,115	9,782	10,170	7,319.2	5,026
Mean	125	37.2	5	5	5	5	27.1	68.2	326	328	236	168
Ac-ft	7,700	2,220	307	307	278	307	1,610	4,200	19,400	20,170	14,500	9,970

Calendar year 1952: Max 344, Min -, Mean 73.6, Ac-ft 53,460
Water year 1952-53: Max 469, Min -, Mean 112, Ac-ft 80,970

Note.--Discharge from Nov. 16 to Apr. 13 estimated on basis of observed seepage discharge Nov. 15 and Apr. 14.

Diamond Fork near Thistle, Utah

Location.--Lat 40°03'38", long. 111°27'06", in approximate center of sec. 2, T. 9 S., R. 4 E., on left bank about 1 mile downstream from Little Diamond Creek, 4.2 miles upstream from mouth, and 5.2 miles northwest of Thistle.

Drainage area.--146 sq mi.

Records available.--January 1908 to September 1917, April 1940 to September 1953. Records prior to 1915 not equivalent due to transmountain diversion.

Gage.--Water-stage recorder. Altitude of gage is 5,100 ft (from topographic map). Prior to Apr. 9, 1940, staff gage at site 4 miles downstream at different datum. Apr. 9, 1940, to Oct. 6, 1949, water-stage recorder at site 2.7 miles downstream at different datum.

Average discharge.--16 years (1914-17, 1940-53), 119 cfs.

Extremes.--Maximum discharge during year, 532 cfs July 2; maximum gage height, 5.07 ft June 26; minimum discharge, 12 cfs Feb. 21.
1908-17, 1940-53: Maximum discharge, 1,610 cfs May 4, 1952 (gage height, 5.18 ft); minimum, 1.0 cfs Nov. 9, 1948.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Beginning 1915, flow supplemented by water diverted via tunnel from Strawberry Reservoir in Colorado River basin for irrigation in Jordan River basin (see preceding page).

Rating tables, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 30 to June 23, June 27 to July 31, Aug. 12-21, Aug. 31 to Sept. 30)

3.1	23	4.5	274
3.5	69	5.0	429
4.0	155	5.2	502

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	213	124	50		34	34	55	76	329	498	176	320
2	216	82	56		35	32	*51	73	363	487	101	320
3	213	124	55		35	31	51	69	392	436	49	302
4	209	118	50	a40	35	32	55	66	*440	395	42	296
5	194	102	51		35	31	54	65	415	351	*35	269
6	176	101	50		38	33	54	68	373	354	35	230
7	170	101	50	*42	36	34	73	75	308	422	54	204
8	174	99	50	41	38	36	76	79	291	454	101	190
9	*197	83	50	41	37	37	72	82	264	429	122	192
10	204	82	48	41	*33	40	45	77	277	*447	145	206
11	204	80	(*)	41	32	40	44	75	*277	412	*192	211
12	192	82		41	34	38	41	72	291	344	238	192
13	172	*80		41	33	40	40	*102	282	338	253	192
14	156	77		43	33	36	42	143	274	369	311	190
15	185	72		42	35	36	69	188	264	395	320	188
16	192	57	(*)	38	33	37	77	226	269	382	311	159
17	190	59	a50	44	34	*37	89	213	*302	412	329	149
18	61	57		54	35	36	85	213	366	415	354	147
19	64	57		57	33	37	86	233	398	326	357	122
20	70	55		46	33	40	111	240	454	305	369	101
21	70	55		46	33	40	*118	172	426	311	389	111
22	96	54		44	32	40	116	126	433	308	382	101
23	114	49		43	35	42	124	113	469	282	351	111
24	116	48		43	35	46	124	106	472	256	332	*141
25	124	52		43	32	56	113	104	*469	269	344	129
26	83	44	a40	*43	32	57	126	106	469	253	*385	124
27	126	42		41	34	60	129	172	454	269	385	114
28	126	43		33	34	61	135	209	447	246	369	109
29	124	40		35	-	62	114	*223	458	253	382	108
30	124	48		35	-	61	82	248	487	233	354	109
31	124	-		33	-	56	-	274	-	213	338	-
Total	4,679	2,167	1,470	1,291	958	1,298	2,451	4,288	11,213	10,864	7,905	5,337
Mean	151	72.2	47.4	41.6	34.2	41.9	81.7	138	374	350	255	178
Ac-ft	9,280	4,300	2,920	2,560	1,900	2,570	4,860	8,510	22,240	21,550	15,680	10,590

Calendar year 1952: Max 1,500 Min 5 Mean 197 Ac-ft 143,100
Water year 1952-53: Max 498 Min 31 Mean 148 Ac-ft 107,000

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of 3 discharge measurements, weather records, and records for Spanish Fork at Castilla and near Thistle.

Spanish Fork at Castilla, Utah

Location.--Lat 40°03'00", long. 111°32'50" (revised), in SW¼NE¼ sec. 12, T. 9 S., R. 3 E., on left bank 600 ft upstream from outlet of Cold Springs, 1 mile upstream from diversion dam of Bureau of Reclamation, 1¼ miles northwest of Castilla, and 3 miles downstream from Diamond Fork.

Drainage area.--670 sq mi, approximately.

Records available.--May 1919 to September 1925, October 1936 to September 1953 in reports of Geological Survey. January 1933 to September 1953 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 datum.

Average discharge.--26 years (1919-25, 1933-53), 223 cfs.

Extremes.--Maximum discharge during year, 618 cfs June 4; maximum gage height, 5.55 ft July 28; minimum discharge, 58 cfs Feb. 22.
1919-25, 1933-53: Maximum discharge, 3,610 cfs May 3, 1952 (gage height, 9.83 ft); minimum, 14 cfs Dec. 9, 1951.

Remarks.--Records good. Several small diversions above station for irrigation. Flow is materially increased by water diverted by tunnel from Strawberry Reservoir (capacity, 270,000 acre-ft) in Colorado River basin into Diamond Fork for irrigation of lands in Jordan River basin (see p. 95).

Rating tables, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 28 to June 4, June 23 to July 3)

Oct. 1 to May 12		May 13 to June 24		June 25 to Sept. 30	
2.4	89	3.9	206	3.7	84
2.7	132	4.5	335	4.0	135
3.0	192	5.0	480	4.5	240
3.5	323	5.4	622	5.0	370
				5.6	570

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	310	219	129	129	119	122	148	199	535	559	254	359
2	312	177	139	129	118	116	*141	194	553	552	195	362
3	310	214	137	127	121	110	139	181	571	520	115	345
4	301	214	122	122	122	108	145	172	607	472	*87	345
5	288	199	132	122	124	106	143	174	*596	422	87	310
6	266	194	136	124	129	112	148	181	567	400	84	264
7	256	194	139	*129	124	118	162	197	497	472	95	235
8	264	190	139	129	130	126	166	209	464	502	143	226
9	291	174	136	127	126	136	160	216	419	489	166	228
10	*301	172	124	127	108	145	136	209	419	*510	184	240
11	304	172	*141	126	*106	146	136	199	*425	468	*245	247
12	296	174	139	127	113	136	129	197	450	394	294	224
13	274	*174	137	127	103	136	124	*217	432	385	302	224
14	253	174	136	137	108	119	127	249	404	422	364	224
15	293	174	134	130	116	119	145	284	379	445	373	219
16	296	158	*137	110	108	121	154	335	374	442	359	193
17	291	156	137	134	105	*126	185	340	*396	475	379	180
18	176	154	137	150	118	116	172	350	454	475	394	180
19	146	152	139	166	109	121	166	387	494	376	403	170
20	154	150	137	150	95	129	197	444	532	353	426	160
21	156	150	136	148	94	124	*224	340	507	353	462	155
22	174	150	136	134	97	119	242	297	518	350	419	135
23	202	132	126	132	109	130	274	281	549	323	394	144
24	206	122	101	129	112	136	280	279	560	297	367	*172
25	214	137	108	129	105	146	253	277	*556	307	382	170
26	172	118	118	*129	108	152	277	284	538	289	429	160
27	216	110	112	126	112	160	277	342	513	312	*432	148
28	216	119	119	116	118	162	312	413	516	320	416	152
29	219	113	119	126	-	166	264	*464	524	310	432	152
30	219	124	129	124	-	168	204	464	548	299	400	152
31	219	-	130	118	-	154	-	477	-	269	382	-
Total	7,595	4,860	4,041	4,033	3,157	4,085	5,630	8,852	14,897	12,562	9,464	6,475
Mean	245	162	130	130	113	132	188	286	497	405	305	216
Ac-ft	15,060	9,640	8,020	8,000	6,260	8,100	11,170	17,560	29,550	24,920	18,770	12,840

Calendar year 1952: Max 3,280 Min 34 Mean 454 Ac-ft 329,500
Water year 1952-53: Max 607 Min 84 Mean 235 Ac-ft 169,900

* Discharge measurement made on this day.

Spanish Fork near Lake Shore, Utah

Location (revised).--Lat 40°09'30", long. 111°43'50", in SE¼SE¼ sec. 32, T. 7 S., R. 2 E., on left bank 1 mile upstream from mouth and 2½ miles north of Lake Shore. Prior to Mar. 24, 1953, on right bank.

Drainage area.--700 sq mi, approximately.

Records available.--December 1903 to July 1907, March 1909 to September 1925, January 1938 to September 1953.

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.--32 years (1904-6, 1909-19, 1920-25, 1938-53), 93.4 cfs.

Extremes.--Maximum discharge during year, 233 cfs Apr. 25 (gage height, 3.67 ft); practically no flow at times during irrigation season.
1903-7, 1909-25, 1938-53: Maximum discharge measured, 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 backwater effect or 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.

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 24-29)

0.5	0.2	1.2	22
.6	1.0	1.5	45
.7	2.2	2.0	86
.8	4.2	3.0	173
.9	7.2	3.3	200
1.0	11		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1							167	121		0.7	15	1.1
2		120					*163	125		.5	41	1.4
3							158	116		2.2	4.5	1.4
4							158	106	(*)	1.1	2.4	7.5
5							159	115		.8	3.5	3.6
6							162	103		.7	7.3	1.5
7				(*)			173	99		.7	2.8	2.0
8	(*)						172	100		.6	2.0	2.8
9							171	93		.4	2.2	4.5
10							166	87		*.4	2.8	2.8
11					(*)		150	71	0.5	.8	1.7	1.5
12	30		(*)			140	148	45		1.1	1.6	1.8
13							143	*7.2		7.2	3.6	1.4
14		(*)					*146	4.2		1.4	1.8	.9
15			150	140	115		143	3.0		1.5	1.1	1.0
16							138	2.0		2.6	.8	1.0
17		120					139	1.8	(*)	2.2	.8	4.2
18						(*)	165	1.8		2.6	.6	3.6
19							157	2.0		2.8	1.1	4.0
20							148	36		1.8	.9	1.5
21							142	28		.4	1.8	.6	1.5
22							*160			.4	1.0	4.6	1.8
23							188			.7	1.0	6.9	1.5
24						157	195			.8	1.0	3.1	1.0
25						156	194			.5	2.2	1.0	2.6
26						162	184		1.0	.8	.8	*1.0	2.6
27	100					167	171			.4	5.1	80	2.0
28						172	172			1.2	8.0	16	4.5
29					-	171	*158			.7	13	2.6	4.6
30					-	175	120			.8	*2.6	1.0	*2.4
31		-			-	172	-			-	24	1.1	-
Total	1,420	3,600	4,650	4,340	3,220	4,552	4,810	1,277.0		16.7	92.6	215.4	74.0
Mean	45.8	120	150	140	115	147	160	41.2		0.56	2.99	6.95	2.47
Ac-ft	2,820	7,140	9,220	8,610	6,390	9,030	9,540	2,530		33	184	427	147

Calendar year 1952: Max 2,880 Min 0 Mean 298 Ac-ft 216,500
Water year 1952-53: Max 195 Min - Mean 77.4 Ac-ft 56,070

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by backwater from Utah Lake Oct. 1 to Nov. 4, no gage-height record Nov. 5 to Mar. 23 (backwater effect from Utah Lake part of period), May 22 to June 23; discharge estimated on basis of discharge measurements, weather records, and records for station at Castilla.

Hobble Creek near Springville, Utah

Location.--Lat 40°09'30", long. 111°31'30", in NE¼ sec. 6, T. 8 S., R. 4 E., on right bank 1,000 ft downstream from Springville hydroelectric plant, 1¼ miles downstream from Right Fork, and 4 miles southeast of Springville.

Drainage area.--105 sq mi.

Records available.--March 1904 to December 1916 (1906-7 gage heights only), April 1945 to September 1953.

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.--18 years (1904-5, 1907-16, 1945-53), 57.4 cfs.

Extremes.--Maximum discharge during year, 145 cfs Apr. 23 (gage height, 2.90 ft); minimum daily, 17 cfs Sept. 9, 10, 22, 23.
1904-16, 1945-53: Maximum discharge, 1,250 cfs May 4, 1952 (gage height, 7.83 ft, present datum); minimum, 1.4 cfs Feb. 12, 1946.

Remarks.--Records good. Several diversions above station for irrigation. Flow regulated by hydroelectric plants at times during low stages. Springville city pipeline (capacity, approximately 5 cfs) diverts water from tributary spring above station (diversion began August 1951).

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

1.7	14
1.9	26
2.2	52
2.6	102
2.8	130

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29	27	29	30	28	25	44	92	61	44	38	23
2	26	27	30	31	27	26	41	86	63	41	38	23
3	28	27	29	30	28	25	41	77	62	38	35	23
4	28	26	29	29	28	24	46	73	*63	40	31	23
5	28	26	29	31	28	24	48	73	69	40	29	22
6	26	26	30	*31	31	24	46	78	75	39	29	21
7	26	27	30	30	27	24	44	84	72	38	29	20
8	*30	27	31	30	29	24	41	84	64	36	29	20
9	32	27	30	30	28	24	39	87	64	*30	29	17
10	30	28	30	27	26	24	37	82	*73	34	29	17
11	31	27	30	29	*27	25	37	77	84	38	27	18
12	30	*29	*29	29	29	25	34	70	79	36	26	18
13	31	32	29	28	28	26	34	63	83	33	26	18
14	29	32	29	32	27	24	35	*62	88	28	25	19
15	29	36	30	31	27	24	34	67	78	25	25	19
16	29	34	30	27	27	24	36	68	67	28	25	20
17	29	33	29	29	26	24	46	78	64	27	25	20
18	29	29	29	43	26	24	46	79	*67	24	22	20
19	32	31	30	53	26	*25	46	79	70	24	19	19
20	33	30	31	42	24	28	60	101	67	25	19	19
21	32	31	31	37	24	28	86	88	55	20	20	18
22	32	30	32	35	25	27	108	83	61	19	20	17
23	31	29	31	33	26	29	*119	80	60	21	21	17
24	29	29	28	32	25	29	119	75	56	26	20	20
25	29	29	28	30	24	30	108	69	53	26	19	21
26	26	28	29	29	24	32	110	67	47	24	*22	20
27	29	25	30	29	24	36	115	69	47	24	25	20
28	29	26	30	27	24	43	129	*70	47	25	29	22
29	28	28	30	29	-	45	115	70	46	25	25	21
30	27	29	30	29	-	49	106	69	45	33	22	*20
31	28	-	31	26	-	44	-	63	-	*37	24	-
Total	905	865	923	978	743	885	1,950	2,363	1,930	948	802	595
Mean	29.2	28.8	29.8	31.5	26.5	28.5	65.0	76.2	64.3	30.6	25.9	19.8
Ac-ft	1,790	1,720	1,830	1,940	1,470	1,760	3,870	4,690	3,830	1,880	1,590	1,180

Calendar year 1952: Max 1,090 Min 19 Mean 114 Ac-ft 82,860
Water year 1952-53: Max 129 Min 17 Mean 38.0 Ac-ft 27,550

Peak discharge (base, 120 cfs).--Apr. 23 (9:30 p.m.) 145 cfs (2.90 ft).
* Discharge measurement made on this day.

Provo River near Kamas, Utah

Location.--Lat 40°35'00", long. 111°00'30", in NE¼ sec. 2, T. 3 S., R. 8 E., on right bank 3 miles upstream from Soapstone Creek and 14 miles east of Kamas.

Records available.--August 1949 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 8,110 ft (by barometer).

Extremes.--Maximum discharge during year, 576 cfs June 13 (gage height, 3.13 ft); minimum, 3.9 cfs Jan. 19.
1949-53: Maximum discharge, 765 cfs May 27, 1951 (gage height, 3.49 ft); minimum, that of Jan. 19, 1953.

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 the outlet of Duchesne tunnel.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 4 to Feb. 8, Sept. 19-30)

0.5	3.4	1.7	86
.8	7.5	2.0	152
1.0	13	2.5	317
1.2	23	2.8	450
1.4	41		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.0	5.7		4.4	4.7	5.0	7.5	39	*210	68	67	58
2	6.8	5.6	b5.2	4.2	4.6	5.1	7.5	32	227	94	100	55
3	6.8			4.2	4.7	5.0	8.2	29	251	88	68	54
4	6.6		4.6	4.2	4.7	5.0	7.5	27	255	84	55	51
5	6.6		4.8	*4.1	4.7	5.2	8.0	32	230	79	50	47
6	*6.6		4.8	4.0	4.8	5.1	7.5	52	168	82	47	50
7	6.5	b5.7	4.8	4.1	4.8	5.2	7.3	72	168	*121	45	52
8	6.5		*4.8	4.2	4.8	5.2	b7.2	79	173	119	44	52
9	6.3		5.0	4.4	5.0	5.2	7.2	74	240	119	41	52
10	6.3	(*)	4.8	4.2		5.3		55	*362	126	41	50
11	6.3		5.0	4.2	b4.8							
12	6.3		4.8	4.2		5.3	b7.0	*46	*392	121	41	48
13	6.1	5.6	4.8	4.4	4.8	5.4		41	402	117	39	45
14	6.1	5.6	4.7	4.1	4.7	5.3	6.6	37	440	115	39	37
15	6.0		4.8	4.5	4.8	b5.7	b7.0	41	446	113	39	35
16	6.0		4.8	4.8	4.8		7.3	47	*410	113	38	34
17	6.1		4.8	4.8	4.8		7.7	55	356	106	38	30
18	6.1		4.8	4.6	4.8		7.3	68	326	98	37	19
19	6.0		4.7	4.7	4.8	a6.5	7.7	74	297	100	37	11
20	5.8	b5.6	4.7	5.0	4.8		7.7	74	273	98	38	9.9
21	6.0		4.7	5.1	5.0		9.3	76	230	96	42	14
22	5.8		4.6	5.1	5.0		15	68	173	96	45	10
23	5.8		4.6	5.0	4.8		24	61	152	94	44	6.1
24	6.1		4.6	4.8	4.8	a7.5	38	56	145	94	42	5.2
25	5.8		4.5	4.7	4.8		44	58	119	92	*41	4.7
26	5.8		4.4	4.6	4.8		46	62	100	90	41	4.8
27	5.8		4.4	4.6	5.0	*8.2	58	99	*90	92	40	4.6
28	5.7	b5.4	4.4	4.7	5.1	8.6	64	155	79	*84	38	4.5
29	5.7		4.4	4.7	-	8.9	60	240	70	82	41	4.6
30	5.7		4.4	4.7	-	8.4	56	175	67	82	45	*4.4
31	5.7	-	4.4	4.7	-	8.0	50	138	64	94	61	4.4
							-	175	-	68	60	-
Total	190.7	168.1	146.7	140.0	134.8	197.9	603.8	2,300	6,915	3,025	1,444	857.2
Mean	6.15	5.60	4.73	4.52	4.81	6.38	20.1	74.2	230	97.6	46.6	28.6
Ac-ft	378	333	291	278	267	393	1,200	4,560	13,720	6,000	2,860	1,700

Calendar year 1952: Max 454 Min 4.4 Mean 67.1 Ac-ft 48,690
Water year 1952-53: Max 446 Min 4.0 Mean 44.2 Ac-ft 31,980

Peak discharge (base, 400 cfs).--June 13 (6:30 p.m.) 576 cfs (3.13 ft).
* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of discharge measurement, weather records, and records for station near Hailstone.
b Stage-discharge relation affected by ice.

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 1953 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.--1945-53: Maximum daily discharge, 747 cfs June 20, 1947; no water diverted from Weber River for several months each year.

Remarks.--Records good. Canal diverts water from Weber River in SW¼SW¼ sec. 21, T. 1 S., R. 6 E., for irrigation and water supply in Jordan River basin. Figures given herein represent water diverted from main stem of Weber River, some of which may return to Weber River through seepage.

Revisions.--Revised figures of discharge, in cubic feet per second, for the period June 13-22, 1949, superseding those published in WSP 1150, are given herewith:

1949		1949-Con.	
June 13	6	June 18	4
14	5	19	4
15	4	20	4
16	4	21	4
17	4	22	175

Note.--Stage-discharge relation affected by backwater from check-dam in canal June 13-22, 1949.

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
June 1949	4,838	361	4	161	9,600
Water year 1948-49	16,302.5	537	0	44.7	32,340
Calendar year 1949	16,302.5	537	0	44.7	32,340

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1								0	*416	229		
2								0	464	203		
3								0	457	193		
4								0	531	178		
5								0	556	140		
6								0	478	121		
7								76	556	107		
8								152	551	*85		
9								155	482	63		
10								143	246	13		
11								*131	*594	0		
12								122	697	0		
13								109	838	0		
14								86	673	0		
15								82	644	0		
16								71	*644	0		
17								87	679	0		
18								131	685	0		
19								155	682	0		
20								224	526	0		
21								233	261	0		
22								196	418	0		
23								184	441	0		
24								186	454	0	(*)	
25								162	*478	0		
26								170	423	0		
27								191	361	0		
28								301	336	0		
29								375	318	0		
30								391	268	0		
31								375	-	0		
Total	0	0	0	0	0	0	0	4,488	14,955	1,332	0	0
Mean	0	0	0	0	0	0	0	145	498	43.0	0	0
Ac-ft	0	0	0	0	0	0	0	8,900	29,660	2,640	0	0

Calendar year 1952: Max 152 Min 0 Mean 4.7 Ac-ft 3,440
Water year 1952-53: Max 697 Min 0 Mean 56.9 Ac-ft 41,200

* Discharge measurement made on this day.

Weber-Provo diversion canal near Woodland, Utah

Location.--Lat 40°36'40", long. 111°18'15", in SW¼SE¼ sec. 30, T. 2 S., R. 6 E., on right bank 100 ft upstream from outlet to Provo River and 4½ miles northwest of Woodland.
Records available.--October 1931 to September 1953 (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.--1931-53: Maximum daily discharge, 676 cfs June 20, 1947; 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 SW¼SW¼ sec. 21, T. 1 S., R. 6 E., and from Beaver Creek in NE¼SE¼ sec. 17, T. 2 S., R. 6 E., to Provo River for irrigation along Provo and Jordan Rivers. Figures given herein represent quantity of water reaching Provo River during periods when water was diverted from Weber River and Beaver Creek. Not all of flow diverted 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.

Discharge, in cubic feet per second, 1953

Day	May	June	July	Day	May	June	July	Day	May	June	July	Day	May	June	July
1	-	361	233	9	118	535	76	17	62	619	-	25	157	*447	-
2	-	*387	218	10	106	204	53	18	94	632	-	26	151	414	-
3	-	389	202	11	*99	*581	-	19	130	624	-	27	162	363	-
4	-	449	190	12	95	622	-	20	185	566	-	28	248	341	-
5	-	508	156	13	85	597	-	21	220	225	-	29	320	320	-
6	-	500	132	14	64	624	-	22	190	383	-	30	350	279	-
7	19	538	98	15	59	608	-	23	173	410	-	31	343	-	-
8	103	540	*94	16	51	*614	-	24	175	414	-				
Total													3,759	14,074	1,452
Mean													-	469	-
Runoff in acre-feet													7,460	27,920	2,880

The period: Max 632 Min - Mean - Ac-ft 38,620

* Discharge measurement made on this day.

Provo River near Hailstone, Utah

Location.--Lat 40°36', long. 111°22', in SE¼ sec. 34, T. 2 S., R. 5 E., on right bank 3 miles upstream from Ross Creek and Hailstone.
Records available.--October 1949 to September 1953.
Gage.--Water-stage recorder. Altitude of gage is 6,100 ft (from river-profile map).
Extremes.--Maximum discharge during year, 2,220 cfs June 14 (gage height, 6.03 ft); minimum, 39 cfs Sept. 27-30.
1949-53: Maximum discharge, that of June 14, 1953; minimum, 29 cfs Jan. 31, 1951.
Remarks.--Records good except those for periods of ice effect, which are fair.

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	68	71			67		97	231	1,100	378	147	79
2	68	70			65		92	214	*1,170	378	267	75
3	68	68			66	b70	90	186	1,190	353	166	75
4	65	71			66		98	181	1,290	346	127	72
5	65			(*)	65		95	183	1,360	313	110	69
				b68								
6	64				66	72	97	214	1,230	266	102	68
7	*65				64	74	94	285	1,320	266	97	72
8	66		(*)		67	76	86	370	1,330	*269	95	85
9	66				*65	80	89	384	1,380	243	95	85
10	65			70	63	88	83	340	*1,290	269	90	85
11	66	(*)		67		89	86	*314	*1,780	232	80	80
12	67			68		83	83	296	1,800	213	77	75
13	67			70		83	79	268	1,960	186	75	68
14	67			75		77	86	241	1,970	168	79	65
15	70			67		75	79	244	1,870	172	79	63
			b70									
16	77			67		*80	86	238	*1,770	168	69	59
17	79	b70		68		84	95	257	1,700	168	68	56
18	76			75		74	94	333	*1,630	177	66	51
19	76			80		82	89	394	1,540	164	65	50
20	77			72	b66	83	*98	548	1,420	155	66	47
21	77			72		76	123	535	926	145	69	50
22	76			72		74	169	485	1,020	135	71	46
23	77			67		77	229	458	970	140	65	42
24	76			67		84	254	473	884	135	*57	42
25	74			66		102	244	427	813	133	56	40
26	72			66		104	268	493	*712	135	57	43
27	71			64		107	296	583	624	140	56	42
28	72			67		110	293	1,020	584	*129	51	*39
29	72			68	-	114	257	1,170	542	140	46	39
30	72			67	-	114	262	992	463	148	50	39
31	71	-		65	-	100	-	935	-	165	68	-
Total	2,192	2,100	2,170	2,133	1,842	2,612	4,191	13,292	37,638	6,429	2,666	1,801
Mean	70.7	70.0	70.0	68.8	65.8	84.3	140	429	1,255	207	86.0	60.0
Ac-ft	4,350	4,170	4,300	4,230	3,650	5,180	8,310	26,360	74,650	12,750	5,290	3,570

Calendar year 1952: Max 1,690 Min - Mean 311 Ac-ft 226,100
Water year 1952-53: Max 1,970 Min 39 Mean 217 Ac-ft 156,800

Peak discharge (base, 1,200 cfs).--June 14 (4:30 a.m.) 2,220 cfs (6.03 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Deer Creek Reservoir near Charleston, Utah

Location.--Lat 40°24', long. 111°32', in SW¼SW¼ sec. 5, T. 5 S., R. 4 E., at dam on Provo River, a quarter of a mile upstream from Deer Creek and 4½ miles southwest of Charleston.

Records available.--December 1940 to September 1953.

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

Extremes.--Maximum contents during year, 153,400 acre-ft June 25-28 (elevation, 5,417.32 ft); minimum, 102,100 acre-ft Sept. 30 (elevation, 5,395.17 ft).
1940-53: Maximum contents, 154,000 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 ft (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 trash-rack 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.

Contents at 12 p.m., in acre-feet, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	126,800	123,300	124,900	123,800	126,500	120,300	119,400	116,600	116,800	152,700	133,700	117,000
2	126,400	123,300	124,900	123,800	126,300	120,100	119,200	116,400	117,800	152,300	133,300	116,400
3	126,000	123,300	125,000	123,700	126,100	119,900	119,000	116,200	119,000	151,900	132,900	115,800
4	125,600	123,300	125,100	123,600	125,900	119,700	118,800	115,900	120,300	151,600	132,500	115,300
5	125,200	123,300	125,100	123,600	125,700	119,500	118,600	115,400	121,800	151,200	131,900	114,800
6	124,900	123,300	125,100	123,500	125,600	119,200	118,500	114,900	123,200	150,900	131,400	114,200
7	124,500	123,400	125,100	123,500	125,400	119,100	118,200	114,300	124,700	150,300	130,900	113,700
8	124,100	123,400	125,100	123,400	125,300	119,000	118,000	113,800	126,000	149,600	130,500	113,200
9	123,800	123,500	125,100	123,400	125,100	118,900	117,800	113,400	127,600	149,000	130,000	112,700
10	123,500	123,600	125,100	123,300	124,900	119,100	117,600	113,200	129,200	148,600	129,500	112,200
11	123,400	123,700	125,100	123,300	124,600	119,200	117,400	113,000	131,200	148,200	128,900	111,700
12	123,400	123,800	125,200	123,400	124,300	119,300	117,200	112,800	133,700	147,700	128,400	111,200
13	123,300	123,900	125,200	123,900	124,000	119,300	117,000	112,600	136,600	147,200	127,800	110,600
14	123,200	124,100	125,200	124,300	123,700	119,300	116,900	112,300	139,500	146,600	127,300	110,000
15	123,100	124,300	125,200	124,600	123,500	119,300	116,700	112,000	142,000	145,900	126,700	109,400
16	123,100	124,500	125,200	124,900	123,200	119,300	116,700	111,500	144,300	145,200	126,300	108,900
17	123,100	124,600	125,000	125,300	123,000	119,200	116,600	111,300	146,200	144,400	125,800	108,300
18	123,000	124,700	124,900	125,900	122,800	119,200	116,600	111,100	148,000	143,700	125,300	107,800
19	123,000	124,800	124,900	126,400	122,500	119,200	116,600	111,100	149,800	142,900	124,700	107,300
20	123,000	125,000	124,900	126,900	122,300	119,200	116,600	111,400	151,200	142,200	124,100	106,800
21	123,000	125,100	124,800	127,300	122,000	119,200	116,600	111,700	152,000	141,500	123,500	106,300
22	123,000	125,200	124,700	127,600	121,700	119,200	116,800	111,700	152,800	141,000	123,000	105,700
23	123,000	125,200	124,700	127,900	121,500	119,200	117,000	111,700	153,000	140,500	122,400	105,200
24	123,000	125,200	124,600	128,000	121,200	119,300	117,100	111,700	153,300	139,700	121,800	104,700
25	123,100	125,200	124,500	127,900	121,000	119,400	117,200	111,700	153,400	138,800	121,200	104,200
26	123,100	125,000	124,400	127,800	120,800	119,500	117,200	111,700	153,400	138,000	120,500	103,700
27	123,100	124,900	124,200	127,500	120,600	119,600	117,200	112,000	153,400	137,100	119,900	103,300
28	123,200	124,900	124,000	127,200	120,500	119,700	117,100	112,600	153,400	136,300	119,400	102,800
29	123,200	124,900	124,000	127,000	-	119,700	116,900	113,700	153,300	135,600	118,800	102,500
30	123,200	124,900	123,900	126,800	-	119,700	116,700	114,900	153,000	134,800	118,200	102,100
31	123,300	-	123,900	126,600	-	119,600	-	115,800	-	134,200	117,600	-

Monthly elevation and contents, water year October 1952 to September 1953

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	5,406.84	127,200	-
Oct. 31	5,405.15	123,300	-3,900
Nov. 30	5,405.85	124,900	+1,600
Dec. 31	5,405.42	123,900	-1,000
Calendar year 1952	-	-	+5,100
Jan. 31	5,406.62	126,600	+2,700
Feb. 28	5,403.90	120,500	-6,100
Mar. 31	5,403.48	119,600	-900
Apr. 30	5,402.18	116,700	-2,900
May 31	5,401.77	115,800	-900
June 30	5,417.17	153,000	+37,200
July 31	5,409.82	134,200	-18,800
Aug. 31	5,402.59	117,600	-16,600
Sept. 30	5,395.17	102,100	-15,500
Water year 1952-53	-	-	-25,100

Provo River at Vivian Park, Utah

Location (revised).--Lat 40°21'40", long. 111°33'45", in NW¼NW¼ sec. 25, T. 5 S., R. 3 E., on right bank half a mile downstream from North Fork, 3,500 ft 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 1953.

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.

Average discharge.--41 years (1912-53), 360 cfs. (Since 1932 flow includes that of Weber-Provo diversion canal.)

Extremes.--Maximum discharge during year, 730 cfs June 24, 26; maximum gage height, 3.67 ft June 26; minimum daily discharge, 117 cfs Jan. 16.
1911-53: Maximum discharge observed, 3,180 cfs June 11, 1921; minimum, 23 cfs Mar. 11, 1948.

Remarks.--Records good except those for periods of no gage-height record, which are fair. Station is below diversions for irrigation in Heber Valley and above those in vicinity of Provo. Flow regulated by Deer Creek Reservoir and small lakes at headwaters that serve as reservoirs. Small transmountain diversions from Strawberry River drainage into Daniels Creek. Records include flow of Weber-Provo diversion canal (see p. 101, 102).

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1 to Dec. 15, May 13-15, June 20 to July 1, July 24 to Sept. 30)

1.7	108
2.0	165
2.5	283
3.0	430
3.9	759

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	427	265			355	376	358	386	579	532	500	424
2	424	265			408	376	355	379	579	518	456	414
3	420	265	a260	a300	370	376	355	398	593	525	440	424
4	427	262			364	376	358	424	*604	518	440	427
5	430	262			364	376	358	470	600	511	440	427
6	408	262		*307	364	376	358	466	611	508	433	427
7	411	254	a290		364	376	355	463	615	508	427	427
8	*427	252			364	376	355	463	611	514	437	427
9	424	252		a316	*364	379	355	437	611	*504	437	427
10	398	250	*305		361	302	358	376	586	460	433	427
11	283	*250		318	361	273	358	350	568	466	430	424
12	270	250		184	361	296	361	361	575	480	437	420
13	267	250		122	364	307	358	373	582	511	440	420
14	262	257		128	364	305	358	*373	582	518	437	420
15	262	262		119	370	305	358	376	608	518	433	424
16	262	257		117	370	*305	310	370	641	522	430	424
17	260	254		119	364	305	280	361	645	514	427	414
18	260	254		145	364	302	280	361	*645	497	424	408
19	257	254		141	370	302	280	364	652	490	427	398
20	240	257		126	373	296	257	379	664	494	433	389
21	244	260	a300	124	373	294	244	433	668	500	433	386
22	244	260		121	373	294	*252	508	675	478	437	373
23	244	257		120	373	294	257	514	*714	392	427	376
24	244	257		250	373	294	313	490	730	522	433	376
25	244	257		355	373	296	330	494	726	518	433	373
26	242	257		360	373	296	355	494	714	522	440	361
27	244			370	373	296	395	490	668	525	*443	361
28	242	a260		392	373	278	395	508	586	525	433	*364
29	240			392	-	316	389	532	557	522	427	364
30	254			367	-	330	389	539	550	*518	424	350
31	267	-		355	-	358	-	561	-	511	424	-
Total	9,528	7,722	9,065	7,796	10,323	10,031	10,084	13,493	18,739	15,641	13,515	12,076
Mean	307	257	292	251	369	324	336	435	625	505	436	403
Ac-ft	18,900	15,320	17,980	15,460	20,480	19,900	20,000	26,760	37,170	31,020	26,810	23,950

Calendar year 1952: Max 2,980 Min 240 Mean 577 Ac-ft 418,800
Water year 1952-53: Max 730 Min 117 Mean 378 Ac-ft 273,800

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of discharge measurements, recorded range in stage, weather records, and records for station at Provo.

South Fork Provo River at Vivian Park, Utah

Location (revised).--Lat 40°21'10", long. 111°34'10", in NW¼SE¼ sec. 26, T. 5 S., R. 3 E., on right bank a quarter of a mile southeast of Vivian Park and half a mile upstream from mouth.

Drainage area.--30 sq mi, approximately.

Records available.--November 1911 to September 1953.

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.

Average discharge.--41 years (1912-53), 30.0 cfs.

Extremes.--Maximum discharge during year, 49 cfs Oct. 1 (gage height, 1.18 ft); minimum, 8.3 cfs Aug. 12.
1911-53: Maximum discharge observed, 123 cfs May 27, 1922; minimum, 7.4 cfs June 5, 1951.

Remarks.--Records good. Station below all diversions.

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 11-14, Aug. 30 to Sept. 30)

0.4	10
.6	18
1.0	40
1.2	52

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	43	38	32	29	27	26	28	26	22	26	24
2	48	42	39	32	28	26	26	27	26	22	26	24
3	47	42	39	32	28	26	26	26	26	21	24	23
4	45	41	38	32	28	26	26	26	*26	21	23	24
5	45	41	38	32	28	26	26	24	26	22	22	24
6	45	41	38	*32	29	26	27	24	28	22	24	24
7	46	41	38	32	28	26	26	24	28	22	24	23
8	*46	41	38	32	28	26	26	25	28	20	24	23
9	47	41	38	31	*28	26	26	25	28	*13	26	19
10	46	41	*38	31	28	26	27	25	28	12	26	14
11	46	41	37	31	28	26	26	24	30	16	25	18
12	45	*41	36	32	28	26	26	*24	34	18	16	20
13	45	41	36	32	28	26	26	24	36	18	16	20
14	45	41	36	35	27	26	26	24	38	18	17	20
15	45	42	35	31	27	26	26	24	36	22	23	20
16	45	41	35	31	27	*26	26	20	24	22	24	23
17	44	40	35	31	27	26	28	20	18	22	23	24
18	44	39	35	36	27	26	27	22	*20	22	23	22
19	45	39	35	36	27	26	26	26	24	20	22	22
20	45	39	35	32	26	26	*26	28	24	18	20	22
21	45	39	34	31	26	26	26	28	26	22	18	22
22	45	40	34	30	26	26	26	27	24	22	17	22
23	45	39	33	30	26	26	26	26	21	24	18	22
24	45	40	33	30	26	26	25	26	25	22	20	22
25	45	41	33	29	26	26	25	26	26	17	*26	23
26	45	40	32	29	26	26	26	26	22	16	28	22
27	44	40	32	29	26	26	26	26	20	16	26	20
28	44	39	32	28	26	26	29	26	23	18	26	22
29	44	39	32	28	-	27	28	27	22	*24	26	21
30	44	39	32	28	-	27	28	28	23	26	24	*20
31	44	-	32	28	-	26	-	26	-	26	24	-
Total	1,403	1,214	1,096	967	762	809	790	782	786	626	707	649
Mean	45.3	40.5	35.4	31.2	27.2	26.1	26.3	25.2	26.2	20.2	22.8	21.6
Ac-ft	2,780	2,410	2,170	1,920	1,510	1,600	1,570	1,550	1,560	1,240	1,400	1,290

Calendar year 1952: Max 91 Min 20 Mean 39.8 Ac-ft 28,860
Water year 1952-53: Max 49 Min 12 Mean 29.0 Ac-ft 21,000

* Discharge measurement made on this day.

Provo River at Provo, Utah

Location (revised).--Lat 40°14'15", long. 111°41'55", in NW¼SE¼ sec. 3, T. 7 S., R. 2 E., on left bank 1,300 ft downstream from bridge on State Highway 114, 2 miles west of Provo, and 2 miles upstream from mouth.

Records available.--May 1903 to June 1905 (gage heights only), May 1933 to September 1934, January 1937 to September 1953. Published as Provo River at San Pedro, Los Angeles and Salt Lake Railway 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 1,100 ft upstream at different datum.

Average discharge.--17 years (1933-34, 1937-53), 185 cfs.

Extremes.--Maximum discharge during year, 650 cfs Feb. 2 (gage height, 2.86 ft); minimum, 2.5 cfs July 23, 24.
1903-5, 1933-34, 1937-53: Maximum discharge, 2,520 cfs May 6, 1952 (gage height, 6.37 ft); practically no flow during several periods.

Remarks.--Records good. Station is below all diversions. At times entire flow is diverted above station for irrigation. Flow regulated by Deer Creek Reservoir and small lakes at headwaters that serve as reservoirs. Small transmountain diversions from Strawberry River drainage into Daniels Creek. Flow affected by Weber-Provo diversion canal (see p. 101). Factory race diverts water above station into Provo Bay, an arm of Utah Lake, and Provo River water commissioner furnished following records of this diverted flow for water year 1952-53:

Month	Diversion in acre-feet	Month	Diversion in acre-feet
October	676	May	791
November	654	June	738
December	676	July	564
January	676	August	502
February	610	September	468
March	676		
April	606	Water year 1952-53	7,637

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	250	277	323	500	320	333	171	13	8.0	3.4	5.2
2	70	256	284	323	522	326	340	164	9.0	6.0	3.7	4.4
3	69	274	284	323	532	333	340	164	8.0	6.0	4.0	4.4
4	71	259	293	323	514	337	326	162	11	5.6	*4.4	5.6
5	82	256	296	323	514	340	333	130	*12	6.4	6.8	5.6
6	75	253	303	326	518	344	340	100	12	5.6	6.0	6.0
7	77	250	320	340	514	340	333	84	23	4.8	5.2	6.4
8	100	244	333	*340	514	340	330	61	22	3.7	5.2	5.2
9	96	247	340	347	514	340	330	32	23	3.7	5.2	4.8
10	*101	247	*340	350	482	303	333	20	25	*3.1	5.6	4.0
11	101	247	344	350	*411	262	333	8.5	17	3.1	5.2	4.8
12	95	*250	337	236	403	284	330	5.6	19	3.1	5.6	5.2
13	82	247	330	159	403	300	330	4.4	23	3.1	5.6	5.6
14	80	253	330	188	403	293	326	*4.0	30	3.1	6.0	5.2
15	93	265	333	168	395	300	313	3.4	37	3.1	6.4	4.4
16	104	262	330	162	395	296	280	3.7	53	3.1	6.0	4.4
17	103	268	333	162	387	296	259	3.7	53	3.1	6.0	4.4
18	100	277	333	208	383	300	262	3.4	*55	3.1	6.0	4.4
19	96	280	333	244	395	*300	253	3.4	57	3.1	5.6	4.4
20	100	284	333	198	383	303	213	4.8	63	3.1	5.6	4.0
21	110	287	337	208	375	300	178	8.0	58	3.1	6.0	4.0
22	132	280	337	213	379	296	*164	9.0	56	3.1	7.2	4.0
23	132	280	337	213	350	296	140	12	57	2.5	6.0	4.8
24	134	287	333	324	330	293	136	9.5	69	2.5	4.4	7.2
25	132	293	330	455	330	296	122	8.0	62	3.1	4.8	11
26	130	287	330	478	323	293	81	6.4	63	3.4	*4.4	8.5
27	164	287	330	522	323	287	86	5.6	64	2.8	5.2	7.6
28	183	284	326	536	320	267	92	6.4	40	3.1	5.6	10
29	211	277	323	545	-	303	98	5.6	16	2.8	4.4	14
30	219	280	323	532	-	306	137	7.2	7.6	2.8	4.4	*13
31	233	-	320	500	-	337	-	11	-	3.4	4.0	-
Total	3,545	8,011	10,032	9,919	11,812	9,531	7,471	1,221.6	1,057.6	116.5	163.9	182.5
Mean	114	267	324	320	422	307	249	39.4	35.3	3.76	5.29	6.08
Ac-ft	7,030	15,890	19,900	19,670	23,430	18,900	14,820	2,420	2,100	231	325	362

Calendar year 1952: Max 2,420 Min 7.6 Mean 385 Ac-ft 279,600
Water year 1952-53: Max 545 Min 2.5 Mean 173 Ac-ft 125,100

* Discharge measurement made on this day.

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 1953 in reports of Geological Survey. January 1927 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.--26 years, 54.0 cfs.

Extremes.--Maximum discharge not determined, occurred July 30 (gage height, 9.2 ft, from floodmark); minimum daily, 13 cfs Feb. 10.
1927-53: Maximum discharge not determined, occurred July 30, 1953 (gage height, 9.2 ft, from floodmark); minimum, 4 cfs (estimated) Jan. 25, 1952.

Remarks.--Records good except those for periods of no gage-height record, which are poor. 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. Seventeen discharge measurements were made by Geological Survey in addition to those made by power company.

Rating tables, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Dec. 31		Jan. 1 to Sept. 30			
4.3	13	4.3	13	5.5	139
4.6	28	4.6	31	6.0	266
		5.0	65	6.3	358

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26	22	17	16	16	16	23	63	*126	165	62	31
2	26	21	18	16	16	16	22	56	131	160	59	30
3	26	21	18	16	16	15	22	52	*129	153	57	30
4	26	20	18	16	16	14	23	51	138	148	55	30
5	26	20	17	16	16	14	25	57	146	142	52	30
6	26	20	17	16	16	14	*25	72	*153	137	49	30
7	26	20	18	*16	16	14	24	89	173	132	46	30
8	*26	20	18	*16	16	16	23	90	198	128	43	29
9	26	18	17	16	16	16	22	89	222	123	40	29
10	25	18	18	16	13	17	20	78	*248	119	38	28
11	*25	18	18	16	14	17	19	72	*293	*116	38	28
12	25	19	*17	17	*14	17	18	67	320	110	38	27
13	25	19	17	18	14	17	17	65	350	105	38	27
14	25	*20	17	19	16	16	18	69	340	101	37	26
15	25	20	17	17	16	16	18	*77	324	98	37	26
16	25	20	17	16	16	15	18	78	310	94	37	25
17	24	20	17	18	15	16	20	93	295	90	37	25
18	24	20	18	21	16	15	20	109	280	98	34	25
19	24	20	18	20	15	16	21	118	*268	84	*31	25
20	24	20	18	16	14	*16	27	133	256	81	31	25
21	24	*20	17	16	14	15	40	117	248	78	31	25
22	24	19	17	16	14	14	59	106	240	76	32	24
23	24	14	16	16	14	15	*82	104	230	73	32	24
24	24	14	16	16	14	16	86	98	221	70	32	24
25	23	16	16	16	14	17	78	93	214	68	32	24
26	22	16	16	16	14	18	89	91	207	65	32	24
27	22	16	16	15	*14	20	97	109	199	63	*31	24
28	22	16	16	14	15	23	98	141	191	61	31	24
29	22	16	16	16	-	25	78	146	184	59	31	23
30	22	17	16	16	-	27	73	126	178	150	31	22
31	22	-	16	15	-	25	-	120	-	*65	31	-
Total	756	560	528	510	420	528	1,205	2,829	6,812	3,212	1,205	794
Mean	24.4	18.7	17.0	16.5	15.0	17.0	40.2	91.3	227	104	38.9	26.5
Ac-ft	1,500	1,110	1,050	1,010	833	1,050	2,390	5,610	13,510	6,370	2,390	1,570

Calendar year 1952: Max 474 Min 13 Mean 86.2 Ac-ft 62,540
Water year 1952-53: Max 350 Min 13 Mean 53.0 Ac-ft 38,390

* Discharge measurement made on this day.
Note.--No gage-height record June 3 to Sept. 30; discharge estimated on basis of discharge measurements, occasional staff-gage readings and powerplant records.

Dry Creek near Alpine, Utah

Location.--Lat 40°28'35", long. 111°45'25", in NW¼ sec. 18, T. 4 S., R. 2 E., on right bank 2 miles northeast of Alpine and 3½ miles upstream from Fort Creek.

Records available.--July 1947 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 5,320 ft (from topographic map). Prior to Aug. 3, 1951, at site 500 ft downstream at different datum (destroyed by flood).

Average discharge.--6 years, 22.7 cfs.

Extremes.--Maximum discharge during year, 304 cfs June 13 (gage height, 2.27 ft); minimum, 1.6 cfs Sept. 3.
1947-53: Maximum discharge not determined, occurred Aug. 3, 1951; minimum, that of Sept. 3, 1953.

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

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 7-16)

0.4	2.0	1.3	50
.6	7.0	1.6	90
.8	14	2.0	158
1.0	24	2.4	240

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.6	5.1	3.4	3.4	4.3	4.8	9.9	23	58	63	19	5.1
2	4.3	4.8	3.8	3.4	4.3	4.1	9.6	20	*62	51	23	5.1
3	4.5	4.8	3.6	3.4	4.6	b4.1	11	18	66	46	11	4.6
4	4.5	4.8	3.6	3.4	4.8	4.1	12	19	78	42	9.6	5.4
5	4.8	4.6	3.8	3.4	4.6	4.1	12	23	71	41	9.2	4.6
6	4.8	4.6	4.1	3.2	4.8	4.1	11	34	*57	38	*8.3	4.3
7	5.1	4.6	4.1	3.4	4.6	4.8	10	38	90	37	8.0	4.1
8	5.4	4.8	4.1	*3.2	4.6	6.5	9.6	37	118	35	8.3	3.8
9	5.2	4.8	4.1	3.2	4.3	7.0	9.2	32	*153	35	8.0	4.1
10	5.1	4.6	4.1	3.4		7.6	8.6	26	*179	44	8.0	4.1
11	*4.8	4.3	4.3	3.6		8.0	8.6	24	193	*36	7.6	3.6
12	5.1	4.3	*4.3	3.8	*b4	7.3	8.0	23	201	32	7.0	3.4
13	5.1	4.3	4.1	3.8		6.7	8.3	23	225	29	6.7	3.4
14	5.1	4.3	4.3	4.6		6.5	8.6	26	195	28	7.0	3.4
15	5.1	5.1	4.3	4.1		5.9	8.9	*28	168	24	7.0	3.6
16	5.1	5.1	4.3	b3.8	3.8	5.9	11	30	140	21	6.7	3.6
17	5.1	*5.4	4.3	4.1	3.8	6.5	12	37	125	19	6.5	4.1
18	5.1	5.1	4.6	5.6	3.8	6.2	11	43	104	17	6.2	3.8
19	5.1	5.4	4.6	5.4		6.2	11	42	*104	16	5.9	3.6
20	5.1	5.4	4.6	4.6		*6.2	15	41	100	15	5.4	3.6
21	5.4	5.4	4.6	4.6	b3.2	5.9	21	40	96	14	5.4	3.6
22	5.4	4.8	4.3	4.1		5.9	33	40	95	13	5.4	3.4
23	5.1	b4.2		4.1	3.2	5.9	*41	41	88	12	5.4	3.4
24	5.1	b3.8		4.1	3.2	6.5	37	39	74	11	5.1	3.4
25	5.1		b3.8	4.1	3.6	8.6	39	39	63	11	4.8	3.4
26	5.1	b3.6		4.1	3.4	10	42	42	61	11	5.4	3.4
27	5.1		3.8	3.8	3.8	12	42	51	57	10	*5.1	3.6
28	5.1		3.8	b3.8	4.3	13	43	*63	58	9.2	5.1	4.8
29	4.8		3.6	4.3	-	13	31	54	57	9.2	4.6	4.3
30	5.1	3.6	3.8	4.6	-	12	26	47	58	13	4.6	3.8
31	5.1	-	3.8	4.1	-	11	-	58	-	12	4.3	-
Total	155.4	136.0	125.3	122.5	110.6	220.4	560.3	1,101	3,194	794.4	233.6	118.4
Mean	5.01	4.53	4.04	3.95	3.95	7.11	18.7	35.5	106	25.6	7.54	3.95
Ac-ft	308	270	249	243	219	437	1,110	2,180	6,340	1,580	463	235

Calendar year 1952: Max 219 Min - Mean 28.8 Ac-ft 20,920
Water year 1952-53: Max 225 Min - Mean 18.8 Ac-ft 13,630

Peak discharge (base, 100 cfs).--June 13 (6 p.m.) 304 cfs (2.27 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Fort Creek at Alpine, Utah

Location.--Lat 40°27'55" (revised), long. 111°46'45", in SE¼ sec. 13 (revised), T. 4 S., R. 1 E., on right bank three-quarters of a mile north of Alpine and 1½ miles above mouth.

Drainage area.--6.1 sq mi, approximately.

Records available.--July 1947 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 5,050 ft (from topographic map).

Average discharge.--6 years, 9.0 cfs.

Extremes.--Maximum discharge during year, 100 cfs June 12 (gage height, 2.92 ft); minimum daily, 0.2 cfs July 21, Aug. 24, Sept. 26.
1947-53: Maximum discharge, 246 cfs Aug. 4, 1951 (gage height, 4.60 ft), from rating curve extended above 78 cfs; no flow at times during July, August, and September 1951.

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

Rating tables, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to June 1			June 2 to Sept. 30		
1.1	1.8	0.7	0	1.2	4.4
1.2	3.2	.8	.3	1.4	8.6
1.4	7.4	.9	.9	1.7	19.2
1.7	17	1.0	1.7	2.0	35
2.0	31	1.1	2.8	2.6	73
2.1	37				

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.5	4.9			4.9	6.0	8.2	20	29	9.2	5.5	2.2
2	4.5	4.9			4.9	5.3	8.0	19	*27	8.1	13	2.4
3	4.7	4.2			5.3	5.3	9.6	12	32	4.8	3.3	2.2
4	4.0	4.5		4	5.8	4.5	10	8.5	38	3.3	.5	2.2
5	2.3	4.3			5.3	4.5	9.6	14	33	5.2	3.0	2.4
6	4.7	4.3			5.1	4.7	8.8	24	*21	5.4	*3.0	.4
7	4.7	4.3			4.9	5.8	7.7	22	31	5.0	3.1	1.9
8	5.1	4.2		*5.6	4.7	7.4	7.2	21	40	4.4	3.1	2.4
9	5.1	4.2		5.6	4.5	8.0	6.9	18	*52	4.2	3.0	2.4
10	5.1	4.2		5.3	4.5	8.5	6.5	15	*54	6.2	2.0	2.2
11	*4.4	4.2		5.6	4.5	8.2	6.2	14	57	*5.0	.9	2.2
12	4.4	4.0	(*)	5.6	*4.2	7.4	6.0	13	68	1.0	2.4	1.7
13	4.5	3.8		5.8	4.2	6.5	6.0	13	65	.3	2.4	.7
14	4.7	3.8		6.0	4.2	5.8	6.2	15	49	3.0	2.2	2.4
15	6.0	4.2	4	5.4	4.2	5.6	6.2	*15	37	3.4	2.5	2.6
16	6.0	3.8		5.4	4.0	5.8	6.9	16	33	3.3	2.5	2.7
17	6.0	*3.8		5.3	4.2	6.0	8.0	23	34	3.0	.9	3.0
18	5.1	3.6		7.2	4.2	5.8	7.7	26	30	2.8	1.3	2.8
19	5.6	3.6		6.9		5.6	8.5	24	*28	2.6	2.4	1.0
20	6.5	4.0		6.2	b3.5	*5.6	12	19	25	2.6	2.2	1.9
21	6.7	4.0		6.0		5.6	16	15	22	.2	2.4	3.0
22	6.2	3.8		5.8		5.3	24	17	21	.7	2.4	2.8
23	6.0			5.3	3.6	6.0	*30	20	21	2.2	2.2	2.8
24	4.7			5.1	3.8	6.9	26	19	15	2.2	.2	3.0
25	2.8	b4		5.3	4.0	8.8	29	18	8.4	2.4	1.6	2.6
26	2.5			5.3	4.3	11	32	19	10	2.6	2.1	.2
27	2.5			4.9	5.1	15	28	27	12	2.6	*2.2	2.7
28	2.6			4.7	6.2	13	34	*30	11	1.0	2.2	3.1
29	3.4	4		4.7	-	12	27	17	9.5	1.5	2.1	2.8
30	4.7			5.1	-	11	24	16	9.5	2.7	1.3	2.7
31	4.9	-		4.9	-	9.1	-	29	-	2.6	1.3	-
Total	144.9	122.6	124	161.0	124.6	226.0	426.2	578.5	922.4	103.5	79.2	67.4
Mean	4.67	4.09	4.00	5.19	4.45	7.29	14.2	18.7	30.7	3.34	2.55	2.25
Ac-ft	287	243	246	319	247	448	845	1,150	1,830	205	157	134

Calendar year 1952: Max 105 Min 0.7 Mean 12.8 Ac-ft 9,270
Water year 1952-53: Max 68 Min 0.2 Mean 8.44 Ac-ft 6,110

Peak discharge (base, 75 cfs).--June 12 (6:30 p.m.) 100 cfs (2.92 ft); Aug. 2 (1 a.m.) 96 cfs (2.91 ft).
* Discharge measurement made on this day.
b Stage-dischsrge relation affected by ice.
Note.--No gage-height record Nov. 28 to Jan. 7 (stage-discharge relation affected by ice part of period); discharge estimated on basis of discharge measurements, weather records, and records for nearby streams.

Transmountain diversions from Colorado River basin to Jordan River basin

The following tunnel and ditches in Utah, each equipped with a water-stage recorder, divert water from the Colorado River basin to the Jordan River basin.

Strawberry tunnel whose west portal is in SW¼ sec. 34, T. 7 S., R. 6 E., diverts water from Strawberry Reservoir on Strawberry River to Diamond Fork in the Jordan River basin. Records furnished by Spanish Fork Water Users Association and include tunnel seepage (see p. 95) for complete record of daily discharge).

Hobble Creek ditch (upper and lower ditches combined Oct. 1, 1952) diverts water from tributary of Strawberry River to Daniels Creek. Gage is located in NW¼ sec. 15, T. 6 S., R. 6 E.

Strawberry River and Willow Creek ditches divert water from the Strawberry River basin to Daniels Creek (a tributary of Provo River). The flow of each is gaged in sec. 4, T. 2 S., R. 12 W., Uinta special meridian.

Transmountain diversions, in acre-feet, water year October 1952 to September 1953

Month	Strawberry tunnel	Hobble Creek ditch	Strawberry River and Willow Creek ditches
October	7,700	0	0
November	2,220	0	0
December	307	0	0
January	307	0	0
February	278	0	0
March	307	0	0
April	1,610	0	0
May	4,200	498	267
June	19,400	704	698
July	20,170	38	658
August	14,500	14	256
September	9,970	6	114
Water year 1952-53	80,970	1,260	1,990

Jordan River at narrows, near Lehi, Utah

Location.--Lat 40°26'40", long. 111°55'15" (revised), in SE¼NW¼ sec. 26, T. 4 S., R. 1 W., at Narrows, 5½ miles northwest of Lehi and 7½ miles downstream from Utah Lake.

Drainage area.--2,960 sq mi, including 280 sq mi in closed basin in Cedar Valley.

Records available.--May to December 1904, July 1913 to September 1953.

Gage.--Water-stage recorder. Altitude of gages is 4,470 ft (by barometer). Prior to May 16, 1920, staff gage and May 16, 1920, to Sept. 30, 1934, water-stage recorder, at outlet of Utah Lake, 7½ miles upstream at different datum.

Average discharge.--40 years (1913-53), 373 cfs.

Extremes.--1913-53: Maximum daily discharge, 1,410 cfs June 10, 1952; no flow at times when gates are closed.

Remarks.--Records good. They represent combined flow of Jordan River, Utah & 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 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	594	522	621	672	774	838	777	744	718	729	684	823
2	595	556	640	678	780	764	714	716	756	761	480	808
3	592	582	631	678	780	749	772	715	756	761	369	781
4	583	589	636	684	768	795	716	731	761	761	419	771
5	578	590	645	684	768	783	772	700	759	759	474	723
6	576	575	636	690	774	770	746	684	767	786	488	714
7	578	572	645	702	786	768	782	677	717	811	610	713
8	577	535	631	702	714	774	801	579	629	841	682	699
9	578	551	636	696	683	794	782	601	638	860	692	730
10	574	572	636	690	764	807	751	638	645	841	740	733
11	600	571	636	696	765	782	721	640	649	813	795	734
12	611	576	640	701	694	801	772	642	678	814	795	738
13	610	569	645	694	765	765	772	653	688	811	792	736
14	566	600	645	709	776	783	736	646	705	811	824	738
15	606	612	645	674	709	795	757	638	692	807	844	739
16	608	565	645	660	765	801	766	637	703	807	844	739
17	602	584	645	592	789	714	746	674	702	807	845	732
18	602	597	650	756	715	786	762	763	696	798	843	700
19	590	601	660	768	593	816	767	765	689	801	840	682
20	593	606	666	774	723	798	767	712	694	798	840	648
21	598	569	606	708	757	786	761	600	725	797	840	655
22	598	569	660	762	780	798	746	652	729	802	837	684
23	602	574	655	768	758	792	716	688	724	808	834	699
24	593	598	672	768	739	798	721	665	708	793	833	732
25	590	577	672	774	770	792	761	636	724	796	832	708
26	590	595	678	744	776	771	770	632	715	800	837	689
27	590	606	690	738	776	784	766	644	721	782	836	689
28	590	602	678	768	782	803	653	720	720	752	837	609
29	590	611	672	774	-	779	705	718	720	743	835	505
30	590	606	678	750	-	788	688	713	722	706	834	530
31	585	-	666	774	-	788	-	714	-	698	823	-
Total	18,329	17,434	20,161	22,228	21,023	24,362	22,466	20,937	21,250	24,454	23,078	21,181
Mean	591	581	650	717	751	786	749	675	708	789	744	706
Ac-ft	36,360	34,580	39,990	44,090	41,700	48,320	44,560	41,530	42,150	48,500	45,770	42,010

Calendar year 1952: Max 1,410 Min 154 Mean 695 Ac-ft 504,600
Water year 1952-53: Max 860 Min 369 Mean 704 Ac-ft 509,600

Surplus Canal at Salt Lake City, Utah

Location.--Lat 40°44', long. 111°55', 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. Prior to Oct. 22, 1952, at site 50 ft upstream.

Records available.--December 1942 to September 1953.

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.--10 years (1943-53), 216 cfs.

Extremes.--Maximum discharge during year, 1,100 cfs June 14 (gage height, 6.97 ft); minimum daily, 155 cfs Aug. 27.
1942-53: Maximum discharge, 1,700 cfs June 7, 1952; maximum gage height, 8.84 ft May 7, 1952; minimum daily discharge, 31 cfs July 4, 1943.

Remarks.--Records good. Flow regulated by headgates at diversion dam 350 ft above station. Canal was built to bypass floodwater of Jordan River around Salt Lake City residential area. (See following page for records of combined flow of Jordan River and Surplus Canal.) Several diversions below station for irrigation.

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*198	464	616	774	900	807	757	787	400	197	238	162
2	213	444	*629	776	897	826	732	780	410	189	483	*170
3	227	434	652	780	897	792	*713	737	410	181	408	168
4	221	449	680	783	904	780	755	708	428	173	317	173
5	213	447	693	785	900	804	721	710	477	179	277	171
6	219	454	704	783	902	799	780	669	472	170	242	170
7	227	447	702	787	910	785	783	629	579	165	221	181
8	221	452	719	797	912	783	778	604	618	163	234	189
9	219	427	713	790	904	780	795	547	*639	165	261	195
10	221	427	704	785	847	785	790	504	620	190	254	195
11	230	437	750	790	850	790	776	513	654	245	235	202
12	253	425	780	792	845	774	755	477	750	251	227	198
13	254	461	767	785	795	809	785	*423	955	213	*221	186
14	259	*481	762	804	814	792	774	392	1,010	195	214	187
15	280	534	753	*823	833	797	*741	347	877	*189	197	*190
16	*282	553	*753	785	*783	*802	750	318	739	194	181	203
17	293	526	748	762	807	797	778	310	726	189	176	211
18	330	542	746	654	814	741	845	318	697	173	170	211
19	336	557	741	900	776	835	776	339	631	170	165	211
20	352	560	741	862	693	870	760	514	592	171	158	214
21	374	551	748	860	753	855	787	524	545	171	160	213
22	392	528	724	835	774	850	799	452	530	168	162	230
23	400	524	741	877	804	857	802	425	495	174	163	232
24	398	526	732	932	771	838	774	442	459	174	165	246
25	402	547	732	932	748	855	755	444	418	173	157	259
26	403	540	728	927	*787	845	750	418	355	170	158	261
27	406	588	719	912	795	792	750	395	309	204	155	256
28	423	612	757	900	802	762	862	397	294	227	158	272
29	452	606	753	917	-	771	804	435	277	234	158	280
30	*459	623	771	*910	-	783	787	464	*242	222	162	254
31	463	-	774	890	-	769	-	437	-	*205	165	-
Total	9,620	15,166	22,532	25,689	23,217	24,925	23,214	15,459	16,608	5,883	6,642	6,290
Mean	310	506	727	829	829	804	774	499	554	190	214	210
Ac-ft	19,080	30,080	44,690	50,950	46,050	49,440	46,040	30,660	32,940	11,670	13,170	12,480

Calendar year 1952: Max 1,640 Min 189 Mean 580 Ac-ft 421,200
Water year 1952-53: Max 1,010 Min 155 Mean 535 Ac-ft 387,200

* Discharge measurement made on this day.

Jordan River at Salt Lake City, Utah

Location.--Lat 40°44', long. 111°55', in SW¼SW¼ sec. 14, T. 1 S., R. 1 W., a quarter of a mile downstream from highway bridge on Twenty-first South Street, Salt Lake City, and 2 miles downstream from Mill Creek.

Records available.--December 1942 to September 1953.

Gage.--Water-stage recorder. Datum of gage is 4,220.73 ft above mean sea level, datum of 1929.

Average discharge.--10 years (1943-53), 146 cfs.

Extremes.--Maximum discharge during year, 285 cfs Oct. 17 (gage height, 5.21 ft); minimum, 0.1 cfs May 18.

Maximum combined discharge during year (Jordan River and Surplus Canal), 1,140 cfs June 14; minimum daily, 266 cfs July 8.

1942-53: Maximum discharge, 384 cfs June 3, 1944; maximum gage height, 5.75 ft June 26, 1952; no flow May 10, 24, 1952.

Maximum combined discharge (Jordan River and Surplus Canal), 1,820 cfs June 7, 1952; minimum daily, 145 cfs May 18, 1946.

Remarks.--Records good. Flow regulated by gates and pumps at outlet of Utah Lake. Many diversions above station for irrigation and industrial and municipal water supplies. Surplus Canal diverts water 1,000 ft above station (see preceding page). For records of combined flow see following page.

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*165	206	254	152	107	132	144	146	42	88	162	118
2	171	199	*256	153	108	138	141	131	47	113	154	*125
3	182	190	245	154	105	133	*137	122	48	110	117	124
4	181	194	205	151	106	131	145	117	60	115	96	129
5	177	195	186	150	104	134	138	117	78	117	107	130
6	185	200	191	154	105	132	148	109	79	107	110	129
7	195	238	196	155	105	131	149	103	124	105	100	135
8	195	260	203	158	102	134	151	96	135	103	103	138
9	193	249	198	153	100	136	159	90	*139	104	114	139
10	194	250	194	150	80	136	160	80	132	131	115	138
11	204	253	167	149	80	136	141	70	140	169	110	140
12	211	261	151	150	77	134	121	61	128	169	106	141
13	211	237	152	152	67	142	125	*48	37	149	*103	134
14	211	211	152	166	93	143	125	35	41	137	102	136
15	217	*224	152	*191	103	147	*120	19	47	134	118	*135
16	*252	220	*156	160	*89	*149	121	5.1	63	138	129	140
17	269	208	161	152	101	147	130	1.9	62	*134	127	146
18	242	213	160	109	106	137	142	3.2	60	127	124	149
19	241	218	167	219	101	153	137	11	49	122	121	153
20	247	219	169	222	74	157	143	82	43	126	115	153
21	260	227	170	228	103	159	148	94	37	124	117	155
22	266	218	156	206	112	159	149	68	46	120	119	164
23	264	215	166	174	125	159	148	58	64	126	120	163
24	262	214	161	115	140	157	143	68	58	126	120	165
25	260	226	160	115	149	158	142	55	48	125	116	172
26	262	214	157	110	*128	157	126	47	55	127	117	174
27	263	218	153	103	129	161	126	39	89	147	115	171
28	250	228	170	99	129	145	173	40	87	157	116	177
29	211	227	158	107	-	147	166	53	82	160	116	181
30	*201	234	151	*108	-	148	169	64	*60	154	119	174
31	204	-	*155	104	-	145	-	54	-	*145	121	-
Total	6,846	6,666	5,472	4,671	2,928	4,477	4,267	2,087.2	2,180	4,009	3,629	4,428
Mean	221	222	177	151	105	144	142	67.3	72.7	129	117	148
Ac-ft	13,580	13,220	10,850	9,260	5,810	8,880	8,460	4,140	4,320	7,950	7,200	8,780

Calendar year 1952: Max 337 Min 0 Mean 181 Ac-ft 131,400
Water year 1952-53: Max 269 Min 1.9 Mean 142 Ac-ft 102,400

* 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 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	363	670	870	926	1,010	939	901	933	442	285	400	280
2	384	643	885	929	1,000	964	873	911	457	302	637	295
3	409	624	897	934	1,000	925	850	859	458	291	525	292
4	402	643	885	934	1,010	911	900	825	488	288	413	302
5	390	642	879	935	1,000	938	859	827	555	296	384	301
6	404	654	895	937	1,010	931	928	778	551	277	352	299
7	422	685	898	942	1,020	916	932	732	703	270	321	316
8	416	712	922	955	1,010	917	929	700	753	266	337	327
9	412	676	911	943	1,000	916	954	637	778	267	375	334
10	415	677	898	935	927	921	950	584	752	321	369	333
11	434	690	917	939	930	926	917	583	794	414	345	342
12	464	686	931	942	922	908	876	538	878	420	333	339
13	465	698	919	937	862	951	910	471	992	362	324	320
14	470	692	914	970	907	935	899	427	1,050	332	316	323
15	497	758	905	1,010	936	944	861	366	924	323	315	325
16	534	773	909	945	872	951	871	323	802	332	310	343
17	562	734	909	914	908	944	908	312	788	323	303	357
18	572	755	906	763	920	878	987	321	757	300	294	360
19	577	775	908	1,120	877	988	913	350	680	292	286	364
20	599	779	910	1,080	767	1,030	903	596	635	297	273	367
21	634	778	918	1,090	856	1,010	935	618	582	295	277	368
22	658	746	880	1,040	886	1,010	948	520	576	288	281	394
23	664	739	907	1,050	929	1,020	950	483	559	300	283	395
24	660	740	893	1,050	911	995	917	510	517	300	285	411
25	662	773	892	1,050	897	1,010	897	499	466	298	273	431
26	665	754	885	1,040	915	1,000	876	465	410	297	275	435
27	669	806	872	1,020	924	953	876	434	398	352	270	427
28	673	840	927	999	931	907	1,040	437	381	384	274	449
29	663	833	911	1,020	-	918	970	488	359	394	274	461
30	660	857	922	1,020	-	931	956	528	302	376	281	428
31	667	-	929	994	-	914	-	491	-	350	286	-
Total	16,466	21,832	28,004	30,363	26,137	29,401	27,486	17,546	18,787	9,892	10,271	10,718
Mean	531	728	903	979	933	948	916	566	626	319	331	357
Ac-ft	32,660	43,300	55,550	60,220	51,840	58,320	54,520	34,800	37,260	19,620	20,370	21,260

Calendar year 1952: Max 1,760 Min 305 Mean 761 Ac-ft 552,600
Water year 1952-53: Max 1,120 Min 266 Mean 676 Ac-ft 489,700

Sevier River at Hatch, Utah

Location.--Lat 37°39'00", long. 112°25'30", in SW¼NW¼ sec. 28, T. 36 S., R. 5 W., on left bank 300 ft downstream from bridge, 0.2 mile east of Hatch, and 2.8 miles downstream from Mammoth Creek.
Drainage area.--260 sq mi, approximately.
Records available.--June 1911 to September 1928, June 1939 to September 1953.
Gage.--Water-stage recorder. Altitude of gage is 6,870 ft (from river-profile map). Prior to May 17, 1914, staff gages and May 7, 1914, to Oct. 3, 1949, water-stage recorder, at several sites within 2 miles of present site at various datums.
Average discharge.--22 years (1912-13, 1914-16, 1917-18, 1922-23, 1924-27, 1939-53), 130 cfs.
Extremes.--Maximum discharge during year, 455 cfs July 31 (gage height, 2.89 ft); minimum, 40 cfs Apr. 18.
1911-28, 1939-53: 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.
Remarks.--Records good except those for periods of ice effect, which are fair. Two small diversions from Mammoth Creek above station for irrigation. No regulation since Hatchtown Dam failed in 1914.
Revisions.--WSP 960: 1939-40. Revised figures of discharge, in cubic feet per second, for periods in the water year 1916, superseding those published in WSP 440, are given herewith:

Date	Discharge	Date	Discharge	Date	Discharge
1915		1915-Con.		1916-Con.	
Dec. 16	92	Dec. 29	87	Jan. 15	105
17	90	30	90	16	100
18	85	31	92	28	86
19	80			29	84
20	80	1916		30	82
21	85	Jan. 1	90	31	80
22	90	2	93	Feb. 1	84
23	95	7	87	2	88
24	92	8	88	3	92
25	90	11	82	4	86
26	86	12	80	5	90
27	83	13	90	6	90
28	80	14	110		

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
December 1915	2,865	109	80	92.4	5,680
Calendar year 1915	72,126	754	-	198	143,000
January 1916	2,756	110	80	88.9	5,470
February	2,530	101	82	87.2	5,020
Water year 1915-16	89,203	-	-	244	177,000

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	89	76				63	51	*90	98	55	186	49
2	87	76				b63	51	76	88	54	118	49
3	87	78	b75	b64		63	51	61	98	54	96	47
4	87	78				b62	51	60	*98	54	81	47
5	87	76				61	53	58	92	55	*69	46
6	86	76	74	63		63	51	56	94	55	66	46
7	86	76	76	64		63	50	56	90	54	63	46
8	86	76	76	64	b70	64	47	61	96	54	60	47
9	84	76	76	64		68	47	64	94	54	58	47
10	84	78	b76	66		64	46	67	96	60	56	47
11	84	82	76	66		63	46	64	92	58	56	46
12	82	82	74	67		58	45	63	*88	61	54	46
13	82	82	76	69		56	46	60	88	*69	54	46
14	82	84	77	*72		55	47	58	81	64	53	*46
15	82	86	76	67		56	46	58	79	68	54	46
16	82	89	76	b66		53	45	60	74	67	53	46
17	82	87	81	b66		53	42	61	69	70	51	46
18	82	87	*81	69		53	41	60	70	67	50	46
19	82	87	79	67		53	41	61	69	61	50	46
20	82	*87	79	69	*b60	55	41	67	66	56	50	46
21	*78	86	77	67		53	45	81	64	56	50	46
22	78	82		b67		54	50	94	63	55	53	46
23	78	84	b70	67		56	58	*127	60	55	51	46
24	78			69	63	58	58	134	*58	54	50	46
25	78		69	69	64	54	64	129	56	55	49	46
26	80	b75		70	64	55	76	129	56	56	50	46
27	78		b68	69	63	*55	94	116	56	80	55	46
28	78			69	64	54	107	105	56	66	54	46
29	78				-	55	100	94	56	60	53	45
30	80		64	b70	-	55	98	86	55	117	49	45
31	78	-	64		-	53	-	92	-	166	49	-
Total	2,547	2,396	2,284	2,076	1,848	1,789	1,688	2,448	2,300	2,010	1,941	1,389
Mean	82.2	79.9	73.7	67.0	66.0	57.7	56.3	79.0	76.7	64.8	62.6	46.3
Ac-ft	5,050	4,750	4,530	4,120	3,670	3,550	3,350	4,860	4,560	3,990	3,850	2,760

Calendar year 1952: Max 794 Min - Mean 170 Ac-ft 123,700
Water year 1952-53: Max 186 Min 41 Mean 67.7 Ac-ft 49,040

Peak discharge (base, 500 cfs).--No peak above base.
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Sevier River near Circleville, Utah

Location.--Lat 38°06', long. 112°19', in SW¼ sec. 20, T. 31 S., R. 4 W., Salt Lake meridian, on left bank 2 miles upstream from Pine Creek and 6 miles southwest of Circleville.
Drainage area.--950 sq mi, approximately.
Records available.--May to September 1912, April 1914 to September 1927, November 1949 to September 1953.
Gage.--Water-stage recorder. Altitude of gage is 6,240 ft (from river-profile map). May 10 to Sept. 19, 1912, staff gage at different datum.
Average discharge.--12 years (1914-22, 1923-24, 1950-53), 202 cfs.
Extremes.--Maximum discharge during year, 570 cfs Aug. 1 (gage height, 4.73 ft, from flood-mark); minimum daily, 26 cfs Aug. 21.
1912, 1914-27, 1949-53: Maximum discharge, 1,960 cfs about May 21, 1922 (gage height, 8.6 ft, from high-water mark), from rating curve extended above 1,000 cfs by logarithmic plotting; minimum daily, that of Aug. 21, 1953.
Flood of March 1938 probably exceeded that of May 1922.
Remarks.--Records good except those for period of no gage-height record, which are fair. Many diversions above and below station.
Revisions (water years).--WSP 1180: 1922(M). Revised figures of discharge, in cubic feet per second, for a period in the water year 1916, superseding those published in WSP 440, are given herewith:

1915	
Nov. 9	184
10	186
11	178

Month	Cfs-days	Maximum	Minimum	Mean	Runoff in acre-feet
November 1915	4,750	188	120	158	9,420
Calendar year 1915	80,918	763	68	222	161,000
Water year 1915-16	100,922	1,250	88	276	200,000

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

2.2	26
2.6	122
3.0	192
3.8	342

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	120	105	150	139	141	141	99	55	52	36	331	47
2	114	107	146	135	141	128	96	57	55	31	a280	49
3	112	107	141	139	143	128	92	52	55	29	a200	52
4	112	109	133	135	143	122	87	42	55	29	a120	55
5	105	109	133	135	145	133	85	39	52	31	*99	57
6	101	109	146	137	143	137	83	36	52	34	83	57
7	103	107	155	135	143	137	78	36	70	36	75	55
8	105	107	159	145	146	141	78	34	65	34	75	55
9	105	107	161	145	139	143	75	36	65	*29	73	55
10	105	107	152	146	132	143	75	36	60	34	70	55
11	105	114	155	145	135	141	73	34	49	47	65	55
12	92	132	154	145	137	135	70	34	*55	44	62	55
13	90	133	157	145	126	128	68	34	62	42	57	52
14	87	133	157	*154	139	118	70	34	57	44	60	*52
15	87	141	155	146	141	114	65	39	47	49	57	49
16	87	152	157	133	133	114	60	42	44	60	52	49
17	87	162	161	133	133	114	55	42	36	70	47	52
18	90	162	*166	148	133	109	55	52	34	70	44	52
19	92	168	162	154	*114	109	55	49	34	65	42	47
20	*96	*159	161	155	99	109	49	49	29	65	42	47
21	103	162	161	159	109	112	44	42	29	60	26	47
22	105	161	148	137	107	109	44	36	31	57	44	47
23	105	152	139	143	122	112	44	44	31	52	39	47
24	107	141	139	152	130	107	39	60	*31	47	36	44
25	105	135	137	150	128	107	36	73	31	96	31	44
26	107	118	137	155	128	107	34	68	34	186	42	42
27	107	128	135	150	137	*107	29	*72	29	75	55	47
28	109	133	135	139	143	107	31	70	29	96	57	49
29	109	130	135	141	-	105	44	68	36	78	55	52
30	99	137	145	145	-	105	*52	60	34	94	47	47
31	101	-	150	141	-	103	-	55	-	324	39	-
Total	3,152	3,927	4,622	4,461	3,710	3,725	1,865	1,480	1,343	2,044	2,405	1,513
Mean	102	131	149	144	132	120	62.2	47.7	44.8	65.9	77.6	50.4
Ac-ft	6,250	7,790	9,170	8,850	7,360	7,390	3,700	2,940	2,660	4,050	4,770	3,000

Calendar year 1952: Max 750 Min - Mean 195 Ac-ft 141,600
Water year 1952-53: Max 331 Min 26 Mean 93.8 Ac-ft 67,930

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of records for stations near Kingston and at Hatch.

Sevier River near Kingston, Utah

Location.--Lat 38°12', long. 112°12', in NE¼NW¼ sec. 16, T. 30 S., R. 3 W., on left bank 1,000 ft upstream from bridge on State Highway 22, 1 mile west of Kingston, and 2 miles upstream from East Fork.

Drainage area.--1,110 sq mi, approximately.

Records available.--June 1914 to September 1953.

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.--39 years, 142 cfs.

Extremes.--Maximum discharge during year, 424 cfs Aug. 1 (gage height, 2.04 ft); minimum daily, 4.2 cfs June 29, 30.

1914-53: 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, that of June 29, 30, 1953.

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

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

0.5	3.0	0.9	38
.6	7.0	1.1	76
.7	14	1.5	194
.8	24	1.8	312

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	107	78	157	167	167	154	94	24	13	4.6	283	11
2	98	81	174	154	167	144	91	30	13	5.8	254	12
3	104	88	170	163	167	141	78	27	14	5.8	121	12
4	115	86	167	167	167	144	70	24	13	5.4	*68	13
5	109	91	160	157	170	151	48	23	13	5.8	24	14
6	96	101	174	157	167	154	55	23	14	5.8	19	14
7	88	98	180	160	167	157	53	20	16	5.8	12	16
8	98	94	184	160	174	160	61	20	13	5.8	16	16
9	104	96	187	167	170	167	61	21	13	*5.8	12	16
10	101	91	180	170	154	163	53	22	12	6.2	12	16
11	96	78	180	167	154	160	45	21	10	6.2	13	16
12	88	98	184	167	154	157	48	23	10	6.6	18	17
13	84	118	187	170	148	151	43	20	13	6.6	16	16
14	63	123	194	*180	157	144	46	16	13	6.6	12	*16
15	61	135	194	177	160	141	32	15	12	7.0	11	14
16	59	157	191	160	154	132	25	16	14	7.0	9.8	14
17	61	167	187	154	154	132	24	18	12	7.0	9.8	14
18	59	177	*198	174	154	132	23	18	13	7.7	10	14
19	78	187	194	180	*141	132	22	17	11	7.7	11	14
20	*88	*187	191	184	121	123	21	19	10	7.7	11	15
21	94	184	194	187	132	132	22	18	9.1	7.7	10	15
22	98	177	184	174	129	132	21	*17	9.1	7.7	9.8	14
23	91	167	174	167	135	138	24	16	8.4	7.7	12	14
24	94	160	163	177	151	132	23	16	*9.1	7.7	10	18
25	91	157	163	174	144	129	23	15	7.0	7.7	11	14
26	96	141	157	180	138	126	20	16	5.4	65	13	14
27	91	148	157	177	151	*123	19	14	5.4	20	13	14
28	76	138	154	167	160	121	20	13	5.0	21	12	13
29	86	148	157	163	-	121	23	13	4.2	23	12	13
30	88	148	157	170	-	126	*24	14	4.2	22	12	13
31	84	-	167	163	-	121	-	13	-	164	12	-
Total	2,746	3,899	5,460	5,234	4,307	4,340	1,212	582	318.9	480.4	1,069.4	432
Mean	88.6	130	176	169	154	140	40.4	18.8	10.6	15.5	34.5	14.4
Ac-ft	5,450	7,730	10,830	10,380	8,540	8,610	2,400	1,150	633	953	2,120	857

Calendar year 1952: Max 802 Min 20 Mean 183 Ac-ft 132,800
Water year 1952-53: Max 283 Min 4.2 Mean 82.4 Ac-ft 59,650

* Discharge measurement made on this day.

Otter Creek Reservoir near Antimony, Utah

Location.--Lat 38°10'15", long. 112°00'00", in NW¼ sec. 28, T. 30 S., R. 2 W., near spillway on right side of dam on Otter Creek, 5 miles northwest of Antimony, and 12 miles east of Kingston.

Records available.--January to September 1914, October 1945 to September 1953 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, 51,750 acre-ft May 1 (gage height, 35.7 ft); minimum observed, 7,100 acre-ft Sept. 30 (gage height, 10.6 ft).
1914-15, 1934-53: 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, 400 acre-ft Aug. 1, Sept. 1, 20, Oct. 1, 1934.

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 33.5 ft. Reservoir stores water from Otter Creek and also water diverted from East Fork Sevier River, for irrigation in Sevier River basin.

Contents, in acre-feet, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30,000	31,800	34,000	38,000	42,560	46,400	50,000	51,750	46,400	38,000	23,700	13,820
2	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-	-	-	-	-	-
10	30,600	32,000	35,000	39,200	44,240	47,360	51,000	50,750	44,240	33,600	20,460	-
11	-	-	-	-	-	-	-	-	-	-	-	10,700
12	-	-	-	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-
20	31,200	32,800	36,200	40,880	45,680	48,800	51,500	49,040	42,320	28,740	17,200	-
21	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	8,100
23	-	-	-	-	-	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-	-	-	-	-	-
28	-	-	-	-	a46,320	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-	-	-	-	-	-
30	-	a33,890	-	-	-	-	a51,730	-	38,240	-	-	7,100
31	a31,750	-	38,000	a42,420	-	50,000	-	a46,620	-	a24,120	a14,100	-

a No gage-height record; contents interpolated.

Monthly gage height and contents, water year October 1952 to September 1953

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	-	a30,200	-
Oct. 31	-	a31,750	+1,550
Nov. 30	-	a33,890	+2,140
Dec. 31	30.0	38,000	+4,110
Calendar year 1952	-	-	+27,540
Jan. 31	-	a42,420	+4,420
Feb. 28	-	a46,320	+3,900
Mar. 31	35.0	50,000	+3,680
Apr. 30	-	a51,730	+1,730
May 31	-	a46,620	-5,110
June 30	30.1	38,240	-8,380
July 31	-	a24,120	-14,120
Aug. 31	-	a14,100	-10,020
Sept.30	10.6	7,100	-7,000
Water year 1952-53	-	-	-23,100

a No gage-height record; contents interpolated.

East Fork Sevier River near Kingston, Utah

Location.--Lat 38°12', long. 112°09', in SW¼NW¼ sec. 13, T. 30 S., R. 3 W., on right bank 1,000 ft downstream from bridge on State Highway 22, 1.7 miles east of Kingston, and 4.1 miles upstream from mouth.

Drainage area.--1,260 sq mi, approximately.

Records available.--March 1913 to September 1953.

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.--40 years, 87.5 cfs.

Extremes.--Maximum discharge during year, 920 cfs July 27 (gage height, 3.60 ft); minimum daily, 17 cfs Oct. 30 to Nov. 2, Dec. 22, 23, but may have been less during period of ice effect.
1913-53: Maximum discharge, 2,030 cfs May 12, 1941 (gage height, 5.05 ft); minimum, 3.8 cfs Jan. 7, 1946.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. Diversions above and below station for irrigation. Flow regulated by Otter Creek Reservoir (see preceding page).

Revisions (water years).--WSP 750: 1931-32.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.4	15	1.5	124
.7	31	2.0	222
1.0	56	2.4	338

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		17			21	23		34	112	158	191	
2		17			22	23		32	109	174	188	a180
3		21			21	23		28	106	267	186	
4		23			22	23		27	105	264	*186	174
5		23			22	22		82	106	261	188	174
6		23			22	22		42	110	261	188	174
7		23	b20	b20	22	22		38	114	261	184	174
8		23			22	22		47	112	269	184	172
9		21			22	22		74	109	*318	191	174
10	a22	20			23	21		78	106	305	193	174
11		20			23	21	a20	76	106	281	193	174
12		20			23	21		72	106	281		172
13		19			23	21		87	110	281		172
14				*20	23	21		112	109	281		*172
15			a20	18	24	20		112	109	278		172
16		a20	a20	19	24	20		115	106	278		170
17			a20	19	24	20		118	106	281		162
18			*19	19	24	20		118	103	281		162
19		(*)	18	19	*24	20		115	105	278		162
20	*22		18	19	24	20		115	116	272		154
21	21	a22	18	19		20		110	166	269	a180	149
22	21		17	20		20		*108	166	269		147
23	21		17	20		20		105	166	267		145
24	21			20	b23	19		103	*166	267		145
25	21			20		19	a25	109	164	267		103
26	19			20		19		109	164	269		96
27	19	b22	b18	20	23	*19		110	164	265		94
28	18			20	23	20		110	164	199		92
29	18			21	-	20		109	162	195		91
30	17			21	-	20	*29	110	160	195		87
31	17	-		21	-	20	-	112	-	191		-
Total	653	634	591	615	639	643	654	2,717	3,807	7,983	5,672	4,577
Mean	21.1	21.1	19.1	19.8	22.8	20.7	21.8	87.6	127	258	183	153
Ac-ft	1,300	1,260	1,170	1,220	1,270	1,280	1,300	5,390	7,550	15,830	11,250	9,080

Calendar year 1952: Max 421 Min - Mean 70.6 Ac-ft 51,280
Water year 1952-53: Max 318 Min - Mean 80.0 Ac-ft 57,900

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of discharge measurements, water commissioner's notes, weather records, and records for nearby streams.
b Stage-discharge relation affected by ice.
Note.--Flow from Otter Creek Reservoir was shut off for the winter on Oct. 1.

Piute Reservoir near Marysvale, Utah

Location.--Lat 38°20', long. 112°12', in NW¼ sec. 3, T. 29 S., R. 3 W., at Piute Dam 9 miles south of Marysvale.

Drainage area.--2,440 sq mi, approximately.

Records available.--March 1914 to September 1953.

Gage.--Staff gage read once daily. Datum of gage is 5,900.8 ft above mean sea level.

Extremes.--Maximum contents during year, 71,500 acre-ft Apr. 2-9, 13 (gage height, 75.0 ft); minimum, 6,530 acre-ft Sept. 30 (gage height, 33.4 ft).
1914-53: 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.

Contents at 4 p.m., in acre-feet, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	25,280	22,060	30,710	42,970	54,510	62,980	71,260	58,600	48,680	34,320	23,160	13,800
2	24,990	22,200	31,020	43,510	54,910	63,210	71,500	58,170	48,120	33,830	23,860	13,150
3	24,570	22,340	31,170	43,880	55,110	63,660	71,500	57,750	47,560	33,360	24,570	12,510
4	24,290	22,340	31,330	44,240	55,510	63,890	71,500	57,340	47,000	32,880	25,280	12,090
5	24,000	22,470	31,630	44,610	55,710	64,110	71,500	56,930	46,260	32,250	25,990	11,470
6	23,720	22,470	32,100	44,980	55,910	64,340	71,500	56,320	45,710	31,790	26,720	10,970
7	23,440	22,610	32,720	45,340	56,320	64,800	71,500	55,710	45,340	31,020	27,300	10,470
8	23,160	22,610	33,200	45,710	56,730	65,260	71,500	55,110	44,980	30,260	27,880	10,000
9	22,890	22,750	33,670	45,900	56,930	65,500	71,500	54,710	44,610	29,800	28,170	9,520
10	22,610	22,890	34,150	46,260	57,140	65,960	71,260	54,110	44,240	29,200	28,170	9,160
11	22,340	23,030	34,640	46,640	57,550	66,190	71,260	53,710	43,880	28,760	27,580	8,810
12	22,060	23,160	35,130	47,000	57,750	66,420	71,260	53,510	43,510	28,170	27,150	8,460
13	21,920	23,300	35,620	47,380	58,170	66,850	71,500	53,320	43,150	27,440	26,720	8,290
14	21,790	23,440	35,950	47,740	58,600	66,890	71,260	53,120	42,780	26,720	26,280	8,130
15	21,660	23,720	36,460	48,120	59,030	67,130	71,010	52,920	42,060	26,280	25,850	7,960
16	21,520	24,000	36,790	48,490	59,450	67,370	70,760	52,720	41,340	25,710	25,280	7,790
17	21,380	24,430	37,130	48,870	59,670	67,610	70,280	52,530	40,620	25,280	24,710	7,630
18	21,380	24,710	37,650	49,250	60,100	67,850	69,540	52,330	39,740	24,850	24,140	7,470
19	21,380	25,140	38,160	49,620	60,320	68,090	68,810	52,130	38,850	23,720	23,440	7,310
20	21,520	25,560	38,510	50,000	60,540	68,330	68,090	51,940	38,160	23,440	22,750	7,230
21	21,520	25,990	38,850	50,390	60,760	68,570	67,370	51,740	37,650	23,300	24,710	7,230
22	21,660	26,570	39,200	50,780	60,980	68,810	66,650	51,550	37,130	23,160	21,120	7,230
23	21,660	27,150	39,560	51,160	61,200	69,050	65,730	51,350	36,790	23,030	20,190	7,230
24	21,660	27,730	39,910	51,550	61,640	69,300	64,800	51,160	36,460	22,890	19,410	7,310
25	21,660	28,320	38,850	51,940	61,860	69,540	63,890	50,970	36,120	22,750	18,660	7,230
26	21,790	28,910	40,620	52,130	62,080	69,780	62,310	50,780	35,790	22,610	17,920	7,150
27	21,790	29,350	40,980	52,530	62,530	70,030	61,200	50,580	35,450	22,470	17,190	-
28	21,790	29,650	41,340	52,920	62,760	70,280	60,320	50,390	35,130	22,610	16,490	-
29	21,790	29,950	41,700	53,320	-	70,520	59,670	50,200	34,640	22,750	16,720	-
30	21,920	30,410	42,060	53,710	-	71,260	59,030	49,810	34,150	22,890	15,120	6,530
31	21,920	-	42,420	54,110	-	71,260	-	49,250	-	23,030	14,450	-

Monthly gage height and contents, water year October 1952 to September 1953

Date	Gage height (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	50.4	25,420	-
Oct. 31	47.9	21,920	-3,500
Nov. 30	53.8	30,410	+8,490
Dec. 31	61.0	42,420	+12,010
Calendar year 1952	-	-	+24,140
Jan. 31	67.2	54,110	+11,690
Feb. 28	71.3	62,760	+8,650
Mar. 31	74.9	71,260	+8,500
Apr. 30	69.6	59,030	-12,230
May 31	64.7	49,250	-9,780
June 30	56.2	34,150	-15,100
July 31	48.7	23,030	-11,120
Aug. 31	41.8	14,450	-8,580
Sept.30	33.4	6,530	-7,920
Water year 1952-53	-	-	-18,890

† Gage height at 4 p.m.

Sevier River below Piute Dam, near Marysvale, Utah

Location (revised).--Lat 38°19'55", long. 112°11'15", in NW¼SE¼ sec. 34, T. 28 S., R. 3 W., on left bank three-quarters of a mile downstream from Piute Dam and 8 miles south of Marysvale.

Drainage area.--2,440 sq mi, approximately.

Records available.--May 1911 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 5,870 ft (revised), 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.--41 years (1912-53), 242 cfs.

Extremes.--Maximum discharge during year, 684 cfs July 9 (gage height, 2.41 ft); minimum daily, 2.0 cfs Dec. 15-19.
1911-53: Maximum discharge, 2,600 cfs May 23, 24, 1922; practically no flow at times when reservoir gates are closed.

Remarks.--Records good. One small diversion between gage and Piute Reservoir. Flow regulated by Piute Reservoir (see preceding page).

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 16-19, July 8-15, Aug. 20 to Sept. 1)

-0.3	1.7	0.6	60
-.1	4.8	1.0	140
0.0	7.6	1.5	285
.1	12	2.0	480
.2	18	2.5	680
.4	35		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	400	102	3.4	2.6	5.9	a7.3	4.2	356	332	448	24	600
2	364	109	3.4	2.6	5.9	a7.3	4.2	202	396	472	3.8	540
3	336	109	3.4	2.6	5.9	a7.3	7.0	202	392	472	*3.7	500
4	328	88	3.2	4.2	6.2	7.3	34	229	460	512	6.5	480
5	302	88	2.9	5.4	6.2	7.3	45	302	520	556	6.8	a500
6	302	88	2.8	5.4	6.2	7.3	44	360	504	592	58	516
7	302	86	2.8	5.1	6.2	7.3	56	424	364	608	79	512
8	282	83	2.6	a5.4	6.2	7.3	113	432	324	664	180	508
9	274	83		a5.4	6.5	7.6	119	332	352	*672	264	440
10	271	83	a2.4	a5.4	6.5	7.3	148	238	336	672	257	404
11	264	83		5.6	6.5	7.3	47	282	388	564	199	352
12	226	83		5.6	6.5	7.3	6.8	235	296	588	282	*332
13	223	65	2.3	*5.6	6.5	7.0	21	232	250	628	328	356
14	223	57	2.2	5.6	6.5	7.0	102	238	260	624	320	344
15	170	46	a2.0	5.6	6.5	7.0	160	268	384	600	288	320
16	131	43	a2.0	5.6	6.5	6.5	271	235	408	536	340	313
17	135	29	2.0	5.6	6.5	6.5	264	235	448	356	452	313
18	135	29	*2.0	5.6	*6.2	6.8	260	199	424	340	504	306
19	135	*29	2.0	5.6	6.2	6.8	348	182	396	352	544	292
20	*135	23	2.2	5.6	6.2	7.0	376	196	356	452	644	292
21	135	19	2.2	5.6	6.2	5.4	392	158	292	440	660	268
22	135		2.2	5.6	6.2	3.8	388	*158	388	412	644	211
23	126	a20	2.3	5.6	6.2	3.8	388	220	*368	380	580	188
24	117		2.3	5.6	6.2	4.0	468	223	364	404	576	199
25	117		2.2	5.6	6.5	a4.0	472	199	356	440	608	220
26	117	14	2.3	5.6	7.0	*4.0	564	288	324	456	604	235
27	117	4.2	2.3	5.6	7.0	4.0	568	220	310	420	604	235
28	117	4.0	2.3	5.6	7.0	4.0	556	220	336	428	580	235
29	117	3.8	2.4	5.6	-	4.2	464	254	372	348	584	235
30	122	3.5	2.4	5.6	-	4.2	*436	278	448	223	608	229
31	124	-	2.4	5.6	-	4.0	-	278	-	148	604	-
Total	6,282	1,534.5	76.1	161.7	178.1	187.9	7,126.2	7,875	11,148	14,807	11,435.8	10,475
Mean	203	51.2	2.45	5.22	6.36	6.06	238	254	372	478	369	349
Ac-ft	12,460	3,040	151	321	353	373	14,130	15,620	22,110	29,370	22,680	20,780

Calendar year 1952: Max 872 Min 2.0 Mean 210 Ac-ft 152,700
Water year 1952-53: Max 672 Min 2.0 Mean 195 Ac-ft 141,400

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of observer's notes, appearance of chart, and record for station above Clear Creek.

Sevier River above Clear Creek, near Sevier, Utah

Location.--Lat 38°34'20", long. 112°15'25", in NW¼NE¼ sec. 5, T. 26 S., R. 4 W., on right bank 0.6 mile upstream from bridge on U. S. Highway 89, 0.7 mile upstream from Clear Creek, and 1 mile south of Sevier.

Drainage area.--2,700 sq mi, approximately.

Records available.--May 1911 to November 1916 (published as Sevier River at Sevier), April 1939 to September 1953. Records for November 1916 to September 1929 (published as Sevier River at Sevier) include flow of Clear Creek and are not equivalent.

Gage.--Water-stage recorder. Altitude of gage is 5,560 ft (by barometer). Prior to May 16, 1912, staff gage and May 16, 1912, to Sept. 30, 1929, water-stage recorder, at site 0.8 mile downstream at different datums (datum lowered 1 ft Mar. 31, 1913).

Average discharge.--18 years (1912-16, 1939-53), 279 cfs.

Extremes.--Maximum discharge during year, 704 cfs July 11 (gage height, 2.91 ft); minimum daily, 17 cfs Apr. 4.
1911-16, 1939-53 (not including flow of Clear Creek): Maximum discharge, 2,270 cfs May 16, 1941 (gage height, 4.83 ft); minimum, 4.6 cfs Feb. 13, 1952.
1916-29 (including flow of Clear Creek): Maximum discharge, 2,800 cfs during last week of May 1922, computed on basis of records for station near Marysvale; minimum, 10 cfs Nov. 27, 1919.

Remarks.--Records good except those for periods of ice effect, which are fair. Many diversions above station for irrigation. Flow regulated by Piute and Otter Creek Reservoirs.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.7	13	1.6	146
.8	20	2.0	271
1.0	38	2.5	476
1.3	80	2.9	681

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	414	136			31	27	18	431	312	458	141	569
2	410	128			31		19	328	392	458	74	549
3	368	131			31		18	236	414	486	67	490
4	359	134			31	b26	17	243	436	462	46	467
5	339	131	b33	b32	31		35	286	495	534	44	458
6	331	134			29	26	50	331	529	564	39	472
7	331	119			28	26	50	401	481	590	78	486
8	328	103	32	34	30	26	75	431	368	632	106	486
9	308	101		33	29	26	103	427	359	*659	204	454
10	308	103		33	29	26	119	290	392	681	290	405
11	308	103	b33	32		26	138	297	458	642	*220	359
12	282	103		32		26	53	293	*472	569	214	*335
13	264	99		*32	b30	25	30	271	458	610	304	339
14	264	91		34		25	46	268	414	626	320	355
15	257	84	31	32	30	25	124	293	414	621	297	331
16	177	80	32	b32	30	25	210	286	500	595	286	324
17	163	77	32	b32	30	24	301	275	486	476	380	316
18	163	63	32	32	*28	25	268	260	490	376	440	312
19	163	60	*30	32	22	26	312	214	534	355	476	297
20	163	*60	30	32		26	363	233	462	427	539	301
21	163	53	29	32		26	397	214	388	444	610	301
22	*160	48		32		25	405	*183	388	444	621	257
23	160	48		32	b27	22	401	207	*414	401	590	204
24	141	35		32		22	431	268	410	401	529	198
25	136			32		22	462	250	401	431	564	220
26	136		b32	32		*22	500	257	384	458	574	243
27	136	b33		31	26	21	554	290	363	444	574	246
28	136			31	26	20	564	260	339	431	569	250
29	136			32	-	20	*505	260	388	427	529	246
30	138			31	-	22	462	301	414	308	564	246
31	144	-	32	31	-	19	-	308	-	250	574	-
Total	7,286	2,422	997	994	801	755	7,030	8,892	12,755	15,260	10,863	10,516
Mean	235	80.7	32.2	32.1	28.6	24.4	234	287	425	492	350	351
Ac-ft	14,450	4,800	1,980	1,970	1,590	1,500	13,940	17,640	25,300	30,270	21,550	20,860

Calendar year 1952: Max 1,220 Min - Mean 266 Ac-ft 192,800
Water year 1952-53: Max 681 Min 17 Mean 215 Ac-ft 155,800

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

Clear Creek at Sevier, Utah

Location.--Lat 38°34'55", long. 112°15'30" (revised), in SE¼NE¼ 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 1953 in reports of Geological Survey. April 1934 to September 1953 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. 29, 1946, at site 400 ft downstream at different datum.

Average discharge.--18 years (1912-17, 1940-53), 32.6 cfs.

Extremes.--Maximum discharge during year, 282 cfs July 15 (gage height, 3.83 ft); minimum, 1.1 cfs Sept. 15.
1912-19, 1940-53: Maximum discharge observed, 487 cfs Aug. 7, 1941 (gage height, 4.05 ft, site and datum then in use); no flow Aug. 26, 1913.

Remarks.--Records good except those for periods of backwater or no gage-height record, which are fair. Practically entire flow is diverted above station each year during latter part of irrigation season.

Rating table, water year 1952-53, except period of backwater from beaver dam (gage height, in feet, and discharge, in cubic feet per second)

1.0	0.7	1.6	22
1.1	2.2	2.0	52
1.2	4.6	2.5	103
1.4	12		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.5			15	14	15	29	39	58	22	16	1.6
2	1.5			15	15	11	27	38	58	16	15	1.6
3	1.6			15	14	11	27	32	*54	16	10	1.8
4	1.6			12	14	12	35	35	55	17	8.9	1.6
5	2.0	c9		15	14	14	32	33	56	26	7.5	1.6
6	2.2			14	14	16	31	33	58	a20	7.1	1.6
7	2.2			12	13	16	23	36	60	a15	6.4	1.6
8	2.2		a15	13	14	16	22	38	55	*8.2	5.8	1.6
9	2.2			12	8.9	19	18	43	63	6.4	4.3	1.8
10	2.0			13	11	22	19	46	77	7.1	4.1	1.8
11	2.2			13	9.6	26	20	47	*83	9.3	*3.6	1.8
12	2.2			12	14	23	23	49	86	7.1	2.4	*1.8
13	2.4			*16	10	21	25	43	93	6.4	2.0	1.8
14	2.6			16	13	18	19	37	85	7.7	2.0	1.6
15	2.4	c10		14	15	19	15	34	70	29	2.0	1.5
16	2.6		*15	8.5	11	19	16	33	59	21	2.0	1.2
17	2.6		15	16	12	19	20	38	52	19	2.0	1.3
18	2.8		15	19	*16	15	22	40	46	16	2.2	1.5
19	3.1	(*)	15	19	10	14	21	42	42	13	2.0	1.5
20	*3.6	11	15	17	10	14	21	53	39	12	2.0	1.5
21	3.8	14	15	17	11	12	21	64	37	9.7	2.0	1.5
22	4.1	13	12	14	11	10	26	*73	35	10	2.0	1.5
23	3.6	13	14	15	13	11	28	76	*32	10	2.0	1.5
24	3.8	11	8.9	14	13	12	35	73	31	8.9	1.6	1.8
25	4.3	17	13	17	11	17	31	68	32	5.5	1.8	1.8
26		13	13	16	12	*34	37	66	28	4.9	1.8	1.8
27		11	11	15	13	40	42	65	25	7.4	2.0	1.8
28		13	13	12	14	39	42	65	23	8.2	2.0	1.8
29	c6	13	12	16	-	36	*37	62	20	9.3	1.8	1.6
30		17	15	14	-	30	37	58	22	12	1.8	1.5
31		-	16	13	-	28	-	56	-	23	1.6	-
Total	101.1	326	442.9	449.5	350.5	609	801	1,515	1,534	403.1	127.7	48.7
Mean	3.26	10.9	14.3	14.5	12.5	19.6	26.7	48.9	51.1	13.0	4.12	1.62
Ac-ft	201	647	878	892	695	1,210	1,590	3,000	3,040	800	253	97

Calendar year 1952: Max 318 **Min** 2.0 **Mean** 50.1 **Ac-ft** 36,370
Water year 1952-53: Max 93 **Min** 1.2 **Mean** 18.4 **Ac-ft** 13,300

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for stations on Salina and Chalk Creeks.
c Backwater from beaver dam.

Sevier River near Sigurd, Utah

Location.--Lat 38°52', long. 111°57', in SW¼ sec. 19, T. 22 S., R. 1 W., on left bank 200 ft downstream from bridge, half a mile downstream from Rockyford Dam, 2 miles northeast of Sigurd, and 5 miles upstream from Lost Creek.

Drainage area.--3,340 sq mi, approximately.

Records available.--July to September 1912, July 1914 to September 1953. Prior to 1935, published as "near Vermillion."

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.--39 years (1914-53), 108 cfs.

Extremes.--Maximum discharge during year, 174 cfs Nov. 24 (gage height, 2.15 ft); minimum daily, 0.4 cfs June 21-23.
1914-53: 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.

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

0.6	0	1.3	32
.7	2.1	1.6	62
.8	4.9	2.0	130
.9	8.5	2.2	176
1.1	18		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	73	94	128	132	128	126	70	2.9	3.8	1.3	1.9	2.9
2	73	92	128	130	126	130	87	2.7	3.5	1.5	1.9	4.1
3	132	90	126	128	130	134	56	2.4	3.2	1.5	1.9	4.6
4	152	92	122	130	130	128	26	2.1	3.2	1.9	2.4	3.8
5	134	92	116	130	128	128	19	2.1	2.7	1.9	11	2.1
6	92	94	118	130	130	126	32	2.1	2.7	1.9	19	1.0
7	75	96	120	130	128	126	62	1.9	2.4	*1.9	28	1.0
8	79	96	130	132	132	126	38	1.9	1.7	1.9	39	1.0
9	90	90	130	137	137	130	22	1.7	1.3	1.9	44	1.0
10	84	94	132	139	130	128	13	1.5	1.0	1.9	40	1.0
11	81	101	130	141	120	128	21	1.5	1.0	.6	37	1.0
12	79	105	130	141	128	128	39	1.7	1.0	.6	29	1.3
13	76	106	128	148	128	124	57	1.9	1.3	1.3	*21	1.3
14	69	105	128	150	128	120	63	1.9	1.0	1.7	34	1.3
15	68	105	128	152	137	118	44	2.1	1.0	1.5	38	1.5
16	96	108	128	*145	134	118	32	2.1	1.3	1.5	22	1.7
17	122	110	128	141	*128	130	22	1.7	1.0	1.7	17	1.5
18	118	116	128	148	126	63	23	1.3	1.0	1.7	8.9	1.7
19	116	120	*130	166	124	12	33	1.3	1.3	1.7	3.8	*1.7
20	116	122	134	157	118	13	35	1.7	.8	1.7	4.1	1.9
21	118	122	137	150	114	48	41	*6.0	.4	1.5	4.1	2.1
22	*120	*124	132	143	116	73	33	22	.4	1.9	4.1	2.1
23	120	124	130	139	120	73	14	37	.4	1.9	4.1	2.7
24	120	148	128	137	126	73	4.1	32	.6	1.9	4.1	4.3
25	114	152	122	139	126	73	2.9	24	.8	1.9	3.8	5.3
26	108	132	124	141	122	*75	2.9	15	1.0	2.1	3.8	5.3
27	103	110	126	139	126	38	3.2	8.9	1.3	2.7	3.8	6.0
28	99	124	124	124	128	18	*3.5	7.4	1.0	2.9	3.8	5.3
29	103	124	124	128	-	18	3.5	4.9	*1.0	3.2	3.5	6.3
30	103	126	128	128	-	22	3.2	4.3	1.0	2.4	3.5	6.3
31	92	-	132	126	-	32	-	3.8	-	1.9	2.9	-
Total	3,125	3,314	3,949	4,301	3,548	2,779	899.3	203.8	44.1	55.9	445.4	83.1
Mean	101	110	127	139	127	89.6	30.0	6.57	1.47	1.80	14.4	2.77
Ac-ft	6,200	6,570	7,830	8,530	7,040	5,510	1,780	404	87	111	883	165

Calendar year 1952: Max 772 Min 1.7 Mean 99.3 Ac-ft 72,050
Water year 1952-53: Max 166 Min 0.4 Mean 62.3 Ac-ft 45,110

* Discharge measurement made on this day.

Salina Creek at Salina, Utah

Location.--Lat 38°57', long. 111°52', in NW¼ sec. 25, T. 21 S., R. 1 W., on right bank 150 ft upstream from bridge on U. S. Highway 89 in Salina and three-quarters of a mile upstream from mouth.

Drainage area.--298 sq mi.

Records available.--April 1914 to September 1917 (fragmentary), October 1917 to September 1919, November 1942 to September 1953.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 5,140 ft. Prior to Mar. 23, 1915, staff gage at site 150 ft downstream at different datum. Mar. 23, 1915, to Oct. 16, 1917, staff gage and Oct. 17, 1917, to Sept. 30, 1919, water-stage recorder, at site about a quarter of a mile upstream at different datum.

Average discharge.--12 years (1917-19, 1943-53), 22.0 cfs.

Extremes.--Maximum discharge during year, 2,650 cfs July 27 (gage height, 6.70 ft, from floodmark), from rating curve extended above 400 cfs by logarithmic plotting; minimum, 0.4 cfs July 26.
1914-19, 1942-53: Maximum discharge that of July 27, 1953; no flow at times in 1950 and 1951.

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

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.8	0.6	1.2	18
.9	2.2	1.4	41
1.0	5.2	1.7	94
1.1	10	1.9	137

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	9.0			17	20	2.2	3.8	101	1.6	4.0	1.1
2	.8	8.5			18	15	2.0	4.1	84	1.2	2.7	1.2
3	.8	8.5			17	13	2.2	3.5	88	1.4	2.2	1.2
4	1.0	7.9			18	16	2.2	2.7	*90	1.6	1.6	.8
5	1.0	7.4		b15	18	16	1.8	2.4	70	1.1	1.4	.8
6	1.4	9.6			17	15	1.8	2.4	74	1.0	1.4	.7
7	.8	9.6			17	16	1.8	3.5	65	*1.0	1.4	.8
8	1.0	10	b16	15	19	18	2.0	5.2	62	1.1	1.1	1.1
9	1.1	6.9		15	16	20	1.8	4.5	78	1.6	1.6	1.1
10	1.2	8.5		15		20	1.6	3.5	82	5.5	1.6	1.1
11	1.6	12		15		23	1.4	2.9	60	6.4	1.6	1.1
12	1.1	12		16		23	1.4	3.5	49	1.6	1.4	1.0
13	1.0	10		15		25	1.4	3.2	*49	1.2	*1.6	1.1
14	1.0	9.6		17	b17	18	1.6	2.7	39	1.0	1.6	1.2
15	1.1	9.6		12		20	1.6	2.7	26	1.1	1.8	1.2
16	4.4	9.6	16	*14	*	22	1.2	3.2	15	1.2	2.2	1.6
17	7.9	8.5	17	b20	(*)	24	1.8	3.8	8.5	1.8	1.2	1.8
18	8.5	12	16	23	19	22	1.4	8.5	5.6	2.2	1.1	1.6
19	7.9	13	*17	26	18	23	1.1	22	5.6	1.2	1.1	1.4
20	8.5	13	17	20		25	1.2	71	4.1	1.6	1.2	*1.1
21	8.5	14	16	20	b18	20	2.2	97	4.1	1.0	1.4	1.0
22	*8.5	*15		15		20	4.1	102	3.5	1.0	1.2	1.2
23	7.9	12		20		23	5.2	109	2.2	1.0	1.8	1.1
24	7.9	9.0		17	18	25	26	105	2.2	1.0	1.4	1.6
25	7.9	9.0		20	b18	*32	15	84	2.2	.8	.8	1.8
26	7.9	12	b15	18	b18	30	20	93	2.0	1.0	.8	2.0
27	8.5	8.5		15	19	36	20	*82	1.2	118	1.4	1.2
28	8.5			13	20	26	*9.0	121	1.2	12	1.8	1.4
29	8.5	b14		20	-	6.9	5.2	76	*1.2	4.7	1.6	1.1
30	8.5			18	-	4.8	3.2	58	1.2	2.0	1.4	1.6
31	9.0	-		14	-	2.7	-	94	-	2.4	1.2	-
Total	144.5	316.7	489	518	495	620.4	143.4	1,180.1	1,076.8	181.3	48.6	37.0
Mean	4.66	10.6	15.8	16.7	17.7	20	4.78	38.1	35.9	5.85	1.57	1.23
Ac-ft	287	628	970	1,030	982	1,230	284	2,340	2,140	360	96	73

Calendar year 1952: Max 525 Min 0.3 Mean 44.4 Ac-ft 32,250
Water year 1952-53: Max 121 Min 0.7 Mean 14.4 Ac-ft 10,420

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

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 River basin.

Fairview ditch diverts water from tributaries of San Rafael River and Price River to San Pitch River in Sevier Lake basin. Gage is located in SE¼ sec. 26, T. 13 S., R. 5 E.

Candland ditch diverts water from tributary of San Rafael River to San Pitch River. Gage is located in NW¼ sec. 1, T. 15 S., R. 5 E.

Coal Fork ditch diverts water from tributary of San Rafael River to San Pitch River. Gage is located in SW¼ sec. 24, T. 15 S., R. 5 E.

Twin Creek tunnel diverts water from tributary of San Rafael River to San Pitch River. Gage is located in SE¼ sec. 35, T. 15 S., R. 5 E.

Spring City tunnel diverts water from tributary of San Rafael River to San Pitch River. Gage is located in SE¼ sec. 16, T. 16 S., R. 5 E.

Black Canyon ditch diverts water from tributary of San Rafael River to San Pitch River. Gage is located in SE¼ sec. 10, T. 16 S., R. 5 E.

Cedar Creek tunnel diverts water from tributary of San Rafael River to San Pitch River. Gage is located in SE¼ sec. 10, T. 16 S., R. 5 E.

Reeder ditch diverts water from tributary of San Rafael River to San Pitch River. Gage is located in NW¼ sec. 32, T. 16 S., R. 5 E.

John August ditch diverts water from tributary of San Rafael River to San Pitch River. Gage is located in NW¼ sec. 35, T. 17 S., R. 4 E.

Madsen ditch diverts water from tributary of San Rafael River to San Pitch River. Gage is located in SW¼ sec. 23, T. 17 S., R. 4 E.

Ephraim tunnel diverts water from tributary of San Rafael River to San Pitch River. Gage is located in NW¼ sec. 24, T. 17 S., R. 4 E.

Larsen tunnel diverts water from tributary of San Rafael River to San Pitch River. Gage is located in SE¼ sec. 10, T. 17 S., R. 4 E.

Horseshoe tunnel diverts water from tributary of San Rafael River to San Pitch River. Gage is located in SW¼ sec. 2, T. 17 S., R. 4 E.

Transmountain diversions, in acre-feet, from Colorado River basin to Sevier Lake basin, water year 1952-53

Month	Fairview ditch	Candland ditch	Coal Fork ditch	Twin Creek tunnel	Spring City tunnel	Black Canyon ditch	Cedar Creek tunnel
October	0	6	0	0	53	0	1
November	0	1	0	0	36	0	0
December	0	0	0	0	31	0	0
January	0	0	0	0	25	0	0
February	0	0	0	0	22	0	0
March	0	0	0	0	25	0	0
April	0	0	3	0	45	0	0
May	0	31	43	0	170	1	1
June	158	39	128	83	1,210	135	144
July	744	42	28	19	300	44	51
August	633	15	3	1	36	0	18
September	165	0	0	0	3	0	8
Water year 1952-53	1,700	134	205	103	1,960	180	223

Month	Reeder ditch	John August ditch	Madsen ditch	Ephraim tunnel	Larsen ditch	Horse-shoe tunnel	
October	6	0	0	37	0	0	
November	1	0	0	21	0	0	
December	0	0	0	12	0	0	
January	0	0	0	6	0	0	
February	0	0	0	6	0	0	
March	0	0	0	12	0	0	
April	0	0	0	24	0	0	
May	0	0	4	97	1	0	
June	17	62	8	2,990	736	390	
July	17	114	6	421	184	143	
August	3	58	2	65	2	6	
September	0	1	0	31	0	0	
Water year 1952-53	44	235	20	3,720	923	539	

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 SW¼ sec. 17, T. 36 S., R. 3 W. Figures of diversion, in acre-feet, for the 1953 water year are as follows: October, 301; May, 287; June, 549; July, 455; August, 178; September, 107; total for the water year, 1,880.

Sevier River below San Pitch River, near Gunnison, Utah

Location.--Lat 39°09'00", long. 111°52'30", in NE¼ sec. 14, T. 19 S., R. 1 W., on left bank 1,000 ft downstream from San Pitch River and 3 miles west of Gunnison.

Drainage area.--4,880 sq mi, approximately.

Records available.--October 1917 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 4,900 ft (from topographic map).

Average discharge.--36 years, 229 cfs.

Extremes.--Maximum discharge during year, 563 cfs Feb. 9 (gage height, 3.48 ft); minimum daily, 49 cfs July 9.
1917-53: 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. Flow regulated by reservoirs and many diversions above station for irrigation. Most of flow diverted above station during irrigation season.

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

1.3	40	2.5	262
1.5	61	3.0	410
2.0	137	3.3	500

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	179	253	288	291	285	413	141	115	139	72	120	68
2	184	253	294	291	288	398	172	126	126	62	201	66
3	188	256	294	291	300	401	167	129	128	63	137	85
4	242	259	294	288	374	398	137	129	141	58	124	77
5	265	259	291	288	395	401	110	137	145	59	154	71
6	245	259	288	288	404	401	106	128	152	*58	111	73
7	220	259	297	288	425	404	118	118	154	56	126	71
8	220	256	303	291	446	413	131	118	148	53	145	78
9	230	259	306	294	494	425	111	131	135	49	150	96
10	242	248	300	300	494	437	100	133	137	67	160	89
11	239	248	306	300	470	449	104	141	135	124	108	74
12	230	250	303	306	470	464	88	133	124	82	104	78
13	220	250	306	306	482	479	120	129	111	61	*115	81
14	194	253	303	320	482	479	145	128	113	60	104	85
15	206	253	306	317	479	482	129	118	101	60	110	92
16	214	256	308	*306	*470	479	113	106	82	60	118	94
17	253	262	308	297	461	470	110	113	74	56	108	90
18	294	268	311	314	458	410	111	111	68	65	104	90
19	274	265	*320	326	446	225	106	113	60	68	101	90
20	268	271	317	332	419	344	101	*167	66	67	95	*96
21	279	291	308	323	413	356	96	239	74	73	94	95
22	279	*297	300	317	395	377	92	201	76	89	89	96
23	*276	285	297	311	395	350	90	217	89	71	89	89
24	274	276	288	308	401	*303	101	233	90	62	88	90
25	274	308	276	306	359	303	98	188	82	61	88	90
26	268	306	285	303	338	274	96	184	80	60	82	92
27	259	282	282	303	353	239	103	174	77	65	81	89
28	256	268	282	294	383	181	*111	186	78	164	81	145
29	262	276	282	291	-	141	111	165	*77	78	78	106
30	259	285	285	294	-	141	104	129	94	76	78	94
31	262	-	288	288	-	154	-	137	-	146	80	-
Total	7,555	8,011	9,216	9,372	11,579	11,191	3,422	4,576	3,156	2,245	3,423	2,630
Mean	244	267	297	302	414	361	114	148	105	72.4	110	87.7
Ac-ft	14,990	15,890	18,280	18,590	22,970	22,200	6,790	9,080	6,260	4,450	6,790	5,220

Calendar year 1952: Max 1,950 Min 66 Mean 388 Ac-ft 281,900
Water year 1952-53: Max 494 Min 49 Mean 209 Ac-ft 151,500

* Discharge measurement made on this day.

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 1953.

Gage.--Staff gage below gage height 60 ft and wire-weight gage above, read once daily.

Extremes.--Maximum contents during year, 231,800 acre-ft, Mar. 26-29, Apr. 1, 3 (gage height, 79.6 ft); minimum 78,630 acre-ft Sept. 28 (gage height, 54.8 ft).
1914-53: Maximum contents, 251,000 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-foot earth-fill dam. Storage began about 1904. Dam ultimately raised to 90 ft by June 1916. Capacity, 236,000 acre-ft between gage heights 6 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.

Contents at 8 a.m., acre-feet, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	132,500	142,900	152,000	170,100	189,400	211,600	231,800	214,500	181,600	148,400	110,300	85,840
2	132,500	142,900	152,000	170,900	189,400	213,500	230,700	214,500	179,900	146,300	110,800	85,520
3	133,100	142,900	153,400	171,800	189,400	213,500	231,800	214,500	178,300	144,900	110,800	85,200
4	133,800	143,500	154,100	171,800	191,200	214,500	230,700	214,500	176,600	142,900	110,800	83,930
5	133,800	143,500	154,900	172,600	191,200	215,400	229,700	213,500	175,800	140,200	111,700	83,300
6	134,400	143,500	154,900	173,400	192,000	215,400	229,700	212,500	167,000	138,900	111,700	82,660
7	135,000	143,500	154,900	173,400	192,900	217,500	229,700	212,500	173,400	136,300	111,700	82,040
8	135,000	143,500	156,300	174,200	193,800	217,500	229,700	210,600	172,600	134,400	111,700	81,730
9	135,000	143,500	156,300	175,000	194,700	218,500	228,600	208,700	172,600	132,500	111,700	81,100
10	135,000	143,500	157,800	175,000	196,500	219,500	228,600	208,700	172,600	130,100	111,200	80,790
11	135,000	144,200	157,800	176,600	197,400	219,500	228,600	206,700	172,600	128,300	111,700	80,480
12	135,000	144,200	158,600	176,600	198,300	221,500	228,600	206,700	172,600	127,100	111,700	79,860
13	135,000	144,200	159,300	177,400	198,300	221,500	228,600	204,800	171,800	125,400	110,800	79,550
14	135,000	144,200	159,300	178,300	200,200	222,500	228,600	203,000	171,800	124,200	109,800	79,240
15	135,000	144,200	160,800	178,300	201,100	223,500	228,600	202,100	170,900	123,100	108,900	79,240
16	135,600	142,900	160,800	179,900	202,100	224,500	228,600	201,100	170,100	122,000	107,100	79,240
17	136,300	144,200	161,600	179,900	203,000	225,500	228,600	199,300	169,400	121,500	106,200	79,240
18	136,300	144,200	162,300	180,800	203,900	226,500	228,600	198,300	167,800	120,900	104,400	79,240
19	136,900	144,900	162,300	181,600	203,900	227,600	228,600	197,400	166,200	119,800	102,700	79,240
20	137,600	146,300	163,900	182,500	205,800	227,600	228,600	195,600	164,700	119,800	101,100	79,240
21	137,600	146,300	163,900	183,300	205,800	228,600	227,600	195,600	163,100	117,700	99,450	79,240
22	138,200	147,000	163,900	183,300	207,700	229,700	226,500	193,800	161,600	116,700	97,540	79,240
23	138,900	147,700	165,400	184,200	207,700	229,700	224,500	193,800	160,800	115,700	95,630	79,240
24	139,500	148,400	165,400	185,000	207,700	230,700	224,500	192,900	158,600	114,600	94,220	79,240
25	140,200	149,100	167,000	185,000	209,600	230,700	222,500	192,000	157,800	113,600	92,810	79,240
26	140,200	149,100	167,000	185,900	209,600	231,800	221,500	190,300	156,300	112,600	91,430	79,240
27	140,800	149,800	167,800	185,900	210,600	231,800	218,500	188,500	154,900	111,700	90,090	79,240
28	141,500	150,500	168,600	186,700	211,600	231,800	216,400	186,700	154,100	110,800	89,090	78,630
29	141,500	150,500	168,600	187,600	-	231,800	216,400	186,700	152,000	110,800	88,430	78,930
30	142,200	151,200	169,400	187,600	-	230,700	215,400	184,200	157,100	110,300	87,460	78,930
31	142,900	-	170,100	187,600	-	230,700	-	183,300	-	110,300	86,810	-

Monthly gage height and contents, water year October 1952 to September 1953

Date	Gage height (feet)†	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	67.8	133,800	-
Oct. 31	69.2	142,900	+9,100
Nov. 30	70.4	151,200	+8,300
Dec. 31	72.9	170,100	+18,900
Calendar year 1952	-	-	+134,470
Jan. 31	75.0	187,600	+17,500
Feb. 28	77.6	211,600	+24,000
Mar. 31	79.5	230,700	+19,100
Apr. 30	78.0	215,400	-15,300
May 31	74.5	183,300	-32,100
June 30	71.2	157,100	-26,200
July 31	63.5	110,300	-46,800
Aug. 31	57.4	86,810	-23,490
Sept.30	54.9	78,930	-7,880
Water year 1952-53	-	-	-54,870

† Gage height at 8 a.m.

Sevier River near Juab, Utah

Location.--Lat 39°22', long. 112°02', in NE¼ 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.--5,120 sq mi, approximately.

Records available.--September 1911 to September 1953.

Gage.--Water-stage recorder. Rubble masonry control since Apr. 16, 1914. Altitude of gage is 4,940 ft (by barometer). Prior to Apr. 8, 1938, at present site and datum. Apr. 8, 1938, to Mar. 31, 1942, at site 1,300 ft upstream at different datum.

Average discharge.--42 years, 248 cfs.

Extremes.--Maximum discharge during year, 1,090 cfs July 8 (gage height, 4.70 ft); minimum daily, 3.8 cfs Oct. 3-5.
1911-53: 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. No diversions between station near Gunnison and this station. Flow regulated by Sevier Bridge Reservoir (see preceding page).

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 1-14, May 17-22, July 16, 17)

1.0	5.0	3.0	530
1.2	34	4.0	860
1.5	103	4.7	1,100
2.0	238		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.2	159	5.7	8.7	8.7	13	*81	247	960	898	238	461
2	4.2	157	5.7	8.7	8.7	13	136	250	*962	892	110	461
3	3.8	154	5.0	8.7	8.7	13	170	250	934	916	36	438
4	3.8	154	5.7	8.7	8.7	13	173	351	727	926	34	426
5	3.8	181	5.7	9.6	8.7	13	173	497	623	1,000	34	426
6	28	201	5.0	8.7	8.7	13	173	548	587	1,050	36	424
7	*122	201	5.0	8.7	8.7	13	173	584	473	1,060	146	366
8	165	203	5.0	12	11	13	206	623	371	1,070	255	322
9	162	201	5.0	9.6	13	12	168	644	351	1,080	170	322
10	158	198	5.0	8.7	11	11	131	654	354	1,080	*113	360
11	155	198	5.0	9.6	12	11	131	688	270	948	113	395
12	152	198	5.7	*9.6	12	12	131	724	218	853	335	268
13	148	198	5.7	9.6	12	12	131	727	328	786	584	176
14	62	255	5.7	9.6	12	12	131	724	424	727	664	146
15	7.9	325	*5.7	9.6	12	12	131	738	476	599	741	128
16	7.9	162	6.4	9.6	*12	13	131	748	512	*432	772	128
17	7.9	8.7	6.4	9.6	13	13	131	752	629	238	828	103
18	7.9	*8.7	7.1	8.7	13	13	128	752	790	241	986	83
19	7.9	8.7	7.1	8.7	13	12	187	755	794	458	997	83
20	7.9	8.7	7.1	9.6	13	12	232	*668	744	584	909	*83
21	7.9	8.7	7.1	8.7	13	12	412	614	654	632	906	83
22	7.9	8.7	7.1	8.7	13	12	569	608	629	692	902	83
23	*8.7	8.7	6.4	8.7	13	12	744	668	629	727	867	83
24	8.7	9.6	7.1	8.7	13	31	846	720	688	596	842	115
25	9.6	7.9	7.1	8.7	13	81	860	783	752	518	818	138
26	9.6	6.4	7.1	8.7	13	81	599	836	748	521	713	138
27	9.6	6.4	7.1	8.7	13	81	*1,000	832	836	429	593	138
28	9.6	6.4	7.9	8.7	14	182	710	828	906	316	521	138
29	9.6	5.7	7.9	8.7	-	270	569	874	*902	302	518	138
30	9.6	5.7	8.7	8.7	-	189	386	902	902	235	515	138
31	84	-	8.7	7.9	-	101	-	937	-	235	479	-
Total	1,394.0	3,254.0	196.9	281.2	324.9	1,301	9,743	20,526	19,173	21,041	15,775	6,791
Mean	45.0	108	6.35	9.07	11.6	42.0	325	662	639	679	509	226
Ac-ft	2,760	6,450	391	558	644	2,580	19,320	40,710	38,030	41,730	31,290	13,470

Calendar year 1952: Max 880 Min - Mean 198 Ac-ft 143,600
Water year 1952-53: Max 1,080 Min 3.8 Mean 273 Ac-ft 197,900

* Discharge measurement made on this day.

Sevier River near Lynndyl, Utah

Location.--Lat 39°29', long. 112°24', in SE¼ sec. 27, T. 15 S., R. 5 W., on right bank 1½ miles downstream from highway bridge and 3½ miles southwest of Lynndyl.

Drainage area.--6,270 sq mi, approximately.

Records available.--April 1914 to October 1919, November 1942 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 4,660 ft (by barometer).

Average discharge.--15 years (1914-19, 1943-53), 223 cfs.

Extremes.--Maximum discharge recorded during year, 858 cfs July 11 (gage height, 6.31 ft); minimum daily, 16 cfs for several days during January and February.
1914-19, 1942-53: Maximum daily discharge, 1,820 cfs June 9, 1914, based on records at Leamington; minimum recorded, 9.6 cfs Jan. 22, 1945.

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. 127). Several diversions for irrigation between reservoir and station.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 14 to Jan. 5)

1.8	13	4.0	265
2.2	30	5.0	504
2.5	50	6.0	766
3.0	100	6.3	847
3.5	170		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	70	68		20	17	20	198	359	811	720	265	263
2	59	137		20	17	20	132	218	786	707	362	250
3	55	185	b50	19	16	21	117	200	753	701	305	252
4	52	189		20	16	20	201	191	535	696	140	248
5	51	191		19	16	20	211	191	420	717	118	236
6	49	196	48	19	16	20	222	*333	382	723	111	240
7	48	234	46	20	16	20	228	407	286	780	105	242
8	41	238	43	20	17	19	234	410	191	777	101	232
9	107	238	44	19	19	19	257	449	180	788	230	185
10	132	238	47	19		20	276	452	184	815	*254	194
11	139	234	31	20		19	209	459	114	836	150	*207
12	142	238	29	*20	b17	19	203	464	79	780	133	305
13	156	242	26	19		19	200	462	190	649	174	278
14	154	244	24	21		20	196	479	278	620	407	167
15	162	272	24	20	16	20	192	464	351	555	526	154
16	89	362	*23	19	17	20	192	484	413	*538	586	115
17	60	335	22	18	16	45	192	506	526	355	641	107
18	60	*148	22	19	16	66	191	512	661	280	659	105
19	60	102	22	19	17	70	189	*514	639	267	752	77
20	*61	97	22	19	(*)	74	203	539	578	289	836	71
21	63	92	21	18		75	276	496	481	383	742	81
22	68	91	21	18	b18	74	338	424	*496	466	734	85
23	69	89	21	18		*74	434	485	464	514	720	91
24	61		22	18		73	571	558	456	550	646	97
25	61			18		73	669	646	476	494	589	101
		b75										
26	63		b21	18	19	88	709	689	545	362	563	131
27	63			18	19	108	731	689	558	362	509	151
28	62			18	19	111	831	653	607	352	393	157
29	65	b60		18	-	117	733	706	698	228	312	156
30	65		21	16	-	278	459	739	715	205	301	148
31	66	-	20	16	-	383	-	791	-	252	292	-
Total	2,453	4,940	954	583	482	2,025	9,794	14,949	13,853	16,761	12,656	5,127
Mean	79.1	165	30.8	18.8	17.2	65.3	326	482	462	541	408	171
Ac-ft	4,870	9,800	1,890	1,160	956	4,020	19,430	29,650	27,480	33,240	25,100	10,170

Calendar year 1952: Max 904 Min - Mean 190 Ac-ft 138,200
Water year 1952-53: Max 836 Min 16 Mean 232 Ac-ft 167,800

* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record May 23 to June 21; discharge estimated on basis of records for station near Juab and record of diversions between Juab and Lynndyl stations.

Chalk Creek near Fillmore, Utah

Location.--Lat 38°58', long. 112°18', in NE¼ sec. 28, T. 21 S., R. 4 W., on right bank 1 mile east of Fillmore and 2¼ miles downstream from South Fork.

Drainage area.--60 sq mi, approximately.

Records available.--May to July 1914, March 1944 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 5,180 ft (by barometer). May to July 1914, staff gage at site 1¼ miles upstream at different datum.

Average discharge.--9 years (1944-53), 36.3 cfs.

Extremes.--Maximum discharge during year, 345 cfs July 31; minimum daily, 9.4 cfs Dec. 24. 1914, 1944-53: Maximum discharge, 509 cfs May 4, 1962; minimum daily, 4.9 cfs Dec. 9, 1951.

Remarks.--Records good. 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 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13	13	13	12	14	27	32	86	142	30	75	13
2	13	13	13	12	14	25	32	80	137	30	23	12
3	13	13	13	11	14	23	33	74	132	28	19	12
4	12	13	13	11	15	21	34	73	127	27	19	12
5	13	13	13	11	15	21	35	73	118	27	18	12
6	13	13	13	11	15	20	35	78	114	25	17	11
7	13	13	13	11	15	21	34	88	107	25	17	11
8	13	13	13	11	15	23	33	98	104	24	17	11
9	13	13	13	11	12	27	30	107	101	25	18	11
10	13	12	13	11	13	28	30	99	94	29	24	11
11	13	12	13	11	15	29	29	95	90	30	17	11
12	13	12	13	11	17	28	27	89	89	25	16	11
13	13	13	13	11	16	28	27	86	86	24	16	11
14	13	13	13	11	16	26	26	86	80	24	16	11
15	13	14	13	11	16	25	27	90	74	24	15	11
16	13	15	13	12	16	24	28	92	67	24	15	11
17	13	13	13	13	17	24	33	96	63	24	15	11
18	13	15	12	14	17	23	34	102	60	22	14	11
19	13	14	12	15	16	23	37	111	57	20	14	11
20	13	14	13	14	16	24	44	138	53	20	13	11
21	13	13	14	14	15	23	55	170	49	19	13	11
22	13	13	12	14	16	22	73	181	47	18	13	11
23	13	12	12	14	17	22	94	181	44	18	13	11
24	13	9.7	9.4	14	17	22	107	170	42	17	13	11
25	13	12	12	14	17	25	106	163	40	17	13	11
26	13	10	12	15	17	27	108	161	38	18	13	11
27	13	9.6	12	15	19	30	111	169	36	18	13	11
28	13	12	12	14	24	34	112	161	34	18	14	11
29	13	11	12	14	-	37	99	149	33	25	13	11
30	13	13	12	14	-	36	96	137	32	37	13	11
31	13	-	12	14	-	34	-	137	-	35	13	-
Total	402	379.3	389.4	391	446	802	1,801	3,620	2,290	747	542	336
Mean	13.0	12.6	12.6	12.6	15.9	25.9	53.4	117	76.3	24.1	17.5	11.2
Ac-ft	797	752	772	776	885	1,590	3,180	7,180	4,540	1,480	1,080	666

Calendar year 1952: Max 477 Min 7.4 Mean 62.1 Ac-ft 45,090
Water year 1952-53: Max 181 Min 9.4 Mean 32.7 Ac-ft 23,700

Three Creeks near Beaver, Utah

Location.--Lat 38°17'40", long. 112°25'40", in NW¼NW¼ sec. 16, T. 29 S., R. 5 W., on right bank half a mile downstream from Three Creeks Dam, half a mile upstream from Merchant Creek, and 16 miles east of Beaver.

Drainage area.--19.5 sq mi.

Records available.--July 1947 to September 1953.

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.--6 years, 11.1 cfs.

Extremes.--Maximum discharge during year, 28 cfs June 4, 5 (gage height, 1.95 ft); minimum daily, 1.7 cfs May 22.
1947-53: 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 of peak flow; minimum, 0.2 cfs May 26, 27, 1951, when gates of Three Creeks Dam were closed.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are fair. Flow affected by storage in Puffer Lake and in Three Creeks Reservoir (capacity, 2,020 acre-ft) completed in 1950.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.1	1.0	1.5	7.8
1.2	1.9	1.7	15
1.3	3.3	2.0	30

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.0	6.8		3.8	3.5		4.0	8.7	2.3	6.8	8.1	4.0
2	9.0	6.8		3.7	3.5		4.4	8.4	11	6.6	7.3	4.0
3	*8.7	6.8		3.7	3.5		5.0	7.8	25	6.3	6.0	4.0
4	9.0	6.6		3.7	3.5		5.6	7.3	28	6.3	5.6	4.0
5	9.0	6.3		3.7	3.5		5.8	7.3	28	6.3	5.3	3.8
6	8.7	6.6		3.7	3.5	a4.0	5.6	7.3	27	6.3	5.0	3.8
7	8.7	6.3		3.7	*3.7		5.3	7.3	27	6.0	*5.0	3.8
8	8.4	6.3		3.7	3.8		4.6	7.8	26	5.8	5.0	3.8
9	8.4	6.0	a5.0	3.7	3.8		5.0	8.1	25	5.8	5.3	4.0
10	8.4	b6.0		3.7	3.5		4.6	8.1	25	6.3	5.6	3.8
11	8.4	b6.0		3.7	3.7		4.4	7.8	24	6.3	5.0	3.8
12	8.4	*6.3		3.8	3.8		4.0	7.6	24	5.8	4.8	3.7
13	8.1	5.6		3.8	3.7		4.0	7.6	24	5.8	5.0	3.7
14	8.1	5.3		3.5	3.8		4.2	7.3	22	6.3	5.3	3.7
15	8.1	5.8		3.7	3.8		4.4	7.0	21	6.3	4.8	*3.8
16	8.1	6.0		3.5	3.7		4.6	7.0	21	6.0	4.6	3.7
17	8.1	6.0	*4.6	3.8	3.5	a4.2	4.6	7.0	20	6.0	4.6	3.7
18	8.1		4.4	3.8	3.8		4.2	7.6	19	5.8	4.4	3.5
19	7.8		4.4	3.7	3.8		4.8	7.6	18	5.8	4.2	3.5
20	7.8		4.2	3.7	3.8		5.8	8.1	17	5.6	4.2	3.5
21	7.8		4.2	3.7	3.7		6.8	4.8	18	5.3	4.2	3.5
22	7.6	b5.5	3.8	3.2	3.8		*7.3	1.7	17	5.3	4.0	3.5
23	7.6		4.0	3.7	4.0		7.6	1.9	15	5.0	4.0	3.5
24	7.6		3.7	3.5	4.0		8.7	2.0	13	5.0	4.0	3.3
25	7.3		4.0	3.7	3.8	*4.4	9.0	2.0	11	5.3	4.0	3.5
26	7.3		4.0	3.7	4.0	4.6	9.4	*2.1	9.4	6.0	5.0	3.5
27	7.0		4.0	3.5	4.0	5.0	9.7	2.1	8.1	6.3	4.8	3.5
28	7.0		4.0	3.2	4.0	5.3	10	2.1	7.6	7.0	4.4	3.5
29	7.0	a5.5	3.8	3.7	-	5.0	9.7	2.1	7.0	5.8	4.2	3.5
30	6.8		3.8	3.5	-	4.8	9.4	2.1	*7.0	6.3	4.2	3.7
31	6.8	-	3.8	3.5	-	4.4	-	2.1	-	7.3	4.2	-
Total	248.1	177.0	140.7	113.0	104.5	132.3	182.5	177.7	547.4	186.8	152.1	110.6
Mean	8.00	5.90	4.54	3.65	3.73	4.27	6.08	5.73	18.2	6.03	4.91	3.69
Ac-ft	492	351	279	224	207	262	362	352	1,090	371	302	219

Calendar year 1952: Max 166 Min 2.0 Mean 21.9 Ac-ft 15,900
Water year 1952-53: Max 28 Min 1.7 Mean 6.23 Ac-ft 4,510

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and records for Beaver River near Beaver.
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 4½ miles east of Beaver.

Drainage area.--82 sq mi, approximately.

Records available.--June to September 1906, March 1914 to September 1953.

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.--39 years (1914-53), 55.7 cfs.

Extremes.--Maximum discharge during year, 149 cfs July 11 (gage height, 2.93 ft); minimum, 12 cfs Sept. 4.
1914-53: 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, 3.0 cfs Dec. 4, 1950, Jan. 12, 1951.

Remarks.--Records good except those for periods of ice effect, which are fair. No diversions above station for irrigation. Water diverted for hydroelectric power, but returned to stream above station. Some regulation by powerplants and several small reservoirs.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.0	13
2.2	27
2.5	63
2.9	139

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*29	25	b22	b21	22	21	24	38	69	41	44	18
2	30	25	23	21	23	21	25	37	73	39	44	18
3	29	25	24	23	23	b21	25	34	90	37	32	17
4	28	24	b23	b21	22	b21	35	37	99	36	31	17
5	27	23	23	23	23	25	33	38	93	35	25	18
6	27	24	23	22	24	27	33	44	95	34	26	17
7	28	23	22	24	22	25	26	49	93	32	*25	17
8	26	25	21	24	23	25	22	53	92	31	25	18
9	26	21	21	23		26	27	55	97	31	25	18
10	26	22	21	23		26	26	48	107	34	26	18
11	26	23	21	22	b22	26	25	45	115	38	25	17
12	26	24	21	23		24	22	43	119	34	21	17
13	26	*23	20	24		23	22	41	124	33	23	17
14	26	22	21	23		21	23	41	113	33	25	18
15	26	21	22	23	22	21	22	39	101	33	24	*18
16	26		22	b23	b22	23	23	39	95	32	22	18
17	27		*22	24	b22	24	25	42	92	31	21	17
18	26		23	25	21	24	25	44	86	27	21	17
19	25		23	25		23	25	47	83	24	19	16
20	25		23	*25		22	29	57	79	31	19	15
21	27		22	25	b20	23	44	71	76	22	18	15
22	26					23	*43	88	74	22	25	15
23	25	b22		b23	21	23	45	86	69	22	25	16
24	25				21	23	52	77	63	23	25	15
25	25		b20	23	*b21	*26	55	76	59	23	25	15
26	25			24	b21	25	59	*77	53	35	30	15
27	25			23	22	30	57	73	49	26	26	15
28	25			b23	21	29	55	71	47	32	25	15
29	25		b22	24	-	32	45	65	44	30	22	16
30	25		22	24	-	28	42	63	*43	30	21	15
31	25	-	23	23	-	23	-	68	-	36	20	-
Total	813	680	672	720	608	754	1,014	1,686	2,492	967	785	498
Mean	26.2	22.7	21.7	23.2	21.7	24.3	33.8	54.4	83.1	31.2	25.3	16.6
Ac-ft	1,610	1,350	1,330	1,430	1,210	1,500	2,010	3,340	4,940	1,920	1,560	988

Calendar year 1952: Max 535 Min - Mean 89.1 Ac-ft 64,670
Water year 1952-53: Max 124 Min 15 Mean 32.0 Ac-ft 23,190

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 S½ sec. 30, T. 29 S., R. 8 W., on left bank 600 ft downstream from bridge on State Highway 21, a quarter of a mile upstream from Indian Creek, and three-quarters of a mile south of Adamsville.

Drainage area.--272 sq mi.

Records available.--December 1913 to September 1936, October 1937 to September 1953.

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.--38 years (1914-36, 1937-53), 38.3 cfs.

Extremes.--Maximum discharge during year, 411 cfs July 15 (gage height, 3.63 ft); minimum daily, 0.5 cfs July 13, 14, 25.
1913-36, 1937-53: Maximum discharge, 1,090 cfs July 23, 1941, from rating curve extended above 500 cfs; no flow during periods in 1924, 1931, 1934-35, 1939.

Remarks.--Records good. 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 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 23 to Apr. 1, Sept. 5-22)

0.6	0.3	1.1	7.2
.7	.7	1.2	11
.8	1.4	1.4	22
.9	2.6	1.7	49
1.0	4.5	2.0	88

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*19	44	53	54	42	62	27	10	2.9	0.6	2.8	1.0
2	20	61	59	53	40	51	16	11	2.6	.6	7.8	1.0
3	19	57	55	54	39	48	15	8.9	3.1	.6	3.4	.9
4	21	56	56	54	40	50	12	7.2	2.9	.7	2.3	.9
5	23	56	55	51	39	49	10	6.9	3.1	.7	1.7	.8
6	25	56	55	51	40	49	9.6	7.5	3.4	.7	1.8	.8
7	25	56	56	53	39	47	7.8	5.2	3.6	.7	*1.6	.8
8	24	56	59	60	42	47	7.5	3.8	2.9	.7	1.6	1.0
9	18	54	57	55	44	47	5.8	7.2	2.6	.8	1.7	1.0
10	16	51	59	53	46	46	5.8	7.8	2.3	.7	1.8	.8
11	16	57	60	50	44	40	5.8	5.8	2.3	.6	1.9	.6
12	17	55	60	51	47	42	5.5	4.7	2.1	.6	1.7	.6
13	17	*54	61	50	48	42	5.5	5.5	2.2	.5	1.4	.6
14	20	56	60	56	48	43	5.5	5.5	1.9	.5	2.5	.7
15	21	61	62	50	48	41	5.0	6.9	1.8	58	1.9	.6
16	23	64	61	49	45	40	4.7	7.2	1.7	18	1.7	*.7
17	21	66	*62	64	46	40	4.5	11	1.6	4.7	1.6	.8
18	21	61	65	59	45	40	5.5	10	1.5	1.3	1.9	.8
19	21	60	64	69	38	40	4.5	8.5	1.4	1.1	1.8	.7
20	23	64	62	65	41	45	4.7	8.2	1.3	.9	1.6	.8
21	25	62	57	*56	41	45	4.0	5.8	1.3	.8	1.3	.9
22	29	56	54	54	42	44	*5.0	5.2	1.2	.8	1.2	.8
23	32	50	51	56	47	45	5.0	5.0	1.2	.6	1.2	.7
24	30	51	51	56	44	45	4.3	4.3	1.0	.6	1.2	.7
25	30	53	51	59	*43	*45	3.8	4.3	.9	.5	1.0	.8
26	33	51	54	53	51	*43	3.1	4.0	.8	.6	1.1	.8
27	33	49	56	48	67	42	3.1	*4.0	.8	.6	1.3	.8
28	32	47	55	45	75	44	6.6	3.8	.8	1.2	1.2	.9
29	31	45	54	48	-	47	6.9	3.8	.7	2.2	1.2	1.0
30	28	50	54	45	-	55	8.5	3.8	*.6	1.2	1.1	.9
31	30	-	54	44	-	41	-	3.4	-	3.1	1.0	-
Total	743	1,659	1,772	1,665	1,271	1,405	218.0	196.2	56.5	105.2	57.3	24.2
Mean	24.0	55.3	57.2	53.7	45.4	45.3	7.27	6.33	1.88	3.39	1.85	0.81
Ac-ft	1,470	3,290	3,510	3,300	2,520	2,790	432	389	112	209	114	48

Calendar year 1952: Max 582 Min 16 Mean 83.0 Ac-ft 60,250
Water year 1952-53: Max 75 Min 0.5 Mean 25.1 Ac-ft 18,180

* Discharge measurement made on this day.

Rockyford Reservoir near Minersville, Utah

Location.--Lat 38°14', long. 112°50', in NE¼ sec. 11, T. 30 S., R. 9 W., at Rockyford Dam on Beaver River, 5 miles east of Minersville.

Drainage area.--510 sq mi, approximately.

Records available.--October 1937 to September 1953.

Gage.--Staff gage.

Extremes.--Maximum contents observed during year, 20,970 acre-ft Apr. 18 (gage height, 48.9 ft); minimum observed, 3,130 acre-ft Sept. 18 (gage height, 21.0 ft).
1937-53: Maximum contents observed, 23,810 acre-ft Apr. 22, 25, 28, 30, May 1, 1945; no contents Oct. 16, 31, 1939.

Remarks.--Reservoir is formed by earth-fill dam completed in 1914. Capacity, 23,260 acre-ft between gage heights 0.0 ft (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 Milford Valley.

Contents, in acre-feet, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-	-	-	15,530	-	-	-	20,590		12,030	-	-
2	-	-	-	-	-	-	-	-		-	-	-
3	-	10,940	-	-	-	-	-	-		-	-	-
4	-	-	-	-	-	-	-	-		-	-	-
5	-	-	-	-	-	-	-	-		-	-	-
6	-	-	-	-	-	-	-	-		-	-	-
7	-	-	-	-	-	-	-	-		-	7,490	-
8	-	-	-	-	-	-	-	-		-	-	-
9	-	-	-	-	-	-	-	-		10,610	-	-
10	-	-	-	-	-	-	-	-		-	7,100	-
11	-	-	-	-	-	20,120	-	-		-	-	-
12	-	-	-	16,620	-	-	-	-		-	-	-
13	-	-	-	-	-	-	-	-		-	-	-
14	-	-	-	-	-	-	-	-		-	-	-
15	-	11,960	-	-	-	-	-	-		-	-	-
16	-	-	-	-	-	-	-	-		-	-	-
17	-	-	-	-	-	-	-	-		-	6,090	-
18	10,060	-	-	-	-	-	20,970	-		-	-	3,130
19	-	-	-	-	-	-	-	-		-	-	-
20	-	-	-	-	-	-	-	-		9,180	-	-
21	-	-	-	17,280	-	-	-	-		-	-	-
22	-	-	-	-	-	-	-	-		-	-	-
23	-	-	-	-	-	-	-	-		-	-	-
24	-	-	-	-	-	-	-	-		-	-	-
25	-	-	-	-	19,360	20,780	-	-		-	-	-
26	-	-	-	-	-	-	-	-		-	-	-
27	-	-	-	-	-	-	-	17,380		-	4,500	-
28	-	-	15,530	-	19,740	-	-	-		-	-	-
29	-	-	-	-	-	-	-	-		-	-	-
30	-	a13,200	-	-	-	-	a19,620	-	a12,240	8,030	-	a3,240
31	a10,780	-	a15,500	18,040	-	a20,830	-	a17,170		a7,950	a4,250	-

a No gage-height record; contents interpolated.

Monthly gage height and contents, water year October 1952 to September 1953

Date	Gage height (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	35.5	9,930	-
Oct. 31	-	a10,780	+850
Nov. 30	-	a13,200	+2,420
Dec. 31	-	a15,500	+2,300
Calendar year 1952	-	-	+7,900
Jan. 31	45.8	18,040	+2,540
Feb. 28	47.6	19,740	+1,740
Mar. 31	-	a20,830	+1,090
Apr. 30	-	a19,620	-1,210
May 31	-	a17,170	-2,450
June 30	-	a12,240	-4,930
July 31	-	a7,950	-4,290
Aug. 31	-	a4,250	-3,700
Sept.30	-	a3,240	-1,010
Water year 1952-53	-	-	-6,690

a No gage-height record; contents interpolated.

Beaver River at Rockyford Dam, near Minersville, Utah

Location.--Lat 38°14', long. 112°50', in NW¼ sec. 11, T. 30 S., R. 9 W., on right bank half a mile downstream from Rockyford Dam and 4¾ miles east of Minersville.

Drainage area.--512 sq mi.

Records available.--December 1913 to September 1953.

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.--38 years (1914-36, 1937-53), 40.2 cfs.

Extremes.--Maximum daily discharge during year, 116 cfs July 20; minimum daily, 5.2 cfs Sept. 13, 14.
1913-53: Maximum discharge, 727 cfs June 10, 1921 (gage height, 3.53 ft); minimum, 0.3 cfs Mar. 19, 20, 1914.

Remarks.--Records good. One small diversion between dam and station. Flow regulated by Rockyford Reservoir (see preceding page). Numerous diversions above reservoir for irrigation and municipal use.

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 6 to Aug. 19)

0.7	2.5	1.2	43
.8	6.3	1.5	88
.9	12	1.7	124
1.0	21		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27	8.7	7.5	9.3	11	12	16	13	90	96	38	88
2	27	8.7	7.5	9.9	11	12	16	12	90	96	32	88
3	*27	8.7	7.5	9.9	11	12	16	29	90	78	32	86
4	24	8.1	7.5	9.9	11	12	16	53	88	63	32	82
5	19	8.1	7.5	9.9	11	12	16	62	90	84	54	66
6	19	8.1	7.5	10	11	12	18	63	88	95	66	53
7	19	8.1	7.5	10	11	12	16	63	86	95	*64	28
8	19	8.1	7.5	10	12	12	15	63	86	95	68	15
9	19	8.1	7.5	10	12	12	15	82	85	*95	82	11
10	19	8.1	7.5	10	12	12	15	62	85	98	90	9.9
11	19	8.1	7.5	10	12	12	15	60	85	98	93	8.1
12	19	8.1	7.5	10	12	13	15	75	85	102	95	5.5
13	19	*8.1	7.5	10	12	13	15	80	83	105	93	5.2
14	19	8.1	8.1	10	12	13	15	88	83	107	93	5.2
15	19	8.1	8.1	10	12	13	15	88	86	111	95	5.9
16	19	8.1	8.1	10	12	13	15	90	86	111	95	*5.9
17	19	8.1	8.1	10	12	13	15	90	85	113	95	6.3
18	19	8.1	*8.1	10	12	13	15	88	86	113	95	6.3
19	19	7.5	8.7	10	12	13	14	88	88	114	93	6.3
20	19	7.5	8.7	10	12	13	14	88	88	116	95	6.3
21	19	7.5	8.7	*10	12	13	14	85	88	114	93	5.5
22	19	7.5	8.7	10	12	13	*13	85	88	114	93	5.9
23	19	7.5	8.7	10	12	13	13	86	83	17	93	5.9
24	18	7.5	8.7	10	12	13	13	86	77	12	91	5.9
25	18	7.5	8.7	10	*12	*13	13	85	83	73	90	5.9
26	18	7.5	8.7	10	12	13	12	85	88	109	91	5.9
27	18	7.5	8.7	10	12	12	12	*86	90	105	91	5.9
28	18	7.5	8.7	11	12	13	39	85	93	102	91	5.9
29	16	7.5	9.3	11	-	14	60	86	93	100	90	5.9
30	8.7	7.5	9.3	11	-	15	50	88	*93	98	88	5.9
31	8.7	-	9.3	11	-	15	-	90	-	74	90	-
Total	589.4	237.6	252.9	312.9	329	396	546	2,264	2,609	2,903	2,501	646.5
Mean	19.0	7.92	8.16	10.1	11.8	12.8	18.2	73.0	87.0	93.6	80.7	21.6
Ac-ft	1,170	471	502	621	653	785	1,080	4,490	5,170	5,760	4,960	1,280

Calendar year 1952: Max 513 Min 5.2 Mean 70.7 Ac-ft 51,300
Water year 1952-53: Max 116 Min 5.2 Mean 37.2 Ac-ft 26,940

* Discharge measurement made on this day.

Minersville Canal at Minersville, Utah

Location.--Lat 38°13', long. 112°56', in NW¼ sec. 7, T. 30 S., R. 9 W., on left bank 1 mile downstream from point of diversion and 1 mile east of Minersville.

Records available.--June to September 1906 (monthly discharge only), March to October 1914, June 1951 to September 1953.

Gage.--Water-stage recorder and Parshall flume. Altitude of gage is 5,310 ft (by barometer). June 21 to Sept. 21, 1906, staff gage and Mar. 13 to Oct. 17, 1914, water-stage recorder, at approximately same site at different datum.

Extremes.--1906, 1914, 1951-53: Maximum daily discharge, 63 cfs May 16, 23, June 1, 3, 1952; no flow part of each year.

Remarks.--Records good except those for periods of ice effect or no gage-height record, which are poor. Flow diverted from Beaver River for irrigation in vicinity of Minersville.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.0	0	0.5	10
.1	.7	1.0	32
.2	2.3	1.2	43

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.3	2.1			2.1	1.8	0	5.7	34	34	1.5	34
2	2.3	2.1			2.1	1.8	0	7.2	34	34	1.3	34
3	*2.3	2.1	a2.0		2.1	1.8	0	25	34	22	1.2	34
4	2.1	2.1			2.1	1.8	0	40	34	2.3	1.0	33
5	2.0	2.1		a1.8	2.1	1.8	0	37	34	18	18	33
6	2.0	2.1			2.1	1.8	0	37	34	35	35	32
7	2.0	2.1			2.1	1.8	0	36	34	34	*35	14
8	2.0	2.1	a2.1		2.0	1.8	0	36	33	35	36	2.5
9	2.1	2.1		1.8	2.0	1.8	0	36	34	*35	36	2.5
10	2.1	b2.1	2.1	1.8	2.0	1.8	0	36	33	35	35	2.3
11	2.1	b2.1	2.1	1.8	b1.8	1.8	0	36	33	34	34	2.1
12	2.1	2.1	2.0	1.8		1.2	0	35	33	34	35	2.0
13	2.1	*2.1	1.8	1.8		.3	0	37		34	35	1.8
14	2.1	2.1	1.8	1.8		.2	0	36		36	34	1.7
15	2.1	2.1	1.8	1.8		.2	0	36		34	34	1.7
16	2.1	2.1	1.8	b1.8		.1	0	36	a33	34	33	*1.7
17	2.1	2.1	2.0	1.8		0	0	36		34	34	1.7
18	2.1	2.1	*2.0	1.7		0	0	36		34	34	1.7
19	2.1	2.1	2.0	1.8		0	0	34		34	34	1.5
20	2.1	2.1	1.8	1.8	a1.8	0	0	32		34	34	1.5
21	2.1	2.1	1.8	*2.0		0	0	32		34	34	1.7
22	2.1	2.1	1.8	2.0		0	*0	32		35	34	1.7
23	2.3	2.0	1.8	b1.9		0	0	32		13	34	1.7
24	2.3	2.1		b1.9		0	0	32		5.1	34	1.7
25	2.3	2.1		2.0		*0	0	32	a34	17	34	1.7
26	2.3	2.0		2.0	(*)	0	0	32		35	34	1.7
27	2.3	1.8	a1.8	2.0		0	0	*32		35	35	1.7
28	2.3	a1.8		b1.9		0	20	*32		35	34	1.7
29	2.3	a1.9		2.0	-	0	40	33		34	34	1.7
30	2.1	a1.9		2.0	-	0	35	34	*34	34	34	1.7
31	2.1	-		2.0	-	0	-	33	-	19	34	-
Total	66.7	61.8	59.4	57.6	53.1	21.8	95	1,005.9	1,008	920.4	916.0	255.7
Mean	2.15	2.06	1.92	1.86	1.90	0.70	3.17	32.4	33.6	29.7	29.5	8.52
Ac-ft	132	123	118	114	105	43	188	2,000	2,000	1,830	1,820	507

Calendar year 1952: Max 63 Min 0 Mean 16.9 Ac-ft 12,250
Water year 1952-53: Max 40 Min 0 Mean 12.4 Ac-ft 8,980

* Discharge measurement or observation of no flow 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.

Beaver River at Minersville, Utah

Location.--Lat 38°13', long. 112°56', in NE¼ sec. 12, T. 30 S., R. 10 W., on right bank at Minersville.

Records available.--April 1909 to December 1913, June 1951 to September 1953.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 5,250 ft (from topographic map). Apr. 13, 1909, to Dec. 20, 1913, staff gage at site three-quarters of a mile downstream at different datum.

Average discharge.--6 years, 29.7 cfs.

Extremes.--Maximum discharge during year, 243 cfs July 14 (gage height, 1.92 ft); minimum daily, 1.0 cfs May 3.
1909-13, 1951-53: Maximum discharge observed, 608 cfs Jan. 2, 1910 (gage height, 4.70 ft, site and datum then in use); no flow part of each year 1909-13.

Remarks.--Records good except those for periods of ice effect, which are fair. Flow regulated by Rockyford Reservoir (see p. 134).

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 22 to July 6)

0.4	0.2	0.8	17
.5	1.3	1.0	41
.6	4.4	1.2	76
.7	9.6		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	4.4	5.4	5.4	9.6	12	12	1.7	34	35	47	37
2	16	4.4	5.4	8.0	9.6	12	12	1.7	33	41	41	35
3	*16	4.4	5.4	8.0	10	12	12	1.0	34	42	38	35
4	13	4.4	6.0	8.6	10	12	12	2.2	33	47	35	30
5	9.1	4.4	6.0	8.6	10	10	11	6.5	33	42	30	19
6	8.6	4.4	6.0	8.6	10	8.0	10	8.0	35	39	24	15
7	7.5	4.4	6.0	8.6	10	8.6	10	7.5	37	39	*23	19
8	7.0	4.9	6.0	8.6		8.6	8.6	7.5	35	39	26	15
9	6.5	4.9	6.0	8.6		8.6	8.6	7.5	34	39	27	9.6
10	6.5	4.9	6.0	9.1		8.6	8.6	7.5	31	44	27	8.0
11	6.5	4.9	6.0	9.1		8.0	8.6	7.0	30	41	33	7.5
12	6.0	4.9	6.0	9.1		9.1	8.0	16	31	41	37	3.5
13	6.0	*4.9	6.5	9.1		11	7.5	20	30	39	35	2.8
14	6.5	5.4	6.5	9.1		13	7.5	25	31	49	35	2.8
15	7.0	6.0	6.5	8.6	b10	13	7.5	27	35	60	39	2.8
16	7.0	5.4	6.5	b8.2		14	8.6	27	33	39	41	*4.0
17	7.0	5.4	7.0	b8.2		15	9.1	27	33	37	41	4.4
18	7.0	5.4	*6.5	8.6		15	9.6	29	33	38	39	4.0
19	7.0	4.9	6.0	8.6		15	10	31	34	37	38	4.0
20	7.0	4.9	4.9	8.6		15	9.1	35	34	37	37	4.0
21	7.0	4.9	5.4	*9.1		14	9.6	35	34	35	37	4.0
22	7.0	4.9	5.4	9.1		14	*10	35	33	34	37	3.5
23	6.5	4.9	5.4	9.1	12	14	6.3	35	35	14	35	2.8
24	6.5	b5.2	b5.2	9.1	12	15	3.5	34	41	10	35	2.5
25	6.5	b5.2	5.4	9.1	12	*15	3.5	30	38	18	35	2.5
26	6.5	b5.2	b5.2	8.6	*12	15	3.5	33	31	31	35	2.5
27	6.5	b5.2	b5.2	8.6	12	14	4.0	*34	35	35	42	2.5
28	6.5	b5.2	5.4	8.6	12	14	4.4	31	35	37	37	2.2
29	6.5	b5.2	b5.4	9.1	-	15	3.5	30	35	37	35	2.2
30	4.9	b5.2	6.0	9.1	-	15	6.5	33	*35	37	38	2.8
31	4.4	-	5.4	9.1	-	13	-	35	-	45	37	-
Total	242.0	148.7	180.0	267.9	291.2	386.5	245.1	660.1	1,015	1,158	1,096	289.9
Mean	7.81	4.96	5.81	8.64	10.4	12.5	8.17	21.3	33.8	37.4	35.4	9.66
Ac-ft	480	295	357	531	578	767	486	1,310	2,010	2,300	2,170	575

Calendar year 1952: Max 420 Min 3.0 Mean 42.9 Ac-ft 31,100
Water year 1952-53: Max 60 Min 1.0 Mean 16.4 Ac-ft 11,860

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

Beaver River near Milford, Utah

Location.--Lat 38°28', long. 113°01', in SW¼ sec. 17, T. 27 S., R. 10 W., on right bank 4 miles north of Milford.

Records available.--July 1951 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 4,940 ft (by barometer).

Extremes.--Maximum discharge during year, 14 cfs Mar. 30 (gage height, 1.05 ft); no flow at times.
1951-53: Maximum discharge, 221 cfs June 11, 1952 (gage height, 2.84 ft); no flow at times each year.

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

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.36	0	0.7	2.1
.4	.03	.8	4.4
.5	.2	.9	7.7
.6	.9	1.0	12

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.2	0		0	0.7	2.8	4.7	2.4	0.1	*0		
2	.1	0		0	.7	1.4	2.3	2.4	0	0		
3	*0	0	0.2	0	.7	1.2	1.7	2.3	0	0		
4	0	0		0	.7	1.2	1.3	1.4	0	0		
5	0	0		0	.7	1.2	1.1	.9	0	0		
6	0	0		0	.7	1.1	1.0	.7	0	0		
7	0	0		0	.7	1.0	.7	.5	0	0	(*)	
8	0	0	.3	0	.7	1.0	.7	.4	0	0		
9	0	0		.1	.2	1.0	.7	.7	0	0		
10	0	0		.6	.1	1.0	.7	1.6	0	0		
11	0	0		.6	.1	.7	.7	1.1	0	0		
12	0	0		.7	1.2	.7	.7	.8	0	0		
13	0	*0	.4	.7	1.1	.7	.6	.7	0	0		
14	0	0		.7	1.1	.7	.5	.6	0	0		
15	0	0		.7	1.1	.7	.5	.5	0	1.4		
16	0	0	.5	.7	1.3	.7	.5	.5	0	1.6		(*)
17	0	.1		.7	1.3	.6	.4	.5	0	2.4		
18	0	.1	*.5	.8	1.2	.6	.4	.5	0	1.2		
19	0	0	.5	.8	1.0	.7	.4	.5	0	.4		
20	0	0	.6	.7	1.0	.7	.4	.4	0	.1		
21	0	.1	.5	*.7	1.0	.7	.4	.2	0	0		
22	0	0	.4	1.0	1.2	.8	.4	.1	0	0		
23	0	0	.3	1.1	1.3	.7	*.4	.2	0	0		
24	0	0	.3	1.1	1.3	.7	.3	.1	0	0		
25	0	0	.2	1.1	1.4	.7	.3	.1	0	0		
26	0	0	.2	.9	*1.6	*.5	.2	.1	0	0		
27	0		.1	.7	2.6	.5	.3	*.2	0	0		
28	0	.1	0	.6	3.6	.5	.7	.2	0	0		
29	0		0	.7	-	.7	3.3	.3	0	0		
30	0		0	.7	-	10	2.0	.1	0	0		
31	0	-	0	.6	-	7.4	-	.1	-	0		-
Total	0.3	0.7	9.1	17.0	30.3	42.9	28.3	21.1	0.1	7.1	0	0
Mean	0.01	0.02	0.29	0.55	1.08	1.38	0.94	0.68	0.0	0.23	0	0
Ac-ft	0.6	1.4	18	34	60	85	56	42	0.2	14	0	0

Calendar year 1952: Max 212 Min 0 Mean 16.0 Ac-ft 11,580
Water year 1952-53: Max 311 Min 10 Mean 0.43 Ac-ft 311

* Discharge measurement or observation of no flow made on this day.
Note.--No gage-height record Nov. 27 to Dec. 17; discharge estimated on basis of weather records. Stage-discharge relation affected by ice Jan. 14-18, Feb. 18-21.

Coal Creek near Cedar City, Utah

Location.--Lat 37°40'20", long. 113°02'05", in NE¼ sec. 13, T. 36 S., R. 11 W., on right bank 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 1953. 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. 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.--17 years (1935-37, 1938-53), 32.9 cfs.

Extremes.--Maximum discharge during year, 1,750 cfs July 14 (gage height, 6.55 ft from floodmark); minimum, 7.0 cfs Sept. 26.
1935-53: 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, 0.6 cfs Nov. 16, 1951, result of freezeup.

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

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	10		a12	14	a15	18	27	35	13	a20	8.8
2	11	11		*12	13	a12	20	28	32	13	a15	8.8
3	11	11		12	12	a12	*23	25	34	13	*a15	8.3
4	11	11		13	*13	a12	26	30	*34	13	14	8.3
5	11	9.7		12	14		26	42	35	13	13	8.3
6	11	10		12	13		27	44	35	13	12	8.3
7	11	10		12	13		24	*43	40	13	11	8.3
8	11	10	all	12	14		19	44	37	14	11	13
9	11	9.4		12	10		19	40	33	*15	11	9.6
10	11	9.0		13	12		18	37	33	a16	12	8.8
11	10	9.4		14	11	a15	17	34	32	a15	10	8.3
12	11	10		14	12		16	33	34	a15	9.8	8.3
13	11	9.7		13	11		18	32	33	a15	9.8	8.3
14	11	10		11	11		18	32	30	*a60	9.6	8.3
15	10	9.4		11	10		19	30	28	a40	10	*8.3
16	10	12	*all	10	10		22	32	25	*a30	11	8.3
17	*10	12	12	14	11	*a15	23	38	*25	*51	9.6	8.0
18	11	11	12	11	12	15	24	47	24	*25	9.1	8.0
19	11	10	12	10	11	15	32	*48	23	17	8.8	7.8
20	10	12	12	*11	12	15	38	52	22	15	*8.8	8.0
21	10	12	12	10	11	12	*45	52	20	14	8.8	8.0
22	10	11	11	9.4	12	15	44	53	19	14	8.8	8.0
23	10	b11		13	12	15	48	51	18	12	9.1	7.8
24	10	all	b12	13	12	19	43	45	18	12	8.8	7.8
25	10	*all		14	*12	20	42	40	17	12	9.1	7.8
26	11	b11		14	12	22	43	41	16	12	a30	7.8
27	11	b11		12	17	24	40	34	15	11	a15	8.0
28	11	b11		13	19	24	40	30	15	26	*a30	8.0
29	10	b11	al2	14	-	20	34	30	14	20	10	*8.0
30	10	all		13	-	19	30	30	14	*17	9.3	7.8
31	10	-		12	-	17	-	35	-	77	9.1	-
Total	328	317.6	355	378.4	346	498	856	1,179	790	646	378.5	251.1
Mean	10.6	10.6	11.5	12.2	12.4	16.1	28.5	38.0	26.3	20.8	12.2	8.37
Ac-ft	651	630	704	751	686	988	1,700	2,340	1,570	1,280	751	498

Calendar year 1952: Max 382 Min 5.4 Mean 55.8 Ac-ft 40,460
Water year 1952-53: Max 77 Min 7.8 Mean 17.3 Ac-ft 12,550

Peak discharge (base, 350 cfs).--July 14 (10 p.m.) 1,750 cfs (6.55 ft); July 31 (8:20 p.m.) 891 cfs (4.02 ft).
* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of discharge measurements, engineer's notes, and weather records.
b Stage-discharge relation affected by ice.

Baker Creek at narrows near Baker, Nev.

Location.--Lat 38°59', long. 114°13', in sec. 22, T. 13 N., R. 69 E., on left bank half a mile downstream from Pole Canyon, 1 mile downstream from narrows, and 4¾ miles southwest of Baker.

Records available.--December 1947 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 6,800 ft (by barometer).

Average discharge.--5 years (1948-53), 9.31 cfs.

Extremes.--Maximum discharge during year, 23 cfs June 15 (gage height, 1.45 ft); minimum, 1.1 cfs Mar. 1.
1947-53: Maximum discharge, 178 cfs June 7, 1952 (gage height, 2.72 ft); minimum recorded, 0.4 cfs Mar. 11, 1951.

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

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 18-30)

0.7	1.2	1.2	9.6
.9	3.1	1.4	18
1.0	4.7	1.5	23

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.2	3.4	b2.6	2.1	2.2	1.2	2.2	3.6	3.9	*10	5.3	3.0
2	4.1	3.4		2.1	2.1	b1.2	2.3	3.6	3.9	9.6	6.4	2.9
3	4.1	3.1		2.1	2.1	b1.2	2.3	3.4	4.1	9.1	5.3	2.9
4	4.1	3.1	a2.6	2.1	2.0	b1.3	2.4	3.6	4.4	8.8	5.6	2.8
5	4.1	3.1		2.1	2.0	b1.4	2.3	3.6	4.7	8.2	5.6	2.5
6	4.1	3.3	2.8	2.2	2.1	1.5	2.3	3.3	5.6	8.0	*5.3	2.5
7	4.1	3.3	2.6	2.2	2.1	1.4	2.2	3.3	5.8	7.4	5.1	2.4
8	4.1	3.3	2.6	2.2	2.1	1.5	2.2	3.4	5.6	7.4	5.3	2.4
9	3.9	3.0	2.5	2.3		1.5	b2	3.6	5.8	8.0	5.3	2.4
10	3.9	3.3	2.6	2.3		1.5	2.1	3.6	6.4	8.4	5.1	2.3
11	3.9	3.3	2.5	2.4		1.6		3.7	8.0	7.7	4.9	2.3
12	3.9	3.1	2.5	2.4		1.6	b2	3.9	12	7.1	4.5	2.2
13	3.9	3.1	2.4	2.3		1.6		3.7	17	7.1	5.4	2.2
14	3.9	*3.3	2.4	1.9		b1.6	2.0	3.7	20	6.4	4.7	2.2
15	3.7	3.3	2.4	b1.9		b1.6	*2.0	3.4	20	*7.4	4.4	2.9
16	*3.7	4.2	2.4	b1.9		b1.7	2.0	3.4	20	6.4	4.1	2.4
17	3.7	3.7	2.5	2.5		1.8	2.0	3.3	18	6.0	3.9	*2.3
18	3.7	b3.7	2.4	2.5	b1.7	1.8	2.0	3.3	19	5.8	3.7	2.4
19	3.7	3.7	*2.4	2.3		1.8	2.0	3.6	18	5.6	3.7	2.3
20	3.7	b3.5	2.5	2.3		2.0	2.1	3.7	18	5.3	3.6	2.4
21	3.7	3.3	2.5	2.2		2.0	2.1	3.3	18	5.1	3.4	2.5
22	3.7	3.1	2.3	*b2		2.1	2.2	3.4	17	4.9	3.4	2.3
23	3.6	3.1	b2	2.3		2.0	*2.3	3.6	16	4.5	3.3	2.4
24	3.6		b2	2.2		2.1	2.4	3.9	16	4.4	3.1	2.4
25	3.6		b2	2.1		2.1	2.4	3.9	15	4.2	3.3	2.3
26	3.6	b2.6	2.5	2.0	(*)	*2.2	2.6	3.7	14	3.9	3.1	2.2
27	3.6		2.5	b2		2.3	3.3	3.9	14	3.9	3.1	2.2
28	3.4		2.5	b2	1.5	2.3	3.9	*3.9	12	4.1	3.1	2.3
29	3.4		2.5	2.1	-	2.2	3.4	4.2	12	4.7	3.0	2.3
30	3.6		2.3	2.0	-	2.2	3.7	4.2	11	4.4	3.0	2.4
31	3.6	-	2.2	2.1	-	2.2	-	4.1	-	4.5	3.0	-
Total	117.9	94.9	75.8	67.1	50.5	54.5	70.7	112.8	365.2	198.3	132.0	73.0
Mean	3.80	3.16	2.45	2.16	1.80	1.76	2.36	3.64	12.2	6.40	4.26	2.43
Ac-ft	234	188	150	133	100	108	140	224	724	393	262	145

Calendar year 1952: Max 161 Min 0.9 Mean 19.7 Ac-ft 14,310
Water year 1952-53: Max 20 Min - Mean 3.87 Ac-ft 2,800

Peak discharge (base, 20 cfs).--June 15 (3 a.m.) 23 cfs (1.45 ft).
* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of discharge measurements, weather records, and records for Lehman Creek near Baker.
b Stage-discharge relation affected by ice.

Lehman Creek near Baker, Nev.

Location.--Lat 39°01', long. 114°13', in sec. 10, T. 13 N., R. 69 E., on left bank 4¾ miles west of Baker.

Records available.--December 1947 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 6,730 ft (by barometer).

Average discharge.--5 years (1948-53), 5.02 cfs.

Extremes.--Maximum discharge during year, 6.8 cfs June 25 (gage height, 0.85 ft); minimum, 0.9 cfs Mar. 11, but may have been less during periods of ice effect.
1947-53: Maximum discharge, 45 cfs June 2, 1952 (gage height, 1.49 ft); minimum recorded, 0.7 cfs Jan. 3, 1952.

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

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.5	1.0
.6	1.8
.7	3.4
.8	5.9

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.8	2.6	b2	1.8	b1.5		1.1	1.6	2.2	*5.6	4.5	2.5
2	4.8	2.6	b2	1.8	b1.5		1.1	1.6	2.0	5.3	4.5	2.5
3	4.5	2.5	1.9	1.7	1.5		1.1	1.6	2.0	5.3	4.5	2.3
4	4.5	2.6	1.8	1.7	1.4		1.1	1.7	2.2	5.0	4.5	2.2
5	4.2	2.5	1.8	1.7	1.5		1.1	1.6	2.2	5.0	4.6	2.3
6	4.2	2.6	1.8	1.7	1.5	b1	1.1	1.7	2.5	5.0	*4.5	2.2
7	4.2	2.6	1.8	1.7	1.5		b1.1	1.8	2.6	5.0	4.5	2.2
8	4.0	2.5	1.7	1.8	b1.5		b1.1	1.9	2.6	5.0	4.5	2.0
9	4.0	2.3	1.8	1.8	b1.5		b1.1	1.9	2.5	5.0	4.8	2.0
10	4.0	2.5	1.8	1.7	b1.4		1.1	1.8	2.5	5.3	4.8	1.9
11	4.0	2.3	1.8	1.7	b1.4		b1.1	1.8	2.8	5.0	4.5	1.9
12	3.8	2.3	1.8	1.7	b1.4	1.0	b1.1	1.8	3.2	5.3	4.5	1.9
13	3.8	2.3	1.8	1.7	b1.4		b1.1	1.8	3.8	5.0	4.8	1.9
14	3.8	*2.3	1.8	b1.6	1.6		1.2	1.8	4.2	5.0	4.5	1.9
15	3.4	2.5	1.8	b1.6	1.4	b1.0	1.3	1.7	4.5	*5.6	4.2	2.0
16	*3.4	3.0	1.8	b1.7			1.3	1.7	4.8	5.6	4.0	1.9
17	3.2	2.6	1.9	1.9		1.0	1.3	1.7	5.0	5.6	4.0	*2.0
18	3.2	b2.5	1.9	1.8		b1.0	1.3	1.7	5.0	5.6	4.0	2.2
19	3.2	b2.3	*1.8	1.7		1.1	1.3	1.9	5.3	5.6	4.0	2.3
20	3.2	b2.1	1.8	1.7		1.1	1.3	1.9	5.6	5.0	3.8	2.3
21	3.2			(*)	b1.2	b1.1	1.3	1.8	5.6	4.8	3.6	2.3
22	3.0					b1.1	1.5	1.9	5.6	4.5	3.4	2.2
23	3.0			b1.6		1.1	*1.6	1.9	5.9	4.2	3.2	2.2
24	2.8					1.1	1.6	2.2	6.2	4.2	3.0	2.2
25	2.8		b1.7	1.6		1.1	1.6	2.0	6.2	4.2	3.0	2.2
26	2.8	b2		1.6	(*)	*1.1	1.6	2.0	5.9	4.2	3.0	2.0
27	2.6			b1.5	1.3	1.1	1.8	2.0	5.9	4.0	3.0	1.9
28	2.6		2.0	b1.5	1.1	1.1	1.9	*2.0	5.9	4.2	3.0	1.8
29	2.6		1.9	1.6	-	1.1	1.7	2.2	5.6	4.2	3.0	1.8
30	2.6		1.8	1.6	-	1.1	1.8	2.2	5.3	4.2	2.6	1.8
31	2.6	-	1.8	b1.5	-	1.1	-	2.2	-	4.5	2.6	-
Total	108.8	69.5	56.0	51.8	37.6	32.3	39.7	57.4	125.6	152.0	121.6	62.8
Mean	3.51	2.32	1.81	1.67	1.34	1.04	1.32	1.85	4.19	4.90	3.92	2.09
Ac-ft	216	138	111	103	75	64	79	114	249	301	241	125

Calendar year 1952: Max 44 Min 1.0 Mean 9.26 Ac-ft 6,710
Water year 1952-53: Max 6.2 Min - Mean 2.51 Ac-ft 1,820

Peak discharge (base, 10 cfs).--No peak above base.
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Whitewater River at Whitewater, Calif.

Location.--Lat 33°56'50", long. 116°38'20", in NE¼ sec. 2, T. 3 S., R. 3 E., on right bank 1.5 miles north of Whitewater and 3½ miles upstream from San Gorgonio River.

Drainage area.--57.4 sq mi.

Records available.--October 1948 to September 1953.

Gage.--Water-stage recorder and sharp-crested weir. Datum of gage is 1,605.40 ft above mean sea level, adjustment of 1934. Supplementary water-stage recorder on river 400 ft west and 500 ft downstream from base gage. Feb. 24, 1950, to Sept. 30, 1952, supplementary gage used as base gage.

Average discharge.--5 years, 8.72 cfs (unadjusted).

Extremes.--Maximum discharge during year, 98 cfs Apr. 28 (gage height, 6.52 ft); minimum daily, 4.0 cfs Sept. 13.
1948-53: Maximum discharge, 450 cfs Sept. 6, 1950 (gage height, 8.08 ft); minimum daily, 1.1 cfs Jan. 22, 1952.
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. 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 Gorgonio River basin and thence to an area north of Banning for irrigation. One small diversion for domestic use and 1 for irrigation are made 2 to 3 miles upstream.

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	13	16	17	13	15	14	18	9.0	10	9.0	9.0
2	14	14	21	16	13	15	14	15	9.5	8.5	5.6	9.0
3	12	14	16	16	13	18	13	16	8.2	9.5	8.1	8.4
4	13	14	15	16	12	17	12	12	9.0	9.0	10	8.1
5	15	13	15	16	13	16	12	12	10	8.0	10	8.1
6	14	12	15	21	12	17	13	12	9.2	8.0	9.8	4.4
7	17	14	17	32	12	16	14	12	9.5	8.0	9.5	7.1
8	11	25	18	21	12	16	14	11	9.2	8.5	9.5	8.4
9	11	17	16	14	12	16	14	11	9.5	8.0	6.6	8.4
10	12	14	16	12	13	15	14	11	9.0	8.0	9.8	8.1
11	12	15	17	11	13	15	14	11	8.5	7.5	8.4	8.7
12	13	11	18	12	13	15	13	11	9.0	6.6	8.4	7.9
13	13	16	18	14	13	15	13	11	7.6	8.0	9.5	4.0
14	13	36	19	24	12	15	12	10	7.5	8.5	9.8	8.1
15	13	51	19	21	12	14	11	11	9.5	9.0	9.2	7.9
16	15	40	18	18	12	14	11	11	9.5	8.5	5.6	7.9
17	14	18	38	17	12	14	12	10	9.5	9.8	9.2	7.9
18	13	13	25	16	12	14	11	9.0	11	9.0	9.5	8.1
19	12	15	20	15	12	14	11	8.5	11	6.1	9.5	7.6
20	12	13	18	16	12	18	11	8.0	10	9.8	9.2	8.0
21	12	13	17	19	13	15	11	8.7	10	9.8	9.5	7.3
22	12	13	17	18	13	15	11	8.7	10	9.5	8.5	7.9
23	13	14	18	16	14	14	8.5	9.0	11	9.5	5.6	7.9
24	13	14	17	16	15	13	8.0	9.0	11	9.5	8.1	7.9
25	14	16	16	15	15	13	7.9	9.0	11	9.0	9.0	8.1
26	13	14	15	14	14	13	7.5	9.2	11	5.2	9.2	6.8
27	12	11	16	14	13	13	10	9.5	11	10	8.7	6.1
28	12	11	18	14	13	12	34	11	9.5	9.5	9.0	8.5
29	12	12	17	13	-	14	15	10	11	10	8.7	8.1
30	11	14	18	12	-	14	15	9.2	10	10	6.1	8.0
31	12	-	17	13	-	14	-	8.5	-	11	9.0	-
Total	401	510	561	509	358	459	380.9	332.3	291.7	271.3	267.6	231.7
Mean	12.9	17.0	18.1	16.4	12.8	14.8	12.7	10.7	9.72	8.75	8.63	7.72
Ac-ft	795	1,010	1,110	1,010	710	910	756	659	579	538	531	460
(†)	123	119	123	123	111	123	119	123	119	78	32	28
(‡)	151	120	92	104	89	117	128	131	102	101	94	78

Adjusted for infiltration

Ac-ft	918	1,130	1,230	1,130	821	1,030	875	782	698	616	563	488

Observed				Adjusted
Calendar year 1952: Max 93	Min 1.1	Mean 13.9	Ac-ft 10,080	Ac-ft 11,530
Water year 1952-53: Max 51	Min 4.0	Mean 12.5	Ac-ft 9,070	Ac-ft 10,280

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

Tahquitz Creek near Palm Springs, Calif.

Location.--Lat 33°47'40", long. 116°33'45", in SW¼ sec. 22, T. 4 S., R. 4 E., on left bank 1.5 miles southwest of Palm Springs and 6.2 miles upstream from mouth.

Records available.--October 1947 to September 1953.

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.--6 years, 2.48 cfs.

Extremes.--Maximum discharge during year, 36 cfs Apr. 28 (gage height, 2.40 ft); no flow July 21 to Sept. 30.
1947-53: Maximum discharge, 164 cfs July 28, 1951 (gage height, 4.15 ft), from rating curve extended above 55 cfs by logarithmic plotting; no flow during several months of each year.

Remarks.--Records good. Discharge measurements generally made twice a month.

Revisions (water years).--WSP 1244: 1948, 1951.

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 16 to Dec. 17)

0.25	0	0.7	1.4
.3	.1	.9	2.7
.4	.3	1.5	9.7
.5	.6	2.0	19
.6	.9	2.1	22

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	0.8	0.2	1.1	2.0	3.0	2.7	5.2	10	4.5	0.7		
2	.7	.2	1.4	1.9	2.9	2.7	5.3	9.7	4.4	.6		
3	.7	.2	1.2	1.9	2.8	2.7	5.3	8.9	4.2	.6		
4	.6	.2	1.1	1.8	2.7	2.5	5.3	8.2	3.8	.6		
5	.6	.3	1.1	1.8	2.9	2.4	5.6	7.8	3.7	.7		
6	.6	.4	1.1	1.9	3.2	2.5	6.2	7.6	3.7	.6		
7	.6	.4	1.1	4.7	3.2	2.5	6.2	7.6	3.6	.6		
8	.5	1.2	1.1	6.3	3.4	2.6	5.8	7.5	3.2	.6		
9	.5	1.0	1.1	5.3	3.2	2.7	5.7	7.2	3.0	.5		
10	.5	.9	1.1	4.2	2.9	2.7	5.6	7.0	2.9	.4		
11	.5	.8	1.1	4.0	2.7	2.7	5.3	6.8	2.7	.4		
12	.4	.7	1.0	3.8	2.8	2.8	5.2	6.5	2.5	.4		
13	.4	.7	1.1	3.7	2.7	2.8	5.0	6.3	2.3	.4		
14	.4	.8	1.1	5.5	2.6	2.8	4.9	6.2	2.1	.4		
15	.4	1.9	1.2	4.3	2.5	2.8	4.9	6.4	2.0	.4		
16	.4	2.0	1.2	3.7	2.4	2.9	5.2	6.5	2.0	.3		
17	.4	1.3	5.0	3.4	2.4	3.0	5.3	6.5	2.0	.2		
18	.3	1.2	4.8	3.2	2.3	3.2	5.5	6.1	2.0	.2		
19	.4	1.1	3.6	3.4	2.0	3.2	6.2	5.8	2.0	.1		
20	.3	1.0	3.5	3.7	1.9	3.7	6.7	5.8	1.8	.1		
21	.3	1.0	2.8	3.7	2.1	3.7	7.1	5.7	1.7	0		
22	.3	1.0	2.4	3.4	2.0	3.7	6.5	5.6	1.5	0		
23	.3	1.2	2.2	3.2	2.3	3.7	6.4	5.7	1.4	0		
24	.3	1.1	2.0	3.2	2.9	4.0	7.0	5.8	1.3	0		
25	.3	1.1	2.0	3.2	2.5	4.2	7.5	5.5	1.2	0		
26	.2	1.1	1.9	3.4	2.2	4.4	7.6	5.3	1.1	0		
27	.2	1.0	1.8	3.2	2.2	4.5	8.3	5.2	1.1	0		
28	.2	1.0	2.0	3.0	2.2	4.8	22	5.4	1.0	0		
29	.2	1.0	2.0	2.9	-	5.0	14	5.4	.9	0		
30	.2	1.0	1.8	3.0	-	5.1	12	5.3	.8	0		
31	.2	-	2.2	3.0	-	5.2	-	4.8	-	0		
Total	12.7	27.0	58.1	105.7	72.9	104.2	208.8	204.1	70.4	8.8	0	0
Mean	0.41	0.90	1.87	3.41	2.60	3.36	6.96	6.58	2.35	0.28	0	0
Ac-ft	25	54	115	210	145	207	414	405	140	17	0	0

Calendar year 1952: Max 58 Min 0.2 Mean 9.03 Ac-ft 6,560
Water year 1952-53: Max 22 Min 0 Mean 2.39 Ac-ft 1,730

Peak discharge (base, 20 cfs).--Apr. 28 (4 a.m.) 36 cfs (2.40 ft).

Palm Canyon Creek near Palm Springs, Calif.

Location.--Lat 33°44'55", long. 116°32'15", in S½ sec. 11, T. 5 S., R. 4 E., on right bank three-quarters of a mile upstream from Murray Canyon Creek and 6 miles south of Palm Springs.

Drainage area.--94.0 sq mi.

Records available.--January 1930 to January 1942, October 1947 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 700 ft (from topographic map). Prior to Jan. 14, 1942, at datum 0.02 ft higher.

Average discharge.--17 years (1930-41, 1947-53), 5.69 cfs; median of yearly mean discharges, 1.5 cfs.

Extremes.--Maximum discharge during year, 272 cfs Dec. 17 (gage height, 3.25 ft); no flow during several months.
1930-42, 1947-53: 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 good. Discharge measurements generally made twice a month.

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 9 to Mar. 1, Mar. 21 to May 16)

1.1	0	1.6	6.2
1.2	.1	1.7	11
1.3	.4	1.9	24
1.4	1.3	2.1	43
1.5	3.2	2.2	55

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	0.5	5.1	0.9	1.3	0.2					
2		0	1.3	3.9	.8	5.1	.1					
3		0	.8	3.2	.8	3.4	.1					
4		0	.6	2.9	.8	2.3	.1					
5		0	.6	2.5	.8	1.9	.1					
6		0	.5	2.5	.7	1.7	.1					
7		0	.5	17	.7	1.5	.1					
8		0	.5	10	.6	1.5	.1					
9		0	.5	7.3	.5	1.4	.1					
10		0	.5	5.4	.5	1.3	0					
11		0	.5	4.5	.5	1.2	0					
12		0	.5	3.7	.5	1.0	0					
13		0	.5	3.2	.5	1.0	0					
14		0	.5	3.9	.5	.9	0					
15		4.3	.4	3.9	.5	.8	0					
16		7.1	.5	3.7	.4	.7	0					
17		1.0	55	3.2	.4	.7	0					
18		.6	16	2.7	.4	.6	0					
19		.4	6.5	2.7	.4	.6	0					
20		.4	8.3	2.5	.4	.8	0					
21		.3	10	2.5	.4	.7	0					
22		.3	5.8	2.1	.4	.6	0					
23		.6	4.5	1.7	.5	.5	0					
24		.5	3.7	1.5	1.7	.4	0					
25		.5	3.2	1.5	1.3	.4	0					
26		.5	2.7	1.5	.8	.3	0					
27		.5	2.3	1.3	.6	.2	0					
28		.5	3.4	1.0	.5	.2	.2					
29		.4	3.9	1.0	-	.4	.1					
30		.5	3.2	1.0	-	.3	.1					
31		-	10	.9	-	.2	-					
Total	0	18.4	147.7	109.8	17.8	33.9	1.4	0	0	0	0	0
Mean	0	0.61	4.76	3.54	0.64	1.09	0.05	0	0	0	0	0
Ac-ft	0	36	293	218	35	67	2.8	0	0	0	0	0

Calendar year 1952: Max 374 Min 0 Mean 8.12 Ac-ft 5,890
Water year 1952-53: Max 55 Min 0 Mean 0.90 Ac-ft 652

Peak discharge (base, 100 cfs).--Dec. 17 (3 p.m.) 272 cfs (3.25 ft).

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 1953.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 800 ft (from topographic map).

Average discharge.--5 years, 2.00 cfs.

Extremes.--Maximum discharge during year, 31 cfs Dec. 17 (gage height, 2.23 ft); minimum daily, 0.4 cfs Sept. 9-16.
1949-53: Maximum discharge, 96 cfs Dec. 30, 1951 (gage height, 2.94 ft); minimum daily, 0.3 cfs for many days during 1950-51.

Remarks.--Records good. Discharge measurements generally made twice a month. One small diversion for domestic use about 1 mile above station.

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Oct. 23 to Dec. 18, Jan. 7-24)

1.3	0.4
1.4	1.4
1.5	2.9
1.6	5.0
1.8	12

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.2	1.6	2.4	3.3	2.5	4.8	3.7	2.4	1.8	1.1	1.4	0.6
2	1.6	1.5	2.9	3.1	2.5	4.8	3.5	2.5	1.8	1.0	1.1	.6
3	2.2	1.5	2.2	3.1	2.4	3.3	2.7	2.5	1.6	1.0	1.0	.6
4	2.0	1.6	2.2	3.1	2.2	3.2	2.4	2.5	1.6	1.1	1.0	.6
5	2.0	1.8	2.2	3.1	2.2	3.1	2.4	2.5	1.6	1.1	1.0	.6
6	2.0	1.8	2.2	3.1	2.2	3.1	2.5	2.4	1.6	1.1	.9	.5
7	2.2	1.9	2.4	8.7	2.2	2.9	2.5	2.4	1.6	1.1	.9	.5
8	1.9	2.7	2.4	5.6	2.3	2.7	2.4	2.4	1.6	1.1	.9	.5
9	1.9	2.0	2.4	3.7	2.5	2.7	2.4	2.5	1.6	1.2	.9	.4
10	1.9	2.0	2.4	3.3	2.5	2.7	2.4	2.5	1.6	1.4	1.0	.4
11	1.9	2.0	2.4	3.3	2.5	2.7	2.4	2.4	1.5	1.2	1.0	.4
12	1.9	2.0	2.2	3.5	2.5	2.7	2.2	2.4	1.4	1.2	.9	.4
13	1.9	2.0	2.2	3.5	2.5	2.7	2.0	2.5	1.2	1.4	.9	.4
14	1.8	2.4	2.2	4.1	2.4	2.5	2.0	2.7	1.2	1.2	.8	.4
15	1.8	5.7	2.4	3.5	2.5	2.5	2.0	2.7	1.4	1.2	.7	.4
16	1.9	4.8	2.4	3.3	2.7	2.7	2.0	2.5	1.2	1.2	.6	.4
17	1.9	2.7	12	3.1	2.5	2.7	2.7	2.5	1.4	1.1	.6	.6
18	1.9	2.5	6.5	3.1	2.5	2.7	2.7	2.4	1.5	1.1	.7	.7
19	1.9	2.2	4.1	3.1	2.5	2.7	2.7	2.2	1.6	1.1	.7	.6
20	1.9	2.0	4.1	3.3	2.5	3.5	2.5	2.0	1.5	1.0	.7	.6
21	1.8	2.0	3.9	3.3	2.5	3.1	2.7	1.9	1.5	1.1	.6	.6
22	1.8	2.0	3.5	3.1	2.5	3.1	2.7	1.8	1.5	1.1	.6	.6
23	1.6	2.2	3.3	2.9	2.7	3.1	2.7	1.8	1.5	1.1	.6	.6
24	1.6	2.4	3.1	2.7	4.8	3.1	2.7	1.9	1.5	1.2	.6	.6
25	1.6	2.4	3.1	2.9	3.9	3.3	2.4	1.9	1.4	1.4	.5	.5
26	1.6	2.4	3.1	2.9	3.7	3.5	2.4	1.9	1.4	1.4	.6	.5
27	1.8	2.4	3.1	2.9	3.7	3.9	2.9	1.9	1.2	1.2	.6	.5
28	1.8	2.4	3.5	2.9	3.7	3.5	10	1.8	1.2	1.2	.5	.6
29	1.8	2.4	3.1	2.7	-	3.7	2.5	1.8	1.2	1.1	.6	.6
30	1.6	2.4	3.3	2.7	-	3.9	2.4	1.8	1.2	1.2	.6	.6
31	1.6	-	3.9	2.7	-	3.9	-	1.6	-	1.4	.6	-
Total	56.3	69.7	101.1	105.6	76.1	98.8	83.5	69.0	43.9	36.3	24.1	15.9
Mean	1.82	2.32	3.26	3.41	2.72	3.19	2.78	2.23	1.46	1.17	0.78	0.53
Ac-ft	112	138	201	209	151	196	166	137	87	72	48	32

Calendar year 1952: Max 23 Min 1.2 Mean 3.81 Ac-ft 2,770
Water year 1952-53: Max 12 Min 0.4 Mean 2.14 Ac-ft 1,550

Peak discharge (base, 30 cfs).--Dec. 17 (6:30 p.m.) 31 cfs (2.23 ft).

Coyote Creek near Borrego Springs, Calif.

Location.--Lat 33°22'30", long. 116°25'25", in SE¼ sec. 23, T. 9 S., R. 5 E., on right bank 800 ft upstream from Box Canyon and 9 miles northwest of Borrego Springs.

Records available.--November 1950 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 1,250 ft (from topographic map).

Extremes.--Maximum discharge, 14 cfs Nov. 8 (gage height, 2.58 ft); minimum daily, 1.4 cfs Aug. 11-17.
1950-53: 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, that of Aug. 11-17, 1953.

Remarks.--Records good. Discharge measurements generally made twice a month.

Rating tables, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Feb. 8 to Mar. 9, Aug. 18 to Sept. 30)

Oct. 1 to Jan. 8		Jan. 9 to Sept. 30	
2.1	1.1	2.95	1.4
2.2	2.7	3.0	2.2
2.3	4.6	3.1	4.0
2.4	7.2		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.9	2.5	2.5	2.7	2.7	2.9	2.5	2.3	2.5	1.8	1.8	1.7
2	2.7	2.5	2.5	2.7	2.7	3.0	2.5	2.3	2.5	1.8	1.8	1.7
3	2.7	2.7	2.3	2.7	2.7	3.0	2.5	2.2	2.3	1.8	1.7	1.7
4	2.7	2.7	2.3	2.9	2.9	2.9	2.5	2.2	2.2	1.8	1.7	1.7
5	2.7	2.7	2.3	3.0	2.9	2.7	2.5	2.2	2.2	1.8	1.7	1.7
6	2.5	2.7	2.3	3.0	2.9	2.7	2.9	2.2	2.2	1.7	1.7	1.7
7	2.5	3.0	2.5	3.0	2.9	2.3	2.9	2.2	2.2	1.7	1.7	1.7
8	2.5	5.4	2.5	3.0	3.0	2.3	2.9	2.2	2.2	1.7	1.6	1.7
9	2.5	6.2	2.5	3.2	3.2	2.3	2.9	2.2	2.2	1.6	1.6	1.7
10	2.5	5.6	2.5	3.2	3.2	2.5	2.7	2.3	2.2	1.6	1.6	1.7
11	2.5	3.2	2.5	3.6	3.2	2.9	2.5	2.3	2.0	1.7	1.4	1.7
12	2.5	2.5	2.5	3.6	3.2	2.7	2.3	2.3	2.0	2.0	1.4	1.7
13	2.7	2.2	2.5	3.2	3.0	2.7	2.3	2.3	2.0	2.0	1.4	1.7
14	2.7	2.7	2.5	3.0	3.0	2.5	2.3	2.3	2.0	2.0	1.4	1.7
15	2.7	3.6	2.5	2.9	3.0	2.5	2.3	2.5	2.0	2.0	1.4	1.7
16	2.7	4.0	2.5	2.7	3.0	2.2	2.3	2.5	2.0	2.0	1.4	1.7
17	2.7	2.9	4.1	2.5	3.0	2.0	2.3	2.5	2.2	1.8	1.4	1.7
18	2.7	2.7	2.7	2.5	3.0	2.0	2.3	2.3	2.2	1.8	1.6	1.7
19	2.5	2.5	2.7	2.3	3.0	2.0	2.5	2.2	2.2	1.8	1.7	1.7
20	2.5	2.5	2.7	2.3	3.0	2.2	2.7	2.2	2.2	1.8	1.8	1.7
21	2.5	2.5	2.7	2.5	3.0	2.3	2.9	2.2	2.0	1.8	1.8	1.8
22	2.5	2.5	2.7	2.7	3.0	2.5	2.7	2.2	2.0	1.8	1.8	1.8
23	2.5	2.5	2.7	2.7	3.0	2.5	2.5	2.2	2.0	1.8	2.0	1.8
24	2.5	2.5	2.7	2.7	3.0	2.3	2.2	2.2	2.0	1.7	2.0	1.8
25	2.5	2.5	2.7	2.5	2.9	2.3	2.2	2.2	2.0	1.7	2.2	1.8
26	2.5	2.5	2.7	2.5	2.9	2.2	1.8	2.2	2.0	1.7	2.2	2.0
27	2.5	2.5	2.7	2.5	2.9	2.2	2.2	2.3	1.8	1.7	2.2	2.0
28	2.5	2.5	2.7	2.5	2.9	2.2	2.3	2.5	1.8	1.6	2.0	2.0
29	2.5	2.5	2.7	2.5	-	2.2	2.3	2.5	1.8	1.6	2.0	2.0
30	2.5	2.5	2.7	2.5	-	2.2	2.3	2.5	1.8	1.7	1.8	1.8
31	2.5	-	2.7	2.5	-	2.3	-	2.2	-	1.8	1.8	-
Total	79.9	89.9	81.1	86.1	83.1	75.5	74.0	70.9	62.7	55.1	53.6	52.8
Mean	2.58	2.99	2.62	2.78	2.97	2.44	2.47	2.29	2.09	1.78	1.73	1.76
Ac-ft	158	178	161	171	165	150	147	141	124	109	106	105

Calendar year 1952: Max 85 Min 1.7 Mean 3.21 Ac-ft 2,330
Water year 1952-53: Max 6.2 Min 1.4 Mean 2.37 Ac-ft 1,720

Peak discharge (base, 50 cfs).--No peak above base.

Palm Canyon Creek near Borrego Springs, Calif.

Location.--Lat 33°16'40", long. 116°25'50", in NW¼ sec. 26, T. 10 S., R. 5 E., on left bank 3.5 miles northwest of Borrego Springs.

Drainage area.--21.7 sq mi.

Records available.--December 1950 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 1,200 ft (from topographic map).

Extremes.--Maximum discharge during year, 14 cfs Dec. 17 (gage height, 1.81 ft); no flow Oct. 1 to Nov. 25, June 13 to Sept. 30.
1950-53: Maximum discharge, 50 cfs Jan. 18, 1952 (gage height, 2.68 ft), from rating curve extended above 10 cfs on basis of slope-area determination at gage height 2.60 ft; no flow during several months each year.

Remarks.--Records good. Discharge measurements or observations of no flow generally made twice a month.

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Dec. 17-25)

0.96	0	1.3	1.7
1.0	.1	1.4	2.8
1.1	.3	1.5	4.2
1.2	.9	1.7	8.2

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	0.5	1.8	1.0	1.4	0.6	0.7	0.2			
2		0	.9	1.6	1.0	1.8	.6	.5	.3			
3		0	.7	1.6	1.0	1.5	.5	.5	.2			
4		0	.6	1.4	1.0	1.6	.5	.4	.2			
5		0	.5	1.3	.9	1.6	.5	.3	.2			
6		0	.5	1.2	.7	1.8	.5	.3	.1			
7		0	.5	2.2	.7	1.9	.6	.3	.1			
8		0	.5	2.4	.7	1.7	.6	.3	.1			
9		0	.5	1.9	.7	1.2	.5	.3	.1			
10		0	.5	1.7	.7	1.1	.5	.3	.1			
11		0	.5	1.5	.7	1.0	.6	.3	.1			
12		0	.5	1.4	.7	.9	.5	.2	.1			
13		0	.5	1.2	.7	.9	.5	.2	0			
14		0	.5	1.4	.7	.9	.5	.2	0			
15		0	.5	1.2	.7	.8	.4	.2	0			
16		0	.5	1.1	.6	.7	.4	.6	0			
17		0	7.1	1.1	.6	.7	.4	.5	0			
18		0	4.3	1.0	.6	.7	.3	.3	0			
19		0	2.4	.9	.6	.7	.3	.2	0			
20		0	2.6	.9	.6	.9	.3	.2	0			
21		0	2.8	.9	.7	.9	.4	.2	0			
22		0	2.1	.9	.7	.7	.7	.1	0			
23		0	1.8	.9	.9	.7	.5	.1	0			
24		0	1.6	.9	.9	.7	.5	.1	0			
25		0	1.5	.9	.9	.7	.4	.1	0			
26		.1	1.3	1.0	1.0	.6	.3	.1	0			
27		.2	1.3	1.0	1.0	.6	.3	.1	0			
28		.3	1.6	1.1	.9	.6	1.7	.2	0			
29		.3	1.6	1.1	-	.7	.9	.3	0			
30		.4	1.3	1.1	-	.9	.8	.2	0			
31		-	2.0	1.1	-	.7	-	.2	-			
Total	0	1.3	44.0	39.7	21.9	31.6	16.1	8.5	1.8	0	0	0
Mean	0	0.04	1.42	1.28	0.78	1.02	0.54	0.27	0.06	0	0	0
Ac-ft	0	2.6	87	79	43	63	32	17	3.6	0	0	0

Calendar year 1952: Max 32 Min 0 Mean 1.35 Ac-ft 981
Water year 1952-53: Max 7.1 Min 0 Mean 0.45 Ac-ft 327

Peak discharge (base, 15 cfs).--No peak above base.

Deep Creek near Hesperia, Calif.

Location.--Lat 34°20'30", long. 117°13'40", in SE¼ sec. 18, T. 3 N., R. 3 W., on right bank 0.5 mile upstream from confluence with West Fork Mojave River and 8 miles southeast of Hesperia.

Drainage area.--137 sq mi.

Records available.--December 1929 to September 1953. Combined creek and canal, October 1950 to September 1953.

Gage.--Water-stage recorder and broad-crested weir. Altitude of gage is 3,050 ft (from topographic map). Prior to Apr. 21, 1938, at same site at different datum. Apr. 21 to Dec. 10, 1938, at site 0.5 mile downstream at different datum.

Average discharge.--23 years (1930-53), 57.0 cfs; median of yearly mean discharges, 38 cfs.

Extremes.--Maximum discharge during year, 144 cfs Jan. 7 (gage height, 2.31 ft); minimum daily, 0.8 cfs Sept. 30.
1929-53: 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, 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 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

0.7	0.4	1.4	9.6
.8	1.0	1.5	11
.9	2.0	1.7	22
1.0	3.4	1.9	42
1.1	5.1	2.1	76
1.3	9.3	2.3	130

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.2	1.5	5.3	18	10	14	15	14	4.4	1.9	1.1	1.6
2	2.0	1.5	25	18	10	12	14	14	4.4	1.8	1.0	1.5
3	1.9	1.5	24	19	10	10	14	12	4.6	1.8	1.0	1.3
4	1.8	1.6	17	20	9.6	12	14	9.3	3.8	1.7	1.0	1.3
5	1.5	1.7	9.9	20	9.5	19	14	7.5	2.9	1.4	1.0	1.1
6	1.5	1.6	9.6	22	9.5	23	12	6.8	2.9	1.4	1.0	1.1
7	1.5	1.5	9.5	70	9.6	27	11	6.4	2.8	1.4	1.0	1.3
8	1.3	3.1	9.4	109	10	30	11	5.9	2.6	1.5	1.0	1.1
9	1.3	3.7	8.5	76	10	33	9.9	5.3	2.5	1.4	1.0	1.1
10	1.2	3.1	7.7	57	9.0	30	9.6	4.9	2.4	1.5	1.0	1.2
11	1.2	2.4	7.7	51	5.7	25	9.3	4.4	2.4	1.5	1.1	1.1
12	1.2	2.1	11	46	4.6	23	7.9	3.5	2.4	1.7	1.5	1.2
13	1.1	1.8	16	42	4.7	21	7.1	3.5	2.5	1.7	2.0	1.3
14	1.1	2.6	17	46	4.6	20	7.3	3.4	3.1	1.5	1.1	1.3
15	1.1	18	18	44	3.8	19	6.8	3.2	3.1	1.5	1.0	1.2
16	1.1	20	19	35	3.8	19	5.9	4.2	3.1	1.4	1.0	1.2
17	1.2	14	19	30	3.7	18	5.1	4.6	2.9	1.3	1.0	1.3
18	1.2	11	20	28	3.7	18	5.3	4.7	3.1	1.3	1.0	1.6
19	1.2	9.6	20	29	3.7	18	5.5	4.2	2.8	1.3	1.0	1.7
20	1.2	9.5	26	26	3.5	33	5.5	3.8	2.5	1.2	1.0	1.7
21	1.3	9.5	30	30	3.7	56	5.5	3.5	2.4	1.2	1.0	2.5
22	1.3	8.0	25	28	4.2	35	5.9	3.4	2.1	1.2	1.0	4.9
23	1.3	8.2	20	25	9.4	28	5.9	3.2	2.0	1.1	1.1	1.6
24	1.2	7.9	18	25	18	25	5.5	3.2	1.9	1.1	1.1	1.4
25	1.2	6.4	18	25	14	25	4.9	3.1	1.9	1.2	1.1	1.2
26	1.2	6.2	16	24	12	25	4.6	3.1	1.8	1.2	1.0	1.1
27	1.2	5.3	16	20	14	22	4.7	3.2	1.8	1.2	1.1	1.0
28	1.2	5.3	19	17	14	20	17	3.5	1.8	1.2	1.0	1.0
29	1.3	4.9	18	15	-	20	25	5.3	1.8	1.1	1.1	.9
30	1.4	5.3	18	15	-	20	15	5.3	1.9	1.1	1.3	.8
31	1.4	-	20	12	-	17	-	5.5	-	1.2	1.5	-
Total	41.8	178.8	515.6	1,042	228.3	717	284.2	167.9	80.6	43.0	34.1	42.6
Mean	1.35	5.96	16.6	33.6	8.15	23.1	9.47	5.42	2.69	1.39	1.10	1.42
Ac-ft	83	355	1,020	2,070	453	1,420	564	333	160	85	68	84

Calendar year 1952: Max 672 Min 1.1 Mean 75.8 Ac-ft 55,010
Water year 1952-53: Max 109 Min 0.8 Mean 9.25 Ac-ft 6,700

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

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 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.3	6.4	13	18	17	22	25	25	14	7.2	4.7	5.8
2	6.6	6.6	29	18	17	20	24	25	14	6.8	4.4	5.6
3	6.5	6.8	24	19	17	18	24	23	13	6.5	4.2	5.3
4	6.0	7.0	17	20	17	20	24	20	13	6.4	4.2	5.3
5	5.4	7.5	15	20	17	27	24	18	12	6.2	4.1	5.0
6	5.2	7.6	18	22	16	31	22	17	11	6.0	4.1	4.7
7	5.1	7.5	18	70	16	36	23	16	11	5.6	4.1	4.9
8	4.9	10	18	109	17	39	23	16	10	5.7	4.0	4.7
9	5.1	12	17	76	18	43	21	15	10	5.6	3.9	4.8
10	5.0	11	16	57	18	40	21	14	9.5	5.5	4.0	5.0
11	5.1	9.4	16	51	16	35	20	14	9.2	5.3	4.3	4.7
12	5.2	9.2	16	46	16	33	19	14	8.5	5.6	6.4	4.5
13	5.1	9.0	16	42	16	30	18	13	9.7	6.0	7.5	4.7
14	5.1	11	17	46	16	30	18	13	12	5.8	6.0	5.2
15	5.1	24	18	44	15	28	18	13	12	5.3	5.1	5.1
16	5.0	22	19	35	15	28	17	15	11	5.1	4.9	4.9
17	5.0	16	19	30	15	28	16	16	11	4.9	4.8	5.0
18	5.1	14	20	28	15	27	16	16	12	4.7	4.8	5.0
19	5.2	13	20	29	14	27	16	14	12	4.7	4.6	5.1
20	5.3	13	26	26	13	42	16	14	11	4.5	4.6	5.1
21	6.8	13	30	30	13	66	16	13	10	4.5	4.4	4.6
22	5.9	14	23	28	15	44	17	12	9.7	4.4	4.6	6.2
23	5.4	16	20	25	20	37	17	12	9.1	4.2	4.5	6.0
24	5.4	15	18	25	27	34	16	12	8.7	4.0	4.4	6.3
25	5.5	13	18	25	21	34	15	12	8.5	4.1	4.5	4.2
26	5.6	13	16	24	19	34	15	12	8.3	4.1	4.3	3.6
27	5.8	13	16	20	20	31	15	11	8.1	4.1	4.5	3.7
28	5.9	13	19	19	21	29	28	12	8.0	4.0	4.7	3.1
29	5.9	13	18	19	-	29	37	15	7.8	3.9	5.1	2.3
30	6.1	13	18	19	-	30	26	15	7.4	4.0	5.5	1.8
31	6.1	-	20	17	-	28	-	16	-	4.6	5.7	-
Total	172.7	359.0	588	1,057	477	1,000	607	473	311.5	159.3	146.9	142.2
Mean	5.57	12.0	19.0	34.1	17.0	32.3	20.2	15.3	10.4	5.14	4.74	4.74
Ac-ft	343	712	1,170	2,100	946	1,980	1,200	938	618	316	291	282

Calendar year 1952: Max 676 Min 4.9 Mean 81.5 Ac-ft 59,140
Water year 1952-53: Max 109 Min 1.8 Mean 15.1 Ac-ft 10,890

West Fork Mojave River near Hesperia, Calif.

Location.--Lat 34°20'20", long. 117°14'35", in SE¼ 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 1953.

Gage.--Water-stage recorder. Altitude of gage is 3,050 ft (from topographic map).

Average discharge.--23 years, 30.4 cfs; median of yearly mean discharges, 16 cfs.

Extremes.--Maximum discharge, 117 cfs Mar. 20 (gage height, 2.08 ft), from rating curve extended above 50 cfs by logarithmic plotting; no flow during several months.
1930-53: 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 except those for periods of no gage-height record, which are fair. 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 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Nov. 8, 14-16, Dec. 1-2, 5-12, Apr. 9 to May 18)

0.86	0	1.3	8.7
.9	.1	1.4	15
1.0	.6	1.5	24
1.1	1.9	1.8	66
1.2	4.5		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1		0	0.2	6.0	0.1	a15	6.0	0.8				
2		0	19	5.2	.1	a16	5.2	.3				
3		0	9.9	4.5	.1	a14	4.2	.2				
4		0	6.0	4.2	.1	a13	4.4	.2				
5		0	5.6	3.8	.1	a12	4.8	.2				
6		0	5.2	3.8	.1	12	4.5	.1				
7		0	4.8	41	.1	12	4.8	.1				
8		.1	4.5	54	.1	12	4.5	.1				
9		0	3.9	35	.1	12	3.4	.1				
10		0	3.6	30	.1	11	3.3	.1				
11		0	3.6	23	.1	9.9	3.0	.1				
12		0	3.6	20	.1	9.3	2.8	0				
13		0	3.6	18	.1	8.2	2.5	0				
14		.4	3.6	19	.1	7.2	2.1	0				
15		1.4	3.6	17	.1	7.2	1.9	0				
16		.2	3.6	14	.1	6.8	1.7	0				
17		0	3.6	7.7	0	6.0	1.1	0				
18		0	3.6	6.4	0	5.6	.6	0				
19		0	3.3	5.2	0	5.6	.5	0				
20		0	12	4.5	0	60	.5	0				
21		0	11	3.3	a0	42	.8	0				
22		0	6.8	2.3	a0	25	.6	0				
23		0	5.2	1.9	a7	18	.5	0				
24		0	4.2	1.2	a17	13	.3	0				
25		0	3.6	.8	a14	11	.2	0				
26		0	3.3	.7	a12	8.7	.2	0				
27		0	2.8	.5	a13	8.2	.2	0				
28		0	3.6	.4	a15	7.7	5.8	0				
29		0	3.8	.2	-	8.7	2.5	0				
30		0	4.2	.2	-	7.7	1.4	0				
31		-	7.2	.2	-	6.8	-	0				
Total	0	2.1	162.5	338.0	79.6	411.6	74.3	2.3	0	0	0	0
Mean	0	0.07	5.24	10.9	2.84	13.3	2.48	0.07	0	0	0	0
Ac-ft	0	4.2	322	670	158	816	147	4.6	0	0	0	0

Calendar year 1952: Max 2,340 Min 0 Mean 59.2 Ac-ft 42,970
Water year 1952-53: Max 60 Min 0 Mean 2.93 Ac-ft 2,120

Peak discharge (base, 500 cfs).--No peak above base.
a No gage-height record; discharge estimated on basis of recorded range in stage, weather records, and records for Deep Creek near Hesperia.

Mojave River at lower narrows, near Victorville, Calif.

Location.--Lat 34°34'25", long. 117°19'10", in SW¼SE¼ 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 1953.
Gage.--Water-stage recorder. Altitude of gage is 2,650 ft (from topographic map). Prior to July 31, 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.--17 years (1936-53), 88.2 cfs; median of yearly mean discharges, 51 cfs.
Extremes.--Maximum discharge during year, 184 cfs Aug. 11 (gage height, 2.64 ft), from rating curve extended above 42 cfs, on basis of slope-area determination of peak flow; minimum daily, 16 cfs Sept. 15.
1930-53: 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 except those for period of no gage-height record, which are fair. Discharge measurements generally made twice a month. Periodic regulation by Lake Arrowhead (capacity, 48,000 acre-ft, used principally for recreation). Two diversions for irrigation of about 2,000 acres above station.

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(shifting-control method used Dec. 5-12, Jan. 20-31, Mar. 2-28, May 10-16, Aug. 29 to Sept. 1, Sept. 10-30)

1.7	12
1.9	27
2.1	50

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21	33	40	38	36	38	32	30	33	22	21	19
2	20	33	43	38	36	42	29	32	32	21	20	19
3	20	32	40	38	35	40	30	30	32	21	21	20
4	22	33	43	38	36	40	32	31	32	22	20	22
5	22	33	40	38	35	38	32	29	30	22	19	22
6	22	33	42	37	36	40	32	28	31	21	19	22
7	21	33	42	38	35	38	33	26	29	21	19	20
8	20	38	43	38	36	38	32	27	30	22	19	20
9	22	35	41	37	36	40	33	29	29	22	21	19
10	22	37	43	40	36	38	35	34	27	24	22	19
11	22	36	42	40	37	38	35	35	26	25	29	17
12	22	34	41	41	36	38	a34	34	25	25	22	17
13	22	36	38	40	36	40	a35	32	24	25	20	17
14	22	38	40	38	36	40	a33	32	24	25	21	17
15	22	43	38	38	37	40	a33	33	23	24	19	16
16	22	36	38	38	36	40	a32	34	22	24	19	18
17	25	36	37	37	36	40	a32	33	23	22	19	19
18	25	34	36	38	36	41	a33	33	23	22	19	19
19	25	34	35	38	36	41	a34	33	23	22	19	18
20	25	35	40	38	36	37	a34	33	24	22	19	18
21	27	35	38	37	37	38	a33	29	22	22	19	17
22	28	34	38	38	37	38	a34	29	22	22	19	17
23	27	35	36	38	40	35	33	30	22	22	19	18
24	27	33	36	38	38	31	33	30	22	21	19	19
25	29	34	36	40	38	34	31	30	20	21	19	20
26	31	33	36	40	38	33	32	34	22	21	19	20
27	31	35	37	38	40	32	31	34	22	21	19	21
28	31	36	40	36	38	31	31	36	22	20	19	22
29	33	35	38	36	-	34	31	36	22	20	20	22
30	32	37	40	36	-	36	30	34	22	20	19	22
31	32	-	38	36	-	33	-	31	-	22	19	-
Total	772	1,049	1,215	1,179	1,025	1,162	974	981	760	686	617	576
Mean	24.9	35.0	39.2	38.0	36.6	37.5	32.5	31.6	25.3	22.1	19.9	19.2
Ac-ft	1,530	2,080	2,410	2,340	2,030	2,300	1,930	1,950	1,510	1,360	1,220	1,140

Calendar year 1952: Max 1,340 Min 7.8 Mean 92.0 Ac-ft 66,790
Water year 1952-53: Max 43 Min 16 Mean 30.1 Ac-ft 21,800

Peak discharge (base, 200 cfs).--No peak above base.
a No gage-height record; discharge estimated on basis of weather records.

Mojave River at Barstow, Calif.

Location.--Lat 34°54'25", long. 117°01'20", in SW¼SE¼ 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 1953.
Gage.--Water-stage recorder. Altitude of gage is about 2,090 ft (from topographic map).
Average discharge.--23 years, 33.5 cfs; median of yearly mean discharges, 0.7 cfs.
Extremes.--No flow during year.
1930-53: 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. Figures for calendar year 1952 are as follows: Total cfs-days, 6,325.9; maximum daily, 481 cfs; minimum, no flow; mean, 17.3 cfs; runoff, 12,540 acre-ft. Slight regulation by Lake Arrowhead (capacity, 48,000 acre-ft, used principally for recreation). Diversions above station for irrigation of about 2,000 acres.

Mojave River at Afton, Calif.

Location.--Lat 35°02'15", long. 116°23'00", in SE¼ sec. 18, T. 11 N., R. 6 E., on downstream end of right pier of Union Pacific Railroad bridge 0.3 mile west of Afton.

Records available.--December 1929 to September 1932, October 1952 to September 1953.

Gage.--Water-stage recorder. Datum of gage is 1,400.15 ft above mean sea level, datum of 1929, supplementary adjustment of 1943. Dec. 21, 1929, to Sept. 30, 1932, water-stage recorder at site 1 mile downstream at different datum.

Extremes.--Maximum discharge during year, 99 cfs July 14 (gage height, 3.16 ft), minimum daily, 0.7 cfs for many days.
1929-32, 1952-53: Maximum discharge, 3,550 cfs Feb. 10, 1932 (gage height, 4.70 ft, site and datum then in use); minimum daily, 0.1 cfs July 23-26, 1932.

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

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 25 to May 4, June 15 to July 2, July 18 to Sept. 21)

1.8	0.6
1.9	1.1
2.0	2.0
2.1	3.4
2.2	5.4

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0	1.3	1.8	1.7	2.0	2.1	1.7	1.6	1.2	0.7	0.7	0.8
2	1.0	1.3	2.0	1.7	2.0	2.1	1.7	1.5	1.2	*.7	.7	.8
3	1.0	1.3	1.8	1.7	2.0	2.1	1.7	1.4	1.2	.7	.7	.8
4	1.0	1.3	1.8	1.7	2.0	2.1	1.7	*1.3	1.2	.7	.7	.7
5	1.0	1.3	1.8	1.7	2.0	2.1	1.6	1.3	1.2	.7	.7	.7
6	1.0	1.4	1.8	*1.7	1.8	2.1	1.6	1.3	1.2	.7	*.7	.7
7	1.0	1.4	1.8	1.8	1.8	2.1	1.6	1.3	1.2	.7	.7	.7
8	1.0	1.4	1.8	1.8	1.8	2.1	*1.6	1.3	1.2	.7	.8	.7
9	1.0	1.4	*1.8	1.8	1.8	2.1	1.7	1.3	*1.1	.7	.7	.7
10	1.0	1.4	1.8	1.8	1.8	2.1	1.7	1.3	1.1	.7	.8	.7
11	1.1	1.5	1.8	1.8	1.8	2.0	1.7	1.2	1.1	.7	.8	.7
12	1.1	1.5	1.8	2.0	1.7	2.0	1.7	1.3	1.0	.7	.7	.7
13	1.1	1.5	1.8	2.0	1.7	2.0	1.7	1.3	1.0	.7	.7	.7
14	1.1	1.5	1.8	2.0	1.7	2.0	1.7	1.2	.9	*4.6	.7	.7
15	1.1	1.6	1.8	2.0	1.6	2.0	1.7	1.3	.8	.9	.7	.7
16	*1.1	1.6	1.8	2.0	1.6	2.0	1.7	1.3	.8	.9	.7	.7
17	1.1	1.6	1.8	2.0	*1.7	2.0	1.7	1.3	.8	.9	.7	.7
18	1.1	1.6	1.8	2.0	1.6	2.0	1.7	1.3	.9	.9	.7	.7
19	1.1	1.6	1.8	2.0	1.6	*2.0	1.7	1.3	.9	.9	.7	.7
20	1.1	*1.6	2.0	2.0	1.6	2.0	1.7	1.2	.8	.9	.7	.8
21	1.2	1.7	1.8	2.1	1.6	1.8	1.7	1.2	.8	.9	.7	*.8
22	1.2	1.7	1.8	2.1	1.7	1.8	1.6	1.2	.8	.8	.7	.8
23	1.2	1.7	1.8	2.0	2.0	1.8	1.6	1.2	.7	.8	.7	.8
24	1.2	1.6	1.7	2.0	2.1	1.8	1.6	1.2	.7	.8	.7	.8
25	1.2	1.7	1.7	2.0	2.1	1.8	1.6	1.2	.7	.8	.7	.9
26	1.3	1.7	1.7	2.0	2.1	1.7	1.6	1.2	.7	.8	.7	.9
27	1.3	1.8	1.7	2.0	2.1	1.7	1.7	1.2	.7	.8	*.7	1.0
28	1.3	1.8	1.7	*2.0	2.1	1.7	2.0	1.2	.7	.8	.8	1.0
29	1.3	1.8	1.7	2.0	-	1.7	1.8	1.2	.7	.8	.7	1.0
30	1.3	1.8	1.7	2.0	-	1.7	1.7	1.2	.7	.8	.7	1.0
31	1.3	-	1.7	2.0	-	1.7	-	1.2	-	.8	.8	-
Total	34.8	46.4	55.4	59.4	51.4	60.2	50.5	39.5	28.0	28.0	22.2	23.4
Mean	1.12	1.55	1.79	1.92	1.84	1.94	1.68	1.27	0.93	0.90	0.72	0.78
Ac-ft	69	92	110	118	102	119	100	78	56	56	44	46

Calendar year 1952: Max - Min - Mean - Ac-ft -
Water year 1952-53: Max 4.6 Min 0.7 Mean 1.37 Ac-ft 990

* Discharge measurement made on this day.
Note.--No gage-height record Oct. 1 to Nov. 19; discharge estimated on basis of 3 discharge measurements and weather records.

Rock Creek near Valyermo, Calif.

Location.--Lat 34°25'10", long. 117°50'25", in NE¼ sec. 20, T. 4 N., R. 9 W., on left bank 0.2 mile upstream from Punchbowl Canyon and 0.9 mile south of Valyermo.

Drainage area.--23.0 sq mi.

Records available.--January 1923 to September 1953.

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 600 ft downstream (below Punchbowl Creek) at different datum.

Average discharge.--29 years (1923-37, 1938-53), 15.3 cfs; median of yearly mean discharges, 10 cfs.

Extremes.--Maximum discharge during year, 17 cfs Dec. 1 (gage height, 2.24 ft); minimum daily, 2.0 cfs Sept. 29-30.
1923-53: 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. Discharge measurements generally made once a week. There is evidence of appreciable infiltration into the stream bed in the immediate vicinity of station.

Cooperation.--Thirty-one discharge measurements furnished by Los Angeles County Flood Control District, through H. E. Hedger, chief engineer.

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

1.9	1.9
2.0	4.8
2.1	9.7
2.2	17

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11	7.4	9.1	9.7	9.7	8.0	7.0	7.0	5.6	4.4	3.1	2.6
2	11	8.0	11	9.7	9.7	8.0	7.0	7.0	6.0	4.4	2.8	2.6
3	10	8.0	9.1	9.7	9.7	8.0	7.0	7.0	6.0	4.4	2.8	2.6
4	9.7	8.0	8.8	9.7	9.7	8.0	7.0	6.4	6.0	4.0	2.8	2.6
5	9.7	8.6	8.6	9.7	9.7	8.0	7.0	6.4	6.0	4.0	2.8	2.3
6	9.1	8.6	8.6	9.7	9.1	8.0	7.4	6.4	6.0	4.0	2.8	2.3
7	9.1	9.1	8.6	10	9.1	8.0	7.4	6.4	5.6	4.0	2.6	2.3
8	9.1	11	8.6	12	9.1	8.0	8.0	6.4	5.6	4.0	2.6	2.3
9	9.1	9.1	8.0	14	9.1	8.0	8.0	6.4	5.6	4.0	2.6	2.6
10	9.1	8.6	8.0	12	9.1	8.0	8.0	6.4	5.2	4.0	2.8	2.6
11	9.1	8.0	8.0	11	8.6	8.0	7.4	6.4	4.8	4.0	3.1	2.6
12	9.1	8.0	8.0	11	8.6	8.0	7.4	6.4	4.8	4.0	3.1	2.3
13	9.1	8.0	7.4	10	8.6	8.0	7.4	6.4	4.8	4.0	3.1	2.6
14	9.1	8.6	7.0	10	8.6	8.0	7.4	6.4	4.8	4.0	3.1	2.6
15	9.1	9.7	7.0	10	8.0	8.0	7.4	6.4	4.8	3.7	2.8	2.3
16	8.6	9.1	7.0	10	8.0	7.4	7.4	6.4	4.8	3.7	2.6	2.3
17	8.6	9.1	9.1	9.7	8.0	7.4	7.4	6.0	4.8	3.7	2.6	2.3
18	8.6	8.6	9.1	9.1	7.4	7.4	7.4	6.0	4.8	3.7	2.6	2.3
19	8.6	7.4	8.6	9.1	7.4	7.4	7.4	6.0	4.4	3.4	2.6	2.3
20	8.6	7.4	13	9.1	7.4	7.4	7.4	6.0	4.4	3.4	2.6	2.3
21	8.6	7.4	11	9.1	7.4	7.4	7.4	6.0	4.4	3.1	2.6	2.3
22	8.0	7.4	10	9.1	7.4	7.4	7.4	5.6	4.4	3.1	2.6	2.3
23	8.0	7.4	9.7	9.1	7.4	7.4	7.4	5.6	4.4	3.1	2.6	2.3
24	8.0	7.4	9.7	9.1	7.4	7.4	7.4	5.6	4.4	3.1	2.6	2.3
25	7.4	7.4	9.7	9.1	8.0	7.4	7.4	5.6	4.4	2.8	2.6	2.3
26	7.4	7.4	9.7	9.7	8.6	7.4	7.0	5.6	4.4	2.8	2.6	2.3
27	8.0	7.4	9.7	9.7	8.6	7.4	7.0	5.6	4.0	2.8	2.6	2.3
28	8.0	7.4	9.7	9.7	8.0	7.4	7.0	5.6	4.0	2.8	2.6	2.3
29	8.0	7.4	9.7	9.7	-	7.4	7.0	5.6	4.0	2.8	2.8	2.0
30	7.4	8.6	10	9.7	-	7.4	7.0	5.6	4.4	3.1	2.8	2.0
31	7.4	-	9.7	9.7	-	7.4	-	5.6	-	3.1	2.8	-
Total	271.6	245.5	281.2	308.9	237.4	238.4	219.8	190.2	147.6	111.4	85.1	71.1
Mean	8.76	8.18	9.07	9.96	8.48	7.69	7.33	6.14	4.92	3.59	2.75	2.37
Ac-ft	539	487	558	613	471	473	436	377	293	211	169	141

Calendar year 1952: Max 98 Min 7.0 Mean 25.4 Ac-ft 18,470
Water year 1952-53: Max 14 Min 2.0 Mean 6.60 Ac-ft 4,780

Peak discharge (base, 50 cfs).--No peak above base.

Little Rock Creek near Little Rock, Calif.

Location.--Lat 34°27'50", long. 118°01'05", in SW¼SW¼NE¼ sec. 3, T. 4 N., R. 11 W., on right bank 0.3 mile upstream from Santiago Creek, 1.65 miles upstream from Little Rock Palmdale Irrigation District's dam, and 5 miles south of Little Rock.

Drainage area.--49.0 sq mi.

Records available.--October 1930 to September 1953.

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.--21 years (1930-37, 1939-53), 18.6 cfs; median of yearly mean discharges, 9.6 cfs.

Extremes.--Maximum discharge during year, 36 cfs Jan. 9 (gage height, 4.32 ft); no flow Aug. 2 to Sept. 30.
1930-53: Maximum discharge, 17,000 cfs (estimated) Mar. 2, 1938; no flow during periods in most years.

Cooperation.--Records furnished by Los Angeles County Flood Control District, through H. E. Hedger, chief engineer.

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0	0.6	3.2	6.6	7.2	7.5	6.3	4.5	1.9	0.4	0.1	
2	.8	.6	10	6.3	7.5	8.3	6.3	4.4	2.8	.4	0	
3	.8	.6	7.5	6.9	7.5	7.5	6.3	4.3	2.6	.2	0	
4	.8	.6	6.0	7.9	7.5	7.2	6.3	4.2	2.4	.2	0	
5	.8	.7	5.8	8.3	7.5	6.9	6.3	4.2	2.0	.3	0	
6	.8	.8	5.3	8.7	7.5	7.5	6.3	4.1	2.0	.3	0	
7	.8	.8	5.6	17	7.5	7.5	6.3	4.0	1.9	.2	0	
8	.8	6.7	5.6	33	7.5	7.9	6.3	4.0	1.8	.2	0	
9	.8	7.9	5.6	32	7.5	7.9	6.3	4.0	1.4	.2	0	
10	.8	6.3	5.3	27	7.2	7.9	6.3	4.0	1.4	.2	0	
11	.6	4.7	5.0	25	6.9	7.9	6.2	3.8	1.4	.2	0	
12	.6	2.8	4.7	22	6.6	7.9	6.1	3.8	1.2	.2	0	
13	.6	2.6	4.7	19	6.3	7.9	6.0	3.7	.8	.2	0	
14	.6	5.5	5.0	21	6.0	7.5	5.9	3.6	.8	.1	0	
15	.5	12	5.0	19	5.6	7.5	5.8	3.4	.8	.2	0	
16	.5	8.7	5.3	17	5.6	6.9	5.7	3.3	.7	.2	0	
17	.6	4.4	7.3	16	5.3	6.9	5.6	3.2	.6	.1	0	
18	.6	3.6	16	15	5.3	6.9	5.6	3.0	.7	.1	0	
19	.5	3.4	10	14	5.6	6.6	5.5	2.9	.8	.1	0	
20	.5	3.4	17	13	5.6	8.3	5.4	2.8	.8	.1	0	
21	.5	3.4	15	12	5.6	9.1	5.3	2.8	.7	.1	0	
22	.5	3.4	10	11	5.3	8.3	5.3	2.6	.6	.1	0	
23	.5	3.4	8.7	10	6.9	7.9	5.3	2.4	.6	.1	0	
24	.5	3.2	7.5	9.6	6.9	7.5	5.0	2.1	.4	.1	0	
25	.5	3.0	6.9	9.1	8.3	7.5	4.9	1.9	.5	.1	0	
26	.5	2.8	6.3	8.7	7.5	7.5	4.8	1.6	.4	.1	0	
27	.5	2.8	6.0	8.3	7.5	7.4	4.8	2.4	.4	.1	0	
28	.5	2.4	6.9	8.3	7.5	7.2	4.7	3.2	.4	.1	0	
29	.5	2.4	6.6	7.9	-	7.1	4.6	2.8	.4	.1	0	
30	.5	2.8	6.6	7.5	-	7.0	4.5	2.4	.4	.1	0	
31	.6	-	7.2	7.5	-	6.9	-	2.2	-	.1	0	
Total	19.4	106.3	227.4	434.6	188.7	233.8	170.0	101.6	33.6	5.2	0.1	0
Mean	0.63	3.54	7.34	14.0	6.74	7.54	5.67	3.28	1.12	0.17	0.003	0
Ac-ft	38	211	451	862	374	464	337	202	67	10	0.2	0

Calendar year 1952: Max 247 Min 0.4 Mean 30.8 Ac-ft 22,370
Water year 1952-53: Max 33 Min 0 Mean 4.17 Ac-ft 3,020

Mono Lake near Mono Lake, Calif.

Location.--Lat 38°00', long. 119°08', in NE¼ sec. 31, T. 2 N., R. 26 E., on west bank 1 mile south of Mono Lake Post Office.

Records available.--June 1912 to September 1953. 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. Gage readings have been reduced to elevations above mean sea level.

Extremes.--1912-53: Maximum elevation observed, 6,428.1 ft July 18, 1919; minimum observed, 6,407.69 ft Sept. 24, 1953.

Cooperation.--Gage-height record furnished by city of Los Angeles.

Revisions.--Revised figures of elevation, in feet, for the water year 1952, superseding those published in WSP 1244, are contained in the following table:

Date	Elevation	Date	Elevation	Date	Elevation
1951		1952-Con.		1952-Con.	
Oct. 5	6,408.13	Feb. 4	6,408.01	June 16	6,408.73
15	6,408.01	14	6,408.02	26	6,408.77
22	6,407.94	21	6,408.01	30	6,408.76
29	6,407.93	28	6,408.05	July 7	6,408.80
Nov. 2	6,407.89	Mar. 21	6,408.19	17	6,408.98
9	6,407.89	26	6,408.18	28	6,409.16
15	6,407.82	Apr. 3	6,408.22	Aug. 5	6,409.29
28	6,407.88	14	6,408.26	5	6,409.32
Dec. 10	6,407.84	22	6,408.34	14	6,409.29
14	6,407.80	29	6,408.37	21	6,409.21
21	6,407.83	May 5	6,408.41	28	6,409.09
		12	6,408.46	Sept. 8	6,408.87
1952		21	6,408.53	15	6,408.75
Jan. 4	6,407.91	June 2	6,408.68	25	6,408.75
28	6,407.99	12	6,408.75	Oct. 2	6,408.73

Elevation, in feet, water year October 1952 to September 1953

Date	Elevation	Date	Elevation	Date	Elevation
Oct. 2	6,408.73	Feb. 6	6,408.91	June 12	6,408.75
9	6,408.67	12	6,408.91	15	6,408.74
14	6,408.64	19	6,408.93	18	6,408.75
20	6,408.62	26	6,408.91	25	6,408.71
23	6,408.60	Mar. 5	6,408.92	July 2	6,408.67
30	6,408.56	12	6,408.90	8	6,408.63
Nov. 6	6,408.55	20	6,408.93	17	6,408.58
13	6,408.56	27	6,409.03	23	6,408.55
20	6,408.48	Apr. 2	6,409.06	31	6,408.46
24	6,408.49	9	6,409.06	Aug. 7	6,408.32
Dec. 4	6,408.53	20	6,409.02	14	6,408.25
10	6,408.60	23	6,409.03	21	6,408.14
19	6,408.69	30	6,408.98	28	6,408.12
26	6,408.73	May 7	6,409.02	Sept. 2	6,407.86
31	6,408.70	14	6,409.04	9	6,407.80
Jan. 9	6,408.70	18	6,408.94	17	6,407.77
15	6,408.74	28	6,408.81	24	6,407.69
22	6,408.83	June 4	6,408.86		

WALKER LAKE BASIN

Walker Lake near Hawthorne, Nev.

Location.--Lat 38°35', long. 118°42', in NE¼NE¼ sec. 2, T. 8 N., R. 29 E., 3 miles northwest of Hawthorne.

Records available.--August 1928 to September 1953. 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.--1928-53: Maximum elevation observed, 4,051.8 ft Mar. 13, 1928 (Indian Service); minimum observed, 3,996.0 ft Nov. 5, 1951.
An elevation of 4,078.0 ft, adjustment of 1912, was observed Sept. 27, 1908, by Geological Survey.

Remarks.--Elevations determined by spirit leveling. The only reading made during the water year was 3,998.95 ft on Dec. 10, 1952.

Cooperation.--Records furnished by U. S. Navy Department.

Bridgeport Reservoir near Bridgeport, Calif.

Location.--Lat 38°19'30", long. 119°12'50", in SE¼ sec. 34, T. 6 N., R. 25 E., at Bridgeport Dam on East Walker River, 4½ miles north of Bridgeport.

Drainage area.--362 sq mi.

Records available.--October 1931 to September 1953 in reports of Geological Survey. March 1926 to September 1953 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, 42,920 acre-ft Mar. 25 (elevation, 6,460.15 ft); minimum contents observed, 20,620 acre-ft Sept. 30 (elevation, 6,451.01 ft).
1926-53: 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 6,412 ft (sill of outlet gate) and 6,460 ft (crest of spillway). 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.

Contents, in acre-feet, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	29,640	29,040	33,350	35,300	35,440	40,270	41,730	38,980	35,440	37,590	38,710	26,090
2	29,640	29,160	33,480	35,300	35,570	40,420	41,730	38,710	35,700	38,010	38,290	25,870
3	29,520	29,160	33,730	35,170	35,570	40,560	41,730	38,570	35,830	38,290	37,730	25,650
4	29,400	29,280	33,860	35,170	35,570	40,560	41,580	38,430	35,960	38,570	37,320	25,540
5	29,400	29,400	33,980	35,170	35,570	40,710	41,580	38,150	36,100	38,840	36,900	25,430
6	29,280	29,520	33,860	35,040	36,100	40,850	41,580	38,010	36,100	39,120	36,360	25,430
7	29,160	29,640	34,240	35,040	36,230	41,000	41,580	37,870	36,360	39,260	35,960	25,320
8	29,040	29,880	34,510	35,040	36,630	41,150	41,440	37,590	36,500	39,540	35,440	25,210
9	28,930	30,120	34,640	35,040	36,900	41,290	41,290	37,180	36,630	39,830	35,040	25,100
10	28,820	30,240	34,640	35,300	36,900	41,440	41,290	37,040	36,760	39,980	34,510	24,990
11	28,700	30,360	34,900	-	37,040	41,580	41,150	36,760	36,760	40,270	33,980	24,770
12	28,700	30,610	35,040	-	37,180	41,730	41,000	36,500	36,900	40,560	33,600	24,560
13	28,700	30,730	35,300	-	37,180	41,730	40,850	36,360	36,900	41,000	33,090	24,240
14	28,700	30,850	35,440	35,830	37,590	41,880	40,850	36,100	36,900	41,290	32,710	24,140
15	28,700	31,090	35,570	35,830	37,320	42,020	40,710	35,960	36,900	41,730	32,330	23,930
16	28,700	31,210	35,830	35,830	37,870	42,170	40,560	36,100	36,900	42,020	31,820	23,720
17	28,700	31,450	35,830	35,830	38,010	42,170	40,560	36,100	37,040	42,170	31,450	23,520
18	28,700	31,570	35,830	35,830	38,010	42,310	40,420	36,100	36,900	42,170	30,970	23,200
19	28,700	31,700	35,700	35,830	38,010	42,310	40,270	36,100	37,040	42,170	30,610	23,000
20	28,700	31,950	35,700	35,960	38,710	42,310	40,270	36,100	37,180	42,020	30,240	22,680
21	28,580	32,080	35,700	36,230	38,980	42,460	40,120	36,360	37,320	41,880	29,760	22,480
22	28,700	32,200	35,700	36,230	39,120	42,460	39,980	35,960	37,320	41,580	29,400	22,290
23	28,580	32,330	35,700	36,100	39,400	42,760	39,980	35,960	37,460	41,580	29,040	21,990
24	28,700	32,460	35,570	35,960	39,400	42,920	39,830	35,830	37,460	41,440	28,700	21,800
25	28,820	32,590	35,570	35,960	39,540	42,920	39,690	35,570	37,460	41,290	28,240	21,600
26	28,820	32,710	35,440	35,960	39,540	42,310	39,400	35,440	37,320	41,000	27,780	21,400
27	28,820	32,840	35,440	35,960	39,980	42,310	39,400	35,440	37,320	40,710	27,440	21,110
28	28,930	32,970	35,300	35,830	40,120	42,170	39,540	35,440	37,180	40,420	27,090	20,910
29	28,930	33,090	35,300	35,700	-	42,020	39,540	35,570	37,320	39,980	26,750	20,820
30	29,040	33,220	35,300	35,570	-	41,880	39,260	35,570	37,320	39,540	26,420	20,620
31	29,040	-	35,300	35,570	-	41,730	-	35,440	-	39,120	26,200	-

Monthly elevation and contents, water year October 1952 to September 1953

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	6,455.27	29,760	-
Oct. 31	6,454.97	29,040	-720
Nov. 30	6,456.64	33,220	+4,180
Dec. 31	6,457.45	35,300	+2,080
Calendar year 1952	-	-	+5,660
Jan. 31	6,457.53	35,570	+270
Feb. 28	6,459.19	40,120	+4,550
Mar. 31	6,459.74	41,730	+1,610
Apr. 30	6,458.89	39,260	-2,470
May 31	6,457.52	35,440	-3,820
June 30	6,458.21	37,320	+1,880
July 31	6,458.84	39,120	+1,800
Aug. 31	6,453.71	26,200	-12,920
Sept.30	6,451.01	20,620	-5,580
Water year 1952-53	-	-	-9,140

East Walker River near Bridgeport, Calif.

Location.--Lat 38°19'40", long. 119°12'50", in SW¼NE¼ sec. 34, T. 6 N., R. 25 E., on right bank 1,500 ft downstream from Bridgeport Reservoir, 5 miles north of Bridgeport, and 10 miles upstream from Sweetwater Creek.

Drainage area.--362 sq mi.

Records available.--July 1911 to September 1914 (gage heights only), October 1921 to September 1953.

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.--30 years (1922-24, 1925-53), 131 cfs.

Extremes.--Maximum discharge during year, 475 cfs July 16, 17 (gage height, 2.36 ft); minimum, 11 cfs Feb. 13; minimum daily, 12 cfs Feb. 14-24.
1921-53: Maximum discharge, 1,240 cfs Jan. 22, 1943; maximum gage height, 4.95 ft Jan. 22, 1943 (top of surge); minimum daily discharge, 0.5 cfs Dec. 31, 1949, to Feb. 17, 1950, Feb. 22 to Mar. 3, 1950.

Remarks.--Records excellent except those below 50 cfs, which are good. Diversion for irrigation of meadow and pasture lands near Bridgeport. Flow regulated by Bridgeport Reservoir (see preceding page).

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

0.3	7.5	1.1	111
.4	13	1.5	202
.5	20	2.0	347
.7	42	3.0	691

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	175	84	14	113	147	*34	48	*216	139	*180	325	*190
2	175	*84	14	113	147	35	61	187	*117	182	325	175
3	175	86	14	113	147	35	78	177	115	197	325	159
4	175	41	14	113	112	35	78	177	115	216	325	159
5	175	14	13	113	63	35	78	177	115	216	344	159
6	175	14	13	113	63	35	78	177	87	240	357	161
7	175	14	13	113	63	35	78	177	70	260	357	161
8	175	14	13	113	63	35	78	177	70	274	357	161
9	175	14	13	113	63	35	87	177	99	295	357	166
10	147	14	13	113	40	35	105	177	117	295	357	194
11	113	14	13	113	15	35	105	177	122	295	353	213
12	113	14	13	113	16	35	105	177	159	295	353	213
13	113	14	13	113	14	36	105	177	177	295	353	213
14	113	14	13	113	12	37	93	177	177	295	325	210
15	113	14	13	113	12	37	82	147	192	298	316	210
16	113	14	55	113	12	37	84	113	246	363	316	210
17	113	14	113	113	12	37	93	113	260	454	316	210
18	113	14	113	113	12	37	103	113	260	437	280	210
19	113	14	113	113	12	37	103	113	280	437	260	210
20	113	14	113	113	12	37	111	113	307	395	257	210
21	113	*14	113	132	12	48	130	122	307	344	257	210
22	113	14	*113	*147	12	70	145	128	307	286	257	207
23	99	14	113	147	12	70	145	154	310	289	257	197
24	82	14	113	147	12	71	177	168	325	289	257	184
25	84	14	113	147	26	86	216	170	347	304	257	184
26	84	14	113	147	35	117	216	170	347	322	257	184
27	84	14	113	147	34	156	216	170	350	322	257	182
28	84	14	113	147	34	156	216	170	328	322	254	186
29	84	14	113	147	-	156	216	170	277	325	254	154
30	84	14	113	147	-	*156	216	170	229	325	254	154
31	84	-	113	147	-	102	-	170	-	*325	213	-
Total	3,847	659	1,949	3,862	1,214	1,902	3,646	5,001	6,351	9,372	9,332	5,618
Mean	124	22.0	62.9	125	43.4	61.4	122	161	212	302	301	187
Ac-ft	7,630	1,310	3,870	7,660	2,410	3,770	7,230	9,920	12,600	18,590	18,510	11,140

Calendar year 1952: Max 958 Min 6.4 Mean 284 Ac-ft 206,500
Water year 1952-53: Max 454 Min 12 Mean 145 Ac-ft 104,600

* Discharge measurement made on this day.

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.

Records available.--January 1947 to September 1953.

Gage.--Water-stage recorder. Datum of gage is 4,574.66 ft above mean sea level, datum of 1929.

Average discharge.--6 years (1947-53), 131 cfs.

Extremes.--Maximum discharge during year, 409 cfs July 19 (gage height, 3.07 ft); minimum daily, 40 cfs Feb. 25, 26.

1947-53: Maximum discharge, 1,400 cfs July 14, 1952 (gage height, 6.21 ft), from rating curve extended above 1,100 cfs by logarithmic plotting; minimum, 3.1 cfs Mar. 21, 1948; minimum daily, 3.4 cfs Mar. 21-24, 1948.

Remarks.--Records good. Diversions for irrigation above station. Flow regulated by Bridgeport Reservoir (see p. 156).

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

1.2	37
1.6	94
2.0	168
3.0	392
4.0	645

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	166	101	50	122	140	57	96	182	172	211	268	215
2	168	97	47	122	140	56	71	176	170	174	266	184
3	174	92	46	122	140	54	64	164	137	166	266	174
4	174	92	44	122	138	57	61	154	131	174	264	154
5	174	81	44	122	125	57	63	154	129	186	268	152
6	174	67	49	122	94	57	64	154	127	192	275	148
7	176	61	46	122	86	54	63	152	115	217	284	148
8	176	58	50	124	86	53	61	146	97	226	293	148
9	174	57	47	124	81	53	63	148	92	245	305	140
10	172	56	46	131	80	51	64	150	96	264	305	138
11	160	51	45	129	77	53	71	150	109	266	310	144
12	140	50	45	127	64	53	78	148	108	266	310	158
13	135	47	44	127	57	53	83	148	122	270	312	166
14	129	47	44	131	56	49	81	150	146	268	316	168
15	127	49	44	129	53	46	78	164	154	266	293	168
16	125	49	44	127	49	42	72	152	174	268	270	168
17	127	50	45	129	46	42	71	124	224	316	270	170
18	127	49	67	133	45	42	72	116	224	385	266	170
19	127	50	101	135	46	42	78	115	220	390	243	172
20	129	51	113	137	44	46	81	113	232	390	228	170
21	127	53	120	*135	44	44	84	111	266	351	215	170
22	125	51	122	129	42	45	94	109	270	319	211	170
23	*122	54	*124	138	42	51	102	113	270	*284	209	170
24	120	53	127	140	42	57	104	125	277	273	209	162
25	111	50	129	142	*40	*58	125	*140	*289	259	209	152
26	109	*51	120	140	40	63	160	146	298	266	209	150
27	109	51	120	138	50	72	174	148	307	275	*213	150
28	109	53	120	138	54	94	*184	152	303	268	217	*152
29	108	50	116	140	-	102	188	162	286	273	217	146
30	108	50	116	140	-	104	186	154	252	275	237	137
31	104	-	118	140	-	102	-	162	-	270	245	-
Total	4,306	1,771	2,393	4,057	2,001	1,809	2,836	4,482	5,797	8,253	8,003	4,814
Mean	139	59.0	77.2	131	71.5	58.4	94.5	145	193	266	258	160
Ac-ft	8,540	3,510	4,750	8,050	3,970	3,590	5,630	8,890	11,500	16,370	15,870	9,550

Calendar year 1952: Max 1,000 Min 16 Mean 315 Ac-ft 228,900
Water year 1952-53: Max 390 Min 40 Mean 138 Ac-ft 100,200

* Discharge measurement made on this day.

East Fork West Walker River near Bridgeport, Calif.

Location.--Lat 38°21'30", long. 119°26'30", in NW¼NW¼ sec. 22, T. 6 N., R. 23 E., on right bank three-quarters of a mile north of Sonora Junction, 1½ miles upstream from mouth, and 14 miles northwest of Bridgeport.

Drainage area.--63 sq mi, approximately.

Records available.--April to August 1910, October 1944 to September 1953.

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.--9 years (1944-53), 51.3 cfs.

Extremes.--Maximum discharge during year, 289 cfs June 18 (gage height, 1.92 ft); maximum gage height, 2.72 ft Dec. 8 (backwater from ice); minimum discharge not determined, occurred during period of ice effect.
1910, 1944-53: Maximum discharge recorded, 660 cfs Feb. 2, 1945 (gage height, 2.69 ft), from rating curve extended above 270 cfs on basis of velocity-area study and slope-area determination at gage height 2.60 ft; 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, which are fair. Small diversions above station.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.6	10	1.2	70
.8	21	1.5	140
1.0	39	2.0	330

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	30	23		21	23	20	36	52	63	177	56	*30
2	29	*22		b21	b23	b19	39	47	*62	177	53	27
3	29	23		b21	23	b19	43	49	68	177	49	27
4	29	23		b20	23	b19	49	53	74	173	47	27
5	29	23		b20	25	b20	50	55	80	190	47	27
6	29	24		21	26	b21	47	55	92	208	42	27
7	29	24		30	26	22	38	53	95	215	40	26
8	28	24	b20	42	24	23	35	49	95	208	39	25
9	28	23		38	b23	24	35	47	95	201	38	25
10	28	25		33	b22	23	32	46	95	194	39	23
11	28	23		29	b20	22	29	46	111	190	38	23
12	27	22		29	b20	21	28	45	118	190	40	23
13	27	23		28	b21	b21	26	47	118	180	45	23
14	27	21		b28	b22	b21	29	52	135	187	40	23
15	27	27		b26	21	21	32	55	146	173	37	23
16	27	25	23	b26	b21	22	33	52	155	164	36	23
17	27	b23	23	25	b21	23	32	50	177	143	35	23
18	30	b21	23	28	b20	22	34	60	223	126	33	22
19	28	b20	22	30	b20	20	40	74	246	118	33	21
20	27	b19	23	28	b19	b19	46	70	227	108	33	21
21	27	*b19	b21	b25	b19	23	49	70	215	92	33	21
22	26		*b20	*b24	b19	24	63	68	204	90	32	20
23	26		b19	b24	b19	27	70	72	*212	84	32	20
24	26		b18	b24	*b20	33	74	65	219	82	31	20
25	26		b18	23	b20	33	*80	58	204	74	30	19
26	25	b19	b17	b23	b20	33	84	55	187	70	29	19
27	25		17	b23	b20	34	99	56	170	68	28	22
28	25		b19	b23	20	33	80	62	167	68	28	20
29	25		b21	23	-	31	67	63	173	65	28	19
30	25		23	b23	-	*29	58	63	180	60	38	19
31	25	-	*21	b23	-	31	-	65	-	*58	33	-
Total	844	648	628	802	600	753	1,459	1,754	4,406	4,310	1,162	688
Mean	27.2	21.6	20.3	25.9	21.4	24.3	48.6	56.6	147	139	37.5	22.9
Ac-ft	1,670	1,290	1,250	1,590	1,190	1,490	2,890	3,480	8,740	8,550	2,300	1,360

Calendar year 1952: Max 443 Min 12 Mean 89.2 Ac-ft 64,760
Water year 1952-53: Max 246 Min - Mean 49.5 Ac-ft 35,800

Peak discharge (base, 200 cfs).--June 18 (11 p.m.) 289 cfs (1.92 ft); July 6 (9:30 p.m.) 263 cfs (1.86 ft); July 11 (5 p.m.) 246 cfs (1.82 ft); July 16 (5 p.m.) 201 cfs (1.71 ft).
* Discharge measurement made on this day.
b Stage-discherge relation affected by ice.

West Walker River below East Fork, near Coleville, Calif.

Location.--Lat 38°22'45", long. 119°27'00", in SE¼ 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 1953.

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.--15 years, 261 cfs.

Extremes.--Maximum discharge during year, 2,030 cfs June 19 (gage height, 4.93 ft); minimum not determined, occurred during period of ice effect.
1938-53: 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.

Remarks.--Records good except those for periods of ice effect, which are fair. Station is above diversions except for 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 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 23-28)*

0.8	43	2.5	401
1.1	78	3.0	607
1.5	140	4.0	1,260
2.0	246	5.0	2,100

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	86	54	*52	58	79	65	147	*321	363	1,050	254	*89
2	84	*51	50	59	78	58	171	293	*330	1,050	234	82
3	82	50	52	59	79	58	200	293	366	1,030	214	77
4	81	52	52	59	81	59	238	324	442	953	196	75
5	79	53	50	59	85	60	273	380	477	988	181	75
6	77	54	52	55	91	66	290	442	552	1,150	169	75
7	75	53	54	57	94	70	249	431	602	1,180	164	73
8	74	52	54	77	85	75	207	380	570	1,120	154	72
9	73	50	54	115	76	81	183	330	561	1,090	154	68
10	72	50	54	125	72	79	173	308	589	1,000	149	65
11	72	51	54	110	68	74	160	296	661	953	142	86
12	69	50	54	107	68	74	153	299	749	946	160	88
13	68	51	54	101	70	67	149	336	698	988	183	88
14	66	50	54	89	72	68	147	387	832	974	175	86
15	65	49	54	89	71	74	153	373	912	932	156	86
16	64	54	54	90	70	75	169	333	1,020	820	144	86
17	64	50	59	91	67	75	171	318	1,180	709	132	85
18	74	54	60	100	60	75	169	450	1,620	617	121	81
19	75	54	56	106	60	70	212	584	1,680	566	117	79
20	70	54	56	101	60	63	273	518	1,460	552	112	78
21	66	51	54	98	60	70	308	477	1,270	485	107	77
22	64	51	53	92	62	85	461	427	1,230	450	102	74
23	63	51	52	88	64	92	589	442	*1,280	434	98	73
24	61	51	50	84	*65	110	632	380	1,300	423	91	72
25	60	51	48	82	66	117	*682	346	1,230	394	88	72
26	59	51	47	80	66	123	748	314	1,070	333	85	70
27	59	51	45	79	64	132	743	302	953	318	82	72
28	57	51	48	78	65	138	544	305	960	330	78	63
29	57	51	51	*78	-	132	431	293	981	318	75	55
30	57	51	56	77	-	*121	370	330	1,060	290	100	*54
31	55	-	*59	77	-	130	-	398	-	*273	101	-
Total	2,129	1,546	1,642	2,620	1,998	2,636	9,396	11,410	26,998	22,716	4,318	2,276
Mean	68.7	51.5	53.0	84.5	71.4	85.0	313	368	900	733	139	75.9
Ac-ft	4,220	3,070	3,260	5,200	3,960	5,230	18,640	22,630	53,550	45,060	8,560	4,510

Calendar year 1952: Max 2,500 Min - Mean 408 Ac-ft 296,400
Water year 1952-53: Max 1,680 Min 45 Mean 246 Ac-ft 177,900

Peak discharge (base, 1,120 cfs).--June 19 (1:30 a.m.) 2,030 cfs (4.93 ft); July 6 (10:30 p.m.) 1,440 cfs (4.23 ft).

* Discharge measurement made on this day.

Note.--Stage-discharge relation affected by ice Nov. 17 to Jan. 5, Jan. 14-16, 21-24, 26-28, Feb. 8-26, Mar. 2-5, 13, 14, 20-23.

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 1953.

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, 59,350 acre-ft July 14 (elevation, 5,004.96 ft); minimum, 21,540 acre-ft Sept. 30 (elevation, 4,985.68 ft).
1931-53: Maximum contents observed, 60,240 acre-ft June 30, 1941 (elevation, 5,005.35 ft); minimum observed, 505 acre-ft Oct. 22-25, 1931 (elevation, 4,972.63 ft).

Remarks.--Topaz Reservoir, formerly known as Alkali Lake, was formed by the diversion of water from West Walker River through a feeder canal and the construction of an outlet tunnel through a low saddle in rim of lake. Storage began Jan. 30, 1922. Usable capacity, 59,440 acre-ft between elevations 4,972.3 ft (lowest practical elevation for diversion through tunnel, bottom of outlet tunnel at elevation 4,970 ft) and 5,005 ft (3 ft below top of levee). Capacity of reservoir increased from about 45,000 acre-ft 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.

Contents, in acre-feet, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34,620	30,310	32,500	41,230	51,090	-	58,980	55,850	52,690	58,520	53,240	34,860
2	34,340	30,290	-	-	51,350	-	58,960	55,540	53,040	58,620	52,600	34,540
3	-	30,290	-	-	-	-	58,710	55,310	53,290	58,710	51,740	34,070
4	33,870	-	-	-	-	-	58,550	55,000	53,620	58,750	51,000	33,720
5	33,310	-	-	-	-	-	-	54,820	54,040	58,770	50,240	33,340
6	-	30,270	33,710	-	-	56,930	58,480	54,640	54,640	58,890	49,420	33,000
7	32,500	30,270	-	-	-	-	58,520	54,440	55,220	59,050	48,750	32,530
8	-	30,250	-	-	-	-	58,520	54,220	55,740	59,070	47,940	31,990
9	-	30,240	-	43,270	-	-	58,460	54,000	56,030	59,050	47,200	31,550
10	32,300	-	-	-	-	-	58,430	53,710	56,440	58,940	46,270	30,910
11	-	30,220	-	-	-	-	58,410	53,330	56,660	-	45,450	30,520
12	31,920	30,200	-	-	-	-	58,270	52,950	57,000	59,100	44,740	29,880
13	31,800	-	35,990	-	53,550	57,910	58,140	52,600	56,890	59,260	44,010	29,340
14	31,690	30,320	-	-	-	-	57,910	52,360	56,980	59,350	43,310	28,600
15	31,550	30,320	-	-	-	-	57,680	-	57,200	59,260	42,690	27,890
16	31,400	-	-	46,100	-	-	57,450	-	57,520	59,120	-	27,350
17	31,300	-	-	-	-	-	57,050	-	57,840	59,070	41,410	26,830
18	-	-	-	-	-	-	56,620	51,960	58,000	59,050	40,950	26,170
19	31,030	-	-	-	-	-	56,280	52,270	58,050	-	40,420	25,670
20	30,910	30,380	37,880	-	54,750	-	55,990	52,690	58,090	59,120	40,030	24,620
21	30,780	30,390	-	-	-	58,730	55,630	52,840	-	59,100	39,230	-
22	30,690	-	-	-	-	-	55,380	53,090	57,910	59,000	38,680	24,130
23	30,590	-	-	48,620	-	-	55,380	53,200	58,110	59,000	38,150	23,670
24	30,480	31,050	-	-	-	-	55,380	53,200	58,480	58,730	37,530	23,360
25	30,410	-	-	-	-	59,030	55,400	53,090	58,750	58,200	36,980	23,040
26	30,360	-	-	-	-	59,050	55,540	52,890	58,640	57,700	36,310	22,730
27	30,310	-	-	-	55,870	59,050	55,670	52,670	58,360	57,020	35,690	22,270
28	30,290	-	-	-	a56,020	-	56,230	52,510	58,360	56,370	35,170	22,200
29	30,310	-	40,100	-	-	-	56,320	52,510	58,390	55,650	-	21,760
30	30,310	a32,290	-	50,630	-	-	56,100	52,420	58,410	54,750	-	21,540
31	a30,310	-	a40,850	a50,860	-	58,980	-	-	-	54,000	35,240	-

a No elevation record; contents estimated on basis of records for West Walker River near Coleville, Calif., and Hudson, Nev., or interpolated.

Monthly elevation and contents, water year October 1952 to September 1953

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept.30	4,993.30	34,870	-
Oct. 31	-	a30,310	-4,560
Nov. 30	-	a32,290	+1,980
Dec. 31	-	a40,850	+8,560
Calendar year 1952	-	-	+13,710
Jan. 31	-	a50,860	+10,010
Feb. 28	-	a56,020	+5,160
Mar. 31	5,004.80	58,980	+2,960
Apr. 30	5,003.53	56,100	-2,880
May 31	5,001.88	52,420	-3,680
June 30	5,004.55	58,410	+5,990
July 31	5,002.59	54,000	-4,410
Aug. 31	4,993.50	35,240	-18,760
Sept.30	4,985.68	21,540	-13,700
Water year 1952-53	-	-	-13,330

a No elevation record; contents estimated on basis of records for West Walker River near Coleville, Calif., and Hudson, Nev., or interpolated.

West Walker River near Hudson, Nev.

Location.--Lat 38°49', long. 119°14', in SW¼ 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 1953. August 1914 to May 1921 published as "at Hudson."

Gage.--Water-stage recorder. Altitude of gage is 4,670 ft (from topographic map). Prior to May 1921, staff gage at site 2½ miles upstream at different datum. May 1921 to March 1925 water-stage recorder at approximately same site at different datum.

Average discharge.--16 years (1914-24, 1947-53), 205 cfs.

Extremes.--Maximum discharge during year, 1,360 cfs June 20 (gage height, 4.56 ft); minimum, 39 cfs Jan. 29.
1914-25, 1947-53: Maximum discharge, 2,530 cfs June 7, 1922 (gage height, 6.35 ft, site and datum then in use); minimum daily, 13 cfs Aug. 7 to Sept. 21, 1920.

Remarks.--Records good. 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 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 25-27)

0.9	28	2.0	317
1.1	53	3.0	715
1.3	91	4.0	1,120
1.6	·174	5.0	1,540

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	133	122	50	53	50	67	80	298	275	510	249	235
2	133	122	53	53	53	68	74	287	242	530	232	214
3	122	124	51	51	56	67	111	268	224	522	268	190
4	119	127	50	50	56	63	122	257	214	522	260	171
5	130	124	50	49	63	63	116	246	204	502	257	159
6	130	127	b49	50	65	65	141	264	200	518	283	159
7	133	127	58	50	67	65	153	287	200	574	290	177
8	133	127	63	50	68	65	150	294	228	690	246	184
9	136	127	61	51	70	65	159	275	218	694	253	165
10	124	130	56	49	72	68	162	294	214	670	257	159
11	101	133	53	47	70	70	159	302	214	554	264	168
12	101	136	51	46	67	65	159	306	272	462	228	171
13	101	133	51	46	67	65	141	306	383	474	204	187
14	108	147	51	49	67	63	138	302	368	514	214	207
15	111	177	50	49	63	63	124	329	383	562	197	200
16	108	162	51	47	61	63	114	290	411	578	181	190
17	104	159	51	47	63	63	114	283	490	474	181	187
18	111	153	50	46	63	63	130	283	666	391	165	194
19	106	153	50	45	b65	61	133	257	973	534	168	190
20	108	153	51	46	b67	68	141	246	1,260	518	171	187
21	119	144	49	*47	b68	70	133	246	1,240	442	165	184
22	122	111	49	47	68	70	141	249	1,050	368	168	174
23	*119	76	*b47	47	68	68	144	238	793	253	171	150
24	114	b67	b47	46	b67	67	232	253	699	264	141	138
25	111	b61	49	46	*63	*68	287	*264	*658	264	144	144
26	106	*b58	49	45	65	76	275	275	764	283	165	150
27	114	b54	49	43	65	106	356	287	744	272	*162	156
28	114	b53	49	43	65	98	*364	290	542	*287	162	*153
29	127	b51	49	42	-	104	325	268	498	317	162	136
30	127	b50	51	42	-	106	313	257	486	309	187	122
31	127	-	54	49	-	94	-	257	-	279	249	-
Total	3,652	3,488	1,592	1,471	1,802	2,227	5,191	8,558	15,113	14,131	6,444	5,201
Mean	118	116	51.4	47.5	64.4	71.8	173	276	504	456	208	173
Ac-ft	7,240	6,920	3,160	2,920	3,570	4,420	10,300	16,970	29,980	28,030	12,780	10,320

Calendar year 1952: Max 1,180 Min 38 Mean 335 Ac-ft 243,100
Water year 1952-53: Max 1,260 Min 42 Mean 189 Ac-ft 136,600

Peak discharge (base, 500 cfs).--June 20 (8 p.m.) 1,360 cfs (4.56 ft); July 9 (11 p.m.) 723 cfs (3.08 ft); July 16 (12:30 a.m.) 614 cfs (2.80 ft); July 19 (6:30 a.m.) 574 cfs (2.70 ft).
*.Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

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 1953.

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

Average discharge.--6 years (1948-53), 48.0 cfs.

Extremes.--Maximum discharge during year, 343 cfs June 18 (gage height, 2.99 ft); minimum daily, 1.0 cfs Nov. 14.
1946-53: Maximum discharge, 1,260 cfs Nov. 20, 1950 (gage height, 7.95 ft), from rating curve extended above 350 cfs on basis of slope-area determination of peak flow; minimum daily, that of Nov. 14, 1952.

Remarks.--Records fair. Flow partly regulated by three small reservoirs (total capacity, about 1,700 acre-ft).

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	4.6	3.2	5.0	16	11	36	82	99	164	39	13
2	22	3.9	3.9	5.0	16	9.2	47	80	101	161	38	11
3	20	3.2	4.6	5.0	16	9.2	57	86	126	152	37	10
4	20	4.3	4.3	5.0	16	9.7	66	100	137	145	36	9.7
5	18	4.6	5.0	5.0	16	10	*69	119	144	144	24	8.8
6	16	4.6	11	5.9	16	11	63	133	178	145	8.8	7.8
7	12	4.3	12	7.4	16	12	51	120	158	137	8.3	7.8
8	6.4	4.3	5.9	14	15	15	44	104	*154	128	6.9	8.3
9	5.0	3.2	5.5	57	12	16	39	94	156	120	6.9	13
10	5.0	3.5	5.0	44	*13	16	35	93	152	110	6.4	40
11	4.6	4.3	4.6	27	13	14	32	93	164	106	5.9	38
12	4.6	4.6	4.6	*20	13	*12	31	99	147	101	19	38
13	4.3	5.0	5.0	17	12	11	29	*110	158	94	15	37
14	3.9	1.0	5.5	15	13	11	31	106	162	88	12	36
15	3.9	1.7	5.9	13	13	12	37	98	182	78	9.7	37
16	3.9	2.4	5.9	12	12	11	41	92	167	68	8.8	35
17	3.9	2.8	5.5	12	13	11	39	113	227	56	7.8	34
18	7.8	3.9	5.0	16	12	11	44	138	254	47	7.4	32
19	5.9	5.5	5.0	15	11	10	50	156	264	43	7.4	31
20	5.5	*6.9	5.0	15	11	9.2	62	145	234	36	6.4	29
21	*5.5	6.9	5.0	14	11	10	103	127	216	32	13	*28
22	5.5	5.9	5.0	13	10	12	141	114	214	*30	35	27
23	5.5	5.0	5.0	13	10	16	*152	106	213	29	34	25
24	5.9	4.3	5.0	13	10	25	145	92	200	26	*31	24
25	5.9	3.9	5.0	13	9.7	27	168	83	192	21	30	22
26	5.5	3.2	5.5	13	11	28	186	75	172	18	30	20
27	5.5	2.8	5.0	11	12	31	184	69	166	17	30	20
28	5.0	2.8	5.0	12	12	31	130	67	164	16	29	18
29	5.0	2.8	5.5	13	-	26	103	82	164	18	30	17
30	5.0	2.8	5.9	14	-	26	88	106	*166	34	41	16
31	5.0	-	5.0	15	-	30	-	109	-	40	17	-
Total	255.0	119.0	169.3	459.3	360.7	493.3	2,303	3,191	5,231	2,404	630.7	693.4
Mean	8.23	3.97	5.46	14.8	12.9	15.9	76.8	103	174	77.5	20.3	23.1
Ac-ft	506	236	336	911	715	978	4,570	6,330	10,380	4,770	1,250	1,380

Calendar year 1952: Max 412 Min 1.0 Mean 70.0 Ac-ft 50,790
Water year 1952-53: Max 264 Min 1.0 Mean 44.7 Ac-ft 32,360

Peak discharge (base, 190 cfs).--Apr. 25 (4 p.m.) 259 cfs (2.84 ft); June 6 (4 p.m.) 227 cfs (2.54 ft); June 18 (4:30 p.m.) 343 cfs (2.99 ft); July 11 (3 p.m.) 196 cfs (2.22 ft).
* Discharge measurement made on this day.

Markleeville Creek above Grover Hot Springs, near Markleeville, Calif.

Location.--Lat 38°42', long. 119°51', in SE¼NE¼ 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 1953.

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.--7 years, 28.5 cfs.

Extremes.--Maximum discharge during year, 255 cfs June 18 (gage height, 4.56 ft); minimum not determined; occurred during period of backwater from beaver dams.
1946-53: 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 except those for periods of backwater from beaver dams, which are poor.

Rating table, water year 1952-53, except periods of backwater from beaver dams
(gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 3 to July 2, Aug. 12, 24, Sept. 8, 21)

1.7	0.7	2.9	34
1.9	2.2	3.2	54
2.0	3.4	3.5	83
2.2	7.4	4.0	144
2.4	13	4.5	220
2.6	20	5.0	330

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.4		2.2	3.3	9.0	6.7	17	54	76	63	c6.8	c2.4
2	2.4		2.6	3.4	8.7	6.1	22	50	76	60	c6.2	c2.2
3	2.4		2.8	3.4	8.4	5.9	28	51	105	56	c5.8	c2.1
4	2.4		2.9	3.4	8.7	5.6	33	61	113	53	c5.5	c1.9
5	2.4	c2.0	2.9	3.4	8.4	6.1	37	78	111	51	c5.2	c1.7
6	2.4		3.0	3.4	9.0	6.5	37	96	164	51	c4.8	c1.5
7	2.3		3.0	3.4	9.2	7.4	32	85	143	48	c4.5	c1.4
8	2.4		2.9	8.2	8.7	8.4	28	69	*131	45	c4.1	*1.3
9	2.4		3.0	19	8.2	9.7	*27	59	126	43	c3.9	c1.3
10	2.4		3.2	14	7.9	10	25	59	117	39	c3.6	c1.2
11	2.4		3.2	12	7.7	8.7	23	61	126	36	c3.3	c1.2
12	2.4		2.9	12	*7.2	8.4	22	71	119	37	*2.9	c1.2
13	2.2	c2.5	2.8	11	7.2	*7.9	21	*85	118	36	c2.7	c1.1
14	2.2		2.9	*9.2	7.2	6.7	21	84	126	34	c2.6	c1.1
15	2.2		2.9	8.2	7.0	6.3	24	69	138	32	c2.5	c1.1
16	2.2		2.9	8.2	6.7	6.3	28	59	131	28	c2.4	c1.0
17	2.2	c2.7	2.8	7.9	6.7	6.3	27	79	155	26	c2.3	c1.0
18	2.3		2.9	11	6.5	6.5	28	115	175	23	c2.2	c1.0
19	2.3		*2.9	10	6.3	6.7	34	147	182	20	c2.1	c.9
20	2.1	*2.7	2.9	11	6.3	6.5	45	119	139	18	c2.0	c.9
21	*2.0	2.6	2.9	9.7	6.1	6.5	62	99	118	15	c1.9	*.9
22	2.0	2.4	2.9	9.2	6.1	6.7	83	85	109	*13	c1.8	c.9
23	1.9	2.2	2.9	9.0	6.1	8.7	99	82	105	12	c1.7	c.9
24	2.0	2.2	2.8	9.0	6.1	12	*130	66	99	12	*1.6	c.9
25	2.0	2.2	2.8	8.7	5.9	12	131	58	91	10	c1.6	c1.0
26	2.0	2.1	2.8	8.4	6.1	14	147	*53	80	9.2	c1.6	c1.0
27		2.1	2.8	8.2	6.5	15	143	50	74	8.2	c1.6	c1.0
28		2.0	2.8	8.2	7.0	15	88	50	72	8.2	c1.6	c1.0
29	c2.0	2.0	2.9	8.4	-	13	71	55	71	7.2	c2.5	c1.0
30		2.0	3.3	8.4	-	13	60	72	*68	7.0	c3.0	c1.0
31		-	3.2	8.4	-	14	-	88	-	c6.9	c2.7	-
Total	68.3	67.8	89.7	261.0	204.9	272.6	1,573	2,309	3,458	907.7	97.0	37.1
Mean	2.20	2.26	2.89	8.42	7.32	8.79	52.4	74.5	115	29.3	3.13	1.24
Ac-ft	135	134	178	518	406	541	3,120	4,580	6,860	1,800	192	74

Calendar year 1952: Max 390 Min - Mean 47.7 Ac-ft 34,640
Water year 1952-53: Max 182 Min 0.9 Mean 25.6 Ac-ft 18,540

Peak discharge (base, 175 cfs).--Apr. 26 (6:30 p.m.) 203 cfs (4.40 ft); May 19 (5:30 p.m.) 205 cfs (4.34 ft); June 6 (5 p.m.) 247 cfs (4.52 ft); June 18 (8:30 p.m.) 255 cfs (4.56 ft).
* Discharge measurement made on this day.
c Backwater from beaver dams.

East Fork Carson River near Gardnerville, Nev.

Location.--Lat 38°51'30", long. 119°41'50", in NE¼ 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 1953.

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.--26 years (1890-93, 1901-3, 1908-10, 1925-28, 1935-37, 1939-53), 410 cfs.

Extremes.--Maximum discharge during year, 2,200 cfs June 19 (gage height, 4.23 ft); minimum, 67 cfs Dec. 28.
1890-93, 1900-1906, 1908-10, 1917, 1924-29, 1935-37, 1939-53: Maximum discharge, 12,100 cfs Nov. 21, 1950 (gage height, 9.66 ft), from rating curve extended above 6,000 cfs on basis of slope-area determination of peak flow; minimum observed, 8 cfs Dec. 4-10, 19-23, 1904.

Remarks.--Records good except those for period of ice effect, which are fair. 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 table, water year 1952-53, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.7	53	2.0	420
1.0	108	3.0	1,060
1.5	238	4.0	1,950

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	126	96	108	115	183	154	267	619	803	1,020	220	144
2	123	96	108	115	180	130	348	556	684	992	211	121
3	119	92	108	110	177	126	412	538	803	957	208	108
4	119	92	114	110	180	140	472	619	929	915	202	100
5	117	96	115	110	177	140	550	749	971	915	186	98
6	115	96	112	119	191	147	580	880	1,140	950	188	90
7	112	96	117	100	194	154	462	866	1,220	*964	194	86
8	108	92	104	142	191	167	382	768	1,120	915	186	84
9	104	88	106	405	152	180	340	645	1,090	894	177	*84
10	104	86	121	391	149	191	333	606	1,090	838	*167	98
11	104	94	119	294	164	170	297	600	1,080	803	159	108
12	*104	*92	115	277	159	167	280	626	1,160	789	157	108
13	106	96	115	311	144	147	273	716	1,060	796	194	108
14	102	123	115	244	159	147	260	*817	1,200	775	223	108
15	102	86	115	200	*154	154	*277	768	1,260	723	175	108
16	102	92	119	*186	147	*154	322	658	*1,370	678	154	112
17	102	94	*115	197	147	157	333	664	1,390	612	142	112
18	106	96	110	241	142	159	315	908	1,700	520	132	104
19	112	94	112	251	123	170	378	1,120	1,870	467	123	102
20	108	98	115	260	126	140	488	1,060	1,610	439	112	102
21	104	102	106	223	130	147	638	971	1,440	391	110	98
22	100	102	102	205	132	164	915	817	1,370	359	135	98
23	100	92	96	202	140	197	1,070	845	1,350	*340	140	96
24	100	85	104	197	130	241	1,080	710	1,350	322	132	94
25	98	87	140	194	126	260	1,130	645	1,260	294	130	90
26	96	89	117	183	135	273	*1,260	574	1,170	267	128	88
27	96	90	98	154	140	280	1,520	538	1,060	241	126	92
28	96	92	88	175	149	297	1,080	586	1,060	*241	126	88
29	100	94	110	177	-	270	852	568	1,030	232	126	86
30	96	105	130	177	-	241	716	684	1,040	232	194	84
31	96	-	121	175	-	257	-	817	-	232	191	-
Total	3,277	2,833	3,475	6,240	4,321	5,721	17,650	22,538	55,680	19,113	5,046	2,999
Mean	106	94.4	112	201	154	185	588	727	1,189	617	163	100
Ac-ft	6,500	5,620	6,890	12,380	8,570	11,350	35,010	44,700	70,770	37,910	10,010	5,950

Calendar year 1952: Max 3,130 Min 85 Mean 634 Ac-ft 460,600
Water year 1952-53: Max 1,870 Min 84 Mean 353 Ac-ft 255,700

Peak discharge (base, 1,300 cfs).--Apr. 27 (4 p.m.) 2,060 cfs (4.10 ft); June 19 (2 a.m.) 2,200 cfs (4.23 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 19 to Dec. 5.

West Fork Carson River at Woodfords, Calif.

Location.--Lat 38°46'00", long. 119°50'00", in SE¼SW¼ sec. 34, T. 11 N., R. 19 E., on left bank 0.3 mile downstream from bridge on State Highway 8, 0.8 mile west of Woodfords, and 3¾ miles downstream from Willow Creek.

Drainage area.--66 sq mi, approximately.

Records available.--October 1900 to May 1907, 1910-11 (fragmentary), October 1938 to September 1953. 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.--17 years (1901-3, 1905-6, 1939-53), 116 cfs.

Extremes.--Maximum discharge during year, 813 cfs Apr. 25 (gage height, 4.09 ft); minimum, 17 cfs Nov. 17.

1900-1907, 1910-11, 1938-53: Maximum discharge, 4,730 cfs Nov. 20, 1950 (gage height, 8.35 ft, from high-water marks), from rating curve extended above 1,000 cfs on basis of slope-area determination of peak flow; minimum (1900-1907, 1938-53), 8.4 cfs Nov. 21, 1948.

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 except those for periods of ice effect or no gage-height record, which are fair. One small diversion above station for irrigation. Flow slightly regulated by several small reservoirs (total capacity, about 1,500 acre-ft).

Rating tables, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 6		Mar. 7 to Sept. 30			
0.6	20	0.6	22	2.0	163
1.0	42	.9	38	2.5	255
1.5	88	1.2	62	3.0	390
		1.5	95	4.0	770

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	a39	30	27	32	44	39	96	225	251	229	51	37
2	a38	31	24	32	43	b39	121	217	223	221	51	41
3	a38	30	28	31	43	b38	149	237	249	215	49	39
4	a37	30	29	31	42	38	180	278	276	197	46	40
5	a36	30	24	30	43	35	215	336	271	195	44	38
6	a36	30	28	30	45	36	215	359	368	201	44	34
7	a35	30	24	29	45	38	168	322	362	*202	42	29
8	a34	30	26	40	44	40	137	278	311	194	41	*53
9	a34	29	29	57	b43	44	119	241	300	185	41	54
10	a33	30	30	52	b43	44	110	233	290	173	*61	51
11	a33	30	29	52	42	44	100	239	300	165	78	47
12	*33	*32	29	56	40	42	96	253	303	161	74	46
13	33	33	32	54	40	39	94	286	278	163	80	42
14	33	33	32	53	40	39	95	296	300	157	76	51
15	33	54	33	b53	*40	39	*112	273	*316	150	67	34
16	32	34	33	*54	36	*40	139	251	359	147	58	35
17	32	30	*32	53	36	39	133	283	374	161	38	31
18	35	32	32	64	b35	40	137	*342	446	146	44	30
19	34	33	32	65	b35	34	177	509	488	125	42	30
20	33	33	32	62	b34	30	277	406	412	112	41	29
21	33	33	30	58	b34	41	395	350	350	97	40	28
22	32	29	30	57	b34	44	491	288	327	90	40	28
23	32	25	b30	53	33	49	*546	290	316	83	37	28
24	31	b28	b30	51	38	58	509	247	311	81	69	27
25	31	28	30	49	b36	61	549	229	290	73	84	27
26	31	28	29	45	36	66	568	206	269	67	80	28
27	31	28	28	b45	37	72	649	192	245	62	75	28
28	31	28	30	45	38	74	412	215	245	60	74	27
29	31	29	32	44	-	68	290	221	239	58	65	27
30	31	29	33	43	-	69	245	231	255	56	55	26
31	31	-	32	43	-	81	-	257	-	52	46	-
Total	1,036	909	919	1,463	1,099	1,460	7,524	8,590	9,304	4,278	1,733	1,045
Mean	33.4	30.3	29.6	47.2	39.2	47.1	251	277	310	138	55.9	34.8
Ac-ft	2,050	1,800	1,820	2,900	2,180	2,900	14,920	17,040	18,450	8,490	3,440	2,070

Calendar year 1952: Max 932 Min 24 Mean 177 Ac-ft 128,200
Water year 1952-53: Max 649 Min 24 Mean 108 Ac-ft 78,060

Peak discharge (base, 500 cfs).--Apr. 25 (8:30 p.m.) 813 cfs (4.09 ft); May 19 (8 p.m.) 662 cfs (3.75 ft); June 19 (12:30 a.m.) 572 cfs (3.52 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.

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 1953.

Gage.--Water-stage recorder and sharp-crested weir. Altitude of gage is 4,700 ft (from river-profile map).

Average discharge.--5 years, 6.99 cfs.

Extremes.--Maximum discharge during year, 32 cfs Jan. 9 (gage height, 1.11 ft); minimum, 2.2 cfs Sept. 7.
1948-53: Maximum discharge, 56 cfs Dec. 3, 1950 (gage height, 1.95 ft); minimum, 1.0 cfs Aug. 4, 5, 6, 20, 1949.

Remarks.--Records good. Four small diversions for irrigation of about 150 acres of hay meadows and pasture above station.

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

0.3	2.9
.4	5.0
.6	11
1.0	28

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.1	6.9	7.7	9.0	11	9.0	10	10	11	4.6	2.9	3.3
2	6.1	6.9	8.0	9.4	10	9.0	11	9.7	9.0	4.6	2.9	3.1
3	*6.1	6.9	7.7	9.0	10	9.0	11	9.4	8.4	4.2	2.9	2.9
4	6.1	6.9	7.7	9.0	10	9.0	11	9.0	8.0	4.0	2.9	*2.9
5	6.1	6.9	8.0	9.0	10	9.0	12	10	*8.4	4.0	2.9	2.9
6	6.1	6.9	8.0	9.0	11	9.0	11	10	10	*4.2	2.9	2.9
7	6.1	*6.6	*9.7	*9.4	11	9.4	10	9.7	8.0	4.4	2.9	2.9
8	6.1	6.4	9.0	14	10	9.4	10	*9.7	7.7	4.2	2.9	2.9
9	6.4	6.4	9.0	25	9.4	9.7	9.7	9.7	7.7	4.2	*2.9	2.9
10	6.6	6.4	9.4	17	9.4	9.7	*10	9.0	7.4	4.2	2.9	2.9
11	6.6	6.4	9.4	14	9.4	9.4	9.4	8.7	7.4	4.0	2.9	2.9
12	6.4	7.2	9.4	14	9.4	9.4	9.0	7.7	7.2	4.0	2.9	3.1
13	6.4	7.7	9.0	*15	9.4	9.4	9.0	6.4	6.9	4.0	3.1	3.1
14	6.4	11	9.4	12	9.4	9.0	9.0	7.4	6.9	3.7	3.1	3.1
15	6.4	8.7	9.4	11	9.0	*9.0	9.0	9.0	6.9	3.7	2.9	3.1
16	6.6	8.4	9.4	11	*9.0	9.0	9.7	7.4	8.4	4.0	2.9	3.1
17	6.6	8.0	9.4	12	9.0	9.0	9.7	6.6	8.4	4.4	2.9	3.1
18	6.9	8.0	9.0	14	9.0	9.0	9.4	6.9	6.9	4.2	2.9	3.1
19	6.9	8.0	9.0	13	9.0	10	10	8.7	6.4	3.7	2.9	3.1
20	6.9	8.4	9.0	14	9.0	9.7	11	7.4	6.1	3.7	2.9	3.1
21	6.9	8.0	8.4	13	8.7	10	12	8.7	5.5	3.5	2.9	3.1
22	6.9	7.7	8.4	12	8.7	10	13	7.2	5.5	3.5	2.9	3.1
23	6.9	7.4	8.0	12	8.7	10	13	8.0	5.5	3.3	2.9	3.1
24	6.9	8.0	8.4	11	9.0	11	12	7.4	5.5	3.3	2.9	3.1
25	6.6	7.4	8.4	11	8.7	11	12	7.4	5.3	3.3	2.9	3.1
26	6.6	7.4	8.7	11	8.7	11	12	7.7	5.0	3.3	2.9	3.1
27	6.6	7.4	8.7	11	9.0	11	15	7.4	5.0	3.3	2.9	3.1
28	6.6	7.4	8.4	11	9.4	10	12	12	4.8	3.1	3.1	3.1
29	6.9	7.2	9.0	11	-	10	11	10	4.6	3.1	3.1	3.1
30	6.9	7.4	10	10	-	10	11	9.0	4.4	2.9	4.4	3.1
31	6.9	-	9.4	10	-	10	-	9.7	-	2.9	3.5	-
Total	202.6	224.3	272.4	372.8	264.3	299.1	323.9	266.9	208.2	117.5	92.8	91.4
Mean	6.54	7.48	8.79	12.0	9.44	9.65	10.8	8.61	6.94	3.79	2.99	3.05
Ac-ft	402	445	540	739	524	593	642	529	413	233	184	181

Calendar year 1952: Max 37 Min 4.0 Mean 11.8 Ac-ft 8,570
Water year 1952-53: Max 25 Min 2.9 Mean 7.50 Ac-ft 5,420

Peak discharge (base, 15 cfs).--Nov. 14 (7:30 a.m.) 15 cfs (0.70 ft); Jan. 9 (4 p.m.) 32 cfs (1.11 ft); Jan. 12 (10:30 p.m.) 18 cfs (0.77 ft); Jan. 20 (3:30 p.m.) 21 cfs (0.83 ft); Apr. 27 (1:30 p.m.) 22 cfs (0.89 ft).

* Discharge measurement made on this day.

Carson River near Carson City, Nev.

Location.--Lat 39°06'30", long. 119°42'30", in NW¼ sec. 2, T. 14 N., R. 20 E., on right bank 2 miles downstream from Clear Creek, 2½ miles upstream from bridge on road to Mexican Dam, and 5 miles southeast of Carson City.

Drainage area.--876 sq mi.

Records available.--May 1939 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 4,620 ft (from river-profile map).

Average discharge.--14 years, 423 cfs.

Extremes.--Maximum discharge during year, 1,990 cfs Apr. 28 (gage height, 4.08 ft); minimum, 28 cfs Aug. 24.
1939-53: Maximum discharge, 15,500 cfs Nov. 22, 1950 (gage height, 11.40 ft), from rating curve extended above 6,000 cfs on basis of computation of peak flow over dam; minimum daily, 4 cfs Aug. 17, 1939.

Remarks.--Records good except those for periods of ice effect, which are fair. Many diversions above station for irrigation. Flow slightly regulated by several small reservoirs on tributaries.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.2	24	1.5	208
.4	35	2.0	410
.7	60	3.0	1,000
1.1	117	4.0	1,910

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	112	151	b160	287	320	250	324	800	958	916	73	112
2	114	151	b180	291	324	261	342	716	1,000	867	75	92
3	110	153	b180	275	320	243	410	638	923	836	62	73
4	105	155	b180	261	315	256	470	662	1,050	770	73	65
5	110	157	b180	250	311	261	526	734	1,140	740	57	59
6	110	157	b180	261	311	268	582	830	1,170	764	54	58
7	112	162	282	295	324	279	609	965	1,500	704	45	56
8	98	162	480	346	328	299	485	902	1,520	692	33	58
9	90	157	385	470	311	299	430	752	1,270	662	41	55
10	94	155	303	674	275	299	445	632	1,120	662	38	51
11	94	164	303	565	271	291	475	620	1,050	632	*41	48
12	107	153	275	475	287	271	430	532	*1,050	638	43	43
13	128	159	257	470	271	264	410	570	1,000	*638	44	44
14	132	169	250	565	268	246	365	*644	1,090	609	49	57
15	114	200	246	485	279	246	299	794	1,180	570	60	48
16	112	184	246	*420	271	253	275	812	1,250	485	55	*44
17	102	181	250	410	268	243	320	716	1,380	490	50	38
18	105	186	243	415	253	246	324	770	1,600	470	60	34
19	130	181	236	450	*236	253	303	965	1,830	346	45	35
20	130	179	243	450	233	299	420	1,190	1,900	275	35	51
21	136	179	239	521	230	268	*576	1,140	1,830	243	33	52
22	146	176	227	460	236	*261	782	1,040	1,630	186	32	42
23	142	171	211	425	246	268	1,070	902	1,420	157	29	40
24	*142	162	197	405	b246	291	1,250	867	1,280	119	30	47
25	155	*155	205	385	246	333	1,190	794	1,140	92	31	48
26	157	153	246	351	243	356	1,270	686	1,100	86	35	46
27	155	151	253	324	243	375	1,420	609	1,030	82	41	50
28	151	157	230	307	243	385	1,880	644	923	94	43	70
29	144	157	*220	328	-	395	1,460	836	937	91	40	67
30	146	b160	253	328	-	375	1,060	812	923	75	47	60
31	149	-	303	324	-	338	-	867	-	65	62	-
Total	3,832	4,937	7,643	12,273	7,709	8,966	20,202	24,441	37,194	14,056	1,456	1,643
Mean	124	165	247	396	275	289	673	788	1,240	453	47.0	54.8
Ac-ft	7,600	9,790	15,160	24,340	15,290	17,780	40,070	48,480	73,770	27,880	2,890	3,260

Calendar year 1952: Max 3,700 Min 56 Mean 795 Ac-ft 576,800
Water year 1952-53: Max 1,900 Min 29 Mean 395 Ac-ft 286,300

Peak discharge (base, 1,600 cfs).--Apr. 28 (3 p.m.) 1,990 cfs (4.08 ft); June 7 (9 p.m.) 1,670 cfs (3.76 ft); June 20 (8:30 p.m.) 1,970 cfs (4.06 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Carson River near Fort Churchill, Nev.

Location.--Lat 39°17', long. 119°18', in SE¼ sec. 32, T. 17 N., R. 24 E., 2 miles west of Fort Churchill and 6 miles east of Clifton.

Drainage area.--1,450 sq mi, approximately.

Records available.--April 1911 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 4,200 ft (from topographic map). Prior to Apr. 25, 1924, staff gage at site 7¾ miles upstream at different datum. Apr. 25, 1924, to Dec. 31, 1933, water-stage recorder at site 8 miles upstream at different datum.

Average discharge.--42 years, 372 cfs.

Extremes.--Maximum daily discharge during year, 1,440 cfs June 22; no flow Aug. 1 to Sept. 30.
1911-53: Maximum daily discharge, 7,850 cfs Nov. 23, 1950; no flow during some periods in nearly every year since 1923.

Remarks.--Several diversions above station for irrigation, including diversions for irrigation of 720 acres between present site and site used prior to Jan. 1, 1934. Practically entire flow is diverted during late irrigation season.

Cooperation.--Records of daily discharge furnished by Truckee-Carson Irrigation District.

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	65	103	139	239	349	244	362	1,120	800	744		
2	65	103	152	239	344	248	353	944	864	720		
3	65	103	174	296	344	253	349	784	880	705		
4	65	103	187	296	340	253	362	736	856	660		
5	65	103	178	283	340	259	392	720	864	631		
6	66	105	174	279	331	266	414	705	920	579		
7	66	105	161	274	331	274	460	720	960	549		
8	68	105	231	283	327	279	505	784	1,060	512		
9	68	107	336	314	327	283	475	824	1,140	475		
10	68	103	323	379	327	292	432	800	1,110	437		
11	68	103	283	534	305	296	423	712	1,010	414		
12	66	103	266	527	296	296	423	594	912	410		
13	66	103	248	460	288	296	406	482	848	406		
14	71	103	231	437	283	292	392	453	800	392		
15	74	106	222	475	283	283	384	534	792	384		
16	77	117	218	468	283	279	357	601	840	366		
17	76	121	218	437	283	279	331	631	944	340		
18	76	117	218	414	279	274	327	631	1,010	318		
19	71	121	219	406	274	274	331	601	1,100	305		
20	71	121	209	406	270	283	336	660	1,250	292		
21	80	121	209	414	261	292	357	768	1,400	218		
22	82	126	209	437	253	292	419	856	1,440	143		
23	84	130	200	437	253	292	594	880	1,380	84		
24	86	139	183	423	248	296	824	840	1,200	74		
25	87	139	178	414	248	305	960	784	1,100	63		
26	90	139	174	414	244	327	1,000	720	1,000	57		
27	92	174	191	392	244	349	1,060	660	936	58		
28	92	196	209	349	239	362	1,140	638	880	62		
29	93	200	200	327	-	375	1,320	683	800	60		
30	94	183	196	327	-	388	1,320	712	784	58		
31	94	-	205	327	-	388	-	720	-	44		
Total	2,351	3,702	6,541	11,707	8,194	9,169	16,808	22,297	29,880	10,560	0	0
Mean	75.8	123	211	378	293	296	560	719	996	341	0	0
Ac-ft	4,660	7,340	12,970	23,220	16,250	18,190	33,340	44,230	59,270	20,950	0	0

Calendar year 1952: Max 3,650 Min 36 Mean 814 Ac-ft 590,600
Water year 1952-53: Max 1,440 Min 0 Mean 332 Ac-ft 240,400

Marys River above Hot Springs Creek, near Deeth, Nev.

Location.--Lat 41°15', long. 115°17', in NE¼SE¼ sec. 24, T. 39 N., R. 59 E., 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 1953. 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 1¼ miles downstream at different datum.

Average discharge.--10 years, 67.2 cfs.

Extremes.--Maximum discharge during year, 398 cfs June 15 (gage height, 3.71 ft); minimum, 0.7 cfs Sept. 27, but may have been less during period of backwater.
1943-53: Maximum discharge, 1,250 cfs Apr. 29, 1952 (gage height, 6.57 ft); minimum, 0.1 cfs Sept. 5, 1950.

Remarks.--Records good except those for periods of ice effect, backwater from beaver dams, or no gage-height record, which are fair. Several diversions above station for irrigation.

Rating tables, water year 1952-53, except periods of ice effect or backwater from beaver dams (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 21				Apr. 22 to Sept. 30			
0.4	1.6	1.0	17	0.1	0.8	1.9	110
.5	2.9	1.4	41	.2	1.6	2.5	186
.6	4.7	1.9	87	.3	3.3	3.0	263
.8	9.8	2.3	129	.4	5.7	3.5	353
				.6	12	4.0	454
				1.3	54		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.6	2.9	b8.2	17	28	31	116	193	235	103	11	
2	1.9	3.1	8.7	17	28	26	117	176	291	98	11	
3	1.7	3.6	*9.0	16	29	26	116	150	311	90	11	c1.5
4	1.7	3.8	b8.7	b16	31	32	114	144	302	83	9.1	
5	1.6	4.0	9.2	b16	32	31	122	a135	*291	76	8.7	
6	1.9	*4.3	9.8	16	35	32	127	a130	291	*71	7.2	
7	2.0	4.5	10	17	38	33	125	a120	320	64	6.3	
8	2.0	4.7	11	18	40	34	118	a116	314	58	5.4	c.8
9	1.9	4.9	b11	21	36	38	109	a118	302	55	4.9	
10	*2.0	4.9	12	23	27	*42	100	a124	270	54	4.0	
11	2.0	5.4	13	22	24	53	92	*129	248	50		*.8
12	2.0	6.3	14	24	26	59	83	121	249	48		.8
13	2.0	8.7	14	*26	27	58	76	112	282	45		c.8
14	2.0	10	14	26	33	54	*71	103	342	43		c.8
15	2.1	9.5	14	20	32	49	64	96	392	42		.8
16	2.2	11	15	21	32	49	61	99	370	38		.8
17	2.4	11	15	27	30	49	64	106	325	34	(*)	.8
18	2.4	10	17	52	28	47	73	113	294	29	a2.3	.8
19	2.4	10	17	54	b22	47	76	135	282	26		.8
20	2.6	11	17	63	b16	48	82	173	285	24		.8
21	2.9	12	15	56	b17	49	100	220	285	22		.8
22	2.8	10	b14	39	b18	50	126	222	256	21		.8
23	2.8	b9.1		36	b19	49	159	197	227	19		.9
24	2.4	b8.7	b13	39	*b18	50	193	187	212	18		.9
25	2.5			38	b20	52	203	169	200	16		.9
26	2.8		14	36	22	61	175	155	186	15		.9
27	2.9	b8.2	b14	30	24	74	186	138	168	14		.9
28	3.4		b14	26	28	87	202	126	146	13	a1.5	.9
29	2.8		15	32	-	101	212	150	128	12		.9
30	2.9		15	32	-	104	203	221	114	11		.9
31	2.9	-	16	30	-	115	-	206	-	11		-
Total	71.5	222.6	403.6	906	760	1,630	3,665	4,584	7,918	1,303	122.1	28.3
Mean	2.31	7.42	13.0	29.2	27.1	52.6	122	148	264	42.0	3.94	0.94
Ac-ft	142	442	801	1,800	1,510	3,230	7,270	9,090	15,710	2,580	242	56

Calendar year 1952: Max 1,180 Min 1.0 Mean 126 Ac-ft 91,810
Water year 1952-53: Max 392 Min - Mean 59.2 Ac-ft 42,870

Peak discharge (base, 200 cfs).--Apr. 25 (11 a.m.) 215 cfs (2.82 ft); May 21 (11:30 p.m.) 233 cfs (2.85 ft); June 15 (5 p.m.) 398 cfs (3.71 ft).

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of engineer's field notes and records for nearby streams.
b Stage-discharge relation affected by ice.
c Stage-discharge relation affected by backwater from beaver dams.

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 1953.

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.--16 years (1915-16, 1917-22, 1943-53), 44.7 cfs.

Extremes.--Maximum discharge during year, 311 cfs June 18; minimum, 1.6 cfs Nov. 9.
1915-23, 1943-53: 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.

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 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.2	4.0	b2.7	3.0	3.4	3.8	8.3	35	73	204	47	10
2	5.2	4.0		3.0	3.4	3.8	8.3	34	75	204	45	9.7
3	5.2	3.6		3.0	3.6	3.6	8.3	33	79	206	36	9.3
4	5.2	3.2	*b2.8	2.8	3.6	3.6	8.6	32	91	205	32	8.7
5	5.2	3.0	3.2	2.8	3.6	3.8	9.7	34	102	202	29	8.2
6	4.9	3.0	3.0	3.0	4.0	3.8	9.7	36	111	199	26	7.5
7	5.2	3.0	3.2	3.0	4.0	3.8	9.7	40	112	199	24	7.2
8	4.9	3.0	3.2	3.0	4.0	4.0	9.7	40	*111	203	23	7.2
9	4.9	2.8	3.2	3.2	3.6	4.2	9.7	38	118	199	22	6.9
10	4.9	3.2	3.2	3.2	3.8	4.2	9.7	37	144	203	20	6.6
11	4.7	3.6	3.2	3.0	3.8	*4.2	9.7	35	178	198	19	6.5
12	4.7	3.6	3.0	3.2	3.8	4.2	9.7	*34	240	186	18	6.0
13	4.7	3.8	3.0	3.2	3.6	4.4	*9.7	34	257	175	16	6.0
14	4.9	4.0	3.0	3.2	3.8	b4.4	10	36	247	166	17	5.9
15	4.9	3.8	3.0	*2.8	3.8	4.7	10	38	242	162	16	5.9
16	4.7	4.0	3.0	3.0	3.8	4.9	10	38	*237	*137	15	5.9
17	4.7	3.8	3.0	3.2	3.8	4.9	10	43	246	113	15	5.6
18	4.7	3.4	3.0	3.8	3.6	5.5	10	53	268	103	14	5.5
19	4.4	3.6	3.0	3.6	b3.3	5.5	10	75	282	98	14	5.5
20	4.4	3.6	3.2	3.8	b3.0	5.5	11	76	247	95	*13	5.2
21	4.4	3.2	3.0	3.6	b3.0	5.5	13	69	245	85	12	*5.2
22	4.4		3.0	3.4	b3.0	5.5	15	63	244	76	12	4.9
23	4.4	a3.0	2.8	3.4	3.2	5.5	20	62	248	71	12	5.1
24	4.4		b2.7	3.4	*3.0	6.3	24	60	230	65	11	4.9
25	4.2		b2.8	3.4	3.2	6.6	29	56	212	59	11	4.9
26	4.2		3.0	3.4	3.4	6.6	39	55	200	54	11	4.9
27	*4.2	b2.7	3.0	3.2	3.4	7.3	50	57	194	53	11	4.4
28	4.2		3.0	3.4	3.6	7.3	50	60	201	50	11	4.6
29	4.2		3.0	3.4	-	7.3	*42	62	208	48	11	4.4
30	4.0		3.0	3.4	-	7.3	38	61	*209	48	10	4.4
31	4.0	-	3.0	3.4	-	7.6	-	68	-	44	10	-
Total	144.2	98.4	92.6	100.4	99.1	159.6	511.8	1,494	5,631	4,110	583	187.0
Mean	4.65	3.28	2.99	3.24	3.54	5.15	17.1	48.2	188	133	18.8	6.23
Ac-ft	286	195	184	199	197	317	1,020	2,960	11,170	8,150	1,160	371

Calendar year 1952: Max 356 Min - Mean 50.6 Ac-ft 36,760
Water year 1952-53: Max 268 Min - Mean 36.2 Ac-ft 26,210

Peak discharge (base, 310 cfs).--June 18 (7:15 p.m.) 311 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.

North Fork Humboldt River at Devils Gate, near Halleck, Nev.

Location.--Lat 41°11', long. 115°29', in SE¼ sec. 13, T. 38 N., R. 57 E., on right bank 16 miles north of Halleck and 26 miles upstream from mouth.

Drainage area.--380 sq mi, approximately.

Records available.--November 1913 to September 1921, October 1943 to September 1953.

Gage.--Water-stage recorder. Datum of gage is 5,368 ft above mean sea level (U.S.G.S. planetable benchmark). November 1913 to September 1951 at site a quarter of a mile upstream at different datum.

Average discharge.--15 years (1914-19, 1943-53), 75.8 cfs.

Extremes.--Maximum discharge during year, 1,050 cfs May 31 (gage height, 7.72 ft); minimum, 4.4 cfs Aug. 30.
1913-21, 1943-53: 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.

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10				44	48	91	122	*512	126	31	13
2	9.5				46	42	91	115	373	120	35	18
3	10	a16	(*)		46	42	91	113	352	113	36	19
4	10			b21	48	44	89	102	352	110	36	18
5	10		b16		52	44	93	91	*329	102	31	18
6	10	*18			54	48	99	85	307	*91	29	15
7	11	11		b23	66	52	99	77	307	87	26	14
8	12	18		25	82	56	100	75	331	85	25	12
9	*13	17		25	61	64	100	74	325	81	23	12
10	13	16		26	b42	*70	102	78	275	82	21	11
11	13	18		26	b39	72	100	*84	239	82	19	10
12	13	20	b18	28	b41	68	95	85	206	84	17	12
13	13	22		*29	b43	64	90	80	203	79	16	12
14	13	24		32	b46	58	*85	77	244	79	18	12
15	13	26		b26	48	54	78	77	296	81	16	*11
16	12	25	b19	b27	43	55	74	77	311	81	17	10
17	12	24	b21	32	42	54	73	82	292	77	17	9.5
18	12	24	24	52	40	54	76	81	273	71	*16	9.5
19		23	21	110	31	53	72	87	244	68	14	9.0
20		22	23	85	24	53	68	108	228	64	12	9.5
21		21	b20	84	*b26	53	75	164	232	60	12	10
22		b21		73	b27	49	80	232	237	55	10	9.5
23		b19		64	b29	50	86	203	223	51	10	10
24		b17		62	b31	60	82	173	200	44	10	10
25	a14			58	33	79	93	159	187	43	8.6	9.5
26			b18	55	35	95	102	147	185	42	8.2	9.0
27		b15		49	38	90	110	133	181	39	7.8	9.5
28				46	44	94	127	114	187	38	7.0	9.5
29				46	-	99	141	117	171	34	5.4	9.8
30				47	-	94	138	359	140	33	4.7	9.8
31		-		46	-	91	-	776	-	32	5.4	-
Total	391.5	563	560	1,302	1,201	1,949	2,800	4,346	7,942	2,232	544.1	350.5
Mean	12.6	18.8	18.1	42.0	42.9	62.9	93.3	140	265	72.0	17.6	11.7
Ac-ft	777	1,120	1,110	2,580	2,380	3,870	5,550	8,620	15,800	4,430	1,080	695

Calendar year 1952: Max 2,340 Min 7.8 Mean 198 Ac-ft 143,800
Water year 1952-53: Max 775 Min 4.7 Mean 66.2 Ac-ft 47,960

Peak discharge (base, 170 cfs).--May 22 (11 a.m.) 237 cfs (4.20 ft); May 31 (3:30 a.m.) 1,050 cfs (7.72 ft); June 16 (4 p.m.) 317 cfs (4.70 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.

Humboldt River near Elko, Nev.

Location (revised).--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 1953.

Gage.--Water-stage recorder. Altitude of gage is 5,142.32 ft (revised) above mean sea level, datum of 1929. Prior to Nov. 8, 1944, staff gage at site 11 miles downstream at different datum.

Average discharge.--14 years (1897-1902, 1944-53), 251 cfs.

Extremes.--Maximum discharge during year, 1,020 cfs June 9 (gage height, 5.06 ft); minimum, 1.2 cfs Sept. 16, 19-21, 23.
1895-1902, 1944-53: 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 period of ice effect, which are fair. Diversions above station for irrigation.

Rating tables, water year 1952-53, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 8		Jan. 9 to Sept. 30			
1.2	3.9	0.8	0.4	1.6	38
1.3	6.7	.9	1.5	2.0	92
1.4	11	1.0	3.5	2.5	192
1.6	24	1.1	6.5	3.0	317
1.8	44	1.2	11	4.0	635
2.0	71	1.4	22	5.0	1,000

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.1	16	19	b50	155	129	174	280	*665	548	34	3.1
2	7.1	15	20	53	149	131	172	282	682	495	34	2.9
3	6.7	15	20	b52	149	120	170	282	582	438	34	2.7
4	6.4	16	*b21	b54	151	114	174	277	548	408	33	2.5
5	6.1	16	21	b58	149	123	174	252	588	384	35	2.3
6	6.7	16	b21	b60	153	131	174	217	614	354	32	2.3
7	6.7	16	b23	b68	160	141	183	185	742	*337	30	2.3
8	7.5	16	b23	64	177	151	194	139	788	317	26	2.1
9	7.9	16	b24	79	179	168	185	131	900	295	22	1.9
10	8.3	*15	26	87	b137	*192	179	123	826	293	19	1.9
11	9.5	16	27	64	b136	210	190	129	721	301	17	1.7
12	9.5	17	29	*108	b135	210	204	*143	647	314	15	1.7
13	9.5	20	b28	104	137	201	197	149	582	314	14	1.7
14	9.9	21	b29	112	153	192	*206	147	600	317	12	*1.5
15	10	24	b30	100	149	183	197	139	721	323	12	1.5
16	11	24	31	123	145	177	179	139	852	306	15	1.5
17	11	24	31	123	141	172	172	135	*920	298	15	1.3
18	11	21	35	135	135	168	164	137	908	277	e13	1.3
19	13	20	b36	172	108	168	172	143	920	242	10	1.3
20	14	20	b39	254	b94	166	172	153	920	210	9.0	1.2
21	13	23	b36	237	*b88	166	153	179	924	183	9.0	1.3
22	13	20	b36	204	b84	162	139	229	936	162	9.0	1.3
23	*14	b16	b35	197	b90	153	125	282	940	135	8.1	1.3
24	14	b16	b32	188	b92	155	99	293	880	120	7.3	1.3
25	14	b18	b29	208	b108	162	92	272	836	97	6.2	1.3
26	14	b20	36	197	110	177	90	301	816	81	5.6	1.7
27	14	b20	41	155	120	190	101	269	770	69	4.7	1.7
28	15	20	b44	170	116	183	139	232	732	59	4.4	1.9
29	16	20	43	168	-	179	197	222	668	52	3.8	1.7
30	16	19	42	160	-	183	252	244	621	42	3.5	3.5
31	16	-	45	160	-	179	-	369	-	37	3.5	-
Total	337.9	556	952	3,984	3,710	5,136	5,019	6,474	22,829	7,808	496.1	55.7
Mean	10.9	18.5	30.7	129	132	166	167	209	761	252	16.0	1.86
Ac-ft	670	1,100	1,890	7,900	7,360	10,190	9,960	12,840	45,280	15,490	984	110

Calendar year 1952: Max 3,720 Min 1.7 Mean 479 Ac-ft 347,600
Water year 1952-53: Max 940 Min 1.2 Mean 157 Ac-ft 113,800

Peak discharge (base, 550 cfs).--June 1 (7 p.m.) 784 cfs (4.44 ft); June 9 (5 a.m.) 1,020 cfs (5.06 ft); June 23 (10 a.m.) 956 cfs (4.92 ft).
* Discharge measurement made this day.
b Stage-discharge relation affected by ice.

South Fork Humboldt River near Lee, Nev.

Location.--Lat 40°34', long. 115°33', in SE¼ sec. 16, T. 31 N., R. 57 E., on left bank 400 ft downstream from Kleckner Creek and 2½ miles east of Lee.

Drainage area.--54 sq mi, approximately.

Records available.--February 1945 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 5,970 ft (from topographic map).

Average discharge.--8 years, 73.8 cfs.

Extremes.--Maximum discharge during year, 664 cfs June 12 (gage height, 3.47 ft); minimum, 2.5 cfs Nov. 9.
1945-53: Maximum discharge, 935 cfs May 27, 1951 (gage height, 3.81 ft); minimum, that of Nov. 9, 1952.

Remarks.--Records good. A few small diversions above station for irrigation.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.7	3.4	1.5	69
.8	6.6	1.9	145
.9	11	2.5	298
1.0	17	3.5	677
1.2	32		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.9	6.2	5.8	5.8	7.4	10	36	107	141	350	54	10
2	3.9	6.2	6.6	5.8	7.0	b9.6	40	99	152	344	55	9.6
3	3.7	5.5	b6.6	5.8	6.6	b9.1	40	98	152	331	48	8.6
4	4.8	5.8	b6.6	b5.2	6.6	b9.6	41	99	163	316	44	8.2
5	5.8	5.8	*6.6	b5.2	7.4	b10	42	*105	182	304	40	7.8
6	5.8	5.8	6.2	5.5	11	12	40	115	207	298	38	7.8
7	5.5	5.5	6.2	5.8	10	12	37	123	217	295	36	7.8
8	5.5	5.5	6.6	6.2	12	13	35	119	*220	290	32	7.4
9	5.5	4.2	6.6	6.2	b11	15	32	109	230	273	30	7.8
10	5.5	5.5	7.0	6.6	b9	17	32	99	256	273	27	7.0
11	5.5	5.8	7.0	5.8	b9	17	31	92	331	270	26	7.0
12	5.5	5.5	6.6	7.0	b9	17	29	87	489	254	24	6.2
13	5.5	5.5	6.2	7.0	b9	17	28	*82	542	233	24	6.2
14	5.5	6.2	6.2	7.4	9.1	16	27	82	501	214	24	6.2
15	5.5	6.6	6.2	*5.8	8.6	16	*26	85	474	204	23	6.6
16	5.8	5.8	6.2	b6.2	8.6	16	29	83	*455	*185	22	*7.0
17	5.8	5.5	6.2	7.8	8.2	*15	34	89	474	163	21	6.6
18	5.8	4.8	6.2	14	8.2	15	32	96	526	143	19	6.6
19	6.2	5.2	6.2	12	b7.8	15	36	123	*526	127	17	6.2
20	6.2	6.2	6.6	12	b7	15	45	134	493	113	*17	5.5
21	6.2	5.2	b6.2	10	b7	14	63	132	470	107	16	5.2
22	6.2	b5	6.2	9.1	b7	14	89	123	466	96	15	5.5
23	6.6	b5	b6.2	8.6	7.4	15	117	123	462	89	12	5.8
24	6.6	*b5	b5.5	8.6	*b7.8	17	125	119	436	82	10	5.5
25	6.6	b5.2	b5.8	8.2	b7.5	19	138	111	*398	77	10	5.5
26	6.6	b4.5	6.2	8.2	b8.2	22	150	107	360	71	10	5.5
27	*5.8	b4.2	5.8	b7.4	8.2	26	161	107	328	66	10	5.5
28	5.8	b4.5	5.8	7.8	8.6	30	156	109	331	63	10	5.5
29	6.2	b4.8	5.8	7.8	-	29	127	113	350	59	9.6	5.6
30	6.2	b4.8	5.8	7.4	-	29	115	115	357	56	9.6	5.5
31	6.2	-	6.2	7.0	-	32	-	127	-	53	10	-
Total	176.2	161.3	193.9	233.2	234.2	523.3	1,933	3,312	10,689	5,799	741.2	201.4
Mean	5.68	5.38	6.25	7.52	8.36	16.9	64.4	107	356	187	23.9	6.71
Ac-ft	349	320	385	463	465	1,040	3,830	6,570	21,200	11,500	1,470	399

Calendar year 1952: Max 615 Min 3.7 Mean 94.1 Ac-ft 68,310
Water year 1952-53: Max 542 Min 3.7 Mean 66.3 Ac-ft 47,990

Peak discharge (base, 450 cfs).--June 12 (8:20 p.m.) 664 cfs (3.47 ft); June 18 (8 p.m.) 610 cfs (3.35 ft).

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

Huntington Creek near Lee, Nev.

Location.--Lat 40°35', long. 115°43', in NE¼ sec. 12, T. 31 N., R. 55 E., on right bank 7 miles west of Lee.

Records available.--December 1948 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 5,290 ft (from river-profile map).

Extremes.--Maximum discharge during year, 129 cfs June 15 (gage height, 2.51 ft); minimum, 2.3 cfs Aug. 25 (gage height, 0.91 ft).
1948-53: 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, 1.0 cfs Aug. 10, 1949.

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

Revisions (water years).--WSP 1244: 1949(M).

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.9	1.4	1.6	30
1.0	2.8	2.0	64
1.1	5.1	2.4	108
1.2	8.3	2.8	165
1.4	17		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.4	9.1	b10	b19	30	26	23	24	21	23	6.4	3.5
2	5.4	9.5	b11	b19	30	27	23	26	20	20	6.4	3.5
3	5.4	9.1	b11	b18	29	26	22	23	21	*17	5.7	3.5
4	5.7	9.1	b11	b17	28	25	23	21	27	15	5.7	3.0
5	6.1	10	(*)	b17	29	30	24	20	28	14	*5.4	3.0
6	6.1	11		b18	34	35	23	17	30	13	5.1	3.0
7	6.1	10		b21	34	37	26	17	65	12	4.9	3.0
8	6.4	11		b23	34	37	27	18	*82	11	4.9	2.8
9	7.0	b10		26	33	37	26	16	69	11	4.4	2.8
10	7.3	b11		27	b28	36	28	15	58	9.5	4.2	2.8
11	7.0	b12		26	b27	34	31	16	48	9.1	4.0	2.8
12	7.3	b13		28	b27	33	29	20	38	8.3	4.0	3.0
13	7.3	14		31	b26	34	28	*18	46	7.7	4.0	3.3
14	7.3	15		33	31	34	26	16	96	7.3	4.0	3.0
15	7.0	15		*30	32	34	*24	14	125	8.0	3.7	2.8
16	6.7	14	b14	b25	31	33	24	17	125	7.7	3.7	3.0
17	6.7	13		28	29	*31	26	20	125	7.3	3.5	3.0
18	6.7	12		42	b27	28	26	21	113	6.4	3.5	2.8
19	6.7	12		45	b25	28	22	26	106	6.1	3.0	3.0
20	6.7	b11		49	b23	28	20	32	100	5.4	2.8	3.0
21	7.0	b11		50	b21	28	19	33	97	6.1	2.8	3.3
22	7.3	b10		43	b22	28	21	33	87	5.4	2.8	3.0
23	7.0	b9.4		38	22	28	21	24	77	4.9	2.6	3.0
24	7.3	b9.0		38	*b22	26	20	31	67	5.1	2.6	3.3
25	8.7	b8.8		39	22	26	24	31	61	6.4	2.4	3.5
26	8.7	b8.4		38	22	26	20	28	57	7.0	2.4	3.3
27	*9.1	b8.0		b32	22	22	16	20	50	6.4	2.4	3.5
28	8.3	b8.0		30	23	18	20	12	43	6.7	2.4	3.5
29	8.7	b8.5	b15	33	-	21	23	16	34	6.1	2.4	*3.5
30	9.1	b9.0	b17	34	-	21	22	19	29	5.7	2.6	3.7
31	9.1	-	b18	31	-	21	-	21	-	5.7	3.3	-
Total	220.6	320.9	429	948	763	898	707	665	1,945	284.3	118.0	94.2
Mean	7.12	10.7	13.8	30.6	27.2	29.0	23.6	21.4	64.8	9.17	3.81	3.14
Ac-ft	438	636	851	1,880	1,510	1,780	1,400	1,320	3,860	564	234	187

Calendar year 1952: Max 1,070 Min 3.5 Mean 88.1 Ac-ft 63,980
Water year 1952-53: Max 125 Min 2.4 Mean 25.7 Ac-ft 14,660

Peak discharge (base, 200 cfs).--No peak above base.
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

South Fork Humboldt River above Dixie Creek, near Elko, Nev.

Location (revised).--Lat 40°41'05", long. 115°48'45", in NW¼SW¼ sec. 5, T. 32 N., R. 55 E., 1½ miles upstream from Dixie Creek and 10½ miles south of Elko.

Records available.--December 1948 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 5,140 ft (from topographic map).

Extremes.--Maximum discharge during year, 731 cfs June 19 (gage height, 4.45 ft); minimum, 4.2 cfs Sept. 22, 23, 24 (gage height, 2.00 ft).
1948-53: Maximum discharge 1,700 (revised) cfs Apr. 29, 1952 (gage height, 5.46 ft); minimum, 2.5 cfs Sept. 6, 1949.
Revisions.--The maximum discharge for the water year 1952 has been revised to 1,700 cfs Apr. 29, 1952 (gage height, 5.46 ft), superseding figure published in WSP 1244.

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

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.0	4.2	2.9	91
2.1	7.5	3.4	213
2.2	12	3.9	406
2.4	25	4.4	696
2.6	45		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.3	21	b18	b35	48	48	53	120	115	356	55	8.0
2	9.8	21		b38	48	b44	55	118	129	343	61	9.3
3	9.8	21		37	46	b43	61	107	135	*343	52	9.3
4	9.8	21		b35	45	b42	61	95	140	326	45	8.8
5	9.8	22	(*)	b33	46	49	66	91	155	307	*43	8.4
6	11	23		b36	54	55	70	91	196	303	38	8.4
7	11	23		37	57	61	67	93	259	288	34	8.4
8	12	22		38	55	61	70	91	270	288	30	8.0
9	13	23		42	53	62	70	95	259	273	28	7.5
10	13	22		48	b43	62	70	84	252	266	25	6.8
11	14	24		45	b43	61	72	75	276	262	23	5.8
12	14	*24		46	b50	60	68	73	347	248	22	5.8
13	14	25		49	50	61	68	*72	574	229	20	5.5
14	14	26		50	50	58	67	67	663	213	20	5.2
15	14	28	b20	b47	52	58	*64	64	663	210	20	4.9
16	15	25		b43	50	57	62	72	*637	184	19	5.2
17	16	24		46	49	*55	70	78	605	162	17	5.2
18	16	24		77	48	54	70	73	643	145	17	4.9
19	16	24		80	35	54	67	82	676	133	18	4.9
20	17	23		77	b27	54	60	118	663	122	16	4.9
21	17	22		78	b30	54	61	131	624	109	16	4.9
22	18	b21		*70	b32	53	67	129	599	105	15	4.5
23	18	18		b63	b36	53	84	122	568	99	14	4.5
24	16	b17		60	b38	52	95	133	527	91	11	4.5
25	15	b15		61	*b41	50	105	122	483	82	8.8	4.9
26	16	b15		58	b42	50	120	111	431	73	8.0	5.2
27	16	b14		b52	42	50	113	105	383	67	6.8	5.5
28	17	b14		49	42	48	135	93	365	61	7.5	5.8
29	17	b15	b23	50	-	49	135	103	356	55	7.5	*6.2
30	19	b17	b29	52	-	50	124	115	360	57	6.5	6.5
31	20	-	b32	49	-	49	-	113	-	57	8.0	-
Total	447.5	634	642	1,580	1,252	1,657	2,350	3,036	12,353	5,857	712.1	187.7
Mean	14.4	21.1	20.7	51.0	44.7	53.5	78.3	97.9	412	189	23.0	6.26
Ac-ft	888	1,260	1,270	3,130	2,480	3,290	4,660	6,020	24,500	11,620	1,410	372

Calendar year 1952: Max 1,360 Min 8.1 Mean 201 Ac-ft 146,000
Water year 1952-53: Max 676 Min 4.5 Mean 84.1 Ac-ft 60,900

Peak discharge (base, 400 cfs).--June 19 (2:15 p.m.) 731 cfs (4.45 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

South Fork Humboldt River near Elko, Nev.

Location.--Lat 40°43'15", long. 115°49'50", in NW¼ sec. 30, T. 33 N., R. 55 E., on right bank a quarter of a mile upstream from head of canyon, 1.5 miles downstream from highway bridge, 9 miles upstream from mouth, and 10 miles southwest of Elko.

Drainage area.--1,150 sq mi, approximately.

Records available.--August 1896 to September 1922, October 1923 to September 1932, October 1936 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 5,100 ft, revised (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.

Average discharge.--45 years (1896-1903, 1904-9, 1910-18, 1923-26, 1927-32, 1936-53), 131 cfs.

Extremes.--Maximum discharge during year, 742 cfs June 19 (gage height, 3.63 ft); minimum, 1.3 cfs Sept. 23, 24.
1896-1922, 1923-32, 1936-53: Maximum discharge, 2,400 cfs Jan. 26, 1914, from rating curve extended above 1,200 cfs; practically no flow during some periods in nearly every year since 1915.

Remarks.--Records good except those for periods of ice effect, which are fair. Many diversions above station for irrigation. Station is below all diversions except those of Hunter & Banks ranch 3 miles downstream.

Revisions (water years).--WSP 1090: 1932.

Rating tables, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to July 2				July 3 to Sept. 30			
1.5	3.7	2.2	132	1.1	0.6	1.7	64
1.6	9.4	2.5	262	1.2	2.8	2.0	124
1.7	19	3.0	471	1.5	7.6	2.5	274
1.8	32	3.6	729	1.4	18	3.0	471
2.0	73						

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.5	16	b19	37	50	50	48	106	103	350	47	7.0
2	5.0	16		42	50	b46	52	106	116	*325	49	7.6
3	5.0	16		b39	50	b46	55	100	122	323	*47	8.9
4	4.5	18		b37	48	b45	57	89	122	307	42	8.2
5	5.0	18		b34	48	48	59	86	138	289	41	7.6
6	5.5	19		b35	57	55	66	86	174	281	38	7.6
7	6.1	19		b42	66	59	62	84	247	264	34	7.0
8	7.3	19		50	64	59	64	86	267	260	30	7.0
9	8.0	19		68	b62	62	64	86	267	250	27	6.0
10	8.7	*b18	(*)	b78	b50	62	66	78	*247	236	26	5.5
11	9.4	b19		b64	b50	62	66	71	276	232	23	4.0
12	9.4	22		64	b57	*59	64	88	358	219	22	3.6
13	9.4	21		52	b57	62	64	68	593	194	22	2.8
14	8.7	23		52	55	59	64	*66	693	176	20	2.4
15	9.4	25	b21	b50	55	59	62	62	684	176	20	2.1
16	10	23		b42	55	57	59	66	675	152	a18	*2.1
17	10	23		48	52	55	*64	73	*831	129	a17	2.1
18	11	22		73	52	55	66	68	662	111	a16	2.1
19	11	22		86	b39	52	64	76	693	106	a17	2.1
20	11	21		78	b28	55	57	100	684	98	a16	2.1
21	13	20		81	b30	52	57	116	649	90	a15	1.8
22	13	b19		*b68	b34	52	62	113	614	86	a14	1.5
23	14	b17		b84	b37	50	73	110	580	80	a12	1.3
24	12	b16		59	b40	50	84	116	541	77	a9	1.3
25	10	b15		62	*b43	50	95	110	492	68	7.0	1.5
26	11	b15		59	b44	50	103	103	442	61	7.6	1.8
27	12	b14		b55	44	48	100	100	386	57	5.5	2.1
28	12	b14		52	44	46	116	92	362	50	5.0	2.4
29	13	b15	25	52	-	48	122	95	346	47	6.0	2.8
30	14	b17	32	55	-	48	113	106	346	47	5.0	3.6
31	16	-	35	52	-	48	-	103	-	47	5.5	-
Total	298.9	561	678	1,730	1,361	1,649	2,148	2,789	12,508	5,188	663.6	117.9
Mean	9.64	18.7	21.9	55.8	48.6	53.2	71.6	90.0	417	167	21.4	3.93
Ac-ft	593	1,110	1,340	3,430	2,700	3,270	4,260	5,530	24,810	10,290	1,320	234

Calendar year 1952: Max 1,530 Min 4.5 Mean 216 Ac-ft 157,000
Water year 1952-53: Max 693 Min 1.3 Mean 81.3 Ac-ft 58,890

Peak discharge (base, 410 cfs).--June 19 (5:30 p.m.) 742 cfs (3.63 ft).
* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of records for other South Fork stations.
b Stage-discharge relation affected by ice.

Humboldt River near Carlin, Nev.

Location (revised).--Lat 40°43'40", long. 116°00'30", in sec. 21, T. 33 N., R. 53 E., on right bank 4½ miles southwest of Moleen, 5 miles upstream from Susie Creek, 5½ miles east of Carlin, and 15 miles southwest of Elko.

Drainage area.--4,310 sq mi, approximately.

Records available.--October 1943 to September 1953.

Gage.--Water-stage recorder. Datum of gage is 4,931.91 ft (levels by Nevada State Highway Department).

Average discharge.--10 years, 387 cfs.

Extremes.--Maximum discharge during year, 1,440 cfs June 20 (gage height, 4.83 ft); minimum, 6.4 cfs Sept. 21, 22 (gage height, 0.65 ft).
1943-53: Maximum discharge, 5,220 cfs May 1, 1952 (gage height, 9.35 ft); minimum, 3.6 cfs Sept. 7, 1948.
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. Many diversions above station for irrigation.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.6	4.0	1.7	128
.7	8.0	2.0	193
.8	13	2.5	337
1.0	28	3.0	520
1.2	49	4.0	980
1.4	76	5.0	1,540

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16	31	b46	79	206	177	229	234	268	920	115	11
2	16	30	48	79	203	182	229	265	370	895	109	11
3	16	30	b48	84	198	184	232	283	*633	812	107	10
4	16	31	b46	82	196	186	232	274	677	741	97	9.5
5	15	33	b45	82	193	182	232	315	607	881	87	9.5
6	13	33	b40	84	200	184	237	308	590	629	79	9.0
7	13	31	53	94	208	193	240	283	722	595	76	8.5
8	16	32	56	89	210	200	237	265	745	553	68	9.5
9	18	34	56	107	208	206	245	245	807	*536	61	10
10	19	35	*54	117	203	213	254	226	846	516	58	10
11	19	40	57	118	184	226	257	200	*910	496	54	11
12	20	*40	58	122	170	242	251	177	930	488	52	10
13	21	44	61	128	168	257	254	140	985	472	46	9.5
14	19	50	59	140	172	260	260	*142	1,120	472	44	*10
15	19	46	62	138	175	254	257	144	1,140	469	41	9.5
16	21	44	66	138	179	*248	257	142	1,120	435	40	9.5
17	21	48	72	132	179	240	*268	144	1,170	416	34	8.5
18	19	48	75	163	182	234	257	152	1,260	409	30	7.6
19	21	46	73	198	168	232	240	142	*1,380	374	*29	7.2
20	22	44	78	213	b139	232	232	159	1,430	340	27	7.2
21	22	46	78	254	b120	232	229	179	1,410	305	26	6.8
22	22	61	78	*274	130	229	229	196	1,400	277	25	6.8
23	23	b50	76	257	134	223	210	188	1,370	245	24	6.8
24	22	b47	b62	232	128	218	208	213	1,330	221	22	8.0
25	23	b47	b59	242	138	213	200	254	1,320	196	22	9.0
26	25	b50	b70	234	*157	210	191	280	1,270	179	19	7.6
27	26	b49	b74	234	161	218	200	274	1,180	163	16	7.6
28	26	b48	b69	226	168	229	200	286	1,100	148	15	6.0
29	26	b46	b67	216	-	234	229	331	1,040	138	15	7.6
30	27	b44	73	213	-	229	229	308	960	128	14	7.2
31	28	-	76	208	-	229	-	277	-	122	12	-
Total	630	1,258	1,945	4,977	4,877	6,796	7,025	7,026	30,090	13,371	1,464	283.4
Mean	20.3	41.9	62.7	161	174	219	234	227	1,003	431	47.2	8.78
Ac-ft	1,250	2,500	3,860	9,870	9,670	13,480	13,930	13,940	59,680	26,520	2,900	522

Calendar year 1952: Max 5,150 Min 13 Mean 707 Ac-ft 513,100
Water year 1952-53: Max 1,430 Min 6.8 Mean 218 Ac-ft 158,100

Peak discharge (base, 900 cfs).--June 20 (1:30 p.m.) 1,440 cfs (4.83 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Humboldt River at Palisade, Nev.

Location (revised).--Lat 40°36'25", long. 116°12'05", in SE¼SE¼ sec. 35, T. 32 N., R. 51 E., on right bank a quarter of a mile downstream from Southern Pacific Railroad bridge, half a mile downstream from Palisade, and three-quarters of a mile upstream from Pine Creek.

Drainage area.--5,010 sq mi, approximately.

Records available.--November 1902 to October 1906, July 1911 to September 1953.

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.--45 years (1903-6, 1911-53), 372 cfs.

Extremes.--Maximum discharge during year, 1,460 cfs June 20 (gage height, 5.02 ft); minimum, 19 cfs Sept. 15.
1902-6, 1911-53: Maximum discharge, 6,250 cfs Feb. 26, 1943 (gage height, 9.92 ft); minimum, 2 cfs Aug. 25-28, 1931.

Remarks.--Records excellent. Diversion above station for irrigation of about 150,000 acres of hay and pasture land.

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

1.6	20	2.5	199
1.7	31	3.0	351
1.8	46	4.0	800
2.0	84	5.0	1,480

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34	51	*66	107	246	221	270	196	301	*963	127	26
2	34	53	68	107	246	221	270	221	334	909	120	25
3	36	53	68	112	240	221	267	249	*592	850	114	22
4	36	53	59	109	235	221	270	258	730	790	109	22
5	36	55	66	107	235	223	270	279	665	730	103	21
6	34	57	62	109	243	218	276	307	655	680	92	21
7	32	57	72	120	264	226	282	288	745	645	86	21
8	32	55	72	120	267	235	279	267	800	611	82	20
9	34	55	72	129	255	240	285	249	828	582	74	21
10	36	57	72	152	255	249	295	232	879	588	68	22
11	37	64	76	152	246	261	301	204	903	540	66	22
12	37	66	80	157	229	279	282	179	945	532	64	22
13	37	66	82	162	223	295	279	152	963	509	62	22
14	38	76	84	176	226	304	282	138	1,100	505	59	21
15	38	80	88	174	229	298	285	132	1,160	505	55	21
16	38	76	90	174	238	288	285	120	1,140	483	53	21
17	40	74	97	176	238	282	291	123	1,160	454	50	21
18	40	78	*103	204	235	273	288	132	1,230	433	46	20
19	40	76	105	279	223	267	267	141	1,380	414	38	20
20	40	76	109	276	180	267	255	143	1,440	376	37	20
21	43	76	109	307	162	267	218	174	1,440	341	36	23
22	42	82	107	334	172	267	174	196	1,430	311	34	23
23	40	72	107	317	174	264	204	202	1,420	282	34	21
24	42	66	88	295	164	258	223	204	1,380	252	32	21
25	43	66	78	291	167	252	215	235	*1,350	223	31	22
26	44	70	90	*285	189	246	170	267	1,300	204	28	23
27	46	68	101	285	194	252	157	270	1,230	184	27	22
28	48	66	94	276	*202	264	164	267	1,160	169	24	21
29	48	65	99	264	-	273	*172	*341	1,110	152	23	21
30	*50	62	101	261	-	270	*184	355	1,010	145	23	*21
31	51	-	107	255	-	*270	-	327	-	*136	*26	-
Total	1,226	1,971	2,672	6,272	6,177	7,972	7,460	6,848	30,780	14,478	1,823	647
Mean	39.5	65.7	86.2	202	221	257	249	221	1,026	467	58.8	21.6
Ac-ft	2,430	3,910	5,300	12,440	12,250	15,810	14,800	13,580	61,050	29,720	3,620	1,280

Calendar year 1952: Max 5,930 Min 30 Mean 880 Ac-ft 638,600
Water year 1952-53: Max 1,440 Min 20 Mean 242 Ac-ft 175,200

Peak discharge (base, 560 cfs).--June 20 (12 m. to 2 p.m.) 1,460 cfs (5.02 ft).
* Discharge measurement made on this day.

Pine Creek near Palisade, Nev.

Location (revised).--Lat 40°35'45", long. 116°10'25", in NW¼SE¼ sec. 1, T. 31 N., R. 51 E., on right bank 1¼ miles upstream from mouth and 1½ miles southeast of Palisade.

Records available.--November 1902 to December 1904 (gage heights only), January 1912 to September 1914, January 1946 to September 1953.

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 differe t datums. Jan. 1 to July 18, 1946, water-stage recorder at site 1,000 ft downstream at different datum.

Average discharge.--9 years (1912-14, 1946-53), 16.4 cfs.

Extremes.--Maximum discharge during year, 24 cfs Jan. 18 (gage height, 1.46 ft); no flow for several days in June, July, and August.
1912-14, 1946-53: 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 several days during 1951 and 1953.

Remarks.--Records good except those for periods of ice effect or below 1 cfs, which are fair. Diversions above station for irrigation, none below.

Revisions (water years).--WSP 1120: 1946 (calendar year mean).

Rating tables, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used May 15 to Sept. 30)

Oct. 1 to Dec. 6		Dec. 7 to Sept. 30	
0.4	1.4	0.6	0
.5	2.6	.7	.4
.6	4.3	.8	1.1
.8	9.5	1.0	3.0
1.0	17	1.2	11
		1.5	21

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.0	9.8	*b9.6	13	13	14	8.5	0.4	0.6	*0.2	0.2	0.3
2	3.0	11	9.5	13	13	14	6.8	.4	.8	.4	.2	.2
3	2.0	10	11	13	13	14	7.4	.3	.8	.3	.2	.2
4	3.9	10	b10	13	13	14	7.4	.4	.7	.2	.2	.3
5	7.8	11	b9.5	13	14	15	6.5	.3	.4	.2	.2	.3
6	8.3	11	b9	13	19	15	7.0	.3	.2	0	.2	.3
7	9.5	11	8.9	19	18	13	6.8	.3	.2	0	.2	.3
8	9.8	11	10	15	16	13	7.0	.3	.2	0	.2	.3
9	9.8	b10	9.7	16	14	13	7.4	.3	.2	0	.2	.4
10	9.8	b11	9.7	15	b12	13	7.0	.3	.2	0	.2	.4
11	9.8	14	10	14	b12	12	8.1	.4	.1	0	.2	.5
12	9.8	13	10	14	13	12	8.1	.4	.1	0	0	.5
13	9.8	14	10	14	13	13	7.0	.4	0	0	.1	.5
14	8.9	16	10	15	14	13	6.5	.4	.1	0	.1	.5
15	5.7	16	10	14	13	13	5.5	.3	.1	0	.2	.5
16	9.8	15	10	13	13	13	4.4	.2	.2	0	.3	.6
17	11	14	11	18	13	12	5.0	.2	.2	0	.3	.7
18	4.8	14	*13	22	b12	12	4.8	.2	.2	0	.3	.8
19	5.4	14	12	19	b11	13	4.0	.2	.1	0	.2	.9
20	5.0	16	12	19	b10	13	3.6	.3	0	0	.2	1.0
21	6.6	16	10	22	b10	13	2.6	.3	0	0	.2	1.0
22	7.8	b14	10	18	b11	13	1.4	.3	0	0	.1	.9
23	4.5	b13	b10	16	11	13	.8	.3	0	0	.1	1.0
24	5.7	b12	b9	16	b11	10	.8	.4	0	.1	.1	1.0
25	6.9	b12	b10	16	b12	8.9	.6	.4	0	0	.1	1.0
26	7.2	b11	11	*15	13	7.4	.4	.3	0	.2	.2	1.0
27	7.8	b10	11	14	13	8.5	.4	.3	.1	.2	.2	1.1
28	7.8	b9.5	b10	14	*13	9.3	.4	.3	0	.2	.2	1.6
29	6.9	b9	14	15	-	8.9	*.3	*.4	0	.2	.2	2.6
30	*7.2	b9.5	14	15	-	8.9	.3	.4	0	.2	.2	*2.6
31	8.6	-	13	14	-	*8.9	-	.4	-	*.2	*.2	-
Total	225.0	367.8	326.9	480	363	373.8	136.8	10.1	5.5	2.6	5.7	23.3
Mean	7.26	12.3	10.5	15.5	13.0	12.1	4.56	0.33	0.18	0.08	0.18	0.78
Ac-ft	446	730	648	952	720	741	271	20	11	5.2	11	46

Calendar year 1952: Max 545 Min 0.4 Mean 39.9 Ac-ft 28,880
Water year 1952-53: Max 22 Min 0 Mean 6.36 Ac-ft 4,600

Peak discharge (base, 50 cfs).--No peak above base.
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Humboldt River near Argenta, Nev.

Location.--Lat 40°40', long. 116°40', in NW¼ sec. 2, T. 32 N., R. 47 E., on left bank 2½ miles east of Argenta and 15½ miles east of Battle Mountain.

Records available.--February 1946 to September 1953.

Gage.--Water-stage recorder.

Average discharge.--7 years, 343 cfs.

Extremes.--Maximum discharge during year, 1,120 cfs June 23 (gage height, 6.80 ft); minimum, 1.3 cfs Sept. 29, 30.
1946-53: Maximum daily discharge, 5,700 cfs May 2, 1952; minimum, 0.5 cfs Oct. 11, 1948.

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

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.5	36	66	119	264	214	250	148	280	858	110	6.0
2	5.1	38	76	120	260	224	248	157	266	812	102	*6.0
3	5.7	39	76	122	258	224	250	165	278	773	88	5.6
4	5.7	42	70	125	254	225	250	184	449	725	88	5.0
5	6.4	44	69	126	252	225	252	201	560	671	86	4.7
6	7.1	44	74	126	250	227	252	214	513	631	79	4.4
7	8.3	46	82	128	258	227	242	239	526	607	73	3.7
8	11	47	80	132	272	231	246	233	590	571	70	3.4
9	12	47	87	136	272	237	246	222	632	545	63	3.2
10	12	47	87	142	266	242	252	214	657	525	59	3.0
11	13	49	85	160	258	244	262	203	674	499	51	2.6
12	12	50	*88	167	258	252	262	188	692	479	47	2.4
13	11	52	89	172	242	264	250	172	706	462	46	2.2
14	9.2	57	90	181	239	274	246	151	706	451	42	2.2
15	8.3	65	93	189	239	280	246	128	794	440	35	2.0
16	8.3	78	94	193	237	280	246	119	853	434	32	2.0
17	8.8	76	96	196	244	274	244	109	880	415	29	1.8
18	8.8	77	99	212	244	*272	248	98	*900	*397	27	1.8
19	14	73	105	227	*227	266	246	98	928	378	26	1.8
20	19	73	108	272	214	264	231	102	1,030	358	24	1.6
21	17	72	110	*280	205	262	*212	105	1,080	327	22	1.6
22	15	72	115	297	200	262	188	119	1,100	298	16	1.6
23	16	70	113	317	196	258	151	138	1,100	270	13	1.6
24	31	68	108	313	189	254	156	159	1,100	244	11	1.6
25	28	64	100	297	191	248	169	172	1,080	222	8.8	*1.4
26	28	60	94	289	184	241	157	*193	1,050	204	8.0	1.4
27	29	57	108	287	198	237	142	212	1,040	184	7.5	1.4
28	30	*60	118	287	205	237	122	222	986	164	6.6	1.4
29	*34	61	128	285	-	244	125	235	959	149	6.3	1.3
30	34	61	126	276	-	250	132	276	928	131	6.0	1.3
31	35	-	119	268	-	252	-	297	-	*120	6.0	-
Total	487.2	1,725	2,953	6,445	6,576	7,691	6,523	5,473	23,337	13,344	1,288.2	80.2
Mean	15.7	57.5	95.3	208	235	248	217	177	778	430	41.6	2.67
Ac-ft	966	3,420	5,860	12,780	13,040	15,250	12,940	10,860	46,290	26,470	2,560	159

Calendar year 1952: Max 5,700 Min 4.5 Mean 631 Ac-ft 603,500
Water year 1952-53: Max 1,100 Min 1.3 Mean 208 Ac-ft 150,600

* Discharge measurement made on this day.

Rock Creek near Battle Mountain, Nev.

Location.--Lat 40°51', long. 116°36', in NE¼ sec. 17, T. 34 N., R. 48 E., on left bank at mouth of canyon, 22 miles northeast of Battle Mountain.

Records available.--March 1918 to September 1925 (fragmentary October 1923 to September 1925), March 1927 to May 1929 (fragmentary), January 1946 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 4,600 ft. Prior to Jan. 3, 1946, at different datum.

Average discharge.--12 years (1918-23, 1946-53), 36.1 cfs.

Extremes.--Maximum discharge during year, 73 cfs June 4, 8 (gage height, 1.59 ft); no flow July 19 to Sept. 23.
1918-25, 1927-29, 1946-53: 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 1952-53, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.0	0	0.6	4.2
.1	.2	.8	9.8
.2	.4	1.0	19
.3	.8	1.3	40
.4	1.4	1.6	74
.5	2.5		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.0	2.7	b2.0	4.4	9.2	8.4	21	35	38	0.7		0
2	1.0	2.0	b2.4	5.9	7.9	8.0	22	29	40	.8		*0
3	1.0	1.8	b2.7	3.7	8.2	7.6	22	25	*49	.6		0
4	1.0	1.8	b2.3	3.3	7.6	8.4	21	21	69	.5		0
5	1.0	2.0	b2.6	3.9	8.2	8.8	19	13	68	.4		0
6	1.0	2.1	3.4	4.2	9.2	9.1	22	8.8	68	.3		0
7	1.0	2.2	4.0	4.9	11	9.4	25	6.9	68	.2		0
8	1.1	2.2	4.4	5.4	13	10	24	6.1	68	.2		0
9	1.1	2.1	4.2	6.6	b10	11	24	6.6	56	.1		0
10	1.1	2.0	4.7	7.2	b8.8	12	22	20	46	.1		0
11	1.1	2.2	5.6	7.2	b8.5	13	22	22	36	.1		0
12	1.2	2.3	*5.4	8.0	b7.6	13	20	24	27	.1		0
13	1.2	3.0	4.4	6.9	b8.8	12	20	22	26	.2		0
14	1.2	3.9	4.4	6.7	13	10	18	22	22	.7		0
15	1.2	4.4	4.7	b5.2	11	10	17	24	18	.4		0
16	1.2	4.9	5.2	b5.2	12	10	15	30	15	.3		0
17	1.2	4.0	4.9	9.5	9.8	10	14	29	11	.2		0
18	1.3	2.8	5.6	12	7.9	*10	13	27	7.9	*.1		0
19	1.2	2.5	4.2	18	*7.2	10	11	28	8.2	0		0
20	1.3	2.5	6.4	18	6.6	11	8.5	32	6.1	0		0
21	1.3	b2.1	b5.2	*19	6.2	11	*9.8	33	4.7	0		0
22	1.3	b2.0	b3.9	18	6.2	10	10	37	4.0	0		0
23	1.3	b1.7	b3.8	12	7.2	11	9.5	37	3.2	0		0
24	1.3	b1.7	b2.7	12	7.6	9.8	15	38	2.3	0		.1
25	1.3	b1.7	b3.2	12	7.0	9.2	25	31	1.9	0		.2
26	1.3	b1.7	b3.4	13	6.4	11	37	*27	1.4	0		.3
27	1.3	b1.9	b3.9	b8.2	7.2	15	29	24	1.3	0		.4
28	1.3	*b1.7	3.7	9.8	8.0	18	30	22	1.1	0		.4
29	*1.3	b1.7	4.7	8.5	-	22	41	23	.9	0		.5
30	1.3	b1.8	5.4	9.2	-	22	39	25	.8	*0		.5
31	2.2	-	5.2	9.5	-	21	-	34	-	0		-
Total	37.6	71.4	128.6	277.4	241.3	361.7	625.8	762.4	768.8	5.8	0	2.4
Mean	1.21	2.38	4.15	8.95	8.62	11.7	20.9	24.6	25.6	0.19	0	.08
Ac-ft	75	142	255	550	479	717	1,240	1,510	1,520	12	0	4.8

Calendar year 1952: Max 2,540 Min 0.7 Mean 132 Ac-ft 95,650
Water year 1952-53: Max 69 Min 0 Mean 9.00 Ac-ft 6,500

Peak discharge (base, 75 cfs).--No peak above base.
* Discharge measurement or observation of no flow made on this day.
b Stage-discharge relation affected by ice.
Note.--No gage-height record Feb. 19 to Mar. 17; discharge estimated on basis of weather records, recorded range in stage, and by comparison with records for nearby streams.

Humboldt River at Battle Mountain, Nev.

Location.--Lat 40°39', long. 116°56', in SE¼ 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.--July 1896 to December 1897 (gage heights only), March 1921 to April 1924, January 1946 to September 1953.

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.--8 years (1921-22, 1946-53), 344 cfs.

Extremes.--Maximum discharge during year, 896 cfs June 26 (gage height, 6.65 ft); minimum, 0.4 cfs Sept. 30.
1921-24, 1946-53: 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, which are fair. Records do not include flow in secondary channels or ditches, much of which is used for irrigation. Many diversions above station for irrigation.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used June 15 to July 8)

1.0	0.1	2.5	86
1.1	.8	3.0	145
1.2	1.9	4.0	309
1.3	3.9	5.0	523
1.4	7.0	6.0	771
1.6	16	6.5	901
2.0	40		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.1	36	69	109	252	203	213	122	238	784	106	5.1
2	4.8	37	70	112	245	209	208	130	230	740	98	4.8
3	4.2	39	70	112	244	216	208	136	224	706	88	4.5
4	4.5	41	70	112	240	217	209	144	274	669	83	4.2
5	4.8	44	70	114	237	219	208	153	443	634	80	3.5
6	4.5	44	74	114	237	222	216	160	465	582	77	3.1
7	5.1	48	74	114	238	224	211	170	456	580	72	2.3
8	6.4	49	76	115	254	224	211	178	487	541	67	2.1
9	7.8	50	80	121	261	229	222	180	546	514	63	1.9
10	9.4	50	89	122	257	233	227	182	568	491	60	1.7
11	10	51	87	130	250	238	233	176	604	480	55	1.5
12	10	52	*90	141	247	244	240	166	616	456	50	1.2
13	10	53	89	144	238	256	219	156	636	438	47	1.1
14	9.4	57	89	149	230	270	213	144	662	*427	44	.9
15	9.0	61	92	155	227	281	216	128	669	412	41	.7
16	7.8	70	93	163	229	281	222	116	704	406	36	.7
17	7.8	76	95	165	*229	278	222	108	719	393	32	.7
18	7.8	74	96	172	233	*276	221	100	*748	374	29	.7
19	7.4	77	99	185	232	270	224	94	768	353	27	.6
20	10	74	102	*214	191	256	217	96	768	337	25	.5
21	17	75	105	247	206	261	*202	99	789	311	23	.5
22	17	74	107	257	214	261	190	98	813	281	21	.4
23	16	68	108	289	198	263	162	99	826	254	17	.5
24	17	62	98	299	186	256	135	108	852	229	*12	.5
25	28	60	98	287	180	238	145	115	867	208	9.8	*.5
26	27	56	98	272	176	233	145	*128	880	190	8.2	.5
27	28	56	98	274	182	229	137	153	870	170	7.4	.5
28	29	57	116	274	196	166	126	180	854	156	6.7	.5
29	*30	59	112	272	-	159	116	186	838	141	5.8	.5
30	32	61	118	265	-	188	118	205	818	128	5.8	.4
31	35	-	113	256	-	211	-	238	-	115	5.8	-
Total	421.8	1,711	2,845	5,755	6,309	7,311	5,836	4,448	19,230	12,500	1,302.5	46.6
Mean	13.6	57.0	91.8	186	225	236	195	143	641	403	42.0	1.55
Ac-ft	837	3,390	5,640	11,410	12,510	14,500	11,580	8,820	38,140	24,790	2,580	92

Calendar year 1952: Max 5,800 Min 4.2 Mean 812 Ac-ft 589,600
Water year 1952-53: Max 880 Min 0.4 Mean 186 Ac-ft 134,300

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 24-30, Dec. 2-9, 25-27.

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 1953.

Gage.--Water-stage recorder. Altitude of gage is 7,350 ft (from topographic map).

Extremes.--Maximum discharge during year, 28 cfs July 9 (gage height, 1.17 ft); minimum daily, 0.8 cfs Aug. 26.
1951-53: Maximum discharge, 266 cfs Apr. 28, 1952 (gage height, 3.07 ft), from rating curve extended above 190 cfs by logarithmic plotting; minimum daily determined, 0.7 cfs Sept. 16, 1951.

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

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 27 to Sept. 30)

0.3	0.5	0.7	7.2
.4	1.2	.9	15
.5	2.5	1.3	36
.6	4.4		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.2	4.2	b3.5	4.2	b3.6	4.2	9.7	15	11	7.2	2.6	2.6
2	4.2	3.6		4.2	b3.6	b4.2	10	12	12	6.6	3.0	2.0
3	4.2	2.5		b4.0	b3.6	b5.0	12	12	11	6.0	2.4	1.5
4	4.2	3.4	a3.5	b3.5	b3.8	b5.0	14	12	11	5.6	2.4	1.4
5	4.2	3.6		b3.0	3.8	b5.0	15	*12	11	5.1	2.3	1.2
6	4.2	3.6		b3.5	4.0	b5.5	15	12	13	4.9	2.0	1.1
7	4.0	3.8		b4.2	3.6	b6.5	9.7	13	13	4.4	1.7	1.1
8	4.0	3.8		4.0	2.4	7.2	9.7	13	12	4.0	1.5	1.0
9	4.0	3.2		3.8	b2.0	6.6	11	13	13	6.4	1.5	*1.0
10	4.2		a4.0	3.8	b2.5	6.0	10	12	12	7.5	1.4	1.1
11	4.2	a3.5		3.8	b3.8	5.6	8.9	12	13	6.6	1.4	1.0
12	4.2			3.8	b3.8	6.0	8.2	12	13	6.3	1.3	.9
13	4.2	3.8		3.8	b3.8	5.6	8.2	11	14	5.6	1.3	.9
14	4.2	4.2		3.0	b4.2	b4.0	*8.9	11	14	5.1	1.8	1.0
15	4.2	3.0	*4.0	2.8	b4.5	5.4	7.9	11	14	4.9	1.5	1.2
16	4.2	2.8	4.0	b4.0	b6.0	5.1	8.2	11	14	5.4	1.3	1.3
17	4.2		4.0	4.4	b6.0	5.1	8.9	11	13	5.4	1.3	1.3
18	4.0		4.0	4.4	b5.0	*6.0	7.5	11	13	5.1	1.2	1.3
19	4.2		3.8	4.0	*b4.2	6.0	8.6	12	13	4.6	1.1	1.2
20	4.4	a3.0	3.6	*3.8	3.8	4.6	9.3	12	12	4.0	1.0	1.1
21	4.4		b3.8	b2.7	b4.5	4.9	10	13	11	3.6	1.0	1.0
22	*4.4		b3.5	b2.5	b4.5	4.4	13	13	11	*3.4	1.2	1.0
23	4.2	b3.4	b3.8	b2.5	4.2	6.0	15	13	10	3.2	1.0	1.2
24	4.2	b3.4	b4.0	b2.5	4.6	7.2	17	13	*9.7	3.0	.9	1.3
25	4.2		4.4	4.0	4.6	7.5	18	13	9.3	3.0	.9	1.2
26	4.2		4.6	b3.0	4.9	8.2	19	13	8.6	2.8	.8	1.1
27	4.0	a3.5	4.6	b2.5	5.1	8.9	20	*12	8.6	2.6	.9	1.2
28	4.0		b4.2	b4.4	5.6	10	19	13	8.2	2.5	1.0	1.5
29	4.0		b4.6	4.2	-	9.7	16	13	7.5	2.4	1.0	1.4
30	4.0	b3.5	4.4	b3.4	-	8.6	16	12	7.2	2.3	1.3	1.3
31	4.2	-	4.4	b3.4	-	9.3	-	11	-	2.4	2.4	-
Total	129.2	101.8	123.2	111.1	116.0	193.3	363.7	379	343.1	141.9	46.4	37.4
Mean	4.17	3.39	3.97	3.58	4.14	6.24	12.1	12.2	11.4	4.58	1.50	1.25
Ac-ft	256	202	244	220	230	383	721	752	681	281	92	74

Calendar year 1952: Max 194 Min - Mean 27.4 Ac-ft 19,900
Water year 1952-53: Max 20 Min 0.8 Mean 5.72 Ac-ft 4,140

Peak discharge (base, 130 cfs).--No peak above base.
* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of weather records and trend of flow.
b Stage-discharge relation affected by ice.

Humboldt River near Valmy, Nev.

Location.--Lat 40°48', long. 117°04', in NE¼NW¼ sec. 30, T. 34 N., R. 44 E., on left bank 3½ miles east of Valmy and 13 miles northwest of Battle Mountain.

Records available.--March 1950 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 4,440 ft (from topographic map).

Extremes.--Maximum discharge during year, 729 cfs June 30 (gage height, 5.53 ft); no flow Sept. 19-30.
1950-53: Maximum daily discharge, 5,800 cfs May 5, 6, 1952; no flow Sept. 26-30, Oct. 1, 2, 7-21, 1951, Sept. 19-30, 1953.

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

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.95	0	1.7	10
1.0	.1	1.8	16
1.1	.2	2.0	32
1.2	.5	2.2	62
1.3	1.1	2.5	132
1.4	2.4	3.0	243
1.5	4.3	4.0	438
1.6	6.9	5.6	742

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.8	29	64	130	249	200	198	124	195	725	132	10
2	10	30	66	120	245	204	200	130	200	715	122	10
3	14	31	68	b120	241	208	180	134	198	696	114	10
4	16	32	66	120	239	212	171	140	195	670	102	10
5	16	35	68	120	237	215	162	144	243	643	93	9.8
6	16	37	68	124	235	217	171	152	356	615	88	8.7
7	17	38	70	122	233	219	130	157	385	569	81	8.3
8	18	40	75	122	239	219	112	168	396	552	75	7.6
9	19	42	79	124	251	221	114	189	425	525	68	6.9
10	20	42	81	127	255	223	130	195	461	497	62	6.6
11	22	42	88	130	253	227	134	a190	480	503	57	5.9
12	25	44	83	134	247	231	142	a182	501	497	52	4.1
13	28	44	b85	147	245	239	152	a175	512	470	48	3.2
14	28	45	b88	150	239	247	152	a167	533	*451	42	2.4
15	29	47	*b91	154	229	259	164	157	552	436	40	2.0
16	31	50	b93	159	227	267	243	142	573	423	37	1.5
17	31	57	b97	168	*227	269	223	130	596	415	33	1.0
18	31	62	100	171	227	267	215	124	613	404	31	.6
19	31	62	100	175	231	267	212	114	624	385	29	0
20	32	66	102	*187	231	257	212	*107	649	368	26	0
21	35	70	105	212	195	251	206	107	651	351	24	0
22	36	b68	110	231	206	251	195	107	*655	329	24	*0
23	42	b66	b109	243	210	253	*187	105	662	301	23	0
24	47	64	b108	271	202	*253	166	105	674	275	*20	0
25	47	60	107	281	198	251	150	114	694	247	18	0
26	52	60	105	273	187	233	152	122	706	225	15	0
27	57	60	107	263	182	225	150	127	714	206	14	0
28	*24	57	102	265	187	221	144	124	721	187	12	0
29	24	57	114	265	-	175	134	147	725	173	10	0
30	25	60	124	263	-	168	127	152	727	159	10	0
31	27	-	130	257	-	187	-	173	-	147	10	-
Total	859.8	1,497	2,853	5,628	6,347	7,136	5,028	4,404	15,616	13,159	1,512	108.6
Mean	27.7	49.9	92.0	182	227	230	168	142	521	424	48.8	3.62
Ac-ft	1,710	2,970	5,660	11,160	12,590	14,150	9,970	8,740	30,970	26,100	3,000	215

Calendar year 1952: Max 5,800 Min 9.8 Mean 781 Ac-ft 566,900
Water year 1952-53: Max 727 Min 0 Mean 176 Ac-ft 127,200

* Discharge measurement or observation of no flow made on this day.
a No gage-height record; discharge estimated on basis of recorded range in stage and by interpolation.
b Stage-discharge relation affected by ice.

Humboldt River at Comus, Nev.

Location.--Lat 41°00', long. 117°19', in SE¼ sec. 14, T. 36 N., R. 41 E., on left bank at Comus 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 1953.

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.--12 years (1917-22, 1946-53), 290 cfs.

Extremes.--Maximum discharge during year, 642 cfs June 24 (gage height, 6.03 ft); minimum daily, 0.1 cfs Sept. 21, 26-30.
1917-23, 1925-26, 1946-53: Maximum discharge, 5,860 cfs May 6, 1952 (gage height, 11.52 ft); no flow during periods in 1918-20.

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

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Mar. 18-28, June 16-26)

1.6	0	2.3	29
1.7	.2	2.7	79
1.8	1.2	3.0	123
1.9	3.0	3.5	207
2.0	6.0	4.0	300
2.1	11	6.0	712

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.0	17	66	122	247	189	191	36	184	609	141	5.1
2	8.0	18	69	126	243	194	200	38	211	611	120	4.5
3	7.5	18	66		241	198	202	34	220	611	108	3.9
4	7.0	20	62		239	205	184	39	220	597	99	3.3
5	7.0	22	71	b120	239	211	177	69	218	584	90	2.4
6	7.0	24	69		241	214	170	55	262	565	82	2.2
7	7.0	26	75		238	216	170	57	356	540	75	2.0
8	6.0	29	72	122	239	218	131	82	368	510	71	1.8
9	5.7	30	73	125	234	221	122	96	304	486	65	1.5
10	5.7	32	82	123	241	221	123	102	318	476	58	1.5
11	5.1	38	86	123	245	223	128	111	324	488	53	1.0
12	5.4	36	85	125	245	227	131	123	290	478	51	.9
13	6.5	37	90	131	243	230	139	133	230	472	46	.8
14	6.5	39	86	141	241	234	145	134	338	*450	45	.5
15	7.5	39	*90	141	238	241	144	225	362	428	39	.4
16	10	40	99	144	230	247	155	211	388	410	41	.4
17	8.5	42	99	153	227	251	211	179	414	394	34	.3
18	9.5	46	94	172		254	182	155	426	384	31	.3
19	8.5	53	94	169		251	187	144	452	370	26	.2
20	8.5	56	96	170	b220	251	184	*133	460	350	22	.2
21	8.5	58	b95	177		245	165	117	470	334	21	.1
22	9.0		b95	194	205	241	165	111	*490	318	18	*.2
23	9.0		98	214	214	241	*157	110	603	298	17	.2
24	8.5		b100	229	b200	*241	114	108	597	273	14	.2
25	9.0		105	247	202	249	58	105	555	249	13	.2
26	10	b55	106	*252	*196	243	69	114	588	229	10	.1
27	10		105	249	191	234	79	123	618	205	10	.1
28	*11		96	247	187	229	62	128	609	189	*9.0	.1
29	13		98	251	-	218	55	126	607	169	7.5	.1
30	15		112	251	-	186	47	149	609	155	6.0	.1
31	17	-	117	249	-	179	-	160	-	142	5.7	-
Total	264.9	1,215	2,751	5,247	6,346	7,002	4,247	3,507	12,091	12,374	1,428.2	34.6
Mean	8.55	40.5	88.7	169	227	226	142	113	403	399	46.1	1.15
Ac-ft	525	2,410	5,460	10,410	12,590	13,890	8,420	6,960	23,980	24,540	2,830	69

Calendar year 1952: Max 5,810 Min 5.1 Mean 77.5 Ac-ft 562,600
Water year 1952-53: Max 618 Min 0.1 Mean 155 Ac-ft 112,100

Peak discharge (base, 330 cfs).--June 24 (5 a.m.) 642 cfs (6.03 ft).
* 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 1953.

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.--10 years (1943-53), 27.0 cfs.

Extremes.--Maximum discharge during year, 57 cfs June 7 (gage height, 2.15 ft); minimum, 5.6 cfs Aug. 17.
1921-28, 1943-53: Maximum discharge, 1,100 cfs Feb. 2, 1952 (gage height, 7.71 ft); minimum, 4.7 cfs Aug. 11, 1951.

Remarks.--Records good. Bullshead Ranch diverts water for irrigation above station. Station is above all diversions in Paradise Valley.

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

1.5	3.0
1.6	8.1
1.8	22
2.0	39
2.2	61

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.6	8.1	7.1	9.4	16	14	17	21	41	17	6.1	6.6
2	7.6	8.1	7.1	9.4	16	14	18	21	49	15	6.6	6.6
3	7.6	8.1	7.6	10	16	13	18	21	54	14	6.1	6.6
4	7.6	8.1	7.6	10	16	14	19	20	55	14	6.6	6.6
5	7.6	8.1	7.6	11	16	14	20	20	54	13	6.1	6.6
6	7.6	8.1	7.6	11	17	14	20	20	53	12	6.1	6.6
7	7.6	8.1	8.1	11	18	14	20	21	56	11	6.1	6.1
8	7.6	8.1	8.1	11	19	14	20	21	54	11	6.1	6.1
9	7.6	8.1	7.6	11	19	14	20	20	51	10	6.1	6.1
10	7.6	7.6	8.1	12	17	14	20	20	53	8.7	6.1	6.1
11	7.6	7.6	8.7	13	14	14	20	20	49	8.7	6.1	6.1
12	7.6	8.1	8.7	16	15	15	20	20	47	8.1	6.1	6.1
13	7.6	8.7	8.7	17	15	16	20	22	44	7.6	6.1	6.1
14	7.6	10	8.7	17	18	17	19	22	43	7.6	6.6	6.1
15	7.6	10	8.7	17	18	17	18	23	40	7.1	6.1	6.6
16	7.6	11	9.4	15	18	17	17	22	40	7.1	6.6	6.6
17	7.6	10	*9.4	15	17	16	17	22	39	7.1	6.1	6.6
18	7.6	8.7	9.4	16	16	16	16	22	35	6.6	6.1	6.6
19	7.6	*8.7	9.4	17	14	16	16	23	33	6.6	6.1	6.6
20	7.6	8.7	10	19	*12	16	16	23	30	6.6	6.1	6.6
21	*7.6	8.7	10	20	12	16	16	*23	28	6.6	6.1	6.6
22	7.6	8.7	10	*20	12	16	16	24	26	*6.6	6.1	6.6
23	7.6	8.1	9.4	19	12	17	16	25	24	6.6	6.1	6.6
24	7.6	7.6	8.7	19	12	17	*17	28	*23	6.1	6.1	*6.6
25	7.6	7.6	8.7	19	11	17	17	30	20	6.1	*6.1	6.6
26	7.6	7.6	8.7	19	11	*16	19	32	19	6.1	6.1	6.6
27	7.6	7.6	8.7	17	12	15	20	34	18	6.1	6.1	6.6
28	7.6	7.6	8.7	15	14	16	20	32	17	6.6	6.6	6.6
29	7.6	7.1	8.7	16	-	17	20	34	17	6.1	6.6	6.6
30	7.6	7.1	8.7	17	-	17	20	34	17	6.1	6.6	6.6
31	7.6	-	8.7	17	-	17	-	34	-	6.1	6.6	-
Total	235.6	249.7	266.6	465.8	423	480	552	754	1,129	267.9	193.1	194.0
Mean	7.60	8.32	8.60	15.0	15.1	15.5	18.4	24.3	37.6	8.64	6.23	6.47
Ac-ft	467	495	529	924	839	952	1,090	1,500	2,240	531	383	385

Calendar year 1952: Max 876 Min 6.1 Mean 88.8 Ac-ft 64,460
Water year 1952-53: Max 56 Min 6.1 Mean 14.3 Ac-ft 10,340

Peak discharge (base, 35 cfs).--June 7 (1 to 5 p.m.) 57 cfs (2.15 ft).
* Discharge measurement made on this day.

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 right bank 0.6 mile upstream from Humboldt County Recreation Park and 7 miles northeast of Paradise Valley.

Drainage area.--172 sq mi.

Records available.--October 1921 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 4,700 ft (from extension of river-profile map). Prior to Oct. 28, 1938, at site 100 ft upstream at different datum. Oct. 28, 1938, to Feb. 25, 1943, at site 90 ft downstream at datum 0.53 ft lower.

Average discharge.--31 years (1921-26, 1927-53), 30.1 cfs.

Extremes.--Maximum discharge during year, 174 cfs May 29 (gage height, 2.81 ft); minimum, 4.9 cfs Aug. 10, Sept. 11-13.
1921-53: Maximum discharge, 9,000 cfs Jan. 21, 1943 (gage height, 11.1 ft, datum then in use), by slope-area determination of peak flow; minimum, 1.8 cfs Feb. 6, 1945.

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

Rating tables, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to June 5				June 6 to Sept. 30			
1.5	6.3	2.3	70	1.3	3.0	1.9	40
1.8	19	2.6	118	1.4	5.9	2.2	77
2.0	35	2.9	178	1.6	15	2.6	153

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.9		8.5	10	15	15	34	47	153	32	5.6	5.9
2	7.2		9.1	11	15	14	31	43	153	30	5.6	5.9
3	7.2		9.1	10	15	15	33	41	143	27	5.6	5.6
4	7.2		7.8	9.4	17	15	36	41	139	25	5.6	5.6
5	7.2		9.1	9.1	18	15	37	42	137	24	5.9	5.2
		a8.5										
6	7.2		9.8	10	22	15	39	43	131	22	5.6	5.2
7	7.2		11	11	25	15	34	46	149	20	5.6	5.2
8	7.2		10	15	21	17	31	49	142	18	5.2	5.2
9	7.2		9.1	42	12	18	28	50	131	17	5.2	5.2
10	7.5		11	30	17	20	27	49	123	16	4.9	5.2
11	7.5		11	21	19	20	25	45	121	14	5.2	4.9
12	7.5		11	18	19	20	25	43	121	14	5.2	4.9
13	7.5		10	22	17	18	23	41	119	13	5.2	4.9
14	7.5		10	18	18	16	22	41	111	12	5.6	5.2
15	7.8	a9	10	16	16	18	20	42	102	12	5.6	5.2
16	7.8		10	16	16	17	22	46	104	10	5.2	5.6
17	8.2		*10	17	16	17	22	50	98	10	5.2	5.2
18	8.2		10	64	15	18	22	51	90	9.5	5.2	5.2
19	8.2	*9.1	10	46	10	18	24	62	85	9.1	5.2	5.2
20	8.2	8.8	11	40	*16	17	27	95	76	8.6	5.2	5.2
21	*8.2	8.5	8.5	30	13	18	33	*106	69	8.2	5.2	5.2
22	8.2	6.9	9.4	*21	13	18	45	101	64	*8.2	5.2	5.2
23	8.2	7.5	8.2	20	12	18	53	98	61	7.4	5.2	5.6
24	8.2	7.8	6.9	20	13	22	*53	93	*55	7.0	5.2	*5.2
25	8.2	7.8	8.5	19	14	26	52	90	49	7.0	*4.9	5.2
26	8.2	7.5	12	16	14	*29	53	87	47	6.6	5.2	5.2
27		7.8	11	14	14	31	58	87	43	6.6	5.2	5.2
28		7.8	11	17	15	35	66	87	39	6.3	5.2	5.2
29	a8.2	7.2	11	16	-	33	56	147	38	6.3	5.2	5.6
30		7.6	11	15	-	32	51	145	34	5.9	5.6	5.6
31		-	10	15	-	33	-	149	-	5.9	5.9	-
Total	240.6	251.5	305.0	638.5	447	633	1,082	2,157	2,927	418.6	165.6	158.9
Mean	7.76	8.38	9.84	20.6	16.0	20.4	36.1	69.6	97.6	13.5	5.34	5.30
Ac-ft	477	499	605	1,270	887	1,260	2,150	4,280	5,810	830	328	315

Calendar year 1952: Max 626 Min 6.3 Mean 88.1 Ac-ft 63,920
Water year 1952-53: Max 153 Min 4.9 Mean 25.8 Ac-ft 18,710

Peak discharge (base, 100 cfs).--May 29 (3:30 to 5:30 a.m.) 174 cfs (2.81 ft).
* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of records for nearby streams.

Humboldt River near Rose Creek, Nev.

Location.--Lat 40°52', long. 118°00', in NW¼ sec. 36, T. 35 N., R. 35 E., on right bank 5½ miles southwest of Rose Creek and 15½ miles southwest of Winnemucca.

Records available.--April 1948 to September 1953.

Gage.--Water-stage recorder.

Average discharge.--5 years, 315 cfs.

Extremes.--Maximum discharge during year, 644 cfs Mar. 27 (gage height, 4.18 ft); minimum, 32 cfs Sept. 29, 30.
1948-53: Maximum discharge, 5,810 cfs May 8, 1952 (gage height, 11.41 ft); minimum, 6.5 cfs Sept. 2, 1949.

Remarks.--Records good except those for periods of ice effect, which are fair. The flow during March and April was materially affected by release from Gum Boot Lake on the Little Humboldt River. This water was impounded during the 1952 water year runoff by sand dunes which had cut off the natural drainage of the Little Humboldt River into the Humboldt River. The channel was opened when the irrigation supply became low, releasing approximately 15,000 acre-ft to the river proper. Many diversions above station for irrigation.

Rating tables, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 25 to Mar. 21)

Oct. 1 to June 18				June 19 to Sept. 30			
1.6	51	2.9	276	1.2	30	2.5	207
1.9	84	3.5	433	1.5	57	3.0	322
2.3	150	4.2	641	1.9	107	3.6	484

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	72	53	b74	120	242	210	444	99	96	393	199	55
2	69	53	80	122	242	210	436	92	101	420	183	53
3	68	54	b78	127	231	206	413	88	102	420	171	47
4	66	56	b78	130	208	204	386	80	107	439	162	41
5	64	57	b79	132	202	206	386	78	116	453	159	39
6	63	58	b80	132	220	187	402	76	148	456	149	44
7	62	58	e6	134	244	173	354	78	143	481	141	44
8	61	59	88	139	244	157	312	80	143	467	130	42
9	60	60	92	143	235	152	302	79	136	442	126	42
10	59	61	90	145	235	255	288	79	130	425	117	41
11	58	62	92	145	233	242	271	83	130	439	113	40
12	57	64	93	145	233	238	258	88	139	450	97	38
13	56	67	94	156	240	233	240	88	179	*453	106	41
14	56	71	98	152	242	214	225	87	167	442	104	45
15	56	74	99	150	242	208	212	90	117	425	97	51
16	56	74	*99	148	223	231	204	90	112	414	88	47
17	56	74	98	154	193	269	195	75	118	404	84	41
18	56	74	99	161	212	330	181	59	160	401	81	38
19	56	*74	105	165	210	381	160	68	197	385	78	37
20	55	75	112	171	b214	439	154	*75	213	371	76	38
21	*55	76	113	179	b212	519	154	78	207	361	73	36
22	55	79	113	183	b204	570	148	72	*213	348	68	36
23	54	b77	b112	183	202	591	*104	*75	218	317	65	36
24	54	b75	b109	187	b202	*579	88	76	199	302	65	*37
25	54	b74	b111	197	202	585	84	74	207	292	64	36
26	54	b72	112	210	*202	619	83	88	226	283	60	36
27	53	b70	115	220	208	632	84	99	335	271	*60	35
28	53	b70	115	*229	208	594	129	105	470	262	58	33
29	52	b72	117	229	-	540	134	118	431	250	57	32
30	52	b74	118	231	-	499	115	137	412	239	56	32
31	53	-	122	242	-	481	-	134	-	213	56	-
Total	1,795	2,017	3,071	5,161	6,185	10,934	6,946	2,688	5,674	11,718	3,143	1,213
Mean	57.9	67.2	99.1	166	221	353	232	86.7	189	378	101	40.4
Ac-ft	3,560	4,000	6,090	10,240	12,270	21,690	13,780	5,330	11,250	23,240	6,230	2,410

Calendar year 1952: Max 5,790 Min 52 Mean 744 Ac-ft 540,400
Water year 1952-53: Max 632 Min 32 Mean 166 Ac-ft 120,100

* 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 NE¼ 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 1953.

Gage.--Water-stage recorder. Altitude of gage is 4,170 ft (from topographic map).

Extremes.--Maximum discharge during year, 110 cfs Jan. 30 (gage height, 3.63 ft); no flow June 14, 15, June 17 to Sept. 30.
1946-53: Maximum discharge, 117 cfs Apr. 25, 1952 (gage height, 3.69 ft); no flow for long periods.

Remarks.--Records good except those for periods of ice effect, which are fair. This canal diverts water from Humboldt River in NW¼ sec. 29, T. 33 N., R. 35 E., for storage in Taylor-Pitt Reservoir near Humboldt. 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.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.9	0	2.0	14
1.0	.2	2.3	23
1.1	1.0	2.7	41
1.3	2.8	3.1	67
1.5	4.8	3.6	111
1.7	7.6		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.3	33	b58	69	108	76	59	1.5	0.8			
2	19	34	b62	69	101	75	58	1.5	.9			
3	5.0	34	b64	69	98	75	58	1.4	.6			
4	3.3	35	b65	71	97	74	56	1.4	.3			
5	3.0	37		73	96	73	56	1.3	.3			
6	19	*39		80	94	73	56	*1.4	.3			
7	31	40		78	97	71	*56	1.4	.5			
8	*33	40		79	97	70	54	1.4	.5			
9	33	42	b66	81	83	64	45	1.4	.3			
10	34	43		82	81	66	10	1.0	*.2			
11	33	44	(*)	83	80	79	4.6	.9	.2	(*)		
12	33	46		85	*80	80	4.0	.7	.2			
13	32	48	66	87	80	*79	3.8	.7	.1	(*)		
14	32	51	66	88	81	79	3.5	.7	0			
15	32	54	69	*88	81	76	3.2	.8	0		(*)	
16	32	56	74	86	81	75	3.1	.8	.1			
17	32	56	75	87	78	78	2.9	.6	0			(*)
18	32	56	74	88	76	82	2.7	.5	0			
19	32	57	73	89	b72	86	2.4	.5	0			
20	33	58	77	91	b76	63	2.2	.5	0			
21	33	57	78	93	77	60	2.1	.5	0			
22	33	54	78	94	77	64	1.9	.5	0			
23	33	b53	b77	96	74	66	1.8	.4	0			
24	33	b52	b76	96	b70	66	1.8	.4	0			
25	33	b51	b75	97	b73	65	1.7	.5	0			
26	32	b50	b74	99	73	64	1.7	.5	0			
27	33	b50	b73	102	73	64	1.8	.5	0			
28	33	b50	b72	104	75	64	1.8	.5	0			
29	33	b51	b71	107	-	64	1.7	.8	0			
30	32	b54	b71	109	-	61	1.6	.8	0			
31	33	-	70	106	-	59	-	.7	-			-
Total	867.6	1,425	2,166	2,726	2,329	2,191	558.3	26.5	5.3	0	0	0
Mean	28.0	47.5	69.9	87.9	83.2	70.7	18.6	0.85	0.18	0	0	0
Ac-ft	1,720	2,830	4,300	5,410	4,620	4,350	1,110	53	11	0	0	0

Calendar year 1952: Max 78 Min 0 Mean 12.4 Ac-ft 8,980
Water year 1952-53: Max 109 Min 0 Mean 33.7 Ac-ft 24,400

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

Humboldt River near Imlay, Nev.

Location.--Lat 40°41'30", long. 118°12'10", in SE¼ 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 1953.

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.

Average discharge.--14 years, 171 cfs.

Extremes.--Maximum discharge during year, 538 cfs Mar. 28 (gage height, 4.90 ft); minimum, 11 cfs Nov. 22.
1935-41, 1945-53: Maximum discharge, 6,080 cfs May 9, 1952 (gage height, 12.15 ft); no flow at times in several 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. Flow during March and April materially affected by release from Gum Boot Lake on the Little Humboldt River drainage. This lake was formed during 1952 water year, when runoff was impounded by sand dunes which cut off the natural drainage. When irrigation supply became short, the natural drainage was opened, releasing approximately 15,000 acre-ft to the Humboldt River proper. Flow also affected by many other diversions above station for irrigation.

Rating table, water year 1952-53, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.0	10	3.0	212
1.2	21	4.0	369
1.6	51	5.0	561
2.2	109		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	39	14	21	38	132	119	418	109	140	373	202	48
2	45	14	23	38	139	117	385	97	119	360	187	47
3	61	14	25	37	142	116	374	86	108	382	173	46
4	59	14	27	39	134	110	355	84	106	391	142	45
5	57	14	29	42	120	108	332	77	106	405	117	42
6	32	*14	30	42	112	108	330	*80	112	412	121	39
7	26	14	31	43	118	96	342	68	133	414	117	38
8	*25	14	32	41	138	89	*300	67	125	432	111	40
9	23	14	33	41	158	71	276	70	133	419	106	37
10	22	14	35	42	152	66	303	69	*132	*398	100	35
11	20	14	*34	46	148	134	290	73	125	392	95	34
12	20	14	29	46	*147	138	274	74	124	410	91	34
13	18	15	27	47	147	*136	260	75	127	425	83	34
14	18	15	27	51	152	131	242	75	158	432	80	33
15	18	15	27	*53	153	114	228	80	173	434	*80	32
16	17	15	26	52	153	107	215	81	134	416	70	32
17	17	15	23	53	143	124	206	84	118	401	66	*32
18	16	16	23	57	112	162	197	75	107	391	63	31
19	16	16	23	59	118	223	160	68	110	389	59	29
20	15	16	25	62	131	281	147	68	145	373	57	29
21	15	17	28	63	125	325	138	73	162	357	55	28
22	15	18	29	67	128	394	138	67	166	345	54	27
23	14	16	29	71	118	448	134	64	176	332	53	27
24	14	15	28	73	109	482	107	63	184	308	66	27
25	14	14	32	75	114	484	86	67	177	292	63	27
26	14	14	32	78	110	*496	68	73	183	282	57	28
27	14	13	32	85	110	522	71	83	197	270	57	29
28	14	13	33	94	113	534	73	101	289	260	55	29
29	14	16	33	101	-	516	106	113	403	248	51	29
30	14	20	37	110	-	465	118	110	387	238	51	29
31	14	-	38	119	-	434	-	145	-	222	51	-
Total	720	447	900	1,865	3,676	7,650	6,673	2,519	4,859	11,203	2,731	1,017
Mean	23.2	14.9	29.0	60.2	131	247	222	81.3	162	361	88.1	33.9
Ac-ft	1,430	887	1,790	3,700	7,290	15,170	13,240	5,000	9,640	22,220	5,420	2,020

Calendar year 1952: Max 6,020 Min 13 Mean 713 Ac-ft 517,900
Water year 1952-53: Max 534 Min 13 Mean 121 Ac-ft 87,810

* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 23 to Dec. 9.

Rye Patch Reservoir near Rye Patch, Nev.

Location.--Lat 40°28'15", long. 118°18'20", in NE¼ sec. 18, T. 30 N., R. 33 E., at control works at left end of Rye Patch Dam and 2 miles northwest of Rye Patch.

Drainage area.--13,700 sq mi, approximately.

Records available.--February 1936 to September 1953.

Gage.--Mercury indicating gage. Datum of gage is at mean sea level (Southern Pacific Railroad datum).

Extremes.--Maximum contents during year, 152,500 acre-ft Apr. 19, 20 (elevation, 4,130.45 ft); minimum, 83,160 acre-ft Sept. 30 (elevation, 4,122.55 ft).
1936-53: Maximum contents, 196,900 acre-ft Apr. 9, 1946 (elevation, 4,134.62 ft); minimum since operation began, 1,760 acre-ft Oct. 16, 1937.

Remarks.--Reservoir is formed by earth-fill, rock-faced dam; storage began Feb. 20, 1936. Capacity, 179,100 acre-ft between elevations 4,072.5 ft (sill of trash-rack structure) and 4,133.0 ft (top of spillway gates). Dead storage negligible. Elevation of spillway (gate 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.

Contents, in acre-feet, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	146,000	138,700	132,000	134,400	137,200	143,600	150,500	145,500	136,800	127,400	114,300	97,480
2	148,000	138,200	132,000	134,400	137,200	143,600	151,000	145,000	137,700	127,400	113,400	97,080
3	148,000	138,200	132,000	134,400	137,700	143,600	151,000	148,000	138,200	127,400	113,000	96,670
4	146,000	138,200	132,000	134,900	137,700	143,600	151,000	145,000	137,700	127,400	112,100	96,670
5	145,500	137,700	132,000	134,900	138,200	143,600	151,000	144,500	137,200	127,400	111,200	96,270
6	145,500	137,700	132,000	134,900	138,700	143,600	151,000	144,000	136,800	127,400	110,800	95,860
7	145,500	137,200	132,000	134,900	139,200	143,600	150,500	143,600	136,300	126,900	110,400	95,460
8	145,000	137,200	132,000	135,300	139,600	143,600	150,500	143,100	136,800	126,900	110,000	94,650
9	145,000	136,800	132,000	135,300	139,600	143,600	151,000	143,100	136,800	126,900	109,500	93,850
10	145,000	136,300	132,500	135,300	140,100	143,600	151,000	142,600	136,800	126,400	109,100	93,080
11	145,000	135,800	132,500	135,300	140,100	143,600	151,000	142,100	136,300	126,400	109,100	92,690
12	144,500	135,300	132,500	135,300	140,600	143,600	151,000	142,100	135,800	126,000	108,300	91,920
13	144,500	134,900	132,500	135,800	140,600	143,600	151,000	141,600	135,300	125,500	107,800	91,530
14	144,000	134,400	132,500	135,800	140,600	143,600	151,500	141,100	134,900	125,100	107,400	90,750
15	144,000	134,400	132,500	135,800	141,100	143,100	151,500	141,100	135,300	124,600	107,000	90,360
16	143,100	134,400	133,000	135,800	141,100	143,100	152,000	141,600	134,900	124,200	106,600	89,590
17	142,600	133,900	133,000	135,800	142,100	142,600	152,000	141,600	134,400	123,700	106,100	88,820
18	141,600	133,900	133,000	135,800	142,100	142,600	152,000	141,100	133,900	123,200	105,500	88,430
19	141,100	133,900	133,000	135,800	142,100	142,100	152,500	140,600	133,500	122,300	104,500	87,650
20	140,600	133,900	133,000	136,300	142,600	142,100	152,500	140,100	132,500	121,900	103,600	87,260
21	140,100	133,500	133,500	136,300	142,600	143,100	152,000	139,600	131,800	121,000	103,200	86,490
22	139,600	133,500	133,500	136,300	142,600	144,000	151,500	139,200	132,500	120,000	102,300	86,120
23	140,100	133,000	133,500	136,300	143,100	144,000	151,000	138,700	130,100	119,600	101,500	85,750
24	140,100	133,000	133,500	136,800	143,100	144,500	150,500	138,200	129,700	119,200	100,700	85,380
25	140,100	132,500	133,500	136,800	143,100	145,000	150,000	137,700	129,200	118,300	100,300	85,010
26	140,100	132,500	133,500	136,800	143,100	145,500	149,500	137,200	128,700	117,400	100,300	84,640
27	140,100	132,000	133,500	136,800	143,100	146,000	148,500	137,200	128,300	116,500	100,300	84,270
28	139,800	132,000	133,500	136,800	143,100	147,000	147,500	136,800	127,800	116,100	99,510	83,900
29	139,200	132,000	133,500	137,200	-	147,900	147,000	136,800	127,400	115,600	98,700	83,530
30	139,200	132,000	133,900	137,200	-	149,000	146,000	136,300	127,400	115,200	98,290	83,160
31	138,700	-	133,900	137,200	-	150,000	-	135,800	-	114,800	97,890	-

Monthly elevation and contents, water year October 1952 to September 1953

Date	Elevation (feet)	Contents (acre-feet)	Change in contents during month (acre-feet)
Sept. 30	4,129.80	146,000	-
Oct. 31	4,129.05	138,700	-7,300
Nov. 30	4,128.35	132,000	-6,700
Dec. 31	4,128.55	133,900	+1,900
Calendar year 1952	-	-	+46,640
Jan. 31	4,128.90	137,200	+3,300
Feb. 28	4,129.50	143,100	+5,900
Mar. 31	4,130.20	150,000	+6,900
Apr. 30	4,129.80	146,000	-4,000
May 31	4,128.75	135,800	-10,200
June 30	4,127.85	127,400	-8,400
July 31	4,126.45	114,800	-12,600
Aug. 31	4,124.45	97,890	-16,910
Sept. 30	4,122.55	83,160	-14,730
Water year 1952-53	-	-	-62,840

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, and September 1924 to September 1932 (fragmentary), October 1935 to September 1941, October 1943 to September 1953. 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.--39 years (1899-1909, 1910-16, 1917-22, 1930-32, 1935-41, 1943-53), 211 cfs.

Extremes.--Maximum discharge during year, 595 cfs Apr. 27 (gage height, 3.81 ft); minimum, 2.2 cfs Feb. 23 and Mar. 1.
1896-1922, 1924-32, 1935-41, 1943-53: Maximum discharge, 4,720 cfs May 11, 12, 1952 (gage height, 10.26 ft); practically no flow at times during most years.

Remarks.--Records good. Flow completely regulated by Rye Patch Reservoir (see preceding page) and slightly regulated by Humboldt (Pitt-Taylor) Reservoirs. Many diversions above station for irrigation.

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

0.8	2.5	1.6	72
.9	4.4	2.0	142
1.0	8.0	2.5	247
1.1	13	3.0	369
1.3	31	4.0	662

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	105	78	4.8	4.4	3.8	64	210	450	223	289	382	221
2	74	78	4.8	4.2	3.8	90	210	411	221	301	353	214
3	44	64	4.4	4.2	3.8	125	221	387	216	287	323	229
4	44	47	4.4	4.2	4.0	114	240	382	245	282	282	261
5	44	*56	4.2	4.2	4.0	96	265	361	280	287	258	263
6	44	90	4.2	4.2	4.0	95	282	*338	304	356	245	263
7	44	118	4.4	4.2	4.0	95	292	333	247	425	252	280
8	*58	118	4.0	4.0	3.6	96	*280	328	227	444	225	287
9	74	118	4.2	4.0	3.1	54	265	299	*256	*458	195	280
10	80	125	*4.0	4.0	3.4	54	254	284	287	472	190	277
11	90	140	4.0	4.0	*3.4	93	245	275	301	484	199	277
12	91	140	4.0	4.0	3.3	118	245	306	336	490	236	277
13	102	140	4.0	4.0	3.4	*136	268	326	351	490	270	282
14	119	116	4.2	*3.8	3.4	138	287	336	343	490	277	289
15	123	86	4.2	3.8	3.3	138	287	340	340	487	*275	304
16	132	86	4.2	3.8	3.3	162	296	333	406	495	263	304
17	132	88	4.2	3.8	3.3	172	299	320	422	522	282	*292
18	132	68	4.2	3.8	3.3	174	289	343	425	528	294	261
19	132	56	4.2	3.8	3.1	160	320	353	425	552	294	252
20	114	56	4.2	3.8	3.1	132	340	351	430	552	287	252
21	69	68	4.4	4.0	3.1	109	356	351	428	552	275	232
22	46	85	4.4	4.0	2.9	109	387	320	379	561	263	199
23	44	85	4.4	4.0	2.5	109	464	338	326	570	234	180
24	44	86	4.4	4.0	2.5	119	487	351	311	564	227	170
25	44	86	4.4	3.8	2.7	123	495	361	316	543	212	156
26	44	88	4.4	3.8	2.7	123	540	340	316	519	205	148
27	57	88	4.4	4.0	2.5	123	561	318	316	504	197	132
28	78	88	4.4	3.8	2.5	123	543	308	318	484	197	132
29	78	55	4.4	3.8	-	146	481	316	313	461	207	132
30	78	5.1	4.4	3.8	-	164	458	304	292	422	232	142
31	78	-	4.4	3.8	-	199	-	245	-	398	236	-
Total	2,438	2,602.1	133.2	123.0	91.8	3,753	10,167	10,408	9,600	14,269	7,867	6,988
Mean	78.6	86.7	4.30	4.0	3.28	121	339	336	320	460	254	233
Ac-ft	4,840	5,160	264	244	182	7,440	20,170	20,640	19,040	28,300	15,600	13,860

Calendar year 1952: Max 4,680 Min 2.0 Mean 571 Ac-ft 414,500
Water year 1952-53: Max 570 Min 2.5 Mean 188 Ac-ft 135,700

* Discharge measurement made on this day.

Humboldt River near Lovelock, Nev.

Location.--Lat 40°03', long. 118°28', in NE¼ 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 1953.

Gage.--Water-stage recorder. Altitude of gage is 3,900 ft (from topographic map). Prior to June 14, 1950, staff gage at site 600 ft downstream at different datum. June 14, 1950, to Nov. 13, 1951, water-stage recorder at site 300 ft upstream at same datum.

Extremes.--Maximum discharge during year, 109 cfs Mar. 19 (gage height, 2.69 ft); minimum observed, 1.2 cfs Sept. 17.
1912-27, 1950-53: Maximum discharge, 3,540 cfs May 19, 1952 (gage height, 9.36 ft); minimum, 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 irrigation in Lovelock Valley.

Rating tables, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Mar. 19				Mar. 20 to Sept. 30			
1.3	0.8	1.9	27	1.0	1.1	1.5	14
1.4	2.0	2.3	61	1.1	2.2	1.9	36
1.6	7.6			1.2	4.0	2.2	60
				1.3	6.6		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.3	6.4	39	14	12	9.5	17	10	22	28	8.4	33
2	7.6	13	21	14	12	7.6	4.3	21	17	15	16	45
3	16	15	58	13	12	6.8	9.8	21	13	10	27	46
4	25	26	47	13	11	8.9	14	14	4.3	9.4	28	7.0
5	20	*28	45	13	12	33	27	14	4.5	8.7	34	32
6	20	16	47	13	12	30	24	*19	5.3	5.8	29	15
7	20	2.0	39	13	11	26	22	34	19	5.3	30	14
8	*20	2.3	33	13	13	29	*28	37	19	8.4	19	15
9	9.6	2.7	15	13	10	19	32	29	*11	*11	16	12
10	2.5	2.5	*10	13	13	16	29	25	6.6	13	11	9.4
11	3.0	2.5	8.9	13	*11	32	23	24	3.3	10	13	10
12	11	2.3	9.5	13	10	13	8.7	9.2	2.4	9.8	5.8	24
13	17	2.2	13	13	9.5	4.4	8.4	1.9	2.3	27	10	19
14	4.9	12	15	*13	11	*26	9.4	18	3.0	19	20	18
15	3.4	36	15	13	11	28	5.0	26	8.4	8.0	*15	24
16	3.0	27	15	13	12	31	3.1	27	14	5.6	12	26
17	1.6	25	14	13	30	26	2.6	29	32	4.5	14	*9.8
18	2.3	24	13	13	33	20	20	34	28	5.6	12	3.6
19	6.0	23	13	13	29	56	26	28	12	8.2	6.6	10
20	18	20	13	13	26	46	6.3	26	5.0	17	8.4	10
21	31	19	12	13	19	53	11	24	12	10	7.3	13
22	31	17	12	13	18	41	6.1	13	17	14	12	27
23	20	20	11	13	19	32	5.8	3.8	23	4.8	11	31
24	16	18	15	13	17	34	11	3.8	14	12	3.0	31
25	5.3	16	15	12	9.5	29	12	4.5	7.3	14	5.0	40
26	4.5	32	13	12	10	27	10	6.6	5.3	13	19	29
27	3.5	b33	13	11	11	18	21	18	4.5	38	19	37
28	3.0	b35	14	13	11	15	22	5.6	4.5	15	18	43
29	2.8	b34	14	13	-	28	23	8.7	4.5	27	10	18
30	2.8	b33	15	12	-	29	15	9.0	9.8	18	6.6	9.8
31	2.8	-	15	12	-	21	-	24	-	15	22	-
Total	338.9	544.9	632.4	399	415.0	795.2	456.5	568.1	334.0	410.1	468.1	661.6
Mean	10.9	18.2	20.4	12.9	14.8	25.7	15.2	18.3	11.1	13.2	15.1	22.1
Ac-ft	672	1,080	1,250	791	823	1,580	905	1,130	662	813	928	1,310

Calendar year 1952: Max 3,520 Min 1.6 Mean 412 Ac-ft 298,800
Water year 1952-53: Max 58 Min 1.6 Mean 16.5 Ac-ft 11,940

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

Pyramid Lake near Nixon, Nev.

Location.--Lat 39°50'30", long. 119°28'00", in SE¼SE¼ sec. 24, T. 23 N., R. 22 E., at southwest corner of concrete bridge No. 296 B, 150 ft southwest of milepost 297, 6 miles west of Nixon, and 11.5 miles south along Southern Pacific Railroad from station at Sutcliffe.
Records available.--1867 to 1925 (occasional elevations in some years), June 1926 to September 1953.
Gage.--Benchmark N21 of U. S. Coast and Geodetic Survey at elevation of 3,940.04 ft above mean sea level, datum of 1929. Prior to January 1934, elevations were determined from benchmark No. 1 of General Land Office, referred to general adjustment of 1912 (to convert these records to the datum of 1929, add 0.56 ft).
Extremes.--1926-53: Maximum elevation observed, 3,848.5 ft, June 1926; minimum observed, 3,801.43 ft Nov. 15, 1950.

Elevation, in feet, water year October 1952 to September 1953

Oct. 6	3,809.34	June 22	3,809.77
Dec. 16	3,808.60	July 17	3,810.00
Feb. 6	3,808.91	Aug. 25	3,809.22
Mar. 14	3,809.00	Sept.19	3,808.87
May 16	3,809.06		

Truckee River near Truckee, Calif.

Location.--Lat 39°17'30:, long. 120°12'30", in SW¼NE¼ sec. 28, T. 17 N., R. 16 E., on left bank 1.4 miles upstream from Donner Creek and 2.5 miles southwest of Truckee.
Drainage area.--548 sq mi.
Records available.--December 1944 to September 1953.
Gage.--Water-stage recorder. Altitude of gage is 5,920 ft (from topographic map).
Average discharge.--8 years (1945-53), 373 cfs.
Extremes.--Maximum discharge during year, 1,990 cfs June 23 (gage height, 4.40 ft); minimum, 35 cfs Mar. 3.
1944-53: Maximum discharge, 6,480 cfs Nov. 20, 1950 (gage height 7.62 ft), from rating curve extended above 2,300 cfs on basis of slope-area determination of peak flow; minimum, 11 cfs Jan. 27, 1948.
Remarks.--Records good except those for periods of doubtful or no gage-height record, which are fair. Flow regulated by Lake Tahoe Reservoir (operating capacity, about 730,000 acre-ft).

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	325	381	381	398	1,070	58	152	251	414	824	224	214
2	325	376	386	398	1,080	56	172	232	558	727	218	210
3	325	376	386	392	1,090	54	194	239	584	d545	214	210
4	325	376	381	*392	1,090	52	218	271	642	d610	214	210
5	325	376	381	392	1,090	54	239	293	805	d688	214	210
6	349	381	381	398	1,090	59	235	316	898	d779	*210	210
7	399	381	403	398	1,090	67	200	306	539	d805	210	210
8	394	381	398	431	1,090	80	166	263	933	d649	210	210
9	379	381	392	734	1,090	91	143	235	905	d503	207	207
10	354	381	392	656	1,080	94	135	224	996	d584	204	207
11	354	376	392	515	1,070	82	116	221	*1,140	*515	204	207
12	354	392	386	503	1,070	76	108	228	1,150	479	210	207
13	359	392	386	515	1,060	71	106	251	1,160	578	218	207
14	374	398	386	479	1,060	65	108	259	1,180	727	218	*207
15	374	386	386	455	a1,060	63	121	243	1,210	656	214	207
16	374	381	386	449	a1,060	63	140	247	1,210	642	214	207
17	374	376	386	479	a980	61	137	275	1,280	688	214	204
18	374	376	381	668	a650	61	135	330	1,360	682	214	204
19	374	376	386	772	a350	71	154	*515	1,410	668	218	204
20	*374	376	386	746	a190	65	224	437	1,350	649	218	204
21	376	376	392	675	a180	61	293	376	1,540	642	218	200
22	376	376	392	746	a180	61	*365	302	1,700	552	214	200
23	376	376	386	779	a180	67	437	288	1,780	398	214	200
24	376	*376	386	831	a130	87	425	255	1,880	298	214	200
25	376	376	386	824	a50	108	431	228	1,840	259	214	235
26	376	376	392	*818	*48	121	437	207	1,400	251	210	293
27	376	376	386	870	50	*129	805	197	1,080	247	210	288
28	376	376	386	954	56	135	515	204	905	243	210	288
29	381	376	392	996	-	121	370	218	898	239	214	288
30	381	376	398	1,030	-	129	298	247	884	235	224	293
31	381	-	398	1,070	-	140	-	306	-	232	218	-
Total	11,336	11,379	12,036	19,763	20,284	2,502	7,579	8,464	33,631	16,594	6,627	6,641
Mean	366	379	388	638	724	80.7	253	273	1,121	535	214	221
Ac-ft	22,480	22,570	23,870	39,200	40,230	4,960	15,030	16,790	66,710	32,910	13,140	13,170

Calendar year 1952: Max 2,450 Min 38 Mean 879 Ac-ft 637,800
Water year 1952-53: Max 1,880 Min 48 Mean 430 Ac-ft 311,100

* Discharge measurement made on this day.
a No gage-height record; discharge estimated on basis of unpublished record for Truckee River at Tahoe City and weather records.
d Doubtful gage-height record; discharge computed from reconstructed gage-height graph based on recorded graph and unpublished record for Truckee River at Tahoe City.

Prosser Creek near Boca, Calif.

Location.--Lat 39°22', 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 1953.

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.

Extremes.--Maximum discharge during year, 903 cfs Apr. 27 (gage height, 4.72 ft); maximum gage height, 5.71 ft Jan. 9 (backwater from ice); minimum discharge, 9.2 cfs Nov. 9, result of freezeup.
1951-53: Maximum discharge, 1,130 cfs May 2, 1952 (gage height, 5.14 ft); maximum gage height, that of Jan. 9, 1953; minimum discharge, 8.0 cfs Sept. 14, 16, 1951.
Maximum discharge known, 4,320 cfs Nov. 20, 1950 (gage height, 9.0 ft, present datum, from floodmarks), from rating curve extended above 1,030 cfs on basis of slope-area determination of peak flow.

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

Rating tables, water year 1952-53, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 9				Jan. 10 to Sept. 30			
1.1	13	2.0	81	1.1	11	3.0	257
1.4	29	2.5	155	1.3	21	3.5	393
1.7	51			1.7	48	4.0	573
				2.1	90	4.5	792
				2.5	152		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*16	15			50	48	177	210	230	189	41	20
2	15	15			50	43	199	193	204	185	39	17
3	15	16			52	42	223	202	219	185	36	17
4	15	*15			54	42	236	223	239	177	34	16
5	15	15	18	18	*56	42	257	246	*236	169	32	15
6	15	15			62	48	246	287	280	169	31	15
7	15	15			69	56	191	262	295	169	30	14
8	15	15	19	25	66	66	162	223	236	167	28	14
9	15	15	*20	150	55	78	134	195	223	162	26	14
10	15	15	25	459	54	84	128	185	199	160	26	13
11	15	15	32	252	53	70	110	187	204	*141	25	13
12	15	20	30	*181	51	65	103	*195	227	158	24	13
13	15	32	28	177	48	59	103	212	214	160	25	14
14	15	30	27	126	47	56	109	227	227	148	25	14
15	15	26	26	118	45	56	123	219	252	138	23	14
16	15	26	25	103	43	56	143	236	280	129	22	13
17	15	20	24	89	42	57	138	243	313	126	21	13
18	16	20	22	88	40	57	126	272	360	115	20	12
19	17	19	20	100	38	50	143	409	399	108	19	12
20	16			114	38	49	*175	335	335	98	17	12
21	16			100	39	53	239	295	282	86	*18	12
22	15			99	40	65	298	227	267	80	17	*12
23	15			91	40	75	349	227	264	74	17	12
24	15			78	40	*99	341	206	260	69	16	•12
25	15	18	18	70	36	116	327	179	239	63	15	12
26	15			67	*39	129	335	160	*227	57	15	12
27	15			54	42	143	604	154	208	53	15	13
28	15			53	48	148	369	171	206	52	15	12
29	15			52	-	147	274	185	197	50	16	12
30	15			51	-	152	241	185	193	47	25	12
31	15	-		50	-	169	-	232	-	44	23	-
Total	471	557	640	2,873	1,337	2,420	6,603	6,962	7,515	3,728	736	406
Mean	15.2	18.6	20.6	92.7	47.8	78.1	220	225	250	120	23.7	13.5
Ac-ft	934	1,100	1,270	5,700	2,650	4,800	13,100	13,810	14,910	7,390	1,460	805

Calendar year 1952: Max 929 Min 15 Mean 158 Ac-ft 115,000
Water year 1952-53: Max 604 Min 12 Mean 93.8 Ac-ft 67,930

Peak discharge (base, 300 cfs).--Jan. 10 (1 a.m.) 557 cfs (3.96 ft); Apr. 27 (3:30 p.m.) 903 cfs (4.72 ft); May 19 (8:30 p.m.) 518 cfs (3.86 ft); June 7 (1 a.m.) 366 cfs (3.41 ft); June 19 (2 a.m.) 463 cfs (3.71 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 17 to Jan. 9, Jan. 15, 16, 22, Jan. 28 to Feb. 4, Feb. 9-27.

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 1953.

Gage.--Water-stage recorder. Altitude of gage is 6,330 ft (from topographic map).

Average discharge.--6 years (1947-53), 99.9 cfs.

Extremes.--Maximum discharge during year, 895 cfs Apr. 27 (gage height, 4.91 ft); maximum gage height, 5.00 ft June 19; minimum discharge, 3.0 cfs Sept. 9, 10, 11.
1946-53: 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 for periods of ice effect, which are fair. One transmountain diversion to Sierra Valley above station.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Apr. 5 to May 7)

1.0	2.0	2.5	114
1.1	4.0	3.0	195
1.3	9.9	3.5	300
1.5	18	4.0	440
1.7	31	5.0	880
2.0	57		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*6.0	7.7	8.5	13	46	34	79	208	273	266	20	5.7
2	6.0	7.7	8.5	13	*46	36	90	188	253	266	18	4.8
3	5.7	7.4	8.5	13	44	33	104	199	307	264	16	4.0
4	5.7	*7.4	9.0	13	44	*32	121	238	362	247	15	3.8
5	5.7	7.4	9.0	13	42	33	154	277	*377	236	13	3.6
6	5.4	7.7	10	13	43	37	161	322	486	232	*13	3.6
7	5.7	7.4	10	13	45	38	145	324	566	230	12	3.4
8	5.7	7.4	14	*20	46	37	131	251	431	214	11	3.4
9	5.7	7.1	18	46	46	37	121	210	401	203	10	3.2
10	6.0	7.1	19	117	44	41	99	201	342	186	9.6	3.0
11	6.2	7.4	24	130	42	48	93	206	350	166	9.3	3.4
12	6.2	9.6	23	108	41	41	86	*228	401	182	8.7	4.8
13	6.2	14	22	101	40	40	81	270	386	177	9.0	6.5
14	8.4	11	21	85	39	39	82	291	410	157	8.7	*6.2
15	8.7	9.9	20	80	38	39	88	262	458	136	7.4	7.7
16	9.0	9.6	*19	72	38	37	101	266	500	120	6.8	7.7
17	9.0	9.0	18	68	38	35	99	288	558	115	6.2	7.7
18	9.0	9.0	17	72	37	33	96	371	690	113	6.0	7.4
19	9.9	9.0	16	77	37	30	108	656	795	97	5.4	7.1
20	9.3	9.0	16	77	36	32	*137	614	685	82	5.1	7.1
21	9.0	9.0	16	75	34	33	203	486	550	*89	5.1	7.1
22	8.7	9.0	16	72	32	46	291	327	500	60	4.8	7.1
23	8.7	9.0	15	68	31	52	383	300	478	52	4.6	6.8
24	8.4	9.0	15	65	31	50	407	249	454	46	4.3	7.4
25	8.4	8.5	14	60	31	59	444	214	398	44	4.0	8.0
26	8.4	8.5	14	55	31	65	510	184	*353	40	4.3	7.7
27	7.7	8.5	13	50	31	*71	760	166	317	35	3.8	8.0
28	7.7	8.5	13	50	31	71	482	173	307	31	3.8	7.7
29	7.7	8.5	13	50	-	67	307	181	295	30	4.3	7.7
30	7.7	8.5	13	50	-	70	249	199	277	26	6.8	7.4
31	7.7	-	13	48	-	74	-	279	-	21	8.4	-
Total	229.6	258.8	465.5	1,787	1,084	1,390	6,212	8,628	12,960	4,143	264.4	179.0
Mean	7.41	8.63	15.0	57.6	38.7	44.8	207	278	432	134	8.53	5.97
Ac-ft	455	513	923	3,540	2,150	2,760	12,320	17,110	25,710	8,220	524	355

Calendar year 1952: Max 948 Min 4.6 Mean 160 Ac-ft 116,300
Water year 1952-53: Max 795 Min 3.0 Mean 103 Ac-ft 74,580

Peak discharge (base, 500 cfs).--Apr. 27 (2 p.m.) 895 cfs (4.91 ft); May 19 (7:30 p.m.) 830 cfs (4.83 ft); June 6 (12 p.m.) 690 cfs (4.62 ft); June 19 (10:30 p.m.) 880 cfs (5.00 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 17 to Dec. 11, Dec. 18 to Jan. 6, Jan. 15 to to Mar. 5, Mar. 13-21.

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 1953.

Gage.--Water-stage recorder. Altitude of gage is 4,440 ft (from topographic map). July 1906 to September 1919, staff gage at site 1 mile upstream at different datum.

Average discharge.--19 years, 863 cfs.

Extremes.--Maximum discharge during year, 3,430 cfs June 20 (gage height, 6.52 ft); minimum, 197 cfs Aug. 25.
1906-19, 1947-53: Maximum discharge, 19,900 cfs Nov. 21, 1950, from rating curve extended above 14,000 cfs; maximum gage height, 13.83 ft Nov. 21, 1950; minimum discharge observed, 18 cfs July 2, 3, 1912.

Remarks.--Records excellent. Flow regulated by Lake Tahoe, Boca Reservoir, Donner and Independence Lakes, and by several powerplants. Many diversions above station.

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

2.3	175	5.0	1,780
2.6	280	6.0	2,810
3.0	450	7.0	4,010
4.0	1,010		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	284	308	490	590	1,450	510	480	1,160	1,240	1,400	276	344
2	232	300	490	590	1,470	490	510	1,080	1,380	1,310	269	269
3	224	296	475	580	1,480	480	575	1,040	1,360	1,140	280	250
4	221	324	475	575	1,550	490	640	1,060	1,430	1,040	288	228
5	224	320	485	570	1,560	510	705	1,120	1,600	1,070	265	228
6	228	344	475	*590	1,570	510	790	1,250	1,740	1,100	272	246
7	228	344	630	595	1,600	515	630	1,310	1,210	1,220	280	253
8	242	344	525	688	1,600	530	515	1,410	1,310	1,120	280	250
9	242	356	645	1,310	1,550	545	446	1,310	1,540	868	276	246
10	232	356	688	*1,600	1,590	560	485	1,240	1,420	922	269	246
11	228	356	694	1,140	1,600	540	432	1,210	1,580	802	276	250
12	221	352	683	947	1,580	515	400	1,170	1,620	732	246	250
13	207	410	666	1,020	1,580	530	392	1,210	1,530	760	300	257
14	218	510	661	874	1,570	540	340	1,300	1,570	947	344	246
15	235	480	650	772	1,560	535	324	1,370	1,660	982	312	257
16	242	485	645	727	1,560	540	316	1,340	1,810	754	300	269
17	250	465	640	710	1,540	540	296	1,340	2,000	838	258	257
18	276	480	630	808	1,190	535	257	1,440	2,560	*802	238	261
19	292	485	635	1,020	910	530	280	*1,760	*3,160	772	261	253
20	*280	475	640	1,190	666	525	276	1,890	3,090	727	242	250
21	288	475	615	975	580	530	436	1,710	2,890	666	228	246
22	292	465	625	1,090	570	510	*615	1,480	2,940	645	232	*250
23	296	460	600	1,070	575	505	856	1,400	2,910	505	246	250
24	300	*470	595	1,150	560	*530	904	1,330	3,050	356	253	242
25	308	470	605	1,140	535	535	844	1,240	2,780	265	*232	265
26	300	460	605	*1,140	505	500	922	1,090	2,360	246	214	261
27	304	455	590	1,180	*500	515	1,810	922	1,930	269	224	261
28	300	455	585	1,320	500	515	1,670	838	1,560	269	221	253
29	296	460	590	1,360	-	455	1,040	940	1,540	284	246	253
30	296	460	630	1,380	-	446	1,000	916	1,430	261	312	261
31	300	-	610	1,440	-	460	-	1,030	-	265	378	-
Total	8,086	12,420	18,572	30,141	33,501	15,971	19,186	38,906	58,220	23,337	8,298	7,652
Mean	261	414	599	972	1,196	515	640	1,255	1,941	753	268	255
Ac-ft	16,040	24,630	36,840	59,780	66,450	31,680	38,050	77,170	115,500	46,290	16,460	15,180

Calendar year 1952: Max 7,630 Min 178 Mean 1,691 Ac-ft 1,227,000
Water year 1952-53: Max 3,160 Min 207 Mean 751 Ac-ft 544,100

Peak discharge (base, 1,600 cfs).--Jan. 10 (4:30 a.m.) 1,800 cfs (5.02 ft); Feb. 10 (9:30 p.m.) 1,650 cfs (4.84 ft); Apr. 27 (7:30 p.m.) 3,410 cfs (6.50 ft); May 20 (2 a.m.) 2,280 cfs (5.52 ft); June 6 (9:30 p.m.) 1,850 cfs (5.08 ft); June 20 (3 a.m.) 3,430 cfs (6.52 ft).
* Discharge measurement made on this day.

Franktown Creek at Franktown, Nev.

Location.--Lat 39°16', long. 119°51', in sec. 9, T. 16 N., R. 19 E., on right bank half a mile west of Franktown and 3 miles upstream from Washoe Lake.

Drainage area.--14 sq mi, approximately.

Records available.--April 1948 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 5,200 ft (from topographic map). Gage destroyed by flood Dec. 3 or 4, 1950; replaced May 21, 1951, at same site at different datum.

Extremes.--Maximum discharge during year, 188 cfs Apr. 27 (gage height, 3.33 ft), from rating curve extended above 85 cfs by logarithmic plotting; minimum, 0.5 cfs Mar. 19, result of freezeup.
1948-53: Maximum discharge, 800 cfs Dec. 3 or 4, 1950 (gage height unknown), by slope-area determination of peak flow; minimum, 0.2 cfs Feb. 7, 8, 9, 1949 (flow dammed by snowslide).

Remarks.--Records good except those above 85 cfs and those for period of doubtful gage-height record, which are fair. Small diversions on tributaries above station for irrigation. During summer, flow sometimes supplemented by diversion from North Creek, a tributary to Lake Tahoe.

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

1.3	2.0	2.1	38
1.4	4.0	2.5	70
1.5	7.0	3.0	130
1.8	20		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10	8.2	7.4	11	d20	14	22	31	35	18	9.4	10
2	8.6	8.2	6.4	12	d20	14	26	28	27	17	9.4	10
3	*8.2	7.8	9.4	11	d20	12	29	27	24	18	9.4	9.4
4	8.2	8.6	9.8	11	d20	13	31	28	24	18	9.0	9.4
5	8.2	8.2	9.8	11	d19	13	34	28	24	18	9.0	9.4
6	8.2	8.2	11	7.8	d19	14	29	27	42	16	8.6	8.6
7	8.2	*8.2	*11	7.8	d18	14	22	26	29	16	8.6	8.2
8	8.2	7.8	9.4	13	d18	14	21	24	26	15	8.6	7.4
9	8.2	7.0	11	*43	d17	15	19	24	26	14	7.4	6.7
10	8.6	7.4	13	55	d17	13	*18	22	26	*14	6.7	6.1
11	8.6	7.0	14	37	*16	14	18	22	26	14	6.4	*5.8
12	8.6	11	14	36	16	11	18	22	24	14	6.4	6.4
13	8.6	12	13	37	15	13	18	23	24	15	7.4	6.1
14	8.2	11	13	29	16	12	20	24	24	15	*7.8	6.1
15	8.2	11	13	29	16	*13	22	34	24	14	6.7	6.1
16	8.2	10	13	27	16	13	22	26	27	14	6.7	5.5
17	8.2	9.0	13	27	16	13	24	26	29	15	7.0	5.5
18	9.4	9.8	12	32	13	13	22	29	29	16	6.1	5.2
19	9.4	10	12	32	13	6.1	23	39	*29	15	5.5	4.9
20	9.4	10	12	31	13	9.0	29	31	29	14	5.5	4.6
21	9.0	9.8	11	29	15	13	34	34	26	13	5.8	4.0
22	8.6	7.4	11	d26	14	16	44	*28	24	12	5.8	4.3
23	8.6	7.8	11	d24	13	17	48	32	24	12	5.5	4.9
24	8.6	7.4	11	d22	14	20	42	30	24	11	6.4	4.6
25	8.6	8.2	11	d21	14	19	42	26	21	11	6.1	3.6
26	8.2	7.8	11	d21	14	19	40	24	19	11	6.1	3.6
27	8.2	8.2	11	d21	14	20	87	22	18	11	5.8	3.6
28	7.8	8.2	11	d20	15	20	50	34	18	11	6.4	3.6
29	7.8	7.4	11	d20	-	17	37	33	18	11	8.2	3.4
30	7.8	7.8	13	d20	-	18	37	26	18	11	13	3.4
31	7.8	-	12	d20	-	20	-	27	-	10	11	-
Total	262.4	260.4	351.2	743.6	451	452.1	928	857	758	434	231.7	180.4
Mean	8.46	8.68	11.3	24.0	16.1	14.6	30.9	27.6	25.3	14.0	7.47	6.01
Ac-ft	520	516	697	1,470	895	897	1,840	1,700	1,500	861	460	358

Calendar year 1952: Max 119 Min 6.4 Mean 27.7 Ac-ft 20,090
Water year 1952-53: Max 87 Min 3.4 Mean 16.2 Ac-ft 11,710

Peak discharge (base, 50 cfs).--Jan. 9 (10:30 p.m.) 76 cfs (2.49 ft); Apr. 27 (11:30 a.m.) 188 cfs (3.33 ft); May 15 (12:30 p.m.) 55 cfs (2.32 ft); May 28 (2 p.m.) 52 cfs (2.29 ft); June 6 (7:30 a.m.) 67 cfs (2.47 ft).

* Discharge measurement made on this day.

d Doubtful gage-height record; discharge estimated on basis of recorder graph, weather records, and records for nearby streams.

McDermitt Creek near McDermitt, Nev.

Location.--Lat 41°58', long. 117°50', in SE¼SE¼ sec. 8, T. 47 N., R. 37 E., on left bank 6½ miles southwest of McDermitt.

Records available.--October 1948 to September 1953.

Gage.--Water-stage recorder and concrete control.

Average discharge.--5 years, 37.8 cfs.

Extremes.--Maximum discharge during year, 694 cfs June 2 (gage height, 5.05 ft); minimum, 1.9 cfs Sept. 12.
1948-53: Maximum discharge, 1,240 cfs Apr. 26, 1952 (gage height, 6.83 ft), from rating curve extended above 600 cfs; minimum, 0.5 cfs Jan. 13, 1949.

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

Revisions (water years).--WSP 1214: 1949-50(P).

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used July 21 to Aug. 27)

1.6	1.5	2.2	25
1.7	2.4	2.5	59
1.8	3.8	3.0	151
1.9	6.1	3.6	292
2.0	10		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.0	5.5	5.8	8.6	26	23	56	60	93	26	7.4	4.3
2	5.0	5.5	6.8	9.1	26	21	54	52	277	24	7.1	3.8
3	4.8	4.5	7.1	b9.0	26	25	55	49	132	23	6.8	3.2
4	4.8	4.8	7.4	b8.5	43	24	55	47	128	23	7.1	3.0
5	4.5	6.3	b7.5	b8.5	39	23	56	46	122	20	6.8	3.0
6	4.8	6.1	8.6	b8.5	49	24	58	45	112	20	5.8	2.8
7	4.8	6.1	9.1	b9.0	104	26	50	45	143	26	5.5	2.5
8	4.8	5.5	b8.0	9.1	79	30	52	49	151	23	5.2	2.4
9	4.8	b5.0	b8.0	b12	46	28	46	47	130	23	4.8	2.3
10	5.0	4.5	8.2	b13	49	35	46	44	120	23	4.5	2.2
11	5.2	6.4	9.5	b13	49	35	38	43	108	20	4.5	2.1
12	5.0	6.8		b13	43	36	36	39	99	19	4.3	2.1
13	5.2	6.8		b14	36	32	35	40	93	19	4.0	2.1
14	5.2	7.8		b14	36	27	33	40	84	17	4.0	2.4
15	5.2	8.2	b9.0	b13	30	34	30	46	81	16	3.8	2.6
16	5.0	b6.4	(*)	b13	31	31	31	55	81	15	3.6	2.8
17	5.2			21	30	27	31	55	74	14	3.5	2.5
18	5.2		8.2	187	23	30	30	60	68	14	3.3	2.5
19	5.2	b6.0	9.1	203	16	29	27	92	64	12	3.2	2.6
20	5.2		9.5	128	31	27	26	164	59	14	3.0	2.4
21	5.2			91		29	31	118	55	15	2.5	2.2
22	*5.2			58		29	36	*100	50	*15	2.4	2.3
23	5.2		b8	*47		25	43	99	*46	13	2.3	*2.4
24	5.2			43	*b21	40	*45	86	43	12	2.4	2.5
25	5.2			38		*51	46	84	42	10	2.3	2.5
26	5.2	b5.0	7.8	34		50	47	81	40	9.5	2.3	2.6
27	5.2		8.6	29	23	54	68	76	42	12	*2.6	2.5
28	5.2		b9	33	26	62	95	70	34	11	2.9	2.5
29	5.5	(*)	9.1	30	-	56	76	84	32	9.1	3.0	2.6
30	5.5		9.5	28	-	54	70	74	29	8.2	3.5	2.6
31	5.5	-	b8.5	27	-	56	-	82	-	7.4	4.0	-
Total	158.0	171.2	259.3	1,172.3	987	1,073	1,402	2,072	2,632	513.2	128.4	78.3
Mean	5.10	5.71	8.36	37.8	35.2	34.6	46.7	66.8	87.7	16.6	4.14	2.81
Ac-ft	313	340	514	2,330	1,960	2,130	2,780	4,110	5,220	1,020	255	155

Calendar year 1952: Max 992 Min 3.8 Mean 93.7 Ac-ft 68,030
Water year 1952-53: Max 277 Min 2.1 Mean 29.2 Ac-ft 21,130

Peak discharge (base, 150 cfs).--Jan. 18 (10 p.m.) 563 cfs (4.59 ft); Feb. 6 (12 p.m.) 158 cfs (2.99 ft); May 20 (5 a.m.) 198 cfs (3.18 ft); June 2 (2:30 a.m.) 694 cfs (5.05 ft); June 8 (1 a.m.) 173 cfs (3.07 ft).

* Discharge measurement made on this day.
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 1953.

Gage.--Water-stage recorder.

Average discharge.--5 years, 32.4 cfs.

Extremes.--Maximum discharge during year, 190 cfs May 29 (gage height, 4.88 ft); minimum, 0.6 cfs Sept. 11, 21.
1948-53: Maximum discharge, 940 cfs Apr. 6, 1952 (gage height, 6.63 ft); minimum, 0.4 cfs Aug. 18, 1951.

Remarks.--Records good.

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)

2.5	0	3.2	22
2.6	.9	3.5	43
2.7	2.7	4.0	84
2.8	5.1	4.4	130
3.0	12		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.1	4.1	3.2	6.0	11	11	24	19	83	11	1.4	2.0
2	4.1	3.9	3.7	6.0	11	9.4	22	18	95	11	1.4	1.6
3	3.9	3.4	3.7	6.0	11	11	22	17	75	9.8	1.6	1.3
4	3.9	3.4	3.9	5.4	15	11	21	16	81	9.4	2.0	1.3
5	3.9	3.7	3.9	5.7	14	11	22	15	93	8.2	1.6	1.1
6	3.9	4.1	4.4	5.7	44	12	22	14	74	7.9	1.6	.9
7	3.9	4.1	5.1	6.0	56	16	20	15	104	7.0	1.6	.9
8	3.9	4.1	4.9	6.3	37	22	20	16	87	6.3	1.6	.9
9	3.9	3.4	4.4	7.3	25	23	19	17	76	6.0	1.3	.9
10	3.9	3.4	5.1	7.6	21	21	19	16	68	5.4	1.3	.9
11	3.9	4.4	5.7	7.6	19	18	18	15	61	5.1	1.3	.8
12	3.9	4.4	5.7	7.3	19	17	16	15	55	5.4	1.4	.8
13	4.1	4.9	5.4	7.9	17	16	15	15	49	5.7	1.4	.9
14	4.1	6.0	5.7	8.2	17	14	14	15	45	4.9	1.4	.9
15	4.1	5.7	5.7	7.3	16	14	13	16	42	4.6	1.4	1.1
16	3.9	5.7	*6.0	7.3	14	14	13	17	44	4.1	1.3	.9
17	3.9	4.6	6.0	7.9	14	14	15	19	38	3.9	1.1	.9
18	3.7	4.6	6.0	22	13	14	15	17	32	3.7	1.3	.9
19	3.9	4.6	6.0	38	9.8	14	13	82	30	3.4	1.3	.8
20	3.9	4.6	6.0	49	11	13	13	90	26	3.2	1.1	.6
21	4.1	4.4	4.6	31	9.8	13	14	72	24	3.2	1.1	.6
22	*4.1	3.2	5.4	22	11	13	16	*64	21	*2.7	1.3	.9
23	4.1	2.9	4.4	*19	11	13	17	59	*19	2.3	1.1	*1.3
24	4.1	2.9	3.4	18	*10	36	*18	54	18	2.2	1.4	1.4
25	4.1	2.9	4.1	17	10	*40	17	49	17	2.3	1.4	1.3
26	4.1	2.7	5.1	16	11	34	17	52	18	2.2	*1.6	1.1
27	4.4	2.9	5.7	12	11	34	19	53	16	2.0	1.4	1.1
28	4.4	2.7	5.7	14	11	30	22	57	15	1.8	1.6	1.3
29	4.4	*2.7	6.0	14	-	28	21	122	14	1.8	1.8	1.3
30	4.1	2.7	6.0	13	-	26	20	93	12	1.6	2.2	1.3
31	4.6	-	5.7	12	-	25	-	86	-	1.6	2.2	-
Total	125.3	117.1	156.6	412.5	479.6	587.4	537	1,225	1,432	149.7	45.5	32.4
Mean	4.04	3.90	5.05	13.3	17.1	18.9	17.9	39.5	47.7	4.83	1.47	1.08
Ac-ft	249	232	311	818	951	1,170	1,070	2,430	2,840	297	90	64

Calendar year 1952: Max 704 Min 2.7 Mean 74.5 Ac-ft 54,044
Water year 1952-53: Max 122 Min 0.8 Mean 14.5 Ac-ft 10,520

Peak discharge (base, 100 cfs).--Feb. 6 (6:30 p.m.) 118 cfs (4.31 ft); May 19 (7:15 p.m.) 164 cfs (4.72 ft); May 29 (2:30 p.m.) 190 cfs (4.88 ft); June 2 (10 a.m.) 136 cfs (4.52 ft); June 5 (1:30 a.m.) 143 cfs (4.57 ft); June 7 (1 a.m.) 131 cfs (4.47 ft).
* Discharge measurement made on this day.

Quinn River near McDermitt, Nev.

Location.--Lat 41°37', long. 117°48', in SW¼ sec. 15, T. 45 N., R. 37 E., on left bank 1½ miles upstream from Flat Creek and 15½ miles south of McDermitt.

Records available.--October 1948 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 4,240 ft (from river-profile map).

Average discharge.--5 years, 44.4 cfs.

Extremes.--Maximum discharge during year, 163 cfs June 8 (gage height, 2.97 ft); minimum, 0.6 cfs several days in August and September.
1948-53: Maximum discharge, 1,580 cfs Apr. 27, 1952 (gage height, 8.39 ft); minimum, 0.2 cfs Dec. 22, 1948.

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

Rating tables, water year 1952-53, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Jan. 31 to May 19)

Oct. 1 to May 19				May 20 to Sept. 30			
0.9	1.4	1.5	19	0.3	0.2	1.3	24
1.0	2.9	1.7	32	.4	.8	1.6	41
1.1	4.8	1.9	47	.5	1.6	2.0	67
1.3	10			.6	2.7	2.5	107
				.8	6.1	3.0	167
				1.0	11		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.7	2.3	2.2	3.1	8.9		5.0	6.8	136	6.8	0.9	0.8
2	1.7	2.3	2.3	3.1	8.6		4.8	9.5	139	5.9	.9	.8
3	1.7	2.3	2.2	3.3	8.3		4.8	9.2	139	5.2	.9	.7
4	1.7	2.2	2.2	3.3	8.3		5.3	8.6	140	4.4	.9	.7
5	1.7	2.0	2.2	3.1	9.2	10	5.8	7.3	149	4.0	.9	.7
6	1.7	2.0	2.3	3.3	13		5.8	5.8	152	3.6	.9	.6
7	1.7	2.0	2.6	3.3	21		6.0	5.3	153	3.4	.8	.6
8	1.9	2.0	2.5	3.3	39	11	7.3	5.3	161	3.6	.8	.6
9	1.9	2.0	2.3	3.3	41	11	8.6	5.6	153	3.6	.8	.7
10	1.9	2.0	2.6	3.5	30	12	9.9	5.8	146	3.4	.8	.7
11	1.9	1.9	2.6	3.8	22	11	9.9	5.8	134	3.4	.8	.7
12	1.9	1.9	2.6	4.0	18	11	9.5	5.6	117	3.3	.8	.8
13	1.9	2.3	2.8	4.2	16	11	8.9	5.0	101	3.2	.8	.8
14	1.9	2.8	2.8	4.4	14	11	8.3	4.6	91	3.0	.8	.8
15	1.9	2.5	3.1	4.2	13	11	7.6	5.8	81	2.7	.8	.8
16	1.9	2.2	*2.9	3.8	12	9.2	7.0	7.0	82	2.2	.8	1.0
17	1.9	2.0	2.9	4.2	11	7.3	7.3	8.9	77	2.0	.8	1.0
18	2.0	2.0	2.9	4.8		6.3	7.0	9.5	70	1.8	.7	1.0
19	2.0	2.0	3.1	4.8		5.6	6.8	16	61	1.8	.7	1.1
20	2.0	2.3	3.5	11		5.0	6.3	58	52	1.6	.7	1.0
21	2.0	2.3	3.3	20		4.8	5.8	74	44	1.4	.8	1.0
22	*2.0	2.2	3.3	19		4.4	5.3	*80	37	*1.3	.8	1.0
23	1.9	2.2	3.1	*16	10	4.2	4.6	83	*31	1.1	.8	*.9
24	2.0	2.2	3.1	16	(*)	4.2	*4.2	82	25	1.0	.8	.9
25	2.2	2.2	2.9	15		5.6	3.5	80	21	1.0	.8	.9
26	2.2	2.0	3.1	13		6.8	3.3	82	18	1.0	*.8	.9
27	2.2	2.2	3.1	10		6.0	3.8	83	15	1.0	.8	.9
28	2.2	2.2	3.1	8.6		5.8	4.2	80	13	1.0	.8	.9
29	2.2	*2.0	3.1	7.9	-	5.8	3.8	86	10	1.0	.8	.9
30	2.2	2.0	3.3	8.6	-	5.8	4.4	117	8.0	.9	.9	.9
31	2.2	-	3.1	8.9	-	5.3	-	136	-	.9	.8	-
Total	60.2	64.5	87.1	224.8	403.3	251.1	184.8	1,178.6	2,556.0	80.5	25.2	25.1
Mean	1.94	2.15	2.81	7.25	14.4	8.10	6.16	38.0	85.2	2.60	0.81	0.84
Ac-ft	119	128	173	446	800	498	367	2,340	5,070	160	50	50

Calendar year 1952: Max 1,530 Min 0.9 Mean 158 Ac-ft 114,400
Water year 1952-53: Max 161 Min 0.6 Mean 14.1 Ac-ft 10,200

Peak discharge (base, 100 cfs).--June 8 (11:45 a.m.) 163 cfs (2.97 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Feb. 10 to Mar. 9.

Susan River at Susanville, Calif.

Location.--Lat 40°25', long. 120°40', in NE¼ sec. 31, T. 30 N., R. 12 E., on left bank 0.5 mile west of Susanville and 1.1 miles upstream from Piute Creek.

Drainage area.--192 sq mi.

Records available.--June 1900 to December 1905 (gage heights only, 1902), March to May 1913, February 1917 to June 1921, October 1950 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 4,000 ft (from topographic map). 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.--6 years (1917-20, 1950-53), 86.3 cfs.

Extremes.--Maximum discharge during year, 2,590 cfs Jan. 9 (gage height, 5.50 ft), from rating curve extended above 850 cfs by logarithmic plotting; minimum, 6.5 cfs Sept. 11, 21, 22.
1900-1905, 1913, 1917-21, 1950-53: Maximum discharge, that of Jan. 9, 1953; minimum, 0.8 cfs Aug. 10, 1918.

Remarks.--Records good except those for periods of 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.

Rating tables, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 9				Jan. 9 to Sept. 30			
0.9	7.0	2.6	200	1.0	5.6	2.2	89
1.0	8.7	3.0	325	1.2	9.8	2.6	158
1.2	14	3.5	550	1.5	20	3.0	274
1.5	28	4.0	870	1.8	42	3.6	505
1.8	52	5.0	1,800				
2.2	108						

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*8.0	8.7	14	23	81	46	116	315	138	38	109	9.3
2	8.0	8.7	15	22	78	38	118	284	134	35	109	8.6
3	7.8	8.7	14	22	79	42	132	264	132	32	110	8.1
4	7.7	10	15	20	86	40	147	261	*131	30	110	7.6
5	7.5	11	15	20	86	42	163	264	132	28	109	7.4
6	7.7	11	15	22	100	46	168	271	168	25	108	7.4
7	7.8	11	22	22	114	49	140	268	204	*24	108	7.0
8	8.0	11	22	125	118	54	129	264	227	22	106	6.9
9	8.2	11	19	1,530	97	60	116	239	248	21	106	7.0
10	8.5	11	20	458	86	68	109	221	245	19	103	6.7
11	8.7	11	*29	227	82	60	99	206	221	19	102	6.5
12	9.8	13	27	455	73	*59	93	198	198	18	103	6.7
13	9.2	18	24	474	69	53	93	190	179	*17	104	6.7
14	9.6	28	22	261	68	52	93	190	132	17	104	6.9
15	9.4	20	20	166	65	53	*97	195	127	17	103	6.9
16	8.7	16	19	131	60	53	106	236	125	52	100	6.9
17	9.4	14	18	122	60	49	112	227	122	*96	99	6.9
18	10	*16	18	305	56	50	109	227	120	99	97	6.9
19	12	16	18	383	48	59	122	301	118	100	93	6.7
20	11	16	18	504	46	60	134	392	114	103	31	6.7
21	11	13	b18	330	45	61	171	452	108	108	16	6.5
22	10	b13	b18	221	46	74	215	474	102	108	12	6.5
23	9.2	b13	b18	171	42	92	242	446	95	108	10	6.9
24	8.9	b13	b18	140	43	109	224	412	89	110	9.8	7.0
25	8.9	b13	b18	125	40	110	215	330	81	112	9.1	6.9
26	8.9	b13	18	110	40	106	218	248	76	110	8.6	6.9
27	8.5	b13	18	92	44	110	*431	192	67	109	8.8	6.9
28	8.5	b13	17	*92	48	114	*422	151	55	110	8.8	6.9
29	8.5	b12	17	88	-	110	376	143	46	112	9.1	6.9
30	8.7	12	28	82	-	109	344	134	40	112	11	6.9
31	8.7	-	26	81	-	115	-	134	-	109	10	-
Total	276.8	398.1	598	6,824	1,900	2,143	5,254	8,131	3,974	2,020	2,127.2	212.1
Mean	8.93	13.3	19.3	220	67.9	69.1	175	262	132	65.2	68.6	7.07
Ac-ft	549	790	1,190	13,540	3,770	4,250	10,420	16,130	7,880	4,010	4,220	421

Calendar year 1952: Max 1,420 Min 6.9 Mean 195 Ac-ft 141,300
Water year 1952-53: Max 1,530 Min 6.5 Mean 92.8 Ac-ft 67,170

Peak discharge (base, 300 cfs).--Jan. 9 (5 a.m.) 2,590 cfs (5.50 ft); Jan. 12 (8 p.m.) 942 cfs (4.24 ft); Jan. 20 (4:30 p.m.) 660 cfs (3.85 ft); Apr. 27 (5 p.m.) 642 cfs (3.87 ft); May 21 (5 p.m.) 496 cfs (3.58 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Willow Creek near Susanville, Calif.

Location.--Lat 40°29', long. 120°32', in NW¼ sec. 5, T. 30 N., R. 13 E., on left bank 4 miles upstream from Peters Valley Creek and 8 miles northeast of Susanville.

Records available.--October 1950 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 4,500 ft (from base map).

Extremes.--Maximum discharge during year, 410 cfs Jan. 9 (gage height, 4.58 ft); minimum daily, 11 cfs on many days during July to September.
1950-53: Maximum discharge, 626 cfs Apr. 6, 1952 (gage height, 5.32 ft), from rating curve extended above 420 cfs; minimum, 8.1 cfs Nov. 16, 1951.

Remarks.--Records good. Diversions for irrigation of about 5,200 acres above station.

Rating table, water year 1952-53 (gage height, in feet, and discharge, in cubic feet per second)
(Shifting-control method used Sept. 17-30)

2.1	11	3.2	109
2.2	13	3.6	180
2.4	22	4.0	266
2.6	35	4.5	390
2.9	67		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*16	22	28	37	47	20	12	14	18	12	11	12
2	16	23	28	37	44	19	12	14	19	12	11	12
3	16	23	29	35	43	21	12	14	*20	12	11	12
4	16	23	28	33	42	22	12	14	19	12	11	12
5	16	24	26	31	41	20	13	14	18	12	11	12
6	16	24	24	32	41	20	13	13	19	11	11	11
7	17	25	26	32	40	20	13	13	20	11	11	11
8	17	25	25	53	46	18	14	14	20	11	11	11
9	17	25	28	371	37	17	13	14	19	11	11	11
10	17	25	31	329	37	16	12	14	18	11	11	11
11	17	26	*37	240	36	*15	13	14	18	11	11	11
12	17	27	45	224	35	15	13	14	18	11	11	11
13	17	29	44	196	34	14	13	14	18	11	11	11
14	17	35	41	149	33	14	13	14	18	11	11	11
15	17	37	38	91	33	14	*13	14	17	11	11	12
16	17	33	36	80	32	14	13	14	17	11	11	12
17	17	32	36	80	32	14	13	14	16	*12	11	11
18	18	*32	34	76	31	14	13	15	16	12	11	11
19	18	31	33	94	28	15	13	15	15	12	11	11
20	18	31	30	109	28	16	13	17	14	12	11	11
21	18	31	29	98	29	17	13	19	14	12	11	11
22	19	30	29	90	30	17	12	20	14	12	11	11
23	19	28	27	79	26	15	12	19	14	11	11	12
24	19	27	26	70	28	14	12	18	14	11	11	12
25	20	28	27	55	28	13	12	18	14	11	11	12
26	20	28	27	62	28	12	12	17	14	11	11	12
27	20	28	23	32	26	12	12	17	14	11	11	12
28	20	27	22	*54	24	12	12	17	13	11	11	12
29	20	26	26	53	-	12	13	18	13	11	11	12
30	20	26	32	50	-	12	14	17	13	11	12	12
31	22	-	35	47	-	12	-	17	-	11	12	-
Total	554	831	950	3,019	959	486	380	480	494	352	343	345
Mean	17.9	27.7	30.6	97.4	34.2	15.7	12.7	15.5	16.5	11.4	11.1	11.5
Ac-ft	1,100	1,650	1,880	5,990	1,900	964	754	952	980	698	680	684

Calendar year 1952: Max 605 Min 11 Mean 50.8 Ac-ft 36,870
Water year 1952-53: Max 371 Min 11 Mean 25.2 Ac-ft 18,230

Peak discharge (base, 200 cfs).--Jan. 9 (5 p.m.) 410 cfs (4.58 ft).
* Discharge measurement made on this day.

GPO 870987

Pine Creek near Westwood, Calif.

Location.--Lat 40°35', long. 121°06', in SE¼ sec. 5, T. 31 N., R. 8 E., on right bank 1 mile southwest of Bogard Guard Station and 19 miles north of Westwood.

Drainage area.--22.6 sq mi.

Records available.--October 1950 to September 1953.

Gage.--Water-stage recorder and concrete control. Altitude of gage is 5,700 ft (from topographic map).

Extremes.--Maximum discharge during year, 98 cfs May 21 (gage height, 3.69 ft); minimum daily, 0.5 cfs Dec. 1-3.
1950-53: Maximum discharge, 154 cfs May 26, 1952 (gage height, 3.91 ft), from rating curve extended above 90 cfs; minimum daily, that of Dec. 1-3, 1952.

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

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

2.5	0.5	3.1	16
2.6	1.0	3.3	30
2.7	1.7	3.5	59
2.8	3.6	3.7	100
2.9	6.6		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*2.1	1.7	0.5	2.0	3.6	2.6	5.0	20	36	9.4	4.1	2.7
2	1.9	1.6	.5	2.0	3.6	2.5	5.3	18	30	8.9	4.1	2.5
3	1.9	1.5	.5	2.5	3.3	2.5	5.9	21	30	8.5	3.8	2.5
4	1.9	1.6	.6	3.0	3.3	2.5	7.0	25	*34	8.5	3.8	2.5
5	1.9	1.7	.7	3.0	3.3	2.5	8.1	30	35	8.1	3.8	2.5
6	1.9	1.7	.8	3.5	3.8	2.7	8.1	34	36	7.7	3.6	2.5
7	1.9	1.6	.8	4.0	4.7	2.9	7.0	31	43	7.3	3.6	2.3
8	1.9	1.6	.8	5.0	4.7	3.3	6.3	26	36	7.0	3.6	2.3
9	1.9	1.5	.8	4.1	4.0	3.8	5.3	23	30	7.0	3.6	2.1
10	1.9	1.6	.9	3.8	3.6	3.8	5.0	23	26	6.6	3.3	2.1
11	1.9	1.6	.9	3.6	3.4	3.6	4.1	25	26	6.6	3.1	2.3
12	1.8	1.9	1.0	3.6	3.3	3.1	4.1	28	27	6.3	3.1	2.1
13	1.8	2.7	.9	3.3	3.1	2.9	4.7	31	25	5.9	3.3	2.1
14	1.7	2.0	.9	2.9	3.1	2.8	*4.4	31	23	5.9	3.3	2.1
15	1.7	2.0	.9	2.7	3.0	2.7	5.3	33	23	5.9	3.1	2.3
16	1.7	1.9	.9	2.3	2.9	2.7	5.6	45	23	5.9	3.1	2.5
17	1.7	1.9	.9	1.7	2.8	2.7	5.6	45	21	*6.3	3.1	2.3
18	1.9	1.9	.9	2.7	2.7	2.7	5.6	45	21	6.6	2.9	2.1
19	2.1	1.9	.9	2.1	2.6	2.7	7.0	62	19	5.9	2.9	2.1
20	1.9	1.9	.9	a5.0	2.5	2.7	9.4	55	18	5.6	2.9	2.1
21	1.8	2.5	.8	a3.5	2.5	2.9	13	48	16	5.3	2.9	2.1
22	1.7	1.9	.8	a3.6	2.5	2.9	19	38	14	5.3	2.9	2.1
23	1.7	1.9	.8	a4.0	2.4	3.1	22	36	13	5.0	2.9	1.9
24	1.7	1.7	.8	a4.3	2.3	4.1	23	30	12	5.0	2.9	1.9
25	1.7	1.7	.8	a4.6	2.3	4.1	25	27	12	5.0	2.7	1.9
26	1.7	1.5	.8	a4.5	2.3	4.1	29	24	11	4.7	3.1	1.9
27	1.7	1.3	.8	a4.4	2.5	4.4	43	23	11	4.4	3.1	2.1
28	1.7	1.1	.8	a4.2	2.7	4.4	33	25	10	4.4	2.9	1.9
29	1.7	1.0	.9	*4.1	-	4.4	29	28	9.8	4.4	3.1	1.9
30	1.7	.9	.9	4.1	-	4.4	25	32	9.8	4.1	3.1	1.9
31	1.7	-	1.1	3.8	-	4.7	-	42	-	4.1	2.9	-
Total	56.2	51.3	25.3	107.9	86.8	101.2	379.8	1,004	680.6	191.6	100.6	65.6
Mean	1.81	1.71	0.82	3.48	3.10	3.26	12.7	32.4	22.7	6.18	3.25	2.19
Ac-ft	111	102	50	214	172	201	752	1,990	1,350	380	200	130

Calendar year 1952: Max 135 Min - Mean 13.6 Ac-ft 9,840
Water year 1952-53: Max 62 Min 0.5 Mean 7.81 Ac-ft 5,650

Peak discharge (base, 35 cfs).--Apr. 27 (5 p.m.) 48 cfs (3.44 ft); May 5 (8 p.m.) 45 cfs (3.42 ft); May 21 (1 p.m.) 98 cfs (3.69 ft); May 30 (10 p.m.) 48 cfs (3.44 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of recorded range in stage and records for Butt Creek above Almanor-Butt Creek tunnel near Prattville.

Note.--Stage-discharge relation affected by ice Nov. 14-17, Nov. 23 to Jan. 7, Feb. 9 to Mar. 1, Mar. 14-19 (no gage-height record Dec. 1-3, Dec. 15-28; discharge estimated on basis of weather records).

GPO 870 887

Twentymile Creek near Adel, Oreg.

Location.--Lat 42°04', long. 119°57', in NW¼ sec. 25, T. 40 S., R. 23 E., on left bank 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 1953.

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 1½ 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.--18 years (1910-15, 1918-19, 1940-44, 1945-53), 49.2 cfs.

Extremes.--Maximum discharge during year, 2,070 cfs Jan. 18 (gage height, 9.16 ft); minimum, 1.6 cfs Jan. 5 (gage height, 0.87 ft).
1910-16, 1917-19, 1921-22, 1940-53: Maximum discharge, 3,000 cfs Dec. 27, 1942 (gage height, 4.28 ft, site and datum then in use), from rating curve extended above 400 cfs by logarithmic plotting; minimum, 0.9 cfs Aug. 19, 23, 24, 1942.

Remarks.--Records good except those for periods of ice effect, which are poor. Diversions for irrigation of 240 acres above station.

Revisions (water years).--WSP 1090: 1945.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.9	2.0	2.0	100
1.0	4.8	3.0	250
1.2	14	5.0	650
1.5	36	8.0	1,600

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.8	5.6	6.1	10	30	13	47	68	97	54	9.6	5.6
2	4.8	5.6	6.5	11	32	15	43	59	142	58	9.0	5.2
3	4.8	5.2	b7	b9.5	86	14	47	56	120	53	9.0	4.8
4	4.8	5.6	6.1	b9	162	14	51	56	112	50	9.6	4.8
5	4.8	5.6	6.5	b8	66	14	57	64	104	47	9.6	4.5
6	4.8	5.6	7.7	b9	682	16	b60	*77	140	45	8.6	*4.2
7	4.8	5.6	8.2	11	280	20	b55	77	770	42	7.7	4.2
8	5.6	5.6	7.7	23	106	24	b50	74	*376	40	7.7	4.2
9	7.7	5.2	6.9	695	40	28	b45	81	180	36	7.3	4.2
10	6.5	5.2	8.6	732	34	29	b40	68	136	34	6.1	4.2
11	5.6	5.6	*11	360	32	22	b38	53	148	32	5.6	4.0
12	5.6	5.6	11	609	28	25	b35	48	152	31	4.5	4.0
13	5.2	7.3	9.6	502	27	22	b32	52	142	30	4.2	4.0
14	5.2	10	9.0	108	26	20	b30	62	139	30	4.2	3.7
15	5.2	7.7	9.0	53	22	19	b32	63	140	29	4.0	3.7
16	5.2	6.9	9.0	37	22	24	35	64	148	27	3.7	3.7
17	5.2	5.6	8.6	207	20	24	41	94	151	25	3.7	3.7
18	5.6	5.6	9.0	1,510	15	27	*38	114	151	24	3.7	3.7
19	6.5	5.6	9.0	655	b14	25	38	474	139	23	3.7	3.7
20	7.7	6.1	9.0	508	b12	18	37	565	121	22	3.7	3.7
21	6.5	6.5	b9	194	b12	18	51	229	116	21	3.7	3.7
22	6.1	b5	b9	115	b13	42	*59	*193	114	20	4.0	3.7
23	6.1	b4.5	b8	88	13	465	75	148	108	19	3.7	4.0
24	6.1	b4.5	b7	82	14	740	71	184	96	17	3.7	4.0
25	6.1	b4.5	b8	57	13	466	74	168	79	17	4.0	4.0
26	6.1	b4.5	b9	28	14	214	85	176	72	16	4.2	4.0
27	6.1	b5	8.6	25	*15	146	122	*109	70	*16	*4.8	4.2
28	5.6	b5	b8	25	18	*115	110	82	66	15	4.8	4.0
29	5.6	b6	9.6	24	-	70	86	157	63	11	6.5	4.2
30	6.1	b5.5	11	24	-	58	78	127	58	11	6.9	4.0
31	6.1	-	b9.5	24	-	52	-	102	-	9.6	6.1	-
Total	176.9	171.8	262.2	6,755.5	1,848	2,799	1,662	3,944	4,450	904.6	177.6	123.6
Mean	5.71	5.73	8.46	218	66.0	90.3	55.4	127	148	29.2	5.73	4.12
Ac-ft	351	341	520	13,400	3,670	5,550	3,300	7,820	8,830	1,790	352	245

Calendar year 1952: Max 1,740 Min 4.2 Mean 127 Ac-ft 92,200
Water year 1952-53: Max 1,510 Min 3.7 Mean 63.8 Ac-ft 46,170

Peak discharge (base, 400 cfs).--Jan. 9 (9 p.m.) 1,240 cfs (7.05 ft); Jan. 13 (1 a.m.) 1,150 cfs (6.79 ft); Jan. 18 (5 p.m.) 2,070 cfs (9.16 ft); Feb. 6 (8:30 a.m.) 910 cfs (6.00 ft); Mar. 23 (9:30 p.m.) 1,690 cfs (8.23 ft); May 19 (11 p.m.) 1,400 cfs (7.50 ft); June 7 (1 p.m.) 1,340 cfs (7.34 ft).

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

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 1953.

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 or staff gage at site 500 ft upstream at different datum.

Average discharge.--5 years (1912-14, 1950-53), 52.3 cfs.

Extremes.--Maximum discharge during year, 471 cfs May 20 (gage height, 3.76 ft); minimum, 3.7 cfs Nov. 9 (gage height, 0.48 ft).
1912-14, 1949-53: Maximum discharge, 660 cfs Apr. 28, 1952 (gage height, 4.24 ft); minimum, 2 cfs Sept. 17-23, 1913.

Remarks.--Records good except those for periods of ice effect, which are poor. Diversion for irrigation of about 1,200 acres above station.

Revisions.--WSP 410: Drainage area.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.5	4.0	2.0	102
.7	8.5	2.5	175
.9	15	3.0	270
1.2	30	3.5	390
1.5	50		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.5	6.8	5.4	b8	42	22	*91	161	138	34	8.0	7.8
2	6.0	6.5	6.8	8.5	41	b22	98	136	166	31	8.0	6.8
3	6.2	6.2	8.0	8.5	73	b22	117	133	139	29	7.8	6.2
4	6.0	6.8	6.2	8.5	91	b22	145	156	126	28	8.0	6.0
5	6.2	6.8	6.0	b8.5	79	20	170	180	115	25	8.0	5.8
8	6.0	7.0	6.8	8.8	120	*24	165	*197	160	*24	7.8	*5.8
7	6.2	7.0	11	8.2	134	32	112	186	224	22	7.8	5.8
8	6.4	6.8	16	11	136	45	103	172	213	20	7.5	5.6
9	6.5	6.5	14	82	100	58	88	156	173	19	7.5	5.6
10	6.8	7.0	13	83	107	75	77	147	147	16	7.2	5.6
11	6.5	7.5	11	68	87	53	65	114	138	17	7.0	5.4
12	6.5	9.1	b9.7	118	67	44	60	103	138	16	6.8	5.4
13	6.5	11	b9.1	168	50	37	60	110	163	15	6.8	5.4
14	6.5	9.4	b8.2	*88	44	36	54	130	126	14	7.0	5.4
15	6.5	7.5	b7.8	72	38	34	65	160	110	14	6.8	5.6
16	6.5	7.8	b7.2	60	37	34	81	134	101	13	6.5	5.6
17	6.5	b7.8	b7.2	38	32	33	92	133	92	13	6.5	5.6
18	6.8	b7.2	b7.0	87	32	33	83	132	84	13	6.2	5.6
19	7.5	b6.8	6.8	103	b35	27	106	335	77	12	6.2	5.8
20	7.5	b6.5	b7.0	104	b31	19	126	355	70	12	6.2	5.6
21	7.2	b6.5	b7.0	76	b25	21	197	295	66	11	6.2	5.8
22	7.2	b6.2	7.0	61	b24	24	238	278	60	11	6.2	6.0
23	7.0	b6.0	b6.5	55	b20	44	*280	250	55	10	6.2	6.2
24	7.0	b6.0	b6.0	54	b21	75	264	270	50	9.7	6.5	6.2
25	7.0	b5.8	b7	52	b20	92	262	240	48	9.4	7.0	6.2
26	7.0	b5.4	b7.5	b50	b18	96	288	206	45	9.4	6.8	6.0
27	6.8	5.6	8.2	b45	b20	112	330	*170	43	9.1	7.0	6.0
28	6.5	5.8	b8	b40	b21	117	320	153	40	8.5	7.0	6.0
29	6.5	5.8	b8	b38	-	88	240	172	37	8.5	*8.2	6.2
30	6.5	5.6	b8	37	-	82	189	150	35	8.2	8.8	6.0
31	6.8	-	b8	37	-	83	-	136	-	8.2	7.8	-
Total	205.6	206.7	255.4	1,686.0	1,545	1,526	4,566	5,650	3,179	490.0	221.3	177.0
Mean	6.63	6.89	8.24	54.4	55.2	49.2	152	182	106	15.8	7.14	5.90
Ac-ft	408	410	507	3,340	3,060	3,030	9,060	11,210	6,310	972	439	351

Calendar year 1952: Max 600 Min 5.0 Mean 64.2 Ac-ft 46,600
Water year 1952-53: Max 355 Min 5.4 Mean 54.0 Ac-ft 39,100

Peak discharge (base, 200 cfs).--Apr. 28 (1 a.m.) 390 cfs (3.50 ft); May 6 (2 to 3 a.m.) 236 cfs (2.86 ft); May 20 (1 a.m.) 471 cfs (3.76 ft); June 7 (12 m.) 254 cfs (2.94 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 6½ miles west of Adel.

Drainage area.--47 sq mi, approximately.

Records available.--March to May 1915, December 1922 to May 1923, December 1949 to September 1953.

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.

Extremes.--Maximum discharge during year, 436 cfs Mar. 23 (gage height, 2.79 ft), from rating curve extended above 160 cfs by logarithmic plotting; minimum, 2.2 cfs Dec. 24 (gage height, 0.53 ft).
1915, 1922-23, 1949-53: Maximum discharge, 866 cfs Apr. 5, 1952 (gage height, 3.58 ft), from rating curve extended above 160 cfs by logarithmic plotting; minimum, that of Dec. 24, 1952.

Remarks.--Records good 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 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to May 24				May 25 to Sept. 30			
0.6	3.5	1.2	40	0.6	4.5	1.0	20
.7	6.3	1.5	78	.7	6.8	1.2	37
.8	10	2.0	175	.8	10	1.6	94
1.0	22						

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.5	8.5	b6.5	a7	a8	7.8	*11	8.5	15	7.1	6.3	6.6
2	8.5	8.2	b7	a7	a20	8.2	10	7.8	12	7.1	6.3	6.6
3	8.5	8.2	7.8	a7	a40	8.2	9.6	7.0	9.7	7.1	6.6	6.6
4	8.5	8.9	7.8	a7	a90	8.2	9.6	7.0	9.4	7.1	6.6	6.6
5	8.9	8.5	b7	a7	a60	7.4	9.6	6.3	8.7	7.1	6.3	6.6
6	8.9	8.5	7.4	a7	a100	*7.8	9.3	*6.7	9.4	*6.8	6.3	*6.6
7	8.9	8.5	7.8	a7	61	7.4	9.3	7.4	28	6.8	6.3	6.6
8	8.9	8.5	9.3	a20	30	7.4	9.3	7.4	25	6.8	6.3	6.6
9	8.9	8.2	28	a80	16	7.8	9.3	7.4	18	6.6	6.3	6.8
10	8.9	8.5	22	a80	16	8.2	9.6	7.0	13	6.8	6.3	6.8
11	8.9	8.5	*21	a70	9.6	8.2	9.3	6.7	11	6.8	6.6	6.6
12	8.9	9.6	19	a100	9.3	8.9	9.3	6.3	11	6.8	6.6	6.6
13	8.9	9.3	13	a130	8.5	7.8	8.5	6.0	11	6.8	6.6	6.6
14	8.5	9.6	8.2	*18	8.9	7.4	8.2	7.4	9.7	6.8	6.6	6.8
15	8.5	8.5	7.4	11	8.2	7.4	7.8	8.9	10	7.1	6.6	6.8
16	8.5	8.2	7.4	9.3	7.4	7.8	8.5	8.5	9.4	7.1	6.3	6.6
17	8.5	b8	7.0	9.3	7.4	7.4	9.3	10	8.4	6.8	6.6	6.3
18	8.5	7.8	6.7	101	7.0	7.4	8.5	8.9	8.1	7.1	6.3	6.6
19	8.5	7.8	6.7	79	b7	8.5	8.2	25	7.4	6.8	6.3	6.6
20	8.5	8.2	6.7	131	b6.5	7.4	8.2	52	7.4	6.8	6.3	6.3
21	8.5	7.8	7.8	28	b6	6.7	8.2	20	7.1	6.8	6.6	6.6
22	8.9	b7.5	7.4	16	b6	16	8.9	16	7.1	6.8	6.6	6.8
23	8.5	b7.5	6.7	13	b5.5	129	*11	17	6.8	6.8	6.6	6.6
24	8.5	b7	a6	a12	b5.5	147	12	64	7.4	6.8	6.6	6.6
25	8.5	b6.5	a6.5	a10	b5.5	94	11	88	7.8	6.8	6.8	6.3
26	8.5	b6.5	a7	a9	b5	49	10	77	7.8	6.6	6.8	6.3
27	8.2	b6	a8	a8	b6	37	11	*26	7.4	6.8	6.8	6.8
28	8.2	b6	a7.5	a7.5	b7	28	11	16	7.4	6.6	6.8	6.6
29	8.5	b6	a7.5	a7	-	18	11	42	7.4	6.6	*7.4	6.6
30	8.2	b6	a7.5	a7	-	17	10	23	7.1	6.6	7.1	6.3
31	8.5	-	a7	a7	-	13	-	17	-	6.6	6.6	-
Total	266.6	236.8	292.6	1,012.1	567.3	711.3	286.5	618.2	314.9	212.0	203.3	197.7
Mean	8.60	7.89	9.44	32.6	20.3	22.9	9.55	19.9	10.5	6.84	6.56	6.59
Ac-ft	529	470	580	2,010	1,130	1,410	568	1,230	625	420	403	392

Calendar year 1952: Max 595 Min 4 Mean 27.0 Ac-ft 19,640
Water year 1952-53: Max 147 Min 5 Mean 13.5 Ac-ft 9,770

Peak discharge (base, 150 cfs).--About Jan. 15 (time unknown) 155 cfs (1.91 ft); Jan. 18 (10 p.m.) 296 cfs (2.43 ft); about Feb. 6 (time unknown) 175 cfs (2.00 ft); Mar. 23 (9 p.m.) 436 cfs (2.79 ft); May 24 (12 p.m.) 180 cfs (2.02 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records at Lakeview, recorded range in stage, and records for Camas Creek near Lakeview and Deep Creek above Adel.

b Stage-discharge relation affected by ice.

Deep Creek above Adel, Oreg.

Location.--Lat 42°11', long. 119°59', in E½ sec. 15, T. 39 S., R. 23 E., on right bank a third of a mile downstream from Drake Creek and 5 miles west of Adel.

Drainage area.--249 sq mi.

Records available.--September 1922 to September 1923 and October 1932 to September 1953 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.--25 years (1922-23, 1929-53), 114 cfs.

Extremes.--Maximum discharge during year, 1,620 cfs May 19, 20 (gage height, 4.96 ft); minimum, 14 cfs, Nov. 20 (gage height, 0.61 ft).
1922-23, 1929-53: 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 table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

0.6	14	2.5	310
.8	25	3.0	470
1.0	41	4.0	950
1.5	101	5.0	1,650
2.0	190		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	23	24	53	28	80	63	194	421	446	232	40	28
2	22	23	40	28	120	72	198	355	470	222	40	26
3	22	23	25	28	200	70	230	334	446	212	40	25
4	22	23	29	27	400	67	278	364	424	200	40	23
5	23	26	35	25	300	72	322	428	418	190	40	22
6	23	26	29	27	450	77	346	*474	577	*176	40	*21
7	23	25	28	26	370	83	252	491	974	164	38	21
8	23	23	26	73	328	101	238	470	938	152	35	20
9	24	24	25	458	198	124	208	432	715	143	32	20
10	26	25	40	432	181	145	188	364	589	132	30	20
11	25	27	50	210	174	126	178	331	581	130	28	19
12	24	30	54	337	132	118	162	302	589	125	25	18
13	23	35	47	446	122	98	156	310	597	120	22	19
14	23	36	39	220	124	90	144	364	529	110	20	19
15	23	32	38	146	99	94	156	438	521	105	20	19
16	24	31	35	143	99	95	180	391	525	100	20	18
17	23	35	34	113	94	83	208	428	525	95	20	18
18	24	31	34	406	65	95	190	466	521	90	20	18
19	26	33	31	481	65	91	222	-1,040	494	90	20	18
20	26	31	31	477	60	51	252	-1,330	456	85	20	18
21	26	28	30	228	801	61	370	926	428	80	20	18
22	25	32	30	190	62	102	456	848	400	80	22	18
23	24	29	28	160	66	314	*589	720	391	75	24	20
24	24	30	25	154	67	400	565	794	367	70	25	20
25	25	28	28	136	66	337	569	710	340	70	25	20
26	24	30	30	98	68	265	652	643	316	65	25	20
27	24	36	31	80	*74	258	750	*509	298	60	26	20
28	24	36	30	75	88	*265	800	452	278	55	28	19
29	24	40	30	70	-	210	593	505	265	50	*29	20
30	24	47	28	70	-	196	498	460	248	45	35	19
31	24	-	28	70	-	188	-	442	-	40	30	-
Total	740	899	1,041	5,462	4,212	4,411	10,144	16,542	14,666	3,563	879	604
Mean	23.9	30.0	33.6	176	150	142	338	534	489	115	28.4	20.1
Ac-ft	1,470	1,780	2,060	10,830	8,350	8,750	20,120	32,810	29,090	7,070	1,740	1,200

Calendar year 1952: Max 1,640 Min 18 Mean 218 Ac-ft 158,200
Water year 1952-53: Max 1,330 Min 18 Mean 173 Ac-ft 125,300

Peak discharge (base, 600 cfs).--Jan. 9 (5:30 p.m.) 836 cfs (3.81 ft); Jan. 18 (10 p.m.) 932 cfs (3.97 ft); Mar. 23 (9:30 p.m.) 794 cfs (3.74 ft); Apr. 28 (4 a.m.) 968 cfs (4.03 ft); May 19 (12 p.m.) to May 20 (3 a.m.) 1,620 cfs (4.96 ft); June 7 (5 p.m.) 1,120 cfs (4.29 ft).

* Discharge measurement made on this day.

Note.--No gage-height record Jan. 27 to Feb. 6, July 11 to Aug. 28, Aug. 30 to Sept. 5; discharge estimated on basis of 1 discharge measurement, weather records, and records for Twentymile Creek near Adel. Stage-discharge relation affected by ice Dec. 9, 10, 21-26, 28, 29, 31, Jan. 4, 5, Feb. 19-22.

Honey Creek near Plush, Oreg.

Location.--Lat 42°25', long. 119°55', in NW¼ sec. 29, T. 36 S., R. 24 E., on right bank at mouth of canyon, 1 mile northwest of Plush and 4 miles downstream from Twelvemile Creek.

Drainage area.--156 sq mi.

Records available.--May to December 1909 (gage heights only), January 1910 to September 1914, March to May 1915, March to August 1921, March to June 1922, October 1949 to September 1953 in reports of Geological Survey. April 1930 to September 1941 in reports of State engineer. October 1941 to September 1949 in files of Stage 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.--23 years (1910-14, 1930-41, 1945-53), 25.8 cfs.

Extremes.--Maximum discharge during year, 578 cfs May 20 (gage height, 5.85 ft); minimum, 0.1 cfs Dec. 23.

1909-15, 1921-22, 1930-53: 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 no gage-height record and those October to February, which are poor. About 2,300 acres are irrigated above station.

Revisions.--WSP 410: Drainage area.

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1.4	2.0	1.8	1.7	20	14	39	91	105	40	3.4	1.5
2	1.6	2.2	2.0	1.7	21	14	38	78	130	*38	2.9	1.2
3	1.6	2.0	1.9	1.6	22	16	44	70	112	34	2.7	1.0
4	1.7	2.2	**2.4	1.4	39	*17	50	74	104	32	2.5	.9
5	1.8	2.0	2.6	1.4	37	16	53	84	98	32	2.5	.8
6	1.7	**2.0	2.6	1.6	40	16	59	*92	118	*28	2.5	**.8
7	1.7	1.9	3.0	1.6	47	20	51	94	144	24	2.4	.8
8	1.8	1.9	2.9	3.0	49	22	47	97	148	21	2.2	.8
9	1.9	1.9	3.2	159	42	22	41	89	137	20	2.4	.8
10	1.9	1.9	3.2	87	43	*26	38	81	115	22	2.4	.8
11	1.9	2.2	3.4	60	39	28	38	74	108	23	2.2	.8
12	2.0	2.3	3.8	140	35	27	34	64	108	a21	2.2	.8
13	2.0	2.8	3.4	120	30	22	34	60	122	a20	2.2	.8
14	2.0	3.2	2.9	68	30	20	30	67	105	a18	2.0	.9
15	2.0	2.9	2.0	46	23	22	*28	113	91	a16	2.2	.9
16	2.2	2.4	2.0	42	22	24	31	110	91	a15	2.2	.9
17	2.0	2.2	2.2	39	22	16	34	105	85	*14	2.2	.9
18	1.9	2.2	1.9	54	17	20	36	91	81	a13	2.2	.9
19	2.2	2.4	2.0	75	16	23	45	237	79	a12	2.2	.9
20	2.0	2.6	2.0	89	14	15	58	344	74	a11	2.4	.9
21	2.0	2.4	1.3	52	14	14	86	188	66	a10	2.5	.9
22	2.2	2.4	1.2	43	15	21	*116	168	62	a9	2.4	1.0
23	1.9	2.2	1.1	42	16	52	150	165	59	a8	2.4	1.0
24	2.0	1.7	.9	40	15	129	132	186	57	7.3	2.0	1.2
25	2.0	1.6	1.0	36	14	102	124	191	55	a6	1.8	1.2
26	1.9	1.4	1.2	22	16	76	140	159	51	a5	1.5	1.0
27	2.0	1.6	1.5	22	18	*67	161	122	47	4.4	*1.2	1.0
28	2.2	1.3	1.6	22	22	65	175	110	46	4.4	1.3	1.0
29	2.0	1.4	1.7	20	-	52	127	124	46	*4.1	1.8	1.0
30	2.2	1.4	1.9	19	-	47	112	120	42	3.8	2.4	1.0
31	1.9	-	1.6	18	-	41	-	109	-	3.6	2.0	-
Total	59.6	62.6	66.2	1,329.0	738	1,066	2,151	3,757	2,686	519.6	69.2	28.4
Mean	1.92	2.09	2.14	42.9	26.4	34.4	71.7	121	89.5	16.8	2.23	0.95
Ac-ft	118	124	131	2,640	1,460	2,110	4,270	7,450	5,330	1,030	137	56

Calendar year 1952: Max 820 Min 0.2 Mean 57.2 Ac-ft 41,510
Water year 1952-53: Max 344 Min 0.8 Mean 34.3 Ac-ft 24,860

Peak discharge (base, 200 cfs).--Jan. 9 (7 p.m.) 326 cfs (4.91 ft); Jan. 12 (5 a.m.) 248 cfs (4.14 ft); Mar. 24 (1:30 a.m.) 221 cfs (3.59 ft); Apr. 28 (4 a.m.) 208 cfs (3.46 ft); May 20 (12:30 a.m.) 578 cfs (5.85 ft); May 25 (4 a.m.) 214 cfs (3.52 ft).

* Discharge measurement made on this day.

** Field estimate made on this day.

a No gage-height record; discharge estimated on basis of records for Twentymile Creek near Adel and Deep Creek above Adel.

Chewaucan River above Conn ditch, near Paisley, Oreg.

Location.--Lat 42°41', long. 120°35', in SW¼ sec. 27, T. 33 S., R. 18 E., on right bank at footbridge 20 ft downstream from former powerplant of Paisley Electric Co., 700 ft upstream from diversion dam of Conn ditch, a quarter of a mile downstream from Mill Creek, and 2½ miles west of Paisley.

Drainage area.--275 sq mi.

Records available.--April 1912 to September 1921, May 1924 to September 1953. Published as "above Mill Creek near Paisley" November 1912 to September 1914 and as "near Paisley" October 1914 to September 1921.

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.

Average discharge.--38 years (1912-21, 1924-53), 128 cfs.

Extremes.--Maximum discharge during year, 1,400 cfs May 20 (gage height, 4.56 ft); minimum, 14 cfs Nov. 22 (gage height, 1.27 ft).
1912-21, 1924-53: Maximum discharge, 1,680 cfs Dec. 11, 1937 (gage height, 4.93 ft); 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 good except those for periods of ice effect or no gage-height record, which are poor. Diversions for irrigation of about 2,500 acres above station.

Revisions.--WSP 860: Drainage area.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.4	20	3.0	345
1.5	26	3.5	580
1.7	43	4.0	910
2.0	81	4.3	1,160
2.4	157		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*39	42	b50	b48	a80	78	210	564	586	349	68	57
2	39	36	b60	b45	a120	78	219	510	646	325	66	53
3	39	39	b50	b42	204	b85	243	510	634	317	64	51
4	39	45	b45	b40	274	89	264	558	616	309	67	52
5	39	48	b40	b40	210	94	309	*616	634	298	66	48
6	40	53	b40	b40	337	97	321	707	777	280	63	47
7	41	46	b40	b40	305	106	270	756	966	258	60	*46
8	43	46	b35	b50	329	118	252	676	934	249	*59	45
9	47	40	b30	b300	a250	134	225	604	840	228	59	45
10	46	57	b50	252	a200	148	216	547	742	213	58	44
11	43	53	b150	240	a180	134	190	510	840	196	56	43
12	41	54	b120	b420	a170	134	180	510	*840	180	58	42
13	40	58	b100	530	157	118	172	536	840	172	55	41
14	38	54	b90	298	148	106	*164	586	749	162	59	41
15	38	52	b80	167	124	114	167	622	756	152	59	42
16	38	46	b75	167	124	111	182	616	805	141	54	42
17	39	34	b70	177	118	102	193	676	749	132	53	41
18	40	b32	b65	628	99	109	193	749	756	122	52	41
19	43	b30	b60	500	94	102	234	1,120	728	114	51	41
20	42	b28	b56	510	86	75	280	1,160	676	111	52	40
21	43	b26	b52	261	b84	100	390	990	634	106	50	40
22	43	25	b50	190	b82	114	530	889	598	97	50	42
23	42	b25	b45	164	b80	199	*658	840	574	91	47	43
24	41	b25	b42	a140	81	302	682	749	569	89	53	42
25	41	b25	b40	a120	83	264	700	676	536	84	53	D 41
26	42	b28	b45	a100	*97	210	791	640	480	81	54	40
27	41	b30	b50	a90	99	219	896	580	448	80	68	41
28	41	b32	b50	a80	104	240	889	552	426	75	63	41
29	41	b35	b50	a70	-	207	770	552	398	74	73	42
30	41	b40	b50	a70	-	204	658	558	369	71	75	42
31	42	-	b50	a70	-	210	-	574	-	*67	55	-
Total	1,272	1,184	1,830	5,889	4,319	4,401	11,448	20,733	20,146	5,223	1,822	1,316
Mean	41.0	39.5	59.0	190	154	142	382	669	672	168	58.8	43.9
Ac-ft	2,520	2,350	3,630	11,680	8,570	8,730	22,710	41,120	39,960	10,360	3,610	2,610

Calendar year 1952: Max 1,470 Min 25 Mean 267 Ac-ft 193,800
Watar year 1952-53: Max 1,160 Min 25 Mean 218 Ac-ft 157,800

Peak discharge (base, 500 cfs).--Jan. 13 (12 m.) 676 cfs (3.66 ft); Jan. 18 (3:30 p.m.) 1,160 cfs (4.30 ft); Apr. 28 (4 a.m.) 974 cfs (4.08 ft); May 20 (4:30 a.m.) 1,400 cfs (4.56 ft); June 7 (5 to 10 p.m.) 1,020 cfs (4.14 ft).

* Discharge measurement made on this day.

a No gage-height record; discharge estimated on basis of weather records and records for Silver Creek near Silver Lake and Deep Creek above Adel.

b Stage-discharge relation affected by ice.

Ana River near Summer Lake, Oreg.

Location.--Lat 43°00', long. 120°45', in SE¼ sec. 6, T. 30 S., R. 17 E., on left bank 300 ft downstream from diversion dam and 2 miles northeast of Summer Lake Post Office.

Records available.--June 1951 to September 1953 in reports of Geological Survey. October 1929 to September 1939 (river alone) and May to September 1928, April 1931 to July 1941 (fragmentary records for Summer Lake Canal alone) 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.--5 years (1930-32, 1935-36, 1951-53), 92.9 cfs.

Extremes.--Maximum discharge during year, 145 cfs Aug. 9; minimum daily, 38 cfs Apr. 26. 1929-39, 1951-53: Maximum discharge, 186 cfs Sept. 15, 1936 (gage height, 3.87 ft), no flow in canal; minimum daily, 6 cfs May 16, 1952.

Remarks.--Records good. All records presented herein include flow in Summer Lake Canal which diverts 300 ft above station for irrigation of lands along west side of Summer Lake. Flow regulated by gates at diversion dam.

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	87	94	89	89	96	90	88	83	83	83	83	81
2	87	97	89	89	96	92	88	82	83	83	84	82
3	86	97	89	89	94	92	88	83	83	84	85	83
4	85	94	90	89	94	92	88	83	86	85	85	84
5	81	94	90	89	94	92	88	*84	87	90	85	83
6	79	94	89	89	93	90	88	84	87	87	85	85
7	81	94	89	89	93	90	87	83	88	85	74	*86
8	89	94	89	89	93	90	87	83	88	80	52	86
9	89	96	89	89	93	90	87	83	85	78	106	88
10	87	94	89	89	93	90	87	83	83	82	107	86
11	89	94	89	89	92	90	87	83	83	84	94	86
12	83	94	89	89	92	90	87	83	83	93	82	86
13	84	93	89	89	*92	90	87	83	83	96	84	86
14	84	93	89	89	92	89	87	83	86	92	85	86
15	83	93	89	89	92	89	87	83	88	92	84	85
16	84	92	89	89	92	89	87	83	88	92	84	85
17	84	92	89	89	92	89	87	83	*88	84	87	85
18	84	92	89	89	92	89	88	83	88	80	88	86
19	87	92	89	89	92	89	88	83	88	78	87	83
20	88	92	89	89	92	89	*88	82	88	75	86	82
21	91	92	89	89	92	89	88	82	88	79	83	85
22	93	92	*89	89	92	89	87	83	88	*92	84	*87
23	92	92	89	89	92	89	70	83	76	94	85	87
24	89	92	89	89	92	89	56	83	75	92	*86	87
25	89	90	89	89	92	89	46	83	79	90	85	86
26	92	90	89	89	92	89	38	82	80	89	86	86
27	89	90	89	89	90	89	52	82	81	87	86	85
28	92	90	89	89	90	89	60	*82	81	87	89	87
29	90	89	89	89	-	88	86	82	82	88	89	86
30	90	89	89	89	-	88	82	82	84	81	88	86
31	89	-	89	93	-	88	-	83	-	82	86	-
Total	2,697	2,781	2,761	2,763	2,591	2,777	2,414	2,567	2,530	2,664	2,654	2,554
Mean	87.0	92.7	89.1	89.1	92.5	89.6	80.5	82.8	84.3	85.9	85.6	85.1
Ac-ft	5,350	5,520	5,480	5,480	5,140	5,510	4,790	5,090	5,020	5,280	5,260	5,070

Calendar year 1952: Max 97 Min 6 Mean 89.3 Ac-ft 64,820
Water year 1952-53: Max 107 Min 38 Mean 87.0 Ac-ft 62,990

* Discharge measurement made on this day.

Silver Creek near Silver Lake, Oreg.

Location.--Lat 43°07', long. 121°04', in SW¼ sec. 28, T. 28 S., R. 14 E., on right bank 1½ miles downstream from diversion dam of Silver Lake Irrigation District, 1½ miles southwest of town of Silver Lake, and 3 miles upstream from Bridge Creek.

Drainage area.--221 sq mi.

Records available.--January 1905 to March 1907, January 1909 to September 1953.

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 outlets 1½ miles upstream at different datum.

Average discharge.--41 years (1905-6, 1909-27, 1929-41, 1943-53), including Silver Lake Irrigation District Canal, 25.5 cfs.

Extremes.--Maximum discharge during year, 225 cfs May 21 (gage height, 3.98 ft); minimum, 4.0 cfs Dec. 2.
1905-7, 1909-53: 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, which are poor. Flow regulated by reservoir (capacity, 800 acre-ft) above diversion dam 1½ miles above station and by Thompson Valley Reservoir (capacity, 17,400 acre-ft) 11 miles above station, both of which are owned by the Silver Lake Irrigation District. No water was diverted above station by Silver Lake Irrigation District Canal during year; canal out of repair.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.7	4.2	2.5	53
1.8	7.4	3.0	100
2.0	18	4.0	228
2.2	30		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	*8.3	6.8	4.2	6.4	29	23	61	157	110	71	36	25
2	7.9	6.8	4.2	6.8	32	b22	63	145	108	70	36	23
3	7.9	6.8	4.2	6.4	41	24	68	134	103	69	36	23
4	7.9	7.1	4.2	b6.4	71	23	73	128	100	69	36	22
5	7.9	7.1	4.2	b6.4	64	23	78	*133	94	69	36	21
6	7.9	7.1	5.2	6.4	59	22	83	154	97	68	35	20
7	7.9	6.8	5.2	6.4	63	23	78	178	106	68	34	*18
8	7.4	6.8	b5.2	8.8	63	24	75	182	122	67	34	17
9	7.4	6.4	5.2	12	54	27	71	171	126	67	34	17
10	7.4	6.4	5.8	18	48	30	71	155	122	66	34	17
11	7.4	6.4	6.4	23	45	31	68	139	114	66	34	17
12	7.4	6.4	6.8	36	42	31	66	128	110	65	33	16
13	7.4	6.8	6.4	47	*39	31	64	118	104	64	33	16
14	7.1	6.8	b6.4	42	39	29	62	115	98	63	32	16
15	7.1	6.8	b6.4	b29	36	29	62	126	91	62	32	16
16	7.1	6.4	b6.4	25	35	29	63	134	85	62	31	16
17	7.1	6.4	b6.4	21	34	28	63	140	*81	61	29	16
18	7.1	6.1	b6.4	35	33	28	59	143	77	60	27	16
19	7.1	5.8	6.1	71	31	28	59	159	73	60	28	16
20	7.1	5.8	6.4	75	30	28	*62	206	70	54	28	16
21	7.1	5.5	6.4	74	29	28	71	220	66	36	28	15
22	7.1	5.2	*b6.4	55	29	29	82	203	63	*37	28	*16
23	7.1	b5.2	b6.4	42	28	31	98	202	59	37	28	15
24	7.1	b4.8	b6.8	36	b26	45	103	203	62	37	*27	15
25	7.1	b4.5	b7.1	32	25	51	98	193	67	37	26	14
26	7.1	b4.5	7.1	29	26	55	98	179	69	37	26	14
27	7.1	4.2	6.8	b23	26	59	107	161	71	37	26	14
28	7.1	b4.2	6.8	25	26	68	126	140	71	37	26	14
29	7.1	b4.2	6.4	25	-	61	152	128	72	36	27	14
30	7.1	b4.2	6.4	24	-	58	164	128	72	36	27	13
31	7.1	-	6.4	25	-	60	-	112	-	36	26	-
Total	227.9	178.3	184.7	878.0	1,103	1,078	2,448	4,814	2,663	1,704	953	508
Mean	7.35	5.94	5.96	28.3	39.4	34.8	81.6	155	88.8	55.0	30.7	16.9
Ac-ft	452	354	366	1,740	2,190	2,140	4,860	9,550	5,280	3,380	1,890	1,010

Calendar year 1952: Max 536 Min 4.2 Mean 53.4 Ac-ft 38,720
Water year 1952-53: Max 220 Min 4.2 Mean 45.9 Ac-ft 33,210

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

30
31
30
31
19
10
151

Silvies River near Burns, Oreg.

Location.--Lat 43°43', long. 119°11', in NW¼ sec. 31, T. 21 S., R. 30 E., on left bank 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 1953.

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 1½ 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.--40 years (1903-5, 1909-12, 1917-21, 1922-53), 158 cfs.

Extremes.--Maximum discharge during year, 1,850 cfs Apr. 28 (gage height, 12.45 ft); minimum, 6.4 cfs Nov. 8.
1903-6, 1908-53: 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 flood water.

Revisions.--WSP 860: Drainage area.

Rating tables, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Jan. 18		Jan. 19 to Sept. 30			
1.1	16	1.0	14	6.0	555
1.5	34	1.5	38	10.0	1,190
2.0	64	2.0	77	13.0	2,110
2.7	122	3.0	178		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17	23	18	38	244	154	542	1,470	662	138	34	30
2	18	23	20	40	236	133	537	1,310	664	152	30	30
3	17	21	22	42	367	*142	*552	1,130	650	142	30	30
4	17	22	24	45	472	144	597	999	*622	145	30	29
5	16	25	*25	45	404	144	694	922	612	140	30	28
6	16	25	26	50	413	150	816	874	590	126	30	27
7	16	24	28	55	387	169	813	860	632	117	*28	26
8	17	22	30	60	368	206	754	855	669	107	26	25
9	17	20	35	70	282	255	680	834	675	*97	29	24
10	19	25	38	80	250	308	584	800	693	90	30	23
11	20	30	43	75	282	323	517	741	669	86	28	22
12	19	31	47	90	255	320	473	669	614	84	27	21
13	19	34	47	80	240	299	436	610	584	79	26	20
14	*19	34	44	70	229	262	415	566	546	73	26	20
15	19	34	40	70	204	252	400	554	512	68	24	20
16	21	33	38	70	184	240	425	568	537	76	24	19
17	21	31	35	90	210	228	490	624	494	71	23	18
18	21	36	35	120	178	228	580	591	448	60	23	18
19	21	35	35	150	164	228	690	620	412	55	22	17
20	21	30	35	200	164	231	844	819	380	53	22	17
21	21	28	34	*266	170	233	987	834	350	53	22	17
22	20	25	32	250	182	226	1,170	860	330	48	21	17
23	20	25	30	240	172	242	*1,310	894	306	45	21	17
24	21	25	32	220	157	334	1,380	945	269	43	20	17
25	22	22	35	200	149	450	1,340	942	248	42	19	17
26	22	20	35	200	148	480	1,340	920	231	40	*19	17
27	22	20	35	200	142	567	1,420	926	215	43	22	17
28	22	20	35	200	159	603	1,770	846	206	40	24	18
29	22	18	35	200	-	581	1,710	782	201	39	26	18
30	22	16	35	211	-	564	1,560	723	167	37	28	19
31	23	-	35	212	-	560	-	669	-	36	30	-
Total	608	777	1,038	3,939	6,812	9,236	25,826	25,757	14,188	2,425	794	638
Mean	19.6	25.9	33.5	127	243	298	861	831	473	78.2	25.6	21.3
Ac-ft	1,210	1,540	2,060	7,810	13,510	18,320	51,230	51,090	28,140	4,810	1,570	1,270

Calendar year 1952: Max 4,500 Min 15 Mean 371 Ac-ft 269,400
Water year 1952-53: Max 1,770 Min 16 Mean 252 Ac-ft 182,600

* Discharge measurement made on this day.

Note.--No gage-height record Aug. 28 to Sept. 19; discharge estimated on basis of records for Malheur River near Drewsey and Silver Creek near Riley. Stage-discharge relation affected by ice Nov. 6-10, Nov. 20 to Dec. 9, Dec. 15 to Jan. 29.

Donner und Blitzen River near Frenchglen, Oreg.

Location.--Lat 42°47', long. 118°52', in NW¼ sec. 20, T. 32 S., R. 32½ E., on left bank 1½ miles upstream from upper diversions for Malheur Migratory Waterfowl Refuge, 2 miles downstream from Fish Creek, and 3½ miles southeast of Frenchglen.

Drainage area.--180 sq mi, approximately.

Records available.--December 1937 to September 1953 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.--23 years (1911-13, 1914-16, 1917-21, 1938-53), 127 cfs.

Extremes.--Maximum discharge during year, 3,390 cfs May 19 (gage height, 6.29 ft), from rating curve extended above 1,100 cfs on basis of velocity-area studies and logarithmic plotting; minimum, 17 cfs Dec. 24 (gage height, 1.75 ft).
1910-21, 1937-53: Maximum discharge, that of May 19, 1953; minimum, 8 cfs (ice jam upstream) Jan. 14, 1940.

Remarks.--Records excellent except those above 1,100 cfs, which are good, and those for period of ice effect, which are fair. No regulation or diversion above station.

Revisions.--WSP 330: Drainage area (former site). WSP 860: Drainage area (present site).

Rating table, water year 1952-53, except period of ice effect (gage height, in feet, and discharge, in cubic feet per second)

1.9	24	3.5	425
2.2	47	4.0	730
2.5	86	4.5	1,130
2.8	149	5.0	1,670
3.1	245		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	49	49	b55	49	52	47	82	149	*492	294	74	54
2	49	48	55	47	52	51	82	137	752	294	72	51
3	49	47	50	46	54	54	86	135	447	303	71	50
4	49	50	50	45	62	*52	97	137	425	316	71	49
5	49	49	49	46	59	52	104	152	395	316	70	48
6	49	49	*50	47	99	52	108	171	666	303	67	47
7	49	49	52	47	104	56	93	169	1,600	294	66	46
8	49	48	49	48	78	59	90	157	868	265	64	46
9	49	46	50	58	58	63	83	149	*576	234	63	46
10	49	*50	51	59	58	66	78	135	492	*220	62	45
11	49	51	50	54	66	63	74	125	469	216	59	45
12	49	51	49	54	58	62	72	123	522	209	58	44
13	49	51	48	57	58	61	71	130	492	209	58	44
14	48	55	47	54	61	57	68	142	442	190	59	46
15	48	49	47	51	59	61	70	171	458	171	58	46
16	48	49	47	51	57	61	*74	265	600	144	57	45
17	48	47	47	52	56	56	77	261	498	132	55	45
18	48	50	47	66	50	59	77	285	516	125	54	46
19	48	49	47	68	51	58	83	1,650	492	121	54	46
20	49	50	47	84	51	55	93	698	410	117	52	45
21	49	48	45	62	55	57	121	458	410	104	54	45
22	49	33	47	*54	51	59	144	385	436	100	54	45
23	49	40	35	52	49	62	183	362	447	100	52	45
24	49	41	27	54	50	82	171	326	385	97	55	45
25	49	b40	44	52	54	76	171	298	352	91	56	45
26	49	b40	55	46	52	70	180	303	339	86	52	44
27	49	b44	52	44	52	76	241	253	326	83	*51	44
28	49	b40	44	58	55	82	231	238	321	80	51	45
29	49	b38	50	51	-	82	177	348	290	78	54	46
30	50	b50	48	50	-	82	166	290	298	77	55	45
31	50	-	43	50	-	82	-	420	-	74	55	-
Total	1,515	1,401	1,477	1,656	1,661	1,956	3,447	9,022	15,216	5,443	1,833	1,383
Mean	48.9	46.7	47.6	53.4	59.3	63.1	115	291	507	176	59.1	46.1
Ac-ft	3,000	2,780	2,930	3,280	3,290	3,880	6,840	17,890	30,180	10,800	3,640	2,740

Calendar year 1952: Max 1,390 Min 21 Mean 202 Ac-ft 146,800
Water year 1952-53: Max 1,650 Min 27 Mean 126 Ac-ft 91,250

Peak discharge (base, 650 cfs).--May 19 (8 a.m.) 3,390 cfs (6.29 ft); June 2 (5:30 a.m.) 1,250 cfs (4.82 ft); June 7 (1:30 p.m.) 2,360 cfs (5.55 ft); June 16 (3:30 a.m.) 786 cfs (4.08 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 NW¼ sec. 33, T. 31 S., R. 32½ E., on right bank at mouth of canyon, 1,000 ft upstream from road crossing and 3½ miles northeast of Frenchglen.

Drainage area.--30 sq mi, approximately.

Records available.--March 1911 to September 1916, December 1937 to September 1953.

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 different datum at site half a mile upstream. Dec. 21, 1937, to May 17, 1938, staff gage at different datum 1,000 ft downstream. May 18, 1938, to Aug. 22, 1939, staff gage at present site and datum.

Average discharge.--19 years (1913-16, 1939-53), 14.2 cfs.

Extremes.--Maximum discharge during year, 415 cfs May 19 (gage height, 2.73 ft), from rating curve extended above 65 cfs by logarithmic plotting; minimum, 12 cfs many days in March, April, August, September.
1911-16, 1937-53: Maximum discharge, that of May 19, 1953; 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 or backwater from aquatic vegetation, which are good. No regulation or diversion above station. Low-water flow is sustained by large springs.

Rating table, water year 1952-53, except periods of backwater from aquatic vegetation (gage height, in feet, and discharge, in cubic feet per second)

1.0	11	1.4	41
1.1	16	1.6	67
1.2	23	1.8	102

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	14	15	14	15	15	13	12	16	27	13	13	13
2	14	15	14	15	15	13	12	15	26	13	13	13
3	14	15	14	15	15	13	12	15	24	13	13	12
4	14	15	14	15	15	*13	12	15	24	13	13	12
5	14	15	14	15	15	13	12	15	24	13	13	12
6	14	15	*14	15	14	13	12	16	28	13	13	12
7	14	15	14	15	14	13	12	16	41	13	13	12
8	14	15	14	15	15	13	12	16	29	13	13	12
9	14	15	14	15	15	13	12	16	30	13	13	12
10	14	*15	14	15	15	13	12	16	*30	*13	13	12
11	14	15	14	15	15	13	12	15	27	13	13	12
12	14	15	14	15	15	13	12	14	28	13	13	12
13	14	15	14	15	14	13	12	14	27	13	13	12
14	14	15	14	15	14	13	12	15	23	13	13	12
15	14	15	14	15	14	13	12	16	22	13	13	13
16	14	15	14	15	14	13	*12	31	24	13	13	13
17	14	15	14	15	14	13	12	26	21	13	13	13
18	14	15	14	15	15	13	12	21	19	13	13	13
19	14	15	14	15	14	13	12	77*	19	13	13	13
20	14	15	14	15	14	13	12	29	18	13	13	13
21	14	15	14	15	14	13	12	26	16	13	13	13
22	14	15	15	*15	14	13	12	a25	16	13	13	13
23	14	15	15	15	14	13	13	a24	15	13	13	13
24	14	14	15	15	14	13	13	a23	14	13	13	13
25	14	14	15	15	14	13	13	a22	14	13	13	13
26	15	14	15	15	14	13	13	a23	14	13	13	12
27	15	14	15	15	14	13	16	a22	14	13	13	12
28	15	14	15	15	14	12	17	a22	14	13	*13	12
29	15	14	15	15	-	12	17	a21	14	13	13	12
30	15	14	15	15	-	12	16	*21	13	13	13	12
31	15	-	15	15	-	12	-	23		13	13	-
Total	440	443	444	465	402	399	382	666	655	403	403	373
Mean	14.2	14.8	14.3	15.0	14.4	12.9	12.7	21.5	21.8	13.0	13.0	12.4
Ac-ft	873	879	881	922	797	791	758	1,320	1,300	799	799	740

Calendar year 1952: Max 70 Min 8.7 Mean 18.0 Ac-ft 13,100
Water year 1952-53: Max 77 Min 12 Mean 15.0 Ac-ft 10,860

Peak discharge (base, 30 cfs).--May 16 (7 p.m.) 69 cfs (1.61 ft); May 19 (6:30 a.m.) 415 cfs (2.73 ft); June 1 (2 a.m.) 34 cfs (1.33 ft); June 7 (12 m.) 89 cfs (1.73 ft); June 12 (9 p.m.) 45 cfs (1.45 ft).

* Discharge measurement made on this day.

a No gage height record; discharge estimated on basis of recorded range in stage, weather records, and records for Donner und Blitzen River near Frenchglen.

Note.--Backwater from aquatic vegetation Feb. 13 to May 15, Sept. 3-30.

Silver Creek near Riley, Oreg.

Location.--Lat 43°41', long. 119°39', in E½ sec. 1, T. 22 S., R. 25 E., on right bank 0.4 mile downstream from Rough Creek, 1.4 miles upstream from Nicoll Creek, and 14 miles northwest of Riley.

Drainage area.--228 sq mi.

Records available.--June 1951 to September 1953.

Gage.--Water-stage recorder. Altitude of gage is 4,450 ft (by barometer).

Extremes.--Maximum discharge during year, 415 cfs Apr. 22; maximum gage height, 4.26 ft Apr. 23; minimum discharge, 2.0 cfs Nov. 23.
1951-53: Maximum discharge, 1,300 cfs Apr. 6, 1952 (gage height, 6.65 ft); minimum, 0.9 cfs Sept. 13, 1951 (gage height, 1.38 ft).

Remarks.--Records good except those for periods of ice effect, which are fair. Diversions above station for irrigation of about 500 acres.

Rating tables, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

Oct. 1 to Apr. 22				Apr. 23 to Sept. 30			
1.4	1.9	2.5	71	1.4	3.1	2.4	57
1.5	3.6	3.0	146	1.5	4.7	3.0	144
1.7	9.5	4.0	360	1.7	9.4	3.5	232
1.9	19	5.0	640	1.9	16	4.1	355
2.2	40			2.1	27		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.8	3.6	b3.4	b5.5	18	b16	183	209	*154	25	7.6	6.1
2	2.8	3.4	b3.2	b6.0	20	b17	185	188	131	23	7.3	5.6
3	2.8	3.0	b3.2	b6.0	40	b18	206	165	114	21	7.3	5.2
4	2.8	3.2	*b3.2	b6.5	61	*b16	256	154	106	20	7.6	5.1
5	2.6	3.6	b3.2	b7.0	66	b18	328	142	94	19	7.3	4.9
6	3.0	3.9	b3.2	b8.0	118	20	378	134	100	19	7.0	4.7
7	2.8	3.6	b3.6	b9.0	106	23	312	128	110	18	6.8	4.7
8	2.8	b3.4	b3.6	b10	91	29	254	126	*116	*18	6.6	4.5
9	2.6	*b3.2	b7.0	b25	71	43	212	113	108	17	6.3	4.5
10	2.6	3.6	b9.0	b20	b65	69	183	98	104	17	6.1	4.4
11	2.8	4.7	b8.5	b16	b60	76	158	87	95	17	5.9	4.2
12	3.0	5.0	b7.0	15	b55	76	139	80	95	16	5.6	4.2
13	3.0	5.2	b6.0	11	b48	71	124	71	110	16	5.4	4.2
14	2.8	5.8	b5.5	9.2	b42	61	113	69	91	16	5.4	4.0
15	3.0	4.4	b5.0	b9.0	b36	61	*116	77	117	16	5.4	4.2
16	3.2	b4.2	b5.0	8.9	b38	57	139	87	107	15	5.2	4.2
17	3.4	b4.0	b5.0	9.9	b34	49	170	81	80	15	5.1	4.2
18	3.4	b4.4	b5.0	52	b32	50	190	69	67	14	4.9	4.2
19	3.6	b4.2	b5.0	40	b32	50	252	118	61	13	4.7	4.2
20	3.9	b4.0	b4.6	b25	b32	44	308	150	57	13	4.7	4.2
21	3.6	b3.6	b4.4	*b19	b30	47	365	147	51	12	4.7	4.0
22	3.6	3.4	b4.4	b19	b29	43	382	146	45	11	4.7	4.0
23	3.6	3.2	b4.0	b20	b27	45	*350	165	40	11	4.7	4.0
24	3.2	b3.2	b4.4	b20	b25	80	304	211	37	10	5.1	4.0
25	3.4	b3.0	b4.8	b20	b23	127	270	211	34	10	5.2	4.0
26	3.4	b3.2	b5.5	b16	b22	141	257	238	32	9.4	5.6	4.0
27	3.4	b3.2	b5.0	b15	b19	161	308	215	30	9.4	*7.0	4.0
28	3.4	b3.0	b5.0	b17	b19	212	316	200	29	8.9	7.3	4.0
29	3.4	b3.0	b5.5	b17	-	200	260	184	29	8.3	9.1	4.2
30	3.6	b3.0	b5.5	17	-	189	236	170	26	8.1	8.1	4.2
31	3.6	-	b5.0	16	-	187	-	155	-	7.8	6.8	-
Total	97.9	112.2	152.7	495.0	1,259	2,296	7,254	4,388	2,370	453.9	190.5	131.9
Mean	3.16	3.74	4.93	16.0	45.0	74.1	242	142	79.0	14.6	6.15	4.40
Ac-ft	194	223	303	982	2,500	4,550	14,390	8,700	4,700	900	378	262

Calendar year 1952: Max 1,140 Min 2.6 Mean 84.7 Ac-ft 61,500
Water year 1952-53: Max 382 Min 2.6 Mean 52.6 Ac-ft 38,080

Peak discharge (base, 350 cfs).--Apr. 6 (4:30 a.m.) 388 cfs (4.11 ft); Apr. 22 (6 a.m.) 415 cfs (4.22 ft); Apr. 28 (7 a.m.) 355 cfs (4.10 ft).
* Discharge measurement made on this day.
b Stage-discharge relation affected by ice.

Trout Creek near Denio, Oreg.

Location.--Lat 42°10', long. 118°28', in SW¼ sec. 26, T. 39 S., R. 36 E., on right bank 0.4 mile upstream from bridge at mouth of canyon, 5 miles east of Trout Creek Ranch, and 14 miles northeast of Denio.

Drainage area.--79 sq mi, approximately.

Records available.--March 1911 to March 1912, April 1922 to November 1923, April 1925 to September 1953.

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.--22 years (1922-23, 1932-53), 15.2 cfs.

Extremes.--Maximum discharge during year, 180 cfs June 7 (gage height, 3.80 ft); minimum, 2.0 cfs Feb. 26.
1911-12, 1922-23, 1925-53: 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) sometime between 1922 and 1932.

Remarks.--Records fair except those for periods of ice effect, which are poor. Diversions for irrigation of about 800 acres above station.

Rating table, water year 1952-53, except periods of ice effect (gage height, in feet, and discharge, in cubic feet per second)

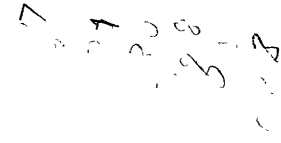
1.6	3.0	2.2	18
1.7	4.0	2.5	34
1.8	5.5	3.0	78
1.9	7.6	4.0	215
2.0	10		

Discharge, in cubic feet per second, water year October 1952 to September 1953

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.5	5.9	6	5	7.2	6.6	20	33	82	29	8.8	5.9
2	5.5	5.5	5.5	6	7.2	6.1	20	27	123	24	8.2	5.0
3	5.5	5.4	5	6	7.2	9.0	21	26	136	22	7.0	5.2
4	5.4	5.9	6	6	7.9	*8.5	*24	26	140	21	6.6	5.0
5	5.5	5.9	7	5.5	8.5	*8.2	26	27	128	20	*6.3	4.4
6	5.7	7.4	*6.8	5.5	8.8	8.2	28	30	*131	20	6.1	4.4
7	5.7	7.6	7.9	6	9.0	8.5	26	30	158	20	5.2	4.3
8	5.9	7.4	7.0	6.6	9.3	8.5	25	30	135	19	5.0	4.3
9	5.7	5.7	6	9.3	6	9.3	22	28	131	18	5.2	4.2
10	5.7	7.0	6.5	10	5.5	10	20	26	126	*17	5.2	4.2
11	5.7	7.2	7	9.0	5.5	11	18	24	117	16	5.2	4.0
12	5.7	7.0	7.2	8.5	6	11	17	22	119	15	5.0	3.8
13	5.7	7.4	6.8	9.0	7	11	16	23	107	15	4.9	3.9
14	5.7	8.2	6	8.5	6.5	8.8	15	26	97	13	5.0	4.0
15	*5.7	7.0	5	7.2	6	11	14	28	94	13	5.0	4.2
16	5.7	7.9	5	7.6	6.5	9.9	14	31	98	14	4.6	3.8
17	6.3	6.3	5	7.6	6	8.8	16	36	87	14	4.6	4.3
18	5.9	6	5	12	5.5	9.9	14	36	80	13	5.4	4.6
19	5.9	6	5	12	5.5	9.3	15	77	71	12	5.2	4.4
20	5.9	5.5	5	11	6	8.8	17	89	64	12	4.9	4.2
21	5.9	5.5	4.5	10	7	10	24	91	57	11	4.6	4.2
22	5.9	5	4.5	9.9	7	9.6	32	89	51	11	4.3	4.2
23	5.9	5.0	4.5	9.3	6.5	9.3	40	90	48	10	4.4	5.0
24	6.1	5	4	9.0	6.5	9.3	36	82	45	9.6	4.4	5.0
25	6.3	5	4.5	8.8	7	11	32	81	40	9.3	4.3	4.9
26	6.3	4.5	5	8.5	7.4	12	35	71	38	10	4.2	4.6
27	6.1	4.5	5	5.7	7.2	14	43	61	36	10	4.3	4.4
28	6.1	4.5	4.5	9.6	7.2	17	48	59	36	10	4.4	4.4
29	6.3	4	4.5	8.5	-	20	40	64	34	9.6	4.6	4.6
30	6.1	4	5	7.6	-	20	35	61	32	9.3	4.9	4.4
31	6.1	-	4.5	7.4	-	20	-	68	-	9.0	5.9	-
Total	181.4	179.2	171.2	252.6	192.9	334.6	753	1,492	2,635	455.8	163.7	133.8
Mean	5.85	5.97	5.52	8.15	6.89	10.8	25.1	48.1	87.8	14.7	5.28	4.46
Ac-ft	360	355	340	501	383	664	1,490	2,960	5,230	904	325	265

Calendar year 1952: Max 235 Min 3 Mean 37.5 Ac-ft 27,230
Water year 1952-53: Max 152 Min 3.8 Mean 19.0 Ac-ft 13,780

Peak discharge (base, 50 cfs).--Apr. 28 (4 to 6 a.m.) 54 cfs (2.76 ft); May 20 (2 a.m.) 104 cfs (3.24 ft); June 1 (10 p.m.) 156 cfs (3.64 ft); June 7 (1 p.m.) 180 cfs (3.80 ft).
* Discharge measurement made on this day.
Note.--Stage-discharge relation affected by ice Nov. 18-22, Nov. 24 to Dec. 5, Dec. 9-11, Dec. 14 to Jan. 7, Feb. 9-17, 20-25.



Measurements of streamflow in The Great Basin made at points other than gaging stations are given in the following table.

Miscellaneous discharge measurements in The Great Basin during water year October 1952 to September 1953

Great Salt Lake basin

Date	Stream	Tributary to or diverting from--	Locality	Discharge (cfs)
May 19	Kennedy ditch....	Big Creek.....	NE¼NE¼ sec. 11, T. 10 N., R. 6 E., 3½ miles southwest of Randolph, Utah...	12.9
June 19	....do.....	....do.....	....do.....	13.4
25	....do.....	....do.....	....do.....	10.7
July 10	....do.....	....do.....	....do.....	9.8
May 19	Big ditch.....	....do.....	NW¼SE¼ sec. 1, T. 10 N., R. 6 E., 3 miles southwest of Randolph, Utah.	19.5
June 19	....do.....	....do.....	....do.....	19.0
25	....do.....	....do.....	....do.....	18.2
July 10	....do.....	....do.....	....do.....	18.0
May 19	Spring Hollow....	Randolph Creek....	E½ sec. 28, T. 11 N., R. 6 E., 4 miles west of Randolph, Utah.	4.9
19	Randolph Creek...	Bear River.....	SW¼ sec. 24, T. 11 N., R. 6 E., 600 ft below Randolph Dam (Randolph Creek) and 2½ miles northwest of Randolph, Utah.	7.0
June 19	....do.....	....do.....	....do.....	4.9
25	....do.....	....do.....	....do.....	11.0
July 9	....do.....	....do.....	....do.....	3.4
June 25	Middle Creek.....	Randolph Creek....	SW¼ sec. 24, T. 11 N., R. 6 E., 700 ft below Randolph Dam (Randolph Creek) and 2½ miles northwest of Randolph, Utah.	6.0
Oct. 29	South Fork Otter Creek.	Otter Creek.....	SW¼ sec. 10, T. 11 N., R. 6 E., 1¾ miles above Middle Fork Otter Creek and 4½ miles northwest of Randolph, Utah.	4.4
Dec. 9	....do.....	....do.....	....do.....	3.6
Jan. 8	....do.....	....do.....	....do.....	3.9
Feb. 20	....do.....	....do.....	....do.....	3.8
Mar. 26	....do.....	....do.....	....do.....	3.8
Apr. 14	....do.....	....do.....	....do.....	3.8
24	....do.....	....do.....	....do.....	4.4
May 7	....do.....	....do.....	....do.....	3.9
21	....do.....	....do.....	....do.....	4.2
June 3	....do.....	....do.....	....do.....	3.8
18	....do.....	....do.....	....do.....	4.4
26	....do.....	....do.....	....do.....	4.4
July 10	....do.....	....do.....	....do.....	3.6
30	....do.....	....do.....	....do.....	4.0
Aug. 20	....do.....	....do.....	....do.....	4.3
Sept. 3	....do.....	....do.....	....do.....	3.9
30	....do.....	....do.....	....do.....	3.7
Oct. 29	Middle Fork Otter Creek.	....do.....	SW¼ sec. 3, T. 11 N., R. 6 E., 1½ miles above South Fork Otter Creek and 5 miles northwest of Randolph, Utah.	4.9
Dec. 9	....do.....	....do.....	....do.....	4.4
Jan. 8	....do.....	....do.....	....do.....	4.7
Feb. 20	....do.....	....do.....	....do.....	4.5
Mar. 25	....do.....	....do.....	....do.....	4.7
Apr. 14	....do.....	....do.....	....do.....	4.8
24	....do.....	....do.....	....do.....	4.3
May 7	....do.....	....do.....	....do.....	5.0
21	....do.....	....do.....	....do.....	4.7
June 3	....do.....	....do.....	....do.....	4.7
18	....do.....	....do.....	....do.....	5.0
26	....do.....	....do.....	....do.....	4.8
July 10	....do.....	....do.....	....do.....	4.8
30	....do.....	....do.....	....do.....	4.9
Aug. 20	....do.....	....do.....	....do.....	4.5
Sept. 3	....do.....	....do.....	....do.....	4.5
30	....do.....	....do.....	....do.....	4.1
Oct. 29	North Fork Otter Creek.	....do.....	NE¼ sec. 3, T. 11 N., R. 6 E., 2 miles above mouth and 5½ miles northwest of Randolph, Utah.	4.5
Dec. 9	....do.....	....do.....	....do.....	4.6
Jan. 8	....do.....	....do.....	....do.....	3.9
Feb. 20	....do.....	....do.....	....do.....	4.2
Mar. 25	....do.....	....do.....	....do.....	4.5
Apr. 14	....do.....	....do.....	....do.....	4.2
24	....do.....	....do.....	....do.....	3.8
May 7	....do.....	....do.....	....do.....	4.2
21	....do.....	....do.....	....do.....	4.2
June 3	....do.....	....do.....	....do.....	4.0
18	....do.....	....do.....	....do.....	4.2
26	....do.....	....do.....	....do.....	4.1
July 10	....do.....	....do.....	....do.....	4.4
30	....do.....	....do.....	....do.....	4.4
Aug. 20	....do.....	....do.....	....do.....	3.9
Sept. 3	....do.....	....do.....	....do.....	3.7
30	....do.....	....do.....	....do.....	3.5
Jan. 15	Twin Creek.....	Bear River.....	SE¼ sec. 4, T. 21 N., R. 118 W., ¼ mile upstream from Rock Creek at Nuggett, Wyo.	*3.2
19	....do.....	....do.....	....do.....	3.4
Feb. 19	....do.....	....do.....	SE¼ sec. 5, T. 21 N., R. 118 W., ¼ mile downstream from Rock Creek at Nuggett, Wyo.	8.4
Jan. 19	....do.....	....do.....	SE¼ sec. 2, T. 21 N., R. 118 W., 3¼ miles downstream from Rock Creek and 3 miles west of Nuggett, Wyo.	*11.4
15	Rock Creek.....	Twin Creek.....	SW¼ sec. 4, T. 21 N., R. 118 W., at mouth at Nuggett, Wyo.	6.6

* Estimated.

Miscellaneous discharge measurements in The Great Basin during water year October 1952 to September 1953--Continued

Great Salt Lake basin--Continued

Date	Stream	Tributary to or diverting from--	Locality	Discharge (cfs)
Jan. 19	Rock Creek.....	Twin Creek.....	SW¼ sec. 4, T. 21 N., R. 118 W., at mouth at Nuggett, Wyo.	7.5
Feb. 19	....do.....	....do.....	....do.....	4.7
June 25	Sublette Creek...	Bear River.....	SE¼ sec. 21, T. 24 N., R. 119 W., above diversions near U. S. Highway 30S, 3½ miles southeast of Cokeville, Wyo.	3.9
July 17	....do.....	....do.....	....do.....	3.1
30	....do.....	....do.....	....do.....	3.6
Aug. 20	....do.....	....do.....	....do.....	3.6
24	Collette Creek Branch of Smiths Fork.	....do.....	SE¼NE¼ sec. 5, T. 24 N., R. 119 W., 800 ft downstream from head and 1 mile northeast of Cokeville, Wyo.	9.0
24	Middle Fork Smiths Fork (Quintana Canal).	....do.....	SE¼NE¼ sec. 5, T. 24 N., R. 119 W., 600 ft downstream from head and 1 mile northeast of Cokeville, Wyo.	15.7
Sept.14	Thomas Fork.....	....do.....	NE¼SE¼ sec. 9, T. 14 S., R. 46 E., in Idaho, immediately downstream from Dalton Canal and 1½ miles northwest of Border, Wyo.	18.8
24	....do.....	....do.....	....do.....	22.1
14	Bear River.....	Great Salt Lake...	SW¼ sec. 21, T. 14 S., R. 46 E., 3½ miles downstream from Thomas Fork and 5 miles southwest of Border, Wyo.	130
24	....do.....	....do.....	....do.....	148
June 24	North Extension of Last Chance Canal.	Last Chance Canal.	NW¼SW¼ sec. 31, T. 9 S., R. 41 E., 300 ft downstream from head and 1¾ miles northeast of Grace, Idaho.	140
Apr. 20	Mink Creek.....	Bear River.....	NE¼NW¼ sec. 33, T. 13 S., R. 41 E., 500 ft downstream from Dry Fork and 3 miles northeast of twn of Mink Creek, Idaho.	45.9
20	Cub River.....	....do.....	SW¼ sec. 5, T. 15 S., R. 41 E., 0.7 mile upstream from forest boundary and 10 miles east of Preston, Idaho.	38.7
Oct. 23	Malad River.....	....do.....	Sec. 10, T. 14 S., R. 35 E., at springs, at flow line and 1 mile upstream from dam on Samaria Reservoir No. 2, 5¾ miles northwest of Malad City, Idaho, and 8¾ miles upstream from Little Malad River.	12.3
Dec. 12	....do.....	....do.....	....do.....	12.5
Jan. 27	....do.....	....do.....	....do.....	14.1
Mar. 9	....do.....	....do.....	....do.....	17.0
Apr. 12	....do.....	....do.....	....do.....	12.9
28	....do.....	....do.....	....do.....	13.8
June 1	....do.....	....do.....	....do.....	12.8
16	....do.....	....do.....	....do.....	14.7
July 20	....do.....	....do.....	....do.....	12.6
Aug. 24	....do.....	....do.....	....do.....	9.58
Sept.28	....do.....	....do.....	....do.....	12.0
Aug. 17	....do.....	....do.....	SW¼ sec. 19, T. 10 N., R. 2 W., 500 ft upstream from mouth and 2 miles southeast of Bear River City, Utah.	21.3
27	....do.....	....do.....	....do.....	12.9
Sept. 4	....do.....	....do.....	....do.....	21.6
9	....do.....	....do.....	....do.....	23.5
18	....do.....	....do.....	....do.....	26.3
9	Bear River.....	Great Salt Lake...	NW¼NW¼ sec. 19, T. 9 N., R. 2 W., 1 mile below Reeders Overflow and 12.9 miles downstream from Malad River.	175
18	....do.....	....do.....	....do.....	126

Sevier River basin, Utah

Sept.30	Duck Creek Spring	Duck Creek.....	Sec. 12, T. 38 S., R. 8 W., 18 miles southwest of Hatch.	1.78
30	Blue Spring.....	Blue Creek.....	Sec. 8, T. 36 S., R. 7 W., 14 miles northwest of Hatch.	4.40
29	Mammoth Spring...	Mammoth Creek.....	Sec. 5, T. 37 S., R. 7 W., 13 miles west of Hatch.	4.90
29	Upper Asay Spring	Asay Creek.....	Sec. 33, T. 37 S., R. 6 W., 9 miles southwest of Hatch.	2.82
29	Lower Asay Spring	....do.....	....do.....	14.2
29	West Fork Asay Spring.	West Fork Asay Creek.	Sec. 19, T. 37 S., R. 6 W., 9 miles southwest of Hatch.	.37
Dec. 20	San Pitch River..	Sevier River.....	NW¼NW¼ sec. 20, T. 19 S., R. 1 E., at bridge on State Highway 89 at Gunnison.	11.6
Jan. 16	....do.....	....do.....	....do.....	17.4
Feb. 17	....do.....	....do.....	....do.....	184
Mar. 24	....do.....	....do.....	....do.....	107
Apr. 28	....do.....	....do.....	....do.....	0
June 29	....do.....	....do.....	....do.....	0

Mojave River basin, Calif.

Aug. 11	Unnamed tributary	Mojave River.....	On line between secs. 33 and 34, T. 6 N., R. 4 W., 500 ft upstream from railroad bridge, ½ mile upstream from mouth, and 2 miles north of Victorville.	284

Walker Lake basin

Nov. 10	Rough Creek (West Fork).	Rough Creek.....	NW¼ sec. 16, T. 5 N., R. 27 E., 50 ft upstream from mouth and 0.8 mile upstream from California-Nevada State line.	0.9

Miscellaneous discharge measurements in The Great Basin during water year October 1952 to September 1953--Continued

Walker Lake basin--Continued

Date	Stream	Tributary to or diverting from--	Locality	Discharge (cfs)
Nov. 28	Rough Creek (West Fork).	Rough Creek.....	NW¼ sec. 16, T. 5 N., R. 27 E., 50 ft upstream from mouth and 0.8 mile upstream from California-Nevada State line.	0.5
10	Rough Creek.....	East Walker River..	S½ sec. 9, T. 5 N., R. 27 E., 100 ft downstream from West Fork and 0.5 mile upstream from California-Nevada State line.	3.2
28	....do.....	....do.....	....do.....	1.9
Oct. 25	....do.....	....do.....	NW¼ sec. 14, T. 6 N., R. 27 E., ¼ mile upstream from Bodie Creek and 3 miles northwest of Fletcher, Nev.	*2.4
Nov. 10	....do.....	....do.....	....do.....	*3.5
28	....do.....	....do.....	....do.....	2.4
28	Bodie Creek.....	Rough Creek.....	SW¼ sec. 26, T. 5 N., R. 27 E., 0.9 mile upstream from California-Nevada State line.	.4
10	....do.....	....do.....	NW¼ sec. 26, T. 5 N., R. 27 E., at California-Nevada State line.	1.2
28	....do.....	....do.....	....do.....	.7
Oct. 25	....do.....	....do.....	SE¼ sec. 36, T. 6 N., R. 27 E., 4¼ miles upstream from mouth and 2.1 miles southwest of Fletcher, Nev.	1.2
10	....do.....	....do.....	....do.....	1.6
28	....do.....	....do.....	....do.....	1.0
25	Fletcher Spring..	Bodie Creek.....	N½ sec. 30, T. 6 N., R. 28 E., at Fletcher, Nev.	*.4
Nov. 10	....do.....	....do.....	....do.....	.2
Oct. 25	Lapon Canyon Creek.	East Walker River..	Sec. 23, T. 8 N., R. 28 E., 2½ miles upstream from mouth of canyon and 11 miles west of Hawthorne, Nev.	*.2
Dec. 17	....do.....	....do.....	E½ sec. 20, T. 8 N., R. 28 E., at mouth of canyon and 13 miles west of Hawthorne, Nev.	0
22	Walker River.....	Walker Lake.....	Sec. 28, T. 14 N., R. 28 E., 1,000 ft downstream from Weber Reservoir and 7 miles northwest of Schurz, Nev.	1.7
24	....do.....	....do.....	....do.....	2.5
30	....do.....	....do.....	....do.....	2.4
24	....do.....	....do.....	Sec. 4, T. 13 N., R. 28 E., 500 ft downstream from Walker River Indian Agency diversion dam and 5½ miles northwest of Schurz, Nev.	0
30	....do.....	....do.....	....do.....	3.4
Nov. 25	....do.....	....do.....	Sec. 36, T. 13 N., R. 28 E., at Schurz, Nev.	164
Dec. 22	....do.....	....do.....	....do.....	13.1
24	....do.....	....do.....	....do.....	9.5
30	....do.....	....do.....	....do.....	10
24	....do.....	....do.....	S½ sec. 7, T. 12 N., R. 28 E., 1½ miles upstream from Walker Lake and 3 miles southwest of Schurz, Nev.	20
30	....do.....	....do.....	....do.....	20
Oct. 25	Cottonwood Creek.	....do.....	NW¼ sec. 18, T. 9 N., R. 29 E., at mouth of Cottonwood Canyon and 12 miles northwest of Hawthorne, Nev.	.8
24	Dutch Creek.....	....do.....	NE¼ sec. 20, T. 9 N., R. 29 E., at mouth of Dutch Creek Canyon and 10½ miles northwest of Hawthorne, Nev.	.2
Dec. 12	....do.....	....do.....	....do.....	.3
22	....do.....	....do.....	....do.....	.3
29	....do.....	....do.....	....do.....	.3
Jan. 5	....do.....	....do.....	....do.....	.3
9	....do.....	....do.....	....do.....	.3
22	....do.....	....do.....	....do.....	.3
Oct. 24	House Creek.....	....do.....	Sec. 11, T. 8 N., R. 29 E., 9 miles northwest of Hawthorne, Nev.	.1
24	Cat Creek.....	....do.....	Sec. 22, T. 8 N., R. 29 E., ¼ mile above Cat Creek Reservoir and 5½ miles northwest of Hawthorne, Nev.	.7
25	Cory Creek.....	....do.....	Sec. 11, T. 7 N., R. 29 E., 5 miles southwest of Hawthorne, Nev.	*.5

* Estimated.

Warner Lakes basin, Oreg.

Apr. 23	Parsnip Springs..	Camas Creek.....	Mouth, below gaging station on Camas Creek, 18 miles east of Lakeview.	1.36

Abert Lake basin, Oreg.

Apr. 23	Chewaucan River..	Abert Lake.....	At highway crossing 4 miles north of Valley Falls.	200

Malheur and Harney Lakes basin, Oreg.

Apr. 16	Donner und Blitzen River.	Malheur Lake.....	Former gaging station near Voltage.....	3.11
Aug. 27	....do.....	....do.....	....do.....	54.9
June 1	Malheur Lake Outlet.	Harney Lake.....	Highway bridge at Narrows, 21 miles south of Burns.	174

Alvord Lake basin, Oreg.

Apr. 4	Stonehouse Creek.	Wildhorse Creek....	SE¼ sec. 15, T. 35 S., R. 33 E., above North Fork, 2½ miles north of Andrews.	1.22

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